

When and Why Consumers Defer to the Crowd:

Anticipated Ownership Length, Playing it Safe, and Product Ratings

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Abstract

Previous examinations of time in consumer research have focused on how future decisions or consumption experiences are valued or construed in the present. This paper examines a relatively neglected temporal attribute—how long consumers plan to own and use a product. We examine how, when and why such *anticipated ownership length* (AOL) affects product preferences. Across five studies, we find that longer anticipated ownership leads consumers' preferences to shift in line with product ratings. Although highly rated products may not satisfy one's idiosyncratic tastes, they seem unlikely to seriously disappoint given their widespread popularity. As a result, deferring to product ratings is seen to be a risk-reducing tradeoff that grows more attractive as decision stakes rise. Those initially least certain in their product attitudes were those who most flocked to highly rated products as AOL grew. Moreover, we find that it is the prospect of having to live with a potentially disappointing product for longer, not greater uncertainty about how well a product will endure over time, that produces this shift in decision strategy.

Keywords: product ratings, preferences, risk, time

Consider shopping for a pair of shoes, ones you hope to be your go-to formal footwear for many years to come. As you search online, you find some that look very “you,” but have mediocre customer ratings. On the same page, you see another pair that has higher ratings but seems less ideally suited to your particular tastes. In deciding what to buy, how much would you defer to the ratings?

Several factors seem obvious. One’s own expertise no doubt plays a role. If you were a shoe expert—someone with extensive knowledge of and experience with different shoe brands and styles—you might feel justified in trusting your own expertise and deweighting others’ evaluations. Perceptions of evaluators’ bias would also be important. If it were known that employees of one shoe company flood review sites with five-star reviews, then their products’ high ratings would likely seem suspect. In other words, people accept advice when they lack information and can identify unbiased advisors to guide them.

But might it also matter that you planned to wear these shoes “for many years”? Although consumer behavior researchers have clearly cared about the role of temporal factors in decision making, such time-related concerns have typically taken a qualitatively different form than they do in the present research. Research on temporal discounting has examined how much expectations of future consumption or payoffs are devalued in the present (e.g., Hausman 1979; Zauberan 2003). Work informed by construal level theory has found that choices for the future are construed in more abstract terms than are choices for the more immediate present (e.g., Dhar and Kim 2007; Kim, Zhang, and Li 2008). We instead consider time not as a *delay* until consumption, but instead as the *length* of ownership and consumption. More specifically, we consider the role of *anticipated ownership length* (AOL)—how long a consumer plans to keep and use an item. Although previous work has examined the psychological antecedents of

predicted consumption time (Tsai and Zhao 2011) or its influence on preferences for certain (e.g., high-arousal) products (Buechel and Townsend 2018), we are the first to examine how anticipated ownership length shapes reliance on fellow customers' opinions.

How might the length of time consumers anticipate keeping and using a product affect their product preferences? To answer this question, we offer a new take on the function that product ratings serve. That is, ratings do not merely inform customers' expected utility point estimates (by allowing more-experienced consumers to direct less-knowledgeable ones to which products are best). After all, when ratings serve this function, there is no reason to ignore the advice if it is received effortlessly and perceived to be unbiased. Furthermore, if ratings served only this function, then it is also unclear why anticipated ownership length would change people's reliance on such ratings. (Wouldn't everyone defer to the advice they've already received to the extent it seemed believable and informative?) Below, we develop an additional role of product ratings and draw on research from the risk aversion literature to consider how anticipated ownership length may modify reliance on others' opinions in the form of aggregated product ratings.

HOW OTHERS' OPINIONS INFORM CONSUMER DECISION MAKING

As consumers consider which products to buy, they lean on the experiences, feedback, and recommendations of others both within and beyond their social networks. Although there is variability in which of these sources is more or less compelling (e.g., Herrmann et al. 2013; Huang and Chen 2006; Senecal and Nantel 2004; Smith, Menon, and Sivakumar 2005), non-traditional and word-of-mouth marketing communications can better generate product interest than more traditional efforts (Bickart and Schindler 2001; Herr, Kardes, and Kim 1991; Murray 1991; Park, Lee, and Han 2007; Schellekens, Verlegh, and Smidts 2010). But it takes time to

track down, read, and interpret the reviews of others. Although the Internet has made it easier than ever to access customer reviews from those beyond our local social networks (Gelb and Sundaram 2002), this also means that the totality of available reviews for a small novel may be longer than the book itself. Thus, in considering when consumers are moved by such social influence, a major question has been to ask when consumers are sufficiently motivated to acquire this information (Cox and Rich 1964). This perspective assumes such information is valuable, but that the barrier to its use is the effort involved in seeking it out.

Addressing the barrier posed by laborious information search, many online retailers prominently feature the average rating a product has received from previous customers. For example, instead of having to read dozens of reviews on Amazon to glean the public's verdict, consumers can effortlessly observe how many of the 5 maximum stars a product receives on average. Such information is easy to passively acquire. As such, the question of whether one leans on such information does not boil down to *when* consumers are willing to *seek out* this content, but rather *how much* they decide to weight summary recommendations *already at their disposal*. In fact, there have been recent calls for more research on when exposure to provided recommendations reduces consumers' reliance on their preexisting preferences (Simonson 2015).

Previous research has reinforced the straightforward point that when consumers have access to individual recommendations, they lean on them to the extent they reflect unbiased expertise that the self lacks. Consumers lean on the advice of those who are perceived to be higher in expertise (Wilson and Sherrell 1993), those with whom they have strong social ties (Bansal and Voyer 2000; Brown and Reingen 1987), and those who are assumed to hold similar preferences to the self (Gilly et al. 1998; Reinstein and Snyder 2005; Naylor, Lambertson, and Norton 2011). They defer to those with whom they have agreed in the past (Gershoff,

Mukherjee, and Mukhopadhyay 2003) and those who are assumed to lack any incentive to misrepresent their true attitudes (Folkes 1988; Herrmann et al. 2013; Mizerski, Golden, and Kernan 1979). Especially when shopping for products that cannot be easily evaluated without direct experience (e.g., perfume), consumers look to others to close these information gaps (Wooten and Reed 1998; Senecal and Nantel 2004).

Average ratings—summary statistics that aggregate the opinions of many others—are less easily evaluated in terms of their source credibility. But it is in this aggregation (as well as their aforementioned ease of acquisition) that they hold their power, thereby permitting a more precise and less biased estimate of a product’s quality than would a recommendation from a single other consumer. People appreciate the benefits of aggregated judgments or “the wisdom of crowds” (Larrick and Soll 2006), even if not as much as they should (Mannes, Soll, and Larrick 2014). And indeed, field data strongly suggest that, in the domain of consumer decisions, higher ratings both predict and encourage higher sales (Chu, Roh, and Park 2015; Chevalier and Mayzlin 2006; Luca 2011; Anderson and Magruder 2012), perhaps even more strongly than is normatively appropriate (De Langhe, Fernbach, and Lichtenstein 2015).

At the same time, consumers do not fully outsource their decision making to product ratings. In fact, consumers are relatively neutral when evaluating the helpfulness of others’ product advice, giving the information category the middling evaluation “sometimes helpful” (Roselius 1971). Consumers tend to display a false sense of uniqueness, believing that their own satisfaction is less predictable from the experiences of others than it is in reality (Gilbert et al. 2009; Larrick and Soll 2006; Lutz and Reilly 1973). Given this perhaps flawed tendency (Yang et al. 2011), leaning on average ratings may feel unsatisfactory given that such ratings (unlike consumers’ own assessments) do not factor in one’s individuating preferences. More generally,

the theories consumers articulate (even internally) to explain why they are drawn to a product can offer some resistance to the influence of the ratings (see Anderson 1995).

To summarize, previous research suggests that product ratings inform decision making, but not unconditionally so. On the one hand, ratings capture expertise and experience that the self may lack. On the other hand, they may neglect idiosyncratic preferences of the consumer, steering them away from what could be the perfect product for them. It is in this potential tension that an additional function of ratings becomes apparent.

More specifically, selecting a higher-rated product can be seen as offering a safer, risk-reducing route. If one is considering a (similarly priced) lower-rated product because it seems to better fit one's unique tastes, one is taking a risk that could go quite well or quite poorly. Ignoring the ratings could steer one toward the perfect find or (if one is not so different from others after all) a perfect flop. Choosing a consensus-preferred product might not offer that customized ideal, but its generally positive reviews suggest it is unlikely to strongly disappoint. Below, we consider why anticipated ownership length may alter consumers' risk preferences and thus their reliance on ratings.

ANTICIPATED OWNERSHIP LENGTH

Across many domains, people tend to be risk-averse. But risk aversion varies based on the stakes involved. For higher-stakes gambles, people display greater risk aversion (Binswanger 1980; Markowitz 1952; Weber and Chapman 2005). For example, people may be generally willing to flip a coin for a chance to win \$1.30 or lose \$1.00, but their enthusiasm for this gamble lessens when the payoffs shift to winning \$130 or losing \$100. Prelec and Loewenstein (1991) termed this phenomenon the *peanuts effect*—that people are more interested in taking risks when they are playing for “peanuts” or low monetary stakes.

Anticipated ownership length—as characterizing the length of time one expects to live with the consequences of one’s decision—is one way by which consumer decisions’ stakes are raised. When ordering a coat to wear for the next 10 winters, the consequences of making a purchase that does not keep one sufficiently comfortable and warm are greater than if that coat is to be used only for a 10-day ski trip. Earlier we argued that deferring to ratings is a risk-averse strategy. From this, it follows that as anticipated ownership length grows, interest in deferring to product ratings should grow as well.

Although this basic logic extends beyond anticipated ownership length to other markers of high stakes, we explore the role of AOL in decision strategies both given the absence of research on anticipated ownership length and the number of unique questions that come up when considering this particular marker of decision stakes. These are discussed more fully as the studies progress, but we foreshadow three issues here. First, if people anticipate holding onto and using a product for longer, it might be seen as more identity relevant. In such cases, one might think (contrary to our hypotheses) consumers would prefer not to defer to the choice of others. Second, because higher AOL means people anticipate experiencing the consequence of their decisions for longer, it means the stakes are raised post-decision instead of as part of the decision itself (as would be the case with, for example, price). This raises unique questions about what post-purchase problem consumers are trying to avoid: Is it the possibility that they will be disappointed from the get-go and have to suffer for a long time, or is it that an initially satisfying product may ultimately malfunction midway through its lifespan? Third, there are questions about *whose* opinions are most valuable as anticipated ownership length grows—those who are just receiving a product (and could warn that a product will disappoint for the entirety of its ownership length) or those who have used and are ready to replace a product (and have the best

insight into whether a product delivers on its promise with time). In this way, this paper reflects both an initial effort to understand how decision stakes influence reliance on product ratings in general and a deep exploration of the unique issues surrounding AOL in particular.

OVERVIEW OF THE CURRENT STUDIES

Through five studies, we investigate whether, when, and why the length of time consumers plan to hold onto and use a product changes their reliance on average ratings. Studies 1a and 1b examine whether anticipated ownership length *causes* greater reliance on product ratings. Study 2 examines the relationship between anticipated ownership length and rating reliance across 30 different product categories, while distinguishing between two competing mechanistic accounts for why anticipated ownership length elevates interest in average ratings: a desire to “play it safe” (by selecting a product that may not be the perfect choice, but is unlikely to be a failure) or a desire to avoid regret (by outsourcing responsibility for the decision to others). Studies 3 and 4 seek to identify the nature of the risk that relying on ratings is thought to relieve. The studies distinguish between two accounts. By the *greater stakes hypothesis*, the risk associated with anticipated ownership length is that consumers will have to suffer with a poor choice for longer. By an alternative *quality uncertainty hypothesis*, it is seen as more difficult to assess how a product or one’s preferences will change over time as AOL grows.

Across our studies, we use multi-level modeling in order to test whether differences *between* participants in how long they anticipate keeping and using the *same* product predict how much they rely on others’ ratings. This statistical approach—distinct from asking for which products (e.g., boots vs. curtains) people rely more on ratings—avoids the problem that products consumed, owned, and/or utilized for more versus less time might differ in many other ways than solely anticipated ownership length (e.g., price, hedonic vs. utilitarian, etc.).

STUDY 1A

Study 1a tested whether anticipated ownership length *causes* consumers to lean more heavily on product ratings. Participants considered a pair of products and stated their relative preference for one over the other. They were led to believe they were likely to hold onto the product for more or less time than most would expect. Participants then learned that the item they preferred actually had lower ratings than the alternative. We predicted that those with a longer anticipated ownership length would be particularly inclined to shift their preferences toward the higher-rated product they did not prefer initially.

Method

Participants. Two hundred two undergraduates at an American university participated as part of a longer session for which they received marketing course credit.

Procedure. We began by showing participants information about two different keychains (see Figure 1a). The layout—complete with a picture of the product and product feature information—was patterned after a major online retailer. Participants indicated which keychain they preferred. They then indicated on a 51-point slider scale the extent to which they preferred that selected product over the other one. These *baseline preferences* were multiplied by -1 so they ranged from -50 to 0.

Next, participants received information based on the results of a pretest we conducted (N = 75, Amazon Mechanical Turk [AMT]), that the median consumer anticipates owning and using a keychain for 5 years. In order to experimentally vary AOL, we told participants this expectation is misguided. Instead, we told participants people actually hold onto keychains for 2 years (short AOL) or 10 years (long AOL). These values were selected because they reflected the 5th percentile and 95th percentile estimates from the pretest—thereby offering values that would

encourage the vast majority of participants' beliefs to shift in the desired direction, but retain plausibility. To reinforce the manipulation, we asked participants to list a few reasons why people typically overestimate or underestimate "how long they will keep and use a key chain."

At this point, participants saw the two products again, but this time star ratings—said to be the average customer ratings—accompanied each product (see Figure 1b). This was rigged so that the initially non-preferred product was shown as receiving 4.5 stars; the initially preferred product, 3.5 stars. Participants were again asked which product they preferred before expressing the strength of that preference on the same 51-point slider scale. For participants who maintained an interest in their initially preferred product, this *final preference* was again multiplied by -1 so that it ranged from -50 to 0. For participants who indicated that their preference had fully reversed to the other product, those final preference measures ranged from 0 to 50. In this way, moving up on the scale reflected being (positively) influenced by the product ratings. As promised to participants, they were given their preferred keychain to take home with them.

Results and Discussion

We submitted participants' final preferences to a two-way 2(anticipated ownership length: short or long) X 2(initially preferred product: A or B) ANCOVA, with baseline preference as a covariate. The predicted main effect of anticipated ownership length emerged, $F(1, 198) = 4.40, p = .037, \eta_p^2 = .022$. The means in both conditions were negative, reflecting that participants tended to lean toward their initially preferred product despite its lower ratings. But those led to believe that keychains are held longer than typically expected showed a greater softening in their preferences ($M = -14.35$) than those in the short AOL condition ($M = -20.26$).

We designed the study using a continuous preference measure to give us more power than a dichotomous measure of choice would offer. That said, we return to the question in the

General Discussion of whether the effects we observe merely reflect a softening of people's initial preferences or also a full-fledged preference reversal (i.e., going from initially preferring one product over another to ultimately preferring the other product over the original favorite). To foreshadow, using a meta-analysis, we will find that anticipated ownership length increases the likelihood of actually changing one's choice.

STUDY 1B

Study 1b was similar to Study 1a, but was designed to test the generality of these effects. Instead of deciding between two products in the lab, online participants examined twenty-two products (eleven pairs) from a variety of different product categories. We again led participants to believe that people are likely to hold onto and use products from a particular category for a longer or shorter time than expected. In this case, which product was said to be higher-rated was randomly determined and thus not rigged to be the less-preferred product. Otherwise, it seemed likely we would eventually arouse suspicion. We again predicted that participants' preferences would move more toward the higher-rated products when they were induced to believe they would hold onto such a product for more (vs. less) time than typically expected.

To heighten the psychological realism of our paradigm, we told participants, "Your choices will have real-world consequences. At the end of the study, one of the participants will actually receive one of the products he [or she] chose...so you have every incentive to state your preferences honestly." We used this incentive-compatibility procedure in all of the following studies that adopt this paradigm (i.e., Studies 3-4 and Study B in the Web Appendix).

Method

Participants and design. Sixty-six Americans recruited from Amazon's Mechanical Turk participated in the study in exchange for nominal payment.

Procedure. The design for Study 1b was identical to that of Study 1a with the following four exceptions. First, we used eleven distinct product pairs instead of merely keychains. Each pair comprised two products from the same category: oven mitts, DVDs, curtains, shoes, mp3 players, cameras, water filtration systems, nonfiction books, jackets, backpacks, and stereos (see Figure 2a, for an example). These products reflect an intentionally diverse range of consumer goods. All were items that could easily be bought through a major online retailer that prominently displays the products' star ratings.

Second, we measured both baseline and final preferences using a single continuous measure instead of a two-part dichotomous-then-continuous measure. These preferences were stated on 101-point slider scales designed to capture the strength of the relative preference for the product on the left (0), right (100), or complete indifference (50). Third, we randomly determined for each product pair for each participant: anticipated ownership length (as surprisingly short or long) and which product was said to be higher rated. Like for Study 1a, we conducted a pretest (N = 58, AMT) to help generate precise values for use as part of our anticipated ownership length manipulation. Fourth, to strengthen the product ratings manipulation, the two products' star ratings differed by two stars instead of a single star: 5 stars vs. 3 stars, or 4.5 stars vs. 2.5 stars (see Figure 2b).

Results and Discussion

We test our hypotheses by seeking to explain variability between participants ("What predicts how much consumers defer to ratings for that product?"), rather than between products (given products may differ in various other unmeasured and thus uncontrolled-for ways beyond anticipated ownership length). To accomplish this goal, we constructed a multilevel model testing whether leading people to believe that they will hold onto a product for more (vs. less)

time would prompt them to lean more on ratings. We defined three Level-1 variables that reflected: participants' *initial preferences*, whether participants were led to believe that they would own and use a particular product for a relatively long (+1) or relatively short (-1) amount of time (*anticipated ownership length*), and whether the product on the left (-1) or right (+1) was the *higher-rated product* (given this was counterbalanced across participants for each product pair). We nested these three variables within product pair in a random-slope, random-intercept model. This permitted the effect of each predictor to vary between the different product pairs (random-slope), while also permitting a general preference for the left or right product within each product pair (random-intercept). We also included a random effect of participant to control for the non-independence of participants' judgments. As a test of our key hypothesis, we included the Ownership Length X Higher-Rated Product interaction term.

Unsurprisingly, there was a general tendency for participants' preferences to shift in the direction of the higher-rated product, $t(10,686.86) = 9.77, p < .001$. But as predicted, this effect was stronger for participants who had been led to believe that they would likely own a product for more (vs. less) time, $t(818.00) = 2.13, p = .034$. Those in the long ownership length condition more strongly preferred a product when it was the one receiving higher ratings, $M_{\text{dif}} = 35.70, t(4,349.13) = 9.65, p < .001$. That is, experimentally manipulating which product was said to have higher ratings shifted consumers' preferences by an average of 35.70 points. Those in the short ownership length condition were still influenced by the average ratings, but not as strongly, $M_{\text{dif}} = 28.17, t(4,695.19) = 7.68, p < .001$. As can be seen in Figure 3, this effect emerged (directionally) for 9 of the 11 products. Overall, the pull of the star ratings was 27% stronger when participants were led to believe that a product would be owned for a relatively long versus short amount of time.

STUDY 2

We twice demonstrated that a longer anticipated ownership length causes consumers to lean more on star ratings in product choice. Study 2 began to answer why this occurs. Instead of asking participants to indicate their preference between two specific products in the same category, we asked participants to identify their different decision strategies in many different product categories. That is, participants indicated how much they trusted product ratings rather than their gut intuitions when making purchase decisions for that category.

This approach allowed for even more breadth, as participants were able to endorse a shopping approach in 30 different categories. We measured anticipated ownership length and a number of covariates—estimated price, shopping time, public visibility of purchases, category familiarity, and perceived uniqueness of one’s own preferences. Finally, we included two additional measures that allowed us to distinguish between two plausible mechanistic accounts for the hypothesized association.

By our preferred *play it safe hypothesis*, consumers accept that higher-rated products might not be the perfect choice given their own idiosyncratic tastes, but they recognize higher-rated products are unlikely to be disastrous selections. Because longer anticipated ownership length raises the stakes of a decision, consumers become more amenable to this risk-reducing tradeoff. In other words, they should be willing to worsen their chances of picking the product that perfectly suits them in order to avoid a terrible outcome. If so, then a stated desire to play it safe should statistically mediate the relationship between greater anticipated ownership length and intensified reliance on ratings.

An alternative *outsourced responsibility hypothesis* also recognizes that longer anticipated ownership length raises a decision’s stakes, but the account argues that ratings are

appealing in such contexts because they allow one to designate responsibility for the decision to an external source (i.e., the ratings). When the potential for regret grows (because one plans to hold onto a product for longer), consumers may think that trusting ratings (and thereby reducing personal responsibility for a bad decision) is the best way to avoid regret. By this account, as anticipated ownership length increases, people should believe that a disappointing choice caused by trusting one's own intuitions would produce more regret than a bad choice resulting from trusting the ratings. As these hypotheses are not mutually exclusive, Study 2 tests whether one or both emerge.

Method

Participants and design. Three hundred twenty-seven undergraduates at an American university participated in exchange for course credit or \$15.

Procedure. First, we told participants, "When people decide to purchase a product, they may begin by looking at a specific product they already have in mind. But if they see that product has fair-to-mediocre ratings, they may decide to buy another higher-rated product. That is, people often have to choose between products they initially prefer and products that have much higher ratings." Participants were then exposed to 30 product categories and asked to indicate how they personally would resolve that tension in each case. Participants responded on 9-point scales anchored at 1 (*definitely go with initial preference*) and 9 (*definitely go with highly rated substitute*). The midpoint (5) was labeled "*equally likely to go with either*."

Participants rated the 30 product categories on an additional 8 dimensions: anticipated ownership length, the two potential mediating measures, and five covariates (all reviewed below). The order of the 8 judgments was randomized for each participant, as was the order of the 30 products within each of the 8 judgments. Of key interest was *anticipated ownership*

length. We told participants:

“Some products are used for a short time—the owner may plan to use the product for only a few days. Other products are used for a long time—the owner may plan to use the product for several years.”

Participants indicated on 7-point scales whether each product would be owned and used for a short time (1) or a long time (7).

To estimate how much effort participants were willing to put into finding the right product, we measured *shopping time*—how long they would spend shopping for products in each category. The scale was anchored at 1 (*not long at all*) and 7 (*a considerable amount of time*). To make certain that people who expect to hold onto products for less time before replacing them are not simply more familiar with products, we had participants indicate their *familiarity* with products in the category from 1 (*not familiar at all*) to 7 (*highly familiar*). Additionally, we offered some background on the meaning of product visibility: “Some products are highly publicly visible—if you own the product, others frequently see it,” whereas “other products are more private or ‘invisible’—others rarely see the product.” Participants assessed *visibility* on 7-point scales anchored at 1 (*not at all visible to others [very private]*) and 7 (*very visible to others [very public]*). For each product category, participants also indicated their sense of preference *uniqueness* compared to others, responding on 7-point scales anchored at 1 (*preference similar to others*) and 7 (*preferences are unique*).

In addition, participants estimated the average *price* of products in each category in U.S. dollars. The within-product nature of our analyses precluded any difference between high-cost and low-cost products from driving our effects. That said, measuring and controlling for individual differences in *perceptions* of such costs allowed us to more definitively rule out

(perceived) price as a factor in our results. We log-transformed participants' price estimates to address the significant positive skew within each category.

Participants made judgments on two additional dimensions that were candidate mediators of the hypothesized association between anticipated ownership length and trusting ratings: an item measuring one's desire to mitigate risk (testing the *play it safe hypothesis*) and a measure of differential anticipated regret (testing the *outsourced responsibility hypothesis*). To capture our first possible mediator, we told participants that sometimes consumers want to play it safe ("choose a product that may not be the perfect choice for them, but that they can be confident is good enough") while other times, they wish to take a chance ("try a product that may be perfect for them, even though there is also a chance the product will turn out to be a bad choice"). For each product category, participants indicated which they would prefer on a 7-point scale anchored at 1 (*take a chance*) and 7 (*play it safe*).

To test the outsourced responsibility hypothesis, we measured differential anticipated regret. Our aim was to determine whether participants believed that one would feel more regret for a disappointing outcome if one based the decision on idiosyncratic preferences rather than ratings. We began by noting that, "Sometimes we're happy with the way choices turn out, whereas sometimes we're not." We then asked who would experience more regret if a choice turned out badly—a person "who decided to go with the product he initially preferred (and thus ignored the fair-to-mediocre ratings)" or a person "who decided to go with the higher-rated product (and thus ignored his own initial preferences.)" For every category, participants responded on 7-point scales anchored at 1 (*person who went with own initial preferences*) and 7 (*person who decided based on ratings*). The midpoint (4) was labeled "*both equally*."

Note that, similar to the measurement strategy taken in previous research (e.g., Keinan

and Kivetz 2008), our differential anticipated regret measure asked people to make forecasts about other people (“Which person would feel more regret?”) instead of about the self (“In which case would you feel more regret?”). Had we asked about the self, the mediator may have become too similar to the dependent measure, participants’ preferred strategy. That is, people would presumably say that they would regret the situation more when they made a decision that did not match their preferred strategy simply because they did not favor that decision to begin with. By asking people to make a forecast about other people who had used one strategy or the other, we hoped to achieve a purer measure of participants’ sense that one strategy has greater potential to inspire regret following a bad outcome.

Results and Discussion

We constructed a random-slope, random-intercept model predicting participants’ preference to trust the ratings. Ownership length, shopping time, public visibility, category familiarity, preference uniqueness, and (log-transformed) perceived price were Level-1 predictors that were nested within product. This permitted the effects of these 6 predictors to vary for each product (random-slope) while also accounting for general differences in a tendency to trust the ratings or one’s own initial preferences for each product category (random-intercept). We also included a random effect of *participant* in order to account for general differences between people in how much they preferred to trust ratings versus their own initial preferences.

Confirming our central prediction, anticipated ownership length predicted a tendency to trust ratings (instead of one’s own intuitions), $t(2,413.81) = 2.75, p = .006$. (Study A in the Web Appendix replicates this finding with a different operationalization of anticipated ownership length.) Note the incremental validity over and above the predictive power of the five covariates. On average, participants who expected to hold onto a product for relatively more time (+1

standard deviation) were more likely to indicate they would trust the ratings than those who expected to hold onto a product for relatively less time (-1 standard deviation), $M_s = 5.56$ and 5.36 , respectively. On our subjective scale, is this swing large or small? We compared this swing to that associated with the various covariates (see Table 1, left half). The influence of anticipated ownership length on preferred strategy was 34% the influence of shopping time, 71% the influence of preference uniqueness, 139% the influence of public visibility, 156% the influence of perceived price, and 165% the influence of category familiarity.

Next, we tested whether one or both of our proposed mediators—play it safe and differential anticipated regret—statistically mediated the effect of anticipated ownership length on trusting others' ratings. We first ran the same model as described above but predicted a desire to play it safe (instead of an interest in trusting others' ratings). Indicating that play it safe was a plausible mediator, the longer participants believed they would own and use a product, the more they desired to play it safe, $t(11,708.02) = 5.79, p < .001$ (see Table 1 for the predictive power of the covariates as well). Figure 4 shows the positive influence of anticipated ownership length on a desire to play it safe (vs. take a chance) was observed fairly consistently across products—directionally so for 26 of the 30 categories. But in a similar model testing the alternate mediator, anticipated ownership length did not predict whether a bad choice made by trusting the ratings would inspire different regret than a bad choice made by going with one's own intuitions, $t < 1$.

Finally, we added play it safe to our original model to determine whether it statistically mediated the effect of anticipated ownership length on a preference for higher-rated products. In this full model, a desire to play it safe was a strong positive predictor of trusting others' ratings, $t(32,604.70) = 6.37, p < .001$. But with this relationship controlled, the influence of ownership length on preferred strategy dropped to marginal significance, $t(3,248.48) = 1.82, p = .07$. These

results are consistent with full mediation, Sobel $z = 2.52$, $p = .01$: A desire to play it safe explains why anticipated ownership length encouraged participants to prioritize ratings over internal preferences.

STUDY 3

Study 2 showed that those who expect to hold onto a product longer are more interested in playing it safe and that the risk-mitigating reliance on ratings offers one such pathway to safety. Our preferred account explains these results by arguing that risk aversion grows due to the *greater stakes* that are inherent to holding onto a product for longer. Making a bad choice today means more weeks (or years) of dissatisfaction if anticipated ownership length is high. This account is differentiable from an alternative *quality uncertainty* hypothesis, that those with a higher anticipated ownership length feel less confident in their ability to identify which choice is better for them. Studies 3 and 4 test different versions of this alternative hypothesis.

Study 3 returns to a paradigm that uses a series of product choices (like Study 1b) but measures instead of manipulates anticipated ownership length (like Study 2). We wanted to address a version of the quality uncertainty hypothesis that might explain the natural correlation (first observed in Study 2) between a preference for relying on product ratings and (unmanipulated) anticipated ownership length. Perhaps those who anticipate owning and using a product for longer are merely less confident in their ability to determine which product is superior. This sense of quality uncertainty might explain why such individuals lean more on product ratings. To test this alternative, we added a new measure of *attitude certainty*, which measured participants' baseline (i.e., before exposure to the product ratings) perception that they could determine which product they would prefer.

If the quality uncertainty hypothesis is correct, high anticipated ownership length should be associated with lower attitude certainty. If instead the greater stakes hypothesis is correct, we should continue to find that high AOL predicts greater reliance on product ratings even when accounting for attitude certainty. In other words, even when two consumers are just as uncertain about which product is truly better, the consumer for whom this is a greater stakes decision should be particularly interested in the reduction in risk that going with the highly rated product offers. This is not to say that the greater stakes hypothesis should see no role for attitude uncertainty. Instead, it may be precisely when consumers are unsure about their ability to evaluate the products that there is a heightened perceived risk, a risk that should be all the greater when AOL (and thus the stakes of the decision) is high. Reliance on product ratings may be seen to reduce this risk. By this logic, attitude certainty may moderate our basic effect, such that longer anticipated ownership length predicts greater reliance on product ratings precisely when consumers are particularly uncertain about which product is better.

Method

Participants and design. Three hundred thirty-two Americans recruited from Amazon's Mechanical Turk participated in the study in exchange for nominal payment.

Procedure. The design for study 3 was similar to that of study 1b. All participants learned that they would be choosing between pairs of similar products. They were told that after indicating "the extent to which you would prefer to buy one product over another," they would be given information about how other customers had rated each product. As in our other studies using this paradigm, participants were told their "choices will have real world consequences" because "we will be giving a random participant a product which he or she indicated a preference toward," and thus, they should "answer as honestly as possible."

We showed participants products from the following 14 categories: oven mitt, fiction book, wall clock, backpack, shoes, messenger bag, towel, curtains, salt and pepper shaker set, hair brush, flip flops, television, picture frame, and blender. Participants expressed their initial preference for one product versus the other on a 101-point slider scale. The scale was anchored at 0 (*definitely prefer [left-hand] product*) and 100 (*definitely prefer [right-hand] product*). The midpoint (50) was labeled “*equally likely to go with either.*” Next, we measured participants’ certainty by asking, “How certain are you? That is, how sure are you that you can assess how much you would like one product vs. the other?” This measure was adapted from previous work examining attitude certainty (Visser and Mirabile 2004; Mereish and Poteat 2014), a component of attitude strength. Participants indicated their certainty on a 9-point scale ranging from 1 (*not certain at all*) to 9 (*very certain*). After this, we measured anticipated ownership length. Participants were told how long the average person expected to hold onto and actively use a product in each category. As before, such values were the median response provided by pilot participants from Amazon’s Mechanical Turk (N = 86). Participants then answered, “How long do you think you would keep and use a [product category] for?” Responses were offered on 9-point Likert-type scales with the midpoint (5) labeled with the pilot participants’ median estimate; the endpoints were “*much shorter*” (1) and “*much longer*” (9).

Following this, participants received information about each product’s average customer star rating. For each product pair, we randomly determined for each participant whether the left or the right product was shown to have high (4 or 4.5 stars) or low (3 or 3.5 stars) customer ratings. Like in Study 1a, the two products composing each pair always differed by exactly 1 star. After learning these star ratings, participants indicated their final preference using the same slider scale as the initial preference measure.

Results and Discussion

In order to disentangle the quality uncertainty and the greater stakes hypothesis, we explored the role of attitude uncertainty in the effect of anticipated ownership length on reliance on star ratings. We constructed a random-slope, random-intercept model predicting participants' final preferences. We defined four Level-1 variables that were nested within each product pair: *initial preference*, *higher-rated product* (-1: left-hand product, +1: right-hand product), *anticipated ownership length* (standardized within each product pair), and *attitude certainty* (standardized within each product pair). This permitted the effect of each Level-1 variable to vary for each product pair (random-slope), while taking into account a general preference for one product versus the other in each product pair (random-intercept). We included the three two-way and one three-way interaction terms involving higher-rated product, ownership length, and certainty. Finally, a random effect of participant adjusted for each participant's tendency to prefer products on the left or right side of the screen.

The Higher-Rated Product X Ownership Length X Attitude Certainty achieved statistical significance, $t(5914.86) = 2.04, p = .041$. Especially given this interaction was just at the threshold of significance, it was particularly important to determine whether the more specific pattern the greater stakes hypothesis anticipates drove this interaction. Toward that end, we examined our basic effect—the Higher-Rated Product X Ownership Length interaction—for those who were high in baseline attitude certainty (+1 SD) and those who were low in baseline attitude certainty (-1 SD). As shown in Figure 5, those who were quite uncertain at baseline were those who showed a particularly strong Higher-Rated Product X Ownership Length interaction, $t(5912.81) = 2.72, p = .007$. Such participants were influenced by star ratings 17% more when they expected to own and use a product for a relatively long time ($M_{\text{dif}} = 27.94$) than when they

expected to do so for a relatively short time ($M_{\text{dif}} = 23.90$). For these participants, the greater stakes that accompanied higher AOL posed a clear risk, and they gravitated toward higher star ratings to address it. In contrast, participants who were more certain that they could distinguish which product was better (+1 SD) did not show a Higher-Rated Product X Ownership Length interaction, $t < 1$. Such participants relied on product ratings just as much when they expected to hold onto a product for a relatively long ($M_{\text{dif}} = 13.67$) or short ($M_{\text{dif}} = 13.66$) amount of time. For these participants, their greater baseline confidence meant that longer ownership length posed less of a risk, so they did not show an elevated reliance on risk-reducing ratings.

We also observed a significant Higher-Rated Product X Attitude Certainty interaction, $t(5914.87) = 11.23, p < .001$. This showed that participants who were less certain in their own ability to evaluate the products leaned more on product ratings. But were those who anticipated greater ownership length those who had less baseline certainty in their product preferences? To examine this, we constructed a similar random-slope, random-intercept model to that used above, with the following differences. The dependent variable was certainty (standardized within each product pair), and only three Level-1 variables were nested within each product pair (with no interaction term): *initial preference*, *higher-rated product* (-1: left-hand product, +1: right-hand product), and *anticipated ownership length* (standardized within each product pair). Contrary to the quality uncertainty hypothesis, participants who planned to keep and use a product for longer were in fact *more* certain they could determine which product was best, $t(5,929.07) = 12.08, p < .001$.

STUDY 4

Study 3 found initial support for the greater stakes hypotheses over the quality uncertainty hypothesis by showing that attitude certainty played a moderating role (identifying

for whom anticipated ownership length's greater stakes heightened risk, thus pushing them to rely on product ratings) instead of a mediating role (that a longer time owning a product brought with it greater uncertainty in one's opinions). Study 4 aimed to distinguish these hypotheses in a qualitatively distinct way—by examining *whose* ratings consumers defer to. Namely, we varied whether ratings were said to characterize past consumers' *beginning* reaction to the product (that offered when they first received and opened it) or their *end* evaluation of the product (that offered when they had completed using it and were looking to replace it). Although Study 2 indicated that consumers defer to ratings out of a desire to “play it safe,” the greater stakes and quality uncertainty hypotheses suggest that such risk-reducing safety could be offered by attending to the beginning evaluations or the end evaluations, respectively. Let us detail why.

By the greater stakes hypothesis, anticipated ownership length reflects the amount of time one will experience the consequences of a good or a bad decision—i.e., such length determines the stakes. From this perspective, consumers fear the prospect of immediate disappointment that will last more (high AOL) or less (low AOL) time. A product whose packaging and specifications looked enticing on a website may turn out to underwhelm once out of the box. If one intends to hold onto that product for a long time, then this disappointment can be expected to linger. Such information is best captured in beginning ratings. Of course, it is possible that a product that is initially unsatisfying may become more palatable with time. That said, consumers underappreciate how much their experience with a product evolves (Billeter, Kalra, and Loewenstein 2011), explaining why beginning ratings may be seen to offer a clear vision of whether a product is likely to be underwhelming and remain so. Thus, if the greater stakes hypothesis is correct, anticipated ownership length should encourage reliance on beginning ratings in particular.

By an alternative *quality uncertainty hypothesis* (and one taking a slightly different form than that articulated in Study 3), the difficulty with greater ownership length is that it is harder to predict how a product (or one's own preferences) will evolve over time. Such information is best captured in end ratings because these incorporate information that might only become apparent over the ownership cycle, such as whether a product tends to stop working after a couple of months or if a little-known feature turns out to be much more useful than a prospective consumer might expect. Thus, if the quality uncertainty hypothesis is correct, then anticipated ownership length should encourage reliance on end ratings in particular.

Method

Participants and design. Two hundred sixty-one undergraduates at an American university participated in the study as part of a longer session for which they received \$15. Participants were randomly assigned to one of two rating *timing* conditions. That is, some participants were told they received star ratings from consumers who had just received a product (*beginning* condition). Other participants were told the ratings they saw came from consumers who had completed use of the product (*end* condition).

Procedure. All participants learned that they would be choosing between pairs of similar products. They were told that after indicating “the extent to which you would prefer to buy one product over another,” they would be given information about how other customers had rated each product. Those in the *beginning* timing condition were told the star ratings would come from consumers “the day they started using the product.” Those in the *end* timing condition were told the star ratings would come from customers once they had “used the product to the end of its life-cycle,” and were “now ready to get rid of that product by selling it, replacing it, or throwing it away.”

Participants were exposed to 13 pairs of products: DVD players, oven mitts, curtains, sneakers, mp3 players, water filtration systems, non-fiction books, jackets, backpacks, wall clocks, hairbrushes, headphones, and novels. As in studies 1a, 1b and 3, participants began by expressing their initial preference for one product versus the other on a 101-point slider scale. The scale was anchored at 0 (*definitely prefer [left-hand] product*) and 100 (*definitely prefer [right-hand] product*). The midpoint (50) was labeled “*equally likely to go with either.*” Next, participants were told how long the average person expected to hold onto and use a product in each category. Such values were the median response provided by a new set of pilot participants (N = 85, AMT). Study 4 participants then answered, “How long do you think you would keep and use a [product category] for?” Responses were made on 9-point Likert-type scales with a midpoint (5) labeled with the pilot participants’ median estimate. The endpoints were “*much shorter*” (1) and “*much longer*” (9).

At this point, participants received information about each product’s average customer star rating. We reminded participants that these ratings were made by consumers “the day they started using the product” (beginning condition) or only once the consumers had used the product to the end of its life cycle and were “now ready to get rid of that product by selling it, replacing it, or throwing it away” (end condition). For each product pair, we randomly determined for each participant whether the left or the right product was shown to have high (4 or 4.5 stars) or low (3 or 3.5 stars) customer ratings. Like in studies 1a and 3, the two products composing each pair always differed by exactly 1 star. After learning these star ratings, participants indicated their final preference using the same slider scale as the initial preference measure.

Results and Discussion

Did information about when the raters had offered their evaluation change how much anticipated ownership length prompted reliance on ratings? Toward this end, we constructed a random-slope, random-intercept model predicting participants' final preferences. We defined four Level-1 variables that were nested within each product pair: *initial preference*, *higher-rated product* (-1: left-hand product, +1: right-hand product), *anticipated ownership length* (standardized within each product pair), and *timing* condition (-1: beginning, +1: end). This permitted the effect of each Level-1 variable to vary for each product pair (random-slope), even as we corrected for a general preference for one product versus the other in each product pair (random-intercept). We included the three two-way and one three-way interaction terms involving higher-rated product, ownership length, and timing condition. Finally, a random effect of participant adjusted for each participant's tendency to prefer products on the left or right side of the screen.

Before turning to the specific effects involving anticipated ownership length, we began by looking to see whose ratings were deferred to more overall. This could give us an idea of *why* consumers care about star ratings in general—either as a snapshot of what it will be like to acquire and begin using a product (an idea on which the greater stakes hypothesis is premised) or as a guide to how happy one will be with the purchase in the long-run (a possibility on which the quality uncertainty hypothesis is premised). A Higher-Rated Product X Rating Timing interaction, $t(3,340.79) = 5.00, p < .001$, again provided support for the former possibility. That is, star ratings were more influential when they were said to come from consumers who had just started using a product ($M_{\text{dif}} = 36.06$) as opposed to completed their use of a product ($M_{\text{dif}} = 29.26$). Although our hypotheses focus on the role of anticipated ownership length, this finding is intriguing in its own right: When companies showcase their positive customer ratings, it may

behoove them to emphasize that such ratings are from customers who had just received their products (as is typically the case).

Consistent with our central prediction, the Higher-Rated Product X Ownership Length X Timing condition interaction was significant, $t(2,927.83) = 2.88, p = .004$. To probe this interaction (depicted in Figure 6), we examined how anticipated ownership length influenced a tendency to lean on the ratings in each timing condition. When the ratings were said to come from consumers who were just beginning their use of a product, we replicated our effect that anticipated ownership length was a positive predictor of relying on star ratings, $t(2,729.46) = 1.95, p = .05$. But when the ratings were said to come from those who were ending their use of the product, we actually found that anticipated ownership length diminished reliance on the star ratings, $t(3,298.07) = -2.58, p = .01$.

In combination, this provides clear support for the greater stakes hypothesis over the quality uncertainty hypothesis. Although this significant reversal was not predicted *a priori*, note that the pattern is itself consistent with the greater stakes account. If a consumer does not expect people to hold onto a product for very long, then product ratings offered at the end of the product's life are likely fairly similar to those that would have been offered at the (not much earlier) beginning. On the other hand, when people see the natural life of a particular product as quite long, the end ratings are likely seen as less diagnostic of the beginning ratings (i.e., those that are actually of interest). Study 2 showed that anticipated ownership encourages consumers to manage risk by playing it safe. Studies 3 and 4 clarify that this risk is one of having to live with bad decisions for longer, not one of feeling less confident about which product will prove best in the end.

GENERAL DISCUSSION

Five studies converged to show whether, when, and why anticipated ownership length affects consumers' reliance on star ratings when forming product preferences. Anticipated ownership length predicted enhanced interest in relying on product ratings—either as indicated explicitly (study 2) or as implied by the degree to which ratings influenced preferences (studies 1a, 1b, 3, and 4). In addition to establishing the causal influence of anticipated ownership length as part of an actual product choice (study 1a) and a wide range of product categories (study 1b), we explored why anticipated ownership length drives interest in ratings. Study 2 showed that an enhanced desire to “play it safe,” not a sense that ignoring the recommendations of others will prompt more regret if things end up sour, explains this effect. Our final two studies aimed to further unpack what consumers are trying to play it safe *from*. It seems consumers want to guard against the possibility that they will be stuck with a bad purchase for a long period of time, not necessarily that they are more uncertain about their current preferences or how those preferences or the product might change in the future (studies 3 and 4).

Previous research on word of mouth has been consistent with a simple understanding of when word of mouth has an effect. First, given people often need to exert some effort in obtaining word of mouth (e.g., asking a friend's advice, reading a newspaper review), they are likely to seek out others' opinions only if the expected payoff is sufficiently high. Second, when people are exposed to others' opinions, consumers will incorporate them to the extent they think such recommendations are unbiased and come from a source of stronger expertise than the self. In other words, word of mouth should be informative.

The present work cannot be easily fit into this intuitive model. First, participants were able to acquire and interpret others' opinions effortlessly. There was no decision of whether to seek out, but only of how much to lean on such opinions. Second, by showing that participants'

own anticipated ownership length (measured or manipulated) predicted their reliance on ratings, we did not vary a feature of the recommender's credibility. Furthermore, Study 3 showed it was not the case that those who anticipated owning and using a product for longer felt less able to distinguish product quality—i.e., they had no less (and in fact, had more) certainty in their initial attitudes.

Instead, our effect relies on a different function of product ratings. They not only help to reduce an informational gap between a (relatively expert) recommender and a (relatively ignorant) consumer. They also help to reduce risk—pinpointing products that are particularly unlikely to be disappointing or a “loss” (even if such group favorites do not always perfectly match one's unique tastes). When anticipated ownership is long, participants flocked to the risk-reducing highly rated products, especially when they were uncertain in their initial product evaluations (meaning there was more risk to reduce) and especially when the ratings characterized recommenders' beginning instead of ending opinions (meaning they offered the clearest sense of whether one might be forced to live with an unsatisfactory product for a long period of time). But when anticipated ownership length was short (i.e., when participants were “playing for peanuts”), they were more willing to take a chance by relying less on ratings—thereby choosing a product that could turn out to be a dud but could also be perfect for their idiosyncratic preferences. Those with higher AOL gravitated toward ratings neither because they personally felt informationally impoverished (Study 3) nor because they thought raters—with their longer experience with a product—had better information to offer (Study 4). Instead, when a concern with avoiding highly negative decision outcomes is heightened (as with the greater stakes that accompany longer anticipated ownership), the risk-reducing strategy of deferring to ratings was pursued more heavily. Study B in the Web Appendix further confirmed this logic:

Higher anticipated ownership length no longer predicted greater deference to ratings when participants could easily return a product. In such a case, anticipated ownership length no longer signifies how long one may be stuck with a regretted decision.

Does anticipated ownership length increase choice of the higher-rated product?

In all of our studies that involved participants selecting between two actual products (Studies 1a-1b, 3-4), we used continuous measures of relative preference. This offered us extra power—permitting us to identify when ratings led participants to alter their baseline preferences even if they did not fully abandon their initially preferred product. But in considering the applicability of our findings, marketers are likely to ask whether our studies suggest that anticipated ownership length actually changes participants' choices, not merely their enthusiasm toward them. We thus returned to our studies to determine whether—in the aggregate—such effects on choices (and not simply on preferences) could be inferred.

We reanalyzed data from Studies 1a-1b and 3-4. We recoded both our baseline and final preference measures into trichotomous variables indicating a preference for the left product (-1), indifference between the two products (0), or a preference for the right product (+1). In each study, we examined whether anticipated ownership length changed how much product ratings' influenced participants choices—either overall (Studies 1a and 1b) or under the condition when hypothesized to (Studies 3 and 4). Overall, we found evidence of the hypothesized effect, Stouffer's $Z = 3.35$, $p < .001$ (Study 1a: $Z = .13$ Study 1b: $Z = 2.29$; Study 3: $Z = 3.29$, Study 4: $Z = 0.99$). In other words, anticipated ownership length does not merely soften or strengthen participants' baseline preferences, but also has an effect on which product they ultimately prefer. This finding is especially valuable given the incentive-compatible nature of the studies related to this choice (given participants knew they might receive one of their preferred items.)

Exploring the Influence of Regulatory Mode

If our theoretical reasoning is correct, it suggests there may be predictable individual differences in who is more or less likely to flock to higher-rated products as anticipated ownership length increases. Kruglanski et al. (2000) identified individual differences in two modes of how people pursue goals—assessment (the careful determination of what is wanted) and locomotion (the active pursuit of that objective). Most relevant for our purposes, assessors approach decisions cautiously, are reluctant to take risks, and proceed only after critical evaluation, because of a particularly strong concern with getting to the right answer (Higgins, Kruglanski, and Pierro 2003; Kruglanski et al. 2000; Panno, Pierro, and Lauriola 2014). Such perfectionism may be a curse: Assessors attain objectively superior outcomes but still emerge less satisfied with their lives (Garcia et al. 2015). This highlights just how easily assessors can be disappointed.

We included the Regulatory Mode Questionnaire at the end of Study B (N=141) found in the Web Appendix as well as in an essentially identical study that merely lacked Study B's between-subjects manipulation (N=125). We analyzed the data pooling across these samples (though all results reported below are significant at the $p < .05$ level in the initial, larger sample alone). First, we observed a significant Assessment X Higher-Rated Product interaction, $t(2260.96) = 5.81, p < .001$. This showed that, in general, assessors were more likely to lean on star ratings than were non-assessors. Even this evidence is useful because it reinforces our account that trusting product ratings is especially appealing to those who like playing it safe. But of greater interest, the Assessment X Higher-Rated Product X Ownership Length interaction emerged as well, $t(2694.42) = 2.32, p = .02$, and with a *positive* beta. Participants who were high on assessment (+1 SD) showed the predicted Higher-Rated Product X Ownership Length

interaction, $t(4,070.97) = 2.29, p = .02$, leaning on star ratings 16% more when they expected to own a product for a relatively long time ($M_{\text{dif}} = 26.92$) than when they expected to own a product for a relatively short time ($M_{\text{dif}} = 23.26$). Non-assessors (-1 SD) did not show the Higher-Rated Product X Ownership Length interaction, $t < 1$; they showed (diminished) reliance on product ratings that was similar whether they expected to hold onto a product for a relatively long ($M_{\text{dif}} = 17.77$) or short ($M_{\text{dif}} = 19.13$) amount of time. Both supporting our account and clarifying how our results relate to regulatory mode, those who approach decisions with the most risk aversion (i.e. assessors) not only tended to defer to customer evaluations, but showed an even stronger tendency to do so under high anticipated ownership length.

Questions for Future Research

Finally, we consider how future research could build on the efforts reported herein:

Product reviews. Because a product rating offers a simple, salient summary statistic, we were able to examine the influence of previous customers' evaluations without a concern for consumers' motivation to engage in taxing information search. But ordinarily, when consumers encounter star ratings, they also have the option to sift through individual reviews to help them to make sense of the average ratings. In such circumstances, would we expect different findings from those observed here? For three reasons, we suspect this is unlikely.

First, Schlosser (2011) reports that reviews are seen to be helpful insofar as they are consistent with their corresponding ratings. This suggests consumers may value reviews to the extent that they reinforce (rather than call into question) a product's overall rating. Second, in evaluating reviews, consumers show a primacy effect (Coker 2012). As such, if consumers process ratings first, they are likely to exert a disproportionate impact on their assessments. Third, given that consumers assume that positive ratings reflect a universally positive assessment

of a product (Gershoff, Mukherjee and Mukhopadhyay 2007), they may be unlikely to feel the need to read clarifying reviews about a highly rated product. That said, we concede that if the product consumers initially preferred received low ratings, they may at times be motivated to understand why, and reviews may offer this clarifying explanation. Whether this keeps anticipated ownership length from magnifying reliance on ratings or instead only reinforces this tendency (perhaps by anecdotally supporting the fear that an initially preferred product is not what it seems), is a question for future research.

Rating dispersion. In the present studies, product ratings were presented by a single summary statistic. But on some websites, information about the distribution of ratings—and thus their variation or dispersion—is offered. Ratings are more persuasive when they reflect higher consensus (Khare, Labrecque and Asare 2011), unless consumers expect preference heterogeneity (He and Bond 2015). In our paradigms, it is possible that any information about rating dispersion may only exert a main effect, increasing or decreasing reliance on them. But another possibility is that rating dispersion may have an *interactive* effect with anticipated ownership length. That is, anticipated ownership length may not prompt consumers to rely more on summary ratings if there is significant dispersion in the individual assessments. After all, if there appears to be variability in consumers' product experience, picking a highly rated product may no longer seem a way to safeguard against prolonged disappointment. That said, when a product receives high ratings (e.g., 4.5 stars out of 5), there is simply not much room for variability of opinion.

Experiences. Although we have focused on the purchase of physical goods, might our effects hold for the procurement of experiences as well? To address this question, it would be necessary to specify what could be analogous to anticipated ownership length in the realm of

experiences. Certainly, some of the experiences we purchase last longer than others. Thus, consumers may be more likely to lean on ratings when considering an avant-garde massage that will last for two hours instead of fifteen minutes.

Yet consumers care about experiences not merely as they unfold, but also retrospectively to relive such moments in the future (Keinan and Kivets 2011). When consumers want to hold onto an experience for a long time in their memory, might they be more inclined to lean on ratings? Consider a traveler browsing restaurants on Yelp. If she is in Paris, France, she may want to reflect on her meal for many years to come, prompting her to play it safe and choose based on ratings. If she is passing through Paris, Texas, the long-term importance of her choice may seem diminished. She may be more willing to take a chance by following her gut rather than the stars.

Conclusion

Perceptions of risk are shaped both by the variability of potential outcomes as well as what is at stake (Campell and Goodstein 2001; Downing 1986). The studies reported here show that as the consequences of receiving a disappointing product grow more severe with longer anticipated ownership, consumers seek to reduce risk by relying on ratings. Though leaning on aggregated recommendations may not lead people to the perfect product for them, following the stars seems a way to circumvent especially negative outcomes. However, it is worth noting that recently developed algorithms could afford consumers the best of both worlds. For instance, Netflix offers users recommendations that take into account their own past ratings as well as those of their fellow viewers. Understanding whether consumers see trusting these hybrid systems as the way to play it *safest* or as a complex and thus risky strategy may be the first step in identifying *when* such next-generation recommendations shape consumer decisions.

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TABLE 1: INDEPENDENT EFFECT OF EACH PREDICTOR ON PREFERENCE FOR TRUSTING PRODUCT RATINGS AND “PLAY IT SAFE”

Predictor	<i>Trust product ratings</i>			<i>Play it safe</i>		
	High (+1 SD) – Low (-1 SD) on predictor	<i>t</i>	<i>p</i>	High (+1 SD) – Low (-1 SD) on predictor	<i>t</i>	<i>p</i>
Anticipated ownership length	0.20	2.75	.01	0.38	5.79	< .001
Shopping time	0.60	8.10	< .001	0.54	8.70	< .001
Preference uniqueness	-0.28	3.49	< .001	-0.25	3.45	.001
Public visibility	-0.14	2.15	.03	-0.02	< 1	<i>ns</i>
Price (ln-transformed)	0.13	2.10	.04	0.22	4.50	< .001
Category familiarity	-0.12	1.32	.19	-0.02	< 1	<i>ns</i>

Notes: Because the predictors are nested within product pair, the second and fifth columns reflect the predicted difference in decision strategy of those who are +1 standard deviation and -1 standard deviation on that predictor: 1) for any particular product, and 2) independent of the predictive influence of the other predictors.

FIGURES

FIGURE 1: DECISION FACED IN STUDY 1A

(A)

Large Beam Flashlight Key Chain**Product Features**

- Keep a light handy with these plastic key chains!
- 2 1/8"
- Batteries included
- Comes in colors shown above

Product A

(B)

Large Beam Flashlight Key Chain**Product Features**

- Keep a light handy with these plastic key chains!
- 2 1/8"
- Batteries included
- Comes in colors shown above

Product A**Director's Clapboard Picture Frame Key Chain****Product Features**

- Direct attention to your favorite photo with these plastic key chains!
- 2 1/2" with a 1 5/8" x 1" photo space

Product B**Director's Clapboard Picture Frame Key Chain****Product Features**

- Direct attention to your favorite photo with these plastic key chains!
- 2 1/2" with a 1 5/8" x 1" photo space

Product B

Notes: (A): Participants in Study 1A indicated their baseline preference between these two products based on this information. (B): Participants were then shown the star ratings for each product. In Study 1A (and only Study 1A), the initially non-preferred product was shown to be higher-rated (4.5 stars), and the initially preferred product, lower-rated (3.5 stars).

FIGURE 2: EXAMPLE PRODUCT PAIR FROM STUDY 1B

(A)

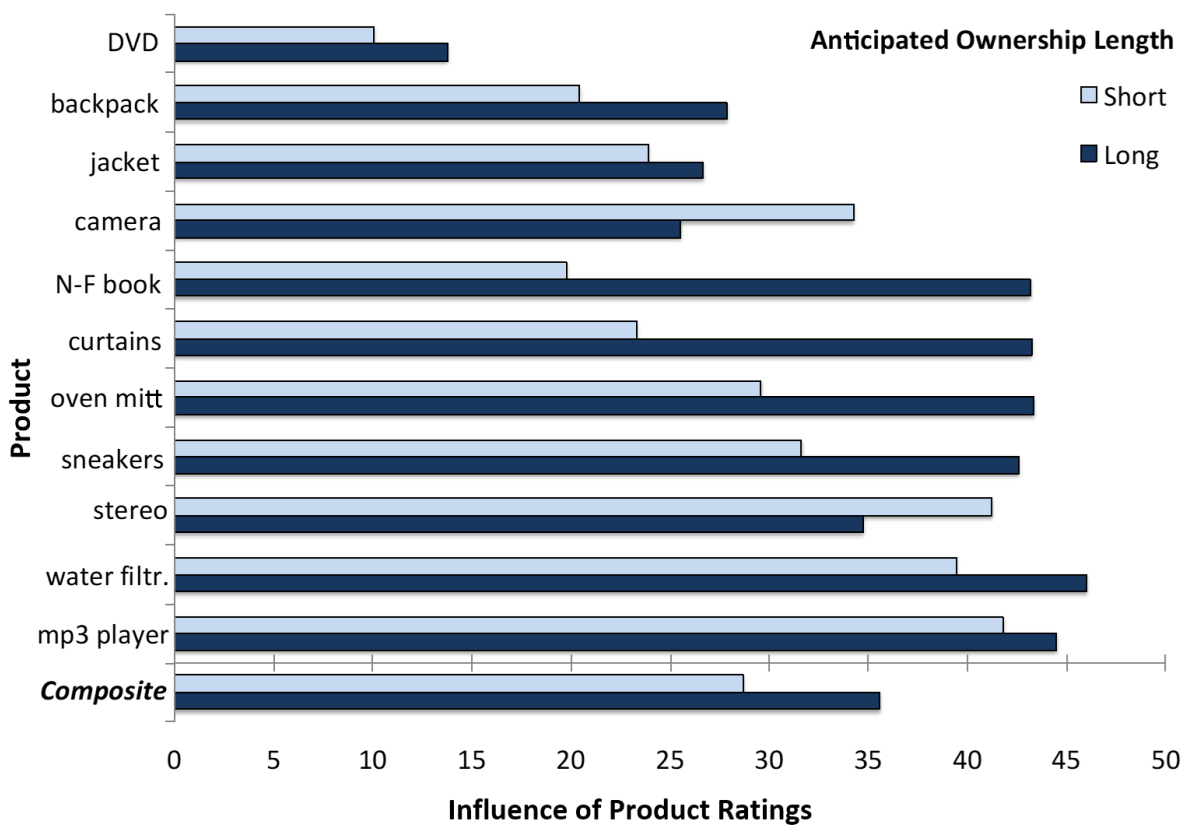
<p>The North Face Surge by The North Face</p>  <p>Product Features</p> <ul style="list-style-type: none"> . Backpack Dimensions: 20 inches x 13.5 inches x 9.5 inches . Top access zip dedicated laptop pocket with padding . Front side electronics organizer pocket . Side stretch-woven water bottle pockets 	<p>JanSport Catalyst by JanSport</p>  <p>Product Features</p> <ul style="list-style-type: none"> . Breathable, perforated EVA shoulder straps with hydration tube management . Fully padded EVA back panel . Breathable, perforated EVA hipbelt with mesh pockets . Locking bungee cord compression
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(B)

<p>The North Face Surge by The North Face</p> <p>★★★★☆</p>  <p>Product Features</p> <ul style="list-style-type: none"> . Backpack Dimensions: 20 inches x 13.5 inches x 9.5 inches . Top access zip dedicated laptop pocket with padding . Front side electronics organizer pocket . Side stretch-woven water bottle pockets 	<p>JanSport Catalyst by JanSport</p> <p>★★★★★</p>  <p>Product Features</p> <ul style="list-style-type: none"> . Breathable, perforated EVA shoulder straps with hydration tube management . Fully padded EVA back panel . Breathable, perforated EVA hipbelt with mesh pockets . Locking bungee cord compression
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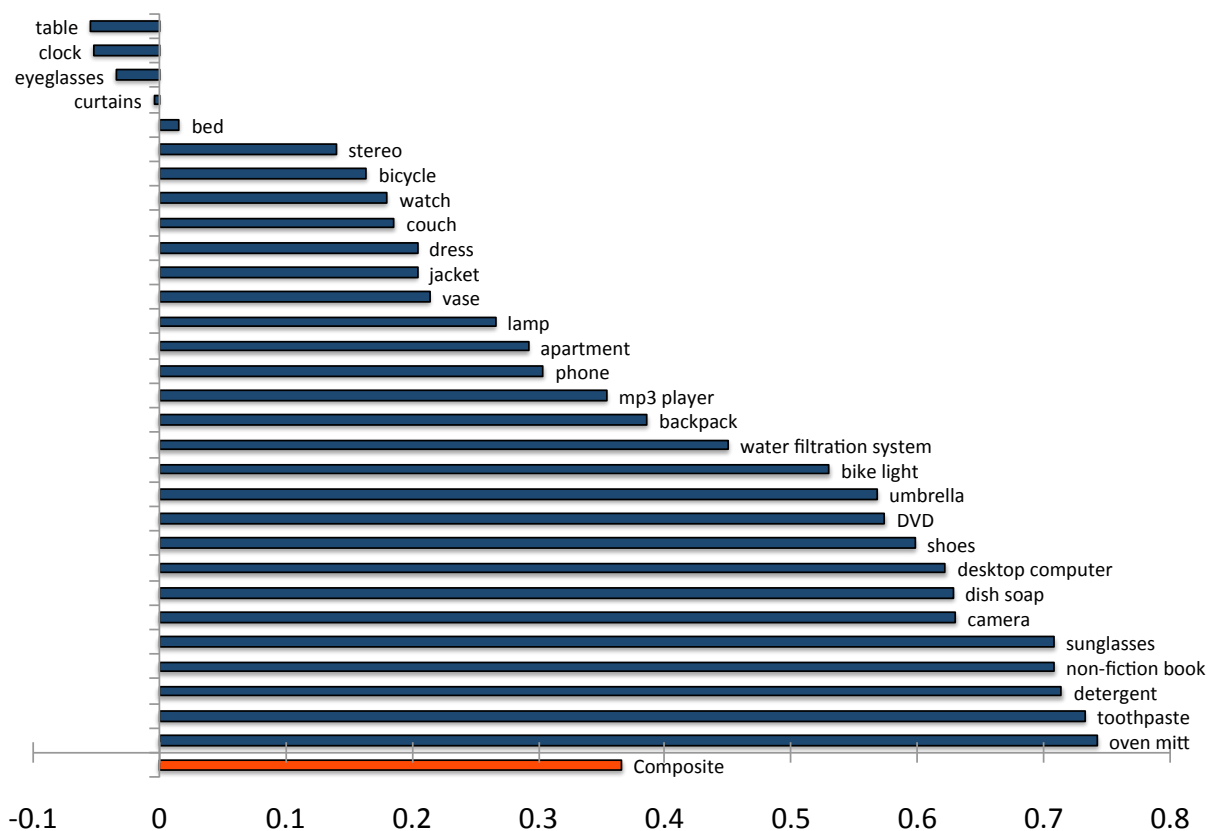
Notes: (A): Participants first learned background information about the two products before indicating their *initial preference*. (B): For each product pair, participants were randomly assigned to learn that the left-hand product or the right-hand product had higher average ratings before they indicated their *final preference*.

FIGURE 3: EFFECT OF ANTICIPATED OWNERSHIP LENGTH ON INFLUENCE OF PRODUCT RATINGS BY PRODUCT IN STUDY 1B



Notes: The influence of product ratings, by product (and overall: *Composite*), for participants led to believe that a product would be owned and used for a surprisingly short or long amount of time. “Influence of product ratings” describes the swing in preference caused by experimentally manipulating which product received a higher rating. Products are ordered based on the main effect of product ratings—from least influential (DVD) to most influential (mp3 player).

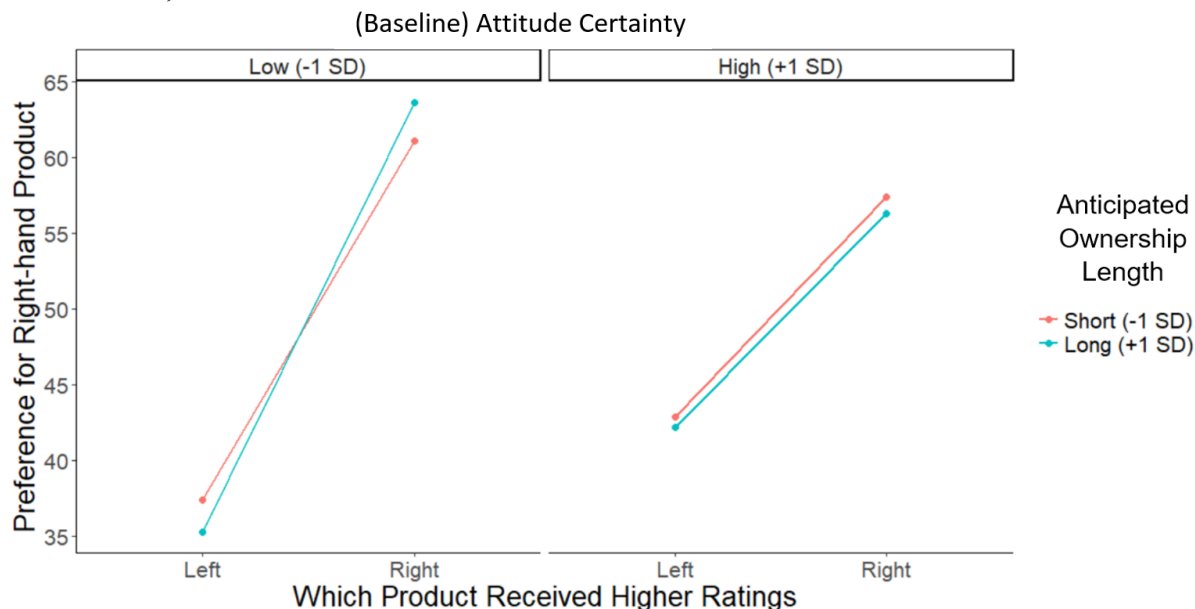
FIGURE 4: EFFECT OF ANTICIPATED OWNERSHIP LENGTH ON DESIRE TO “PLAY IT SAFE” BY PRODUCT IN STUDY 2



Anticipated Ownership Length → Desire to “Play it Safe”

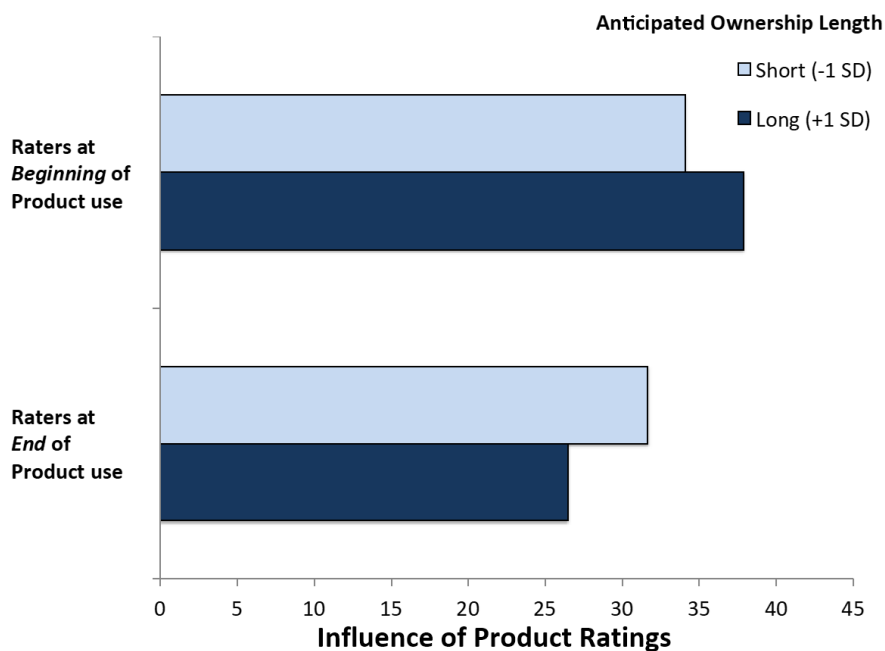
Notes: The extent to which anticipated ownership length predicted a preference for playing it safe (instead of taking a chance). The value depicted is the difference between the predicted preferences (controlling for the five covariates) as predicted for a participant who anticipated using a product for a relatively long (+1 SD) versus a relatively short (-1 SD) amount of time for that particular category. The red bar reflects the overall effect aggregated across the 30 product categories. This composite is a simple average of the 30 bars above it, meaning it is similar to, but not identical to, the estimate that comes from the hierarchical linear model.

FIGURE 5: EFFECTS OF ANTICIPATED OWNERSHIP LENGTH, ATTITUDE CERTAINTY, AND RATINGS ON PRODUCT PREFERENCE IN STUDY 3



Notes: The influence of ratings was strongest for those who intended to keep and use a product for a longer period of time and were less certain in their initial preferences.

FIGURE 6: EFFECT OF ANTICIPATED OWNERSHIP LENGTH ON RATING INFLUENCE BY TIME OF RATING IN STUDY 4



Notes: “Influence of product ratings” reflects the difference in final preferences caused by experimentally manipulating which product received a higher rating.