

# People Rely Less on Consumer Reviews for Experiential than Material Purchases

HENGCHEN DAI  
CINDY CHAN  
CASSIE MOGILNER

An increasingly prevalent form of social influence occurs online where consumers read reviews written by other consumers. Do people rely on consumer reviews differently when making experiential purchases (events to live through) versus when making material purchases (objects to keep)? Though people often use consumer reviews both when making experiential and material purchases, an analysis of more than six million reviews on Amazon.com and four laboratory experiments reveal that people are less likely to rely on consumer reviews for experiential purchases than for material purchases. This effect is driven by beliefs that reviews are less reflective of the purchase's objective quality for experiences than for material goods. These findings not only indicate how different types of purchases are influenced by word of mouth, but also illuminate the psychological processes underlying shoppers' reliance on consumer reviews. Furthermore, as one of the first investigations into how people choose among various experiential and material purchase options, these findings suggest that people are less receptive to being told what to *do* than what to *have*.

**Keywords:** experiential purchases, material purchases, consumer reviews, objective quality

Hengchen Dai is an assistant professor of management and organizations, the UCLA Anderson School of Management, University of California, 110 Westwood Plaza, Suite A405, Los Angeles, CA, 90095 (hengchen.dai@anderson.ucla.edu; 310-206-2716); Cindy Chan is an assistant professor of marketing, UTSC Department of Management and Rotman School of Management, University of Toronto, 1095 Military Trail, Toronto, ON M1C 1A4, Canada (cindy.chan@utoronto.ca; 416-978-1462); and Cassie Mogilner is an associate professor of marketing, the UCLA Anderson School of Management, University of California, 110 Westwood Plaza, Suite B515, Los Angeles, CA 90095 (cassie.holmes@anderson.ucla.edu; 310-794-7714). Correspondence: Hengchen Dai. The authors thank Jeffrey Cai, Raghu Iyengar, Katherine Milkman, Katie Shonk, and participants at the OPIM-DP lab at the Wharton School for their helpful feedback on this article. The authors thank the Wharton Behavioral Lab, the Anderson Behavioral Lab, Sheng Xu, Katie Wirtz, Sonia Fung, Kahini Shah, Emily Short, and Mayoore Baskarasingham for their help with data collection. The authors thank Wharton Dean's Research Fund, the Wharton Risk Management and Decision Processes Center, Wharton's Baker Retailing Center, the UCLA Anderson School of Management, the Anderson Behavioral Lab, Olin Business School, and the Department of Management at the University of Toronto Scarborough for funding support. In addition to the fun from working together on this project, the authors really appreciated the guidance gained from consumer reviews to find the best quality ice cream makers available, as well as the excuse to try out all their nearby ice cream shops to evaluate their goodness for themselves! Supplementary materials are included in the web appendix accompanying the online version of this article.

*Editors: Darren W. Dahl and Margaret C. Campbell*

*Associate Editor: Cait Lambertson*

*Advance Access publication September 10, 2019*

In preparing for her first ski trip, this article's first author needs to book a hotel room and make restaurant reservations, and also get a camera and a pair of skis. While all of these purchases will be instrumental to her enjoyment of the trip, the former are more experiential (events to live through), whereas the latter are more material (possessions to keep). How might this difference in purchase type affect her decision process? Will she rely on consumer reviews equally when choosing a hotel and restaurants and when choosing a camera and skis?

It is well known that people's attitudes toward products, services, and retailers are often shaped by others (Cialdini and Goldstein 2004; Goldstein, Cialdini, and Griskevicius 2008), and an increasingly prevalent form of social influence occurs online where people read reviews written by other consumers (Chen and Xie 2008; Keen 2008; Mayzlin, Dover, and Chevalier 2012). Recent surveys report that more than 90% of people read consumer reviews before making a purchase (Marchant 2015), and two-thirds of people trust opinions of anonymous online consumers (Nielsen 2015). It is thus not surprising that consumer reviews can have a considerable influence on product sales

(Chevalier and Mayzlin 2006; Godes and Mayzlin 2004; Moe and Trusov 2011) and even stock prices (Tirunillai and Tellis 2012). Given the increasing importance of consumer reviews, it has become critical to understand the extent to which people rely on this source of information across their various purchase decisions.

The current research compares experiential and material purchases and tests how and why people rely on consumer reviews differently when making these purchases. By “reliance on consumer reviews,” we mean the extent to which people find the consumer reviews they read useful and are influenced by them. Although there are countless review websites with endless numbers of consumer reviews that shoppers can search for and read, not all of these reviews are equally helpful to consumers in deciding what to buy. Indeed, many shopping and review websites—such as Amazon, Best Buy, Expedia, and TripAdvisor—allow shoppers to vote whether the consumer reviews on their site are helpful or not (Forman, Ghose, and Wiesenfeld 2008; Yin, Bond, and Zhang 2014, 2017). This research examines whether the extent to which people consider consumer reviews helpful differs depending on the type of purchase being made.

Though people often use consumer reviews both when making experiential purchases and when making material purchases, we find across an archival field study and four laboratory experiments that people rely less on consumer reviews for experiential purchases than for material purchases. This is because people believe that assessments of experiences (compared to material goods) are based less on the purchase’s objective quality, which makes other consumers’ reviews less helpful for their purchase decision.

These findings make important contributions to three streams of literature. First, prior work comparing experiential and material purchases has predominantly focused on the post-purchase effects of experiences relative to material possessions (see Gilovich, Kumar, and Jampol 2015a for a review). Though newer work has begun focusing on pre-purchase effects by examining when and why people might choose one purchase type over the other (Goodman and Lim 2018; Goodman, Malkoc, and Stephenson 2016; Kumar and Gilovich 2015, 2016; Kumar, Killingsworth, and Gilovich 2014; Pchelin and Howell 2014; Tully, Hershfield, and Meyvis 2015), our work advances this literature by examining how the decision processes differ when people are deciding what to buy within each purchase type. Second, these findings inform the field’s understanding of how different types of purchases are influenced by word of mouth (Berger 2014). By identifying beliefs about objective quality as a key driver, this research further illuminates the psychological processes underlying the perceived usefulness of consumer reviews (Chen and Lurie 2013; de Langhe, Fernbach, and Lichtenstein 2016; Moore 2015; Yin et al. 2014, 2017). Third, building on new research revealing that individuals vary in their beliefs about

the extent to which purchases are assessed based on objective quality (Spiller and Belogolova 2017), our findings highlight that these beliefs also systematically vary across different purchase types. Furthermore, we document an important implication of such beliefs by demonstrating their impact on people’s reliance on consumer reviews.

## EXPERIENTIAL VERSUS MATERIAL PURCHASES

Van Boven and Gilovich (2003) define experiential purchases as “those made with the primary intention of acquiring a life experience: an event or series of events that one lives through” and material purchases as “those made with the primary intention of acquiring a material good: a tangible object that is kept in one’s possession” (1194). Although the two categories cannot always be precisely separated, consumers share the intuition underlying this classification and can readily place a purchase on the experiential-material spectrum (Gilovich, Kumar, and Jampol 2015b; Van Boven and Gilovich 2003).

To date, the research comparing experiential and material purchases has largely focused on understanding the consequences of these purchases, such as the happiness (Van Boven and Gilovich 2003), satisfaction (Carter and Gilovich 2010), gratitude (Walker, Kumar, and Gilovich 2016), and regret (Rosenzweig and Gilovich 2012) they elicit, as well as their effect on interpersonal relationships (Chan and Mogilner 2017). Research exploring the reasons for these outcomes shows that compared to material possessions, experiential purchases are more closely tied to one’s self-identity (Carter and Gilovich 2012), harder to compare against forgone alternatives (Carter and Gilovich 2010), less interchangeable across options (Rosenzweig and Gilovich 2012), subject to slower rates of hedonic adaptation (Nicolao, Irwin, and Goodman 2009), more likely to elicit intense emotions (Chan and Mogilner 2017), and more often shared with others (Capriello and Reis 2013; Kumar and Gilovich 2015). For a review, see Gilovich et al. (2015a).

More recently, research comparing experiential and material purchases has begun examining differences that occur before a purchase is made. Researchers have found that people derive greater utility from anticipating and talking about future experiential purchases (Kumar et al. 2014; Kumar and Gilovich 2015) and are therefore willing to wait longer before consuming experiences than material goods (Kumar and Gilovich 2016). Also, when deciding between purchasing an experience versus a material good, people prefer the material good when they feel financially constrained (Tully et al. 2015), and they mistakenly forecast that material goods are a better use of money (Pchelin and Howell 2014). Further, people predict that material goods will make better gifts (Goodman and Lim 2018), yet

view experiences as better for celebrating special life events (Goodman et al. 2016).

Though researchers have started to explore factors that influence when and why people might decide to make one type of purchase over the other, research has yet to examine differences that exist between experiential and material purchases in terms of how people decide what option to buy within a given purchase type. Our investigation contributes by examining whether and why people are differentially influenced by others when making an experiential purchase versus a material purchase. We specifically examine the extent to which people rely on consumer reviews when making these two types of purchases, as well as how people's beliefs about the basis of assessment play a key role.

### BELIEFS ABOUT ASSESSMENTS OF OBJECTIVE QUALITY

Though price and personal taste can play a role, a key factor that contributes to a consumer's overall assessment of a purchase option is its objective quality (Johansson, Douglas, and Nonaka 1985; Zeithaml 1988). Quality-based assessments reflect consumers' judgments about a product's overall superiority (Zeithaml 1988), and this vertical differentiation across products allows for options to be objectively ranked (de Langhe et al. 2016; Tirole 1988). Spiller and Belogolova (2017) recently found that individuals vary considerably in their *quality assessment beliefs*—that is, their beliefs about the extent to which assessments of a purchase are based on its objective quality. For instance, when explaining their choice of one option over another, some people are more likely to describe their chosen option as being objectively better than the alternative and to treat the superiority of their chosen option as a matter of fact.

We propose that beyond differences across *individuals* (Spiller and Belogolova 2017), quality assessment beliefs may also differ across *product domains*—and in particular, between experiential and material purchases. As an example, people might believe that someone's assessment of their visit to a hot springs resort is based less on objective quality than their assessment of a new hot tub. This is because hot springs visits (experiential purchases) are harder to compare than hot tubs (material purchases; Carter and Gilovich 2010), and “evaluations of quality usually take place in a comparison context” (Zeithaml 1988, 5). Unlike material products that are manufactured to be identical such that all consumers should get the same thing “out of the box,” experiences are necessarily unique to a particular time and person (Eliashberg and Sawhney 1994). Indeed, the same hot springs will produce quite different experiences for two consumers depending on such factors as the weather that day and who else is there, whereas two

consumers who purchase the same model of hot tub will own identical products that deliver the same level of performance. Additionally, attributes of material goods tend to be more objective and quantifiable, which helps consumers compare options along a continuum from worst to best, whereas attributes of experiential goods tend to be more subjective, which makes them harder to compare across options (Holbrook and Hirschman 1982). For example, hot tubs are judged along such features as the speed of heating up, the pressure level and number of jets, and the durability of material—all dimensions along which the options can be objectively ranked and compared. In contrast, hot spring resorts are typically judged on such features as décor, view, and service, which are subjectively evaluated. Altogether, because experiences are less comparable across consumers, time, and options than material possessions (Carter and Gilovich 2010; Rosenzweig and Gilovich 2012), and quality judgments rely on such comparability for a relative ranking of options (de Langhe et al. 2016; Spiller and Belogolova 2017; Zeithaml 1988), we propose that people believe another's assessment of an experiential purchase is based less on objective quality than another's assessment of a material purchase.

We conducted a pilot study to explore our proposed link between experiential versus material purchase type and quality assessment beliefs. We first compiled a list of 87 purchases culled from 16 published papers that compared experiential and material purchases. We then presented these purchases (e.g., beach vacation package, concert ticket, digital camera, stereo system) to participants recruited on Amazon Mechanical Turk (MTurk) ( $N = 263$ ; 41% female, 2 unspecified;  $M_{\text{age}} = 35.8$ ). Each participant saw a random subset of 10 purchases and rated the extent to which each purchase was material or experiential (1 = “primarily material,” 9 = “primarily experiential”), as well as the extent to which assessments of each purchase were a matter of quality (1 = “definitely not a matter of quality,” 9 = “primarily a matter of quality”). We calculated the average material-experiential rating and the average quality assessment beliefs rating for each purchase. The results showed that the extent to which a purchase was viewed as experiential (vs. material) was significantly and negatively correlated with beliefs about its assessment as based on quality ( $r = -.27, p = .01$ ). That is, people viewed assessments of experiential purchases as based less on objective quality than material purchases. Similarly, when we categorized the purchases according to their treatment in the prior papers (38 experiential purchases and 49 material purchases), the results confirmed that people believed assessments of experiential purchases to be based less on objective quality ( $M = 5.74, SD = .93$ ) than assessments of material purchases ( $M = 6.26, SD = .97; t(85) = 2.54, p = .01, d = .55$ ). See [web appendix A](#) for the complete list of papers and purchases, as well as the full survey and analyses.

These results offer preliminary evidence to suggest that compared to material purchases, people believe that experiential purchases involve assessments that are less based on objective quality. Next, we theorize why such differences would influence people's reliance on consumer reviews, such that people rely less on consumer reviews for experiential purchases than for material purchases.

## RELIANCE ON CONSUMER REVIEWS

People generally prefer advisors and are more willing to use another's behavior as a decision input when they believe the other's judgment is objective rather than subjective (Gorenflo and Crano 1989; Olson, Ellis, and Zanna 1983; Spears, Ellemers, and Doosje 2009). For example, males were more interested in knowing their peers' ratings of a female's attractiveness when led to believe that beauty is objective (vs. subjective; Olson et al. 1983). This tendency to rely heavily on others' objective judgments likely translates into people's tendency to rely more on consumer reviews for purchases they believe to be assessed based on objective quality.

Though people may search for and read reviews for a variety of reasons, consumer reviews are *useful* to the extent they help people predict what their own evaluations of an option would be when (and if) consumed (Yaniv, Choshen-Hillel, and Milyavsky 2011). Reviews that reflect the objective quality of an option are particularly predictive of that option's absolute value across consumers (Simonson and Rosen 2014). Furthermore, when people believe there to be less heterogeneity across people's assessments of purchase options, they expect others' advice and reviews to be more useful (Feick and Higie 1992; Price, Feick, and Higie 1989). Thus, people should be more likely to rely on consumer reviews they perceive as based on objective quality.

Altogether, we hypothesize that compared to reviews for material purchases, people believe reviews for experiential purchases to be less based on the purchase's objective quality. We further hypothesize that this belief leads people to rely less on consumer reviews for experiential purchases than for material purchases.

## OVERVIEW OF STUDIES

We tested these hypotheses in five studies. In study 1, we analyzed archival data of over six million consumer reviews posted on Amazon.com and found that people were less likely to rate reviews as helpful for purchases that were more experiential (vs. material). We then replicated this finding in a series of experiments where we manipulated participants' consideration of a more experiential or material purchase by instructing participants to identify an experiential or material purchase they planned to make (study 3), or choose between given experiential product

options (cooking classes in study 2; ice cream shops in studies 4 and 5) or material product options (espresso machines in study 2; ice cream makers in studies 4 and 5). In these studies, we measured participants' reliance on consumer reviews that they actually found online (study 3) or that we adapted from actual online consumer reviews (studies 2, 4, and 5). We measured review reliance in multiple ways: participants' ratings of review helpfulness (study 3), selection of the option with a more favorable review (study 2), and likelihood of changing their purchase decision after reading a slightly negative review (studies 4 and 5). We tested for our proposed mechanism of quality assessment beliefs through both measurement (studies 3 and 4) and manipulation (study 5) and found support for its role in the effect of experiential (vs. material) purchase type on review reliance. In each study, the target sample size was determined in advance of conducting the study, and all data exclusions and manipulations are reported. All measures are listed either in the article or in the web appendixes.

## STUDY 1: HELPFULNESS OF CONSUMER REVIEWS ON AMAZON

Study 1 examined whether people find consumer reviews posted on Amazon.com to be less helpful for experiential (vs. material) purchases. Amazon is one of the world's leading sources for consumer reviews (Ante 2009; Hong 2015). For each review, people shopping on Amazon are asked, "Was this review helpful to you?" to which they can voluntarily respond "Yes" or "No." For reviews that have received at least one vote, Amazon displays both the number of "Yes" votes and the number of total votes. Prior research shows that Amazon reviews rated as more helpful have a stronger influence on shoppers' purchase decisions than reviews rated as less helpful (Chen, Dhanasobhon, and Smith 2008). In study 1, we analyzed whether shoppers are less likely to assign a "helpful vote" to Amazon reviews for experiential purchases than for material purchases.

### Data

Our data comprised consumer reviews posted on Amazon between January 31, 2008, and December 31, 2012 (see web appendix B for details about the data source: McAuley and Leskovec 2013). For each review, we gathered the product name, product category, review title, review date, review text, star rating (1–5 stars), the number of shoppers who responded either "Yes" or "No" to the question asking whether the review was helpful (hereafter, *total votes*), and the number of shoppers who responded "Yes" to indicate that the review was helpful (hereafter, *helpful votes*). Following past research that analyzed the helpfulness of online reviews, we operationalized the



helpfulness of a review as the ratio of that review's helpful votes to its total votes in the main analysis, thus excluding reviews that received zero total votes from the analysis (Forman et al. 2008; Mudambi and Schuff 2010; Yin et al. 2014). The final data included 6,508,574 reviews written about 997,845 products.

## Measures

*Review Helpfulness.* The dependent variable equaled the ratio of the number of helpful votes a review received to the number of total votes it received (Forman et al. 2008; Mudambi and Schuff 2010; Yin et al. 2014). Helpful votes exceeded total votes for 31 of the 6,508,574 reviews. We assigned a ratio of 1 to these extremely rare cases of data error, but the results were robust when we excluded these reviews from the analysis.

*Experiential (vs. Material) Rating.* The primary independent variable was the extent to which a given product was experiential or material. Given that the data included approximately one million different products, we assessed the experiential (vs. material) rating of each product based on its product category. To obtain these ratings, we recruited 100 participants from MTurk to complete a product survey in exchange for \$.50 (see web appendix B for the complete survey). We instructed participants to imagine they were shopping on Amazon and presented them with a list of 26 product categories (see table 1 for categories). These categories reflected Amazon's 26 top-level category labels (e.g., books, music, shoes), except for cases that required additional description for clarity (e.g., we described "Amazon instant videos" as "videos for streaming"). After defining material and experiential purchases (i.e., "material purchases provide something that a person can keep in his/her possession, and experiential purchases provide something that a person can do"; adapted from Van Boven and Gilovich 2003), we asked participants to rate the extent to which products in each category were material or experiential (1 = "purely material," 9 = "purely experiential"). Since interrater reliability was high (intraclass correlation coefficient = .98), we averaged participants' responses to form an experiential (vs. material) rating for each product category.

*Other Measures.* We accounted for a number of other factors that also might influence review helpfulness. First, given that review helpfulness differs between hedonic products (those purchased primarily for pleasure and fun) and utilitarian products (those purchased primarily out of necessity and for practical functions; Chu, Roh, and Park 2015; Moore 2015; Sen and Lerman 2007), we also asked the product survey participants to rate the extent to which products in each category were utilitarian or hedonic (1 =

"purely utilitarian," 9 = "purely hedonic"). Participants' responses were averaged to form a *hedonic rating* for each product category (intraclass correlation coefficient = .99).

Second, because people might care more about their experiential purchases than their material purchases (Nicolao et al. 2009), which could influence their reliance on reviews, we also asked the product survey participants to rate how much they would care about their purchase decision when shopping for a product in each of the 26 categories (1 = "not at all," 7 = "very much"). Participants' responses were averaged to form a *caring rating* for each product category (intraclass correlation coefficient = .94).

Following past research (Mudambi and Schuff 2010; Yin et al. 2014, 2017; Forman et al. 2008), we compiled a number of other review characteristics that could influence review helpfulness. Specifically, for each review, we included the number of words in the text (review length), the number of words in the title (title length), the star rating given (star rating), the number of days between its posting and the final date of data collection, March 4, 2013 (review age), and the total number of reviews the product in question had (including reviews with zero total votes and those with at least one total vote; review availability).

Table 1, panel A, displays descriptive statistics for each product category in terms of experiential (vs. material) rating, review helpfulness, and other aforementioned measures. Table 1, panel B, displays the summary statistics of and correlations between these measures.

## Results

As a first pass, we conducted a category-level analysis by calculating the average proportion of helpful votes across all reviews within a given product category (figure 1).

In general, shoppers voted reviews as helpful: on average across all purchase categories, Amazon reviews were identified as helpful by 69% of shoppers who voted. The highest percentage of helpful votes was in the jewelry category (86%), and the lowest percentage was in the movies and TV shows category (59%), which was still the majority of shoppers who voted. More importantly, consistent with our hypothesis, the experiential rating of a product category was negatively correlated with the percentage of helpful votes that reviews in this product category received ( $r = -.69, p < .0001; N = 26$ ). This suggests that the more experiential the product category, the less likely shoppers were to view the consumer reviews as helpful.

For a more precise analysis, we next turned to Ordinary Least Squares (OLS) regressions at the review level, with review helpfulness as the dependent variable. Similar to prior work that analyzed the helpfulness of Amazon

**TABLE 1**  
**AMAZON CONSUMER REVIEW DATA DESCRIPTIVE STATISTICS (STUDY 1)**

PANEL A: SUMMARY STATISTICS ACROSS PRODUCT CATEGORIES											
Product category (descriptions used in our survey)	Experiential rating (1–9)	Review helpfulness (proportion of helpful votes)	Hedonic rating (1–9)	Caring rating (1–7)	Review length (words)	Title length (words)	Star rating (1–5)	Review age (in days)	Review availability (number of reviews per product)	Number of reviews	Number of products
Shoes	2.57	77.16%	3.78	5.29	76.89	3.82	4.01	899.03	15.49	103,048	16,131
Watches	2.58	79.09%	4.75	4.48	95.20	4.00	3.94	1080.63	10.33	16,276	3,046
Office products	2.62	80.19%	2.68	4.00	91.16	4.26	3.81	964.99	10.34	36,736	6,503
Jewelry	2.72	85.75%	7.34	4.57	59.46	3.37	4.01	1180.35	5.06	15,291	5,710
Electronics	2.84	75.61%	4.08	5.38	112.62	4.48	3.68	1169.31	17.45	286,203	33,817
Home and kitchen products (house- wares, furnishings, accessories)	2.89	82.59%	3.01	4.82	101.34	4.18	3.76	992.87	15.69	313,685	35,210
Automotive (parts, accessories, tools, or equipment)	2.95	78.79%	2.61	4.61	87.13	4.18	3.86	838.97	6.40	61,218	17,563
Pet supplies	3.02	83.35%	2.89	4.51	108.38	4.38	3.79	867.88	16.58	76,192	9,653
Patio, lawn, and gar- den products	3.15	82.57%	3.95	4.13	99.60	4.14	3.82	931.41	10.74	48,355	7,862
Baby products	3.26	78.64%	2.61	4.33	118.95	4.44	3.67	1040.25	30.44	32,944	2,950
Tools and home improvement	3.73	79.01%	2.61	4.66	101.67	4.26	3.82	930.73	8.94	113,799	21,707
Scientific, lab, and industrial supplies	3.75	73.53%	2.87	4.06	54.00	4.55	4.44	703.66	5.94	42,471	11,757
Beauty products	3.88	79.27%	6.15	4.16	86.96	3.99	3.91	887.32	11.12	87,684	14,853
Clothing and accessories	3.89	79.39%	5.72	6.09	78.65	3.93	3.88	892.01	12.40	156,288	27,315
Health and personal care	4.66	78.97%	3.50	5.28	93.38	4.11	3.88	872.29	12.69	159,564	21,346
Grocery and gour- met foods	4.74	78.87%	3.92	5.46	81.06	4.14	4.01	981.17	8.02	56,084	12,112
Books	4.95	67.34%	5.72	5.14	164.85	4.76	3.99	982.65	6.97	2,220,093	374,686
Musical instruments	4.95	79.34%	6.27	4.49	105.76	4.23	4.03	889.79	9.90	30,174	7,302
Toys and board games	5.05	80.51%	7.32	4.32	91.21	4.25	3.87	1049.11	8.77	88,300	20,525
Software	5.18	72.79%	4.88	5.30	116.68	4.64	3.20	1372.30	6.87	11,050	2,407
Arts, crafts, and sewing	5.20	84.23%	5.80	3.86	88.93	3.93	3.97	790.51	7.19	9,866	2,080
Sports and outdoors	5.78	79.29%	5.82	4.52	100.87	4.09	3.92	929.90	10.38	140,771	24,015
Video games	5.93	60.15%	7.90	5.28	147.97	4.65	3.59	1237.53	12.99	56,681	8,532
Music	6.64	69.78%	7.38	5.08	156.15	4.78	4.23	1144.76	4.99	503,410	170,374
Movies and TV shows	6.70	58.91%	7.87	5.36	153.68	4.76	3.92	975.10	20.91	1,612,171	122,120
Videos for streaming	7.12	59.66%	7.90	4.92	161.61	4.83	3.70	915.30	19.68	230,220	18,269
All	4.26	68.58%	4.97	4.77	141.18	4.60	3.93	989.15	11.22	6,508,574	997,845

NOTE.—In Table 1, Panel A, for experiential, hedonic, and caring ratings that were originally collected at the category level, the last row reports the mean value across 26 product categories. For review availability that was originally collected at the product level, the last row reports the mean value across all products. For variables that were originally collected at the review level (including review helpfulness, review length, title length, star rating, and review age), the last row reports the mean value across all reviews in the data. For the number of reviews and products, the last row reports the total number of reviews and products in the data. In Table 1, Panel A, product categories are ordered by experiential ratings (1 = “purely material,” 9 = “purely experiential”).

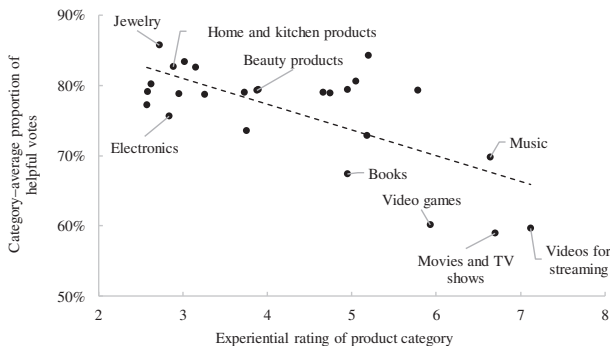
TABLE 1 (CONTINUED)

PANEL B: SUMMARY STATISTICS OF AND CORRELATIONS AMONG MEASURES										
	Mean	SD	1	2	3	4	5	6	7	8
1. Experiential rating	5.22	1.36								
2. Review helpfulness	68.58%	39.26%	-.1657*							
3. Hedonic rating	6.02	1.65	.9184*	-.1656*						
4. Caring rating	5.12	.34	.3052*	-.0967*	.3685*					
5. Review length (words)	141.18	187.65	.0998*	.1259*	.0951*	.0503*				
6. Title length (words)	4.60	2.96	.0633*	.0730*	.0579*	.0277*	.2814*			
7. Star rating	3.93	1.42	.0321*	.2681*	.0260*	.0012*	.0016*	-.0246*		
8. Review age (in days)	989.15	536.75	.0124*	.0352*	.0280*	.0258*	.0326*	.0284*	.0413*	
9. Review availability	163.40	375.58	.0044*	-.0667*	.0179*	.0681*	-.0035*	-.0033*	-.0244*	-.0612*

NOTE.— Table 1, Panel B, reports the summary statistics of and raw correlation among the independent measure, dependent measure, and covariates at the review level (without clustering standard errors). \* $p < .05$ .

FIGURE 1

CATEGORY-AVERAGE PROPORTION OF HELPFUL VOTES AS A FUNCTION OF PRODUCTS' EXPERIENTIAL RATINGS (STUDY 1)



reviews (Forman et al. 2008), we relied on the following OLS regression specification:

$$Review\ helpfulness_{ijk} = \alpha_0 + \beta(experiential\ rating_k) + \Omega'X_{ijk} + \varepsilon_{ijk}$$

where  $i$  indexes the review,  $j$  indexes the product,  $k$  indexes the product category,  $X_{ijk}$  is the vector of control variables, and  $\varepsilon_{ijk}$  is the error term. Since more than 40% of the products had more than one review in our final data and the error terms are not independent among consumer reviews for the same product, we clustered standard errors at the product level.

We began with a regression that did not include any control variables and simply used experiential rating to predict review helpfulness. The results of this basic model supported our prediction and are reported in model 1 in table 2. Reviews for more experiential purchases were less likely to be rated as helpful than reviews for less

experiential purchases ( $B = -.0480$ ,  $SE = .0004$ ,  $p < .001$ ). More specifically, a one-point increase in the experiential rating on the nine-point Likert scale was associated with an average 4.8 percentage-point decrease in the proportion of people who found a review helpful.

Next, we ran a full model including the control variables. Again, consistent with our hypothesis, the relationship between experiential rating and review helpfulness remained negative and significant ( $B = -.0368$ ,  $SE = .0009$ ,  $p < .001$ ; model 2 in table 2). Specifically, a one-point increase in the experiential rating was associated with an average 3.7 percentage-point decrease in the proportion of people who found a review helpful. Though the various control variables could not fully explain the effect of experiential (vs. material) purchases on review helpfulness, the regression results (model 2 in table 2) did support past research in showing that reviews for more hedonic products were viewed as less helpful ( $B = -.0131$ ,  $SE = .0007$ ,  $p < .001$ ; Sen and Lerman 2007).

**Robustness Checks.** The results of the OLS regressions (models 1 and 2 in table 2) remained unchanged in terms of magnitude and statistical significance irrespective of whether we (1) clustered standard errors at the product category level, (2) estimated standard errors without clustering, (3) omitted the 31 reviews for which helpful votes exceeded total votes, or (4) used Tobit regression models (Mudambi and Schuff 2010; Yin et al. 2014).

We also modeled helpful votes as an alternative dependent variable and controlled for total votes (Yin et al. 2017) using various regression specifications. Because most reviews in our sample received few helpful votes and a small number of reviews received thousands of helpful votes, the alternative dependent measure, helpful votes (mean = 3.05, variance = 538.28), exhibited overdispersion (overdispersion parameter = 1.35,  $p < .0001$  for the log-likelihood ratio test of the null hypothesis that the overdispersion parameter equals zero). Therefore, we ran standard negative binomial regression models (instead of

**TABLE 2**  
REVIEW HELPFULNESS OF AMAZON REVIEWS AS A  
FUNCTION OF PRODUCTS' EXPERIENTIAL RATINGS  
(STUDY 1)

Dependent variable	Review helpfulness measured by proportion of helpful votes (0%–100%)		Review helpfulness measured by number of helpful votes	
	Model 1	Model 2	Model 3 <sup>a</sup>	Model 4 <sup>a</sup>
<i>Predictor variables</i>				
Experiential rating	-.0480 <sup>b</sup> (.0004)	-.0368 <sup>b</sup> (.0009)	-.0654 <sup>b</sup> (.0009)	-.0294 <sup>b</sup> (.0024)
Hedonic rating		-.0131 <sup>b</sup> (.0007)		-.0401 <sup>b</sup> (.0018)
Caring rating		-.0488 <sup>b</sup> (.0014)		-.0739 <sup>b</sup> (.0037)
Review length		.0003 <sup>b</sup> (2.06e-06)		.0006 <sup>b</sup> (4.80e-06)
Title length		.0073 <sup>b</sup> (.0001)		.0169 <sup>b</sup> (.0001)
Star rating		.0756 <sup>b</sup> (.0008)		.0599 <sup>b</sup> (.0022)
Review age		1.40e-05 <sup>b</sup> (1.28e-06)		.0002 <sup>b</sup> (3.56e-06)
Review availability		-5.63e-05 <sup>b</sup> (1.29e-05)		-5.92e-05 (4.03e-05)
Number of total votes			.1019 <sup>b</sup> (.0004)	.0986 <sup>b</sup> (.0004)
Observations	6,508,574	6,508,574	6,487,944	6,487,944
$F^2$ or pseudo $F^2$	.03	.14	.16	.18
Model specification	OLS		Negative binomial regression	

<sup>a</sup>These models exclude reviews whose total votes are more than three standard deviations above the mean (because including these reviews with rarely large total votes would cause the models to fail to converge).

<sup>b</sup>Indicates significance at the .1% level. Standard errors are clustered at the product level and are reported in parentheses.

Poisson regressions). To reduce computational complexity, we excluded consumer reviews whose total votes were more than three standard deviations above the mean (i.e., more than 80 votes), which accounted for .3% of all reviews in the final dataset.<sup>1</sup> Models 3 and 4 in [table 2](#) report the results of the negative binomial regressions, indicating that reviews for more experiential purchases received fewer helpful votes. Specifically, a one-point increase in the experiential rating on the nine-point Likert scale was associated with a decrease in the number of helpful votes by 6.33% (based on model 3; i.e.,  $[e^{-.0654} - 1] \times 100\%$ ) or 2.90% (based on model 4; i.e.,  $[e^{-.0294} - 1] \times 100\%$ ). We observed the same patterns when we used (1) zero-inflated negative binomial regressions, (2) Tobit models with the left limit of the dependent variable set equal to

1 When all reviews in our final dataset were included, the negative binomial regression models were unable to converge. A careful examination suggested that the rare large values of helpful votes (maximum = 32,208, mean = 3.05) and total votes (maximum = 32,506, mean = 4.75) were responsible.

zero, and (3) OLS regressions with either helpful votes or the log-transformed helpful votes as the dependent variable ([web appendix B](#)).

## Discussion

Study 1 examined helpful votes provided by thousands of actual Amazon shoppers for millions of real consumer reviews. Although reviews were generally identified as helpful across purchase categories, consistent with our hypothesis, people were less likely to identify consumer reviews as helpful for products deemed more experiential. The results were robust to different model specifications and data inclusion criteria.

Despite this study's tremendous external validity, it has several limitations that we sought to address in the subsequent experiments. First, the context of Amazon reviews excludes the highly experiential purchases (e.g., restaurant meals, event tickets, and vacations) that people typically think of and that the literature comparing experiential and material purchases has often examined. Even though there was high variation in experiential ratings across Amazon's 26 product categories (ranging from 2.57 to 7.12), 14 of the categories were rated as clearly material (significantly below the scale midpoint), whereas only five of the categories were rated as clearly experiential (significantly above the scale midpoint). Thus, to include experiences such as dining out and vacations, all of the remaining studies examined prototypical experiential and material purchases. In particular, study 3 asked participants about an experiential (or material) purchase they planned to make, which allowed us to test our hypotheses across a broad range of purchases—including the highly experiential purchases that fill popular websites (e.g., Yelp and TripAdvisor).

Second, because it is impossible to know the number of shoppers who read a review but did not provide a helpful or unhelpful vote, we could not assess the true proportion of readers who found a review helpful conditional on reading the review. Notably, these results therefore reflect the relationship between how experiential a purchase was and the likelihood that shoppers gave a helpful vote conditional on rating a review (as opposed to reading a review). In the remaining studies, we use a variety of dependent measures that more precisely capture the extent to which shoppers find the reviews they read helpful and rely on the reviews in their decision-making.

Another limitation of this archival field study is that despite controlling for a number of alternative accounts, due to the correlational nature of this data we were not able to establish a causal relationship between purchase type and review helpfulness. We thus conducted the subsequent experiments to test the causal effect of experiential (vs. material) purchases on people's reliance on consumer reviews.



## STUDY 2: INFLUENCE OF CONSUMER REVIEWS ON CHOICE

Study 2 experimentally tested whether people rely less on consumer reviews for experiential purchases than for material purchases. We assessed reliance on consumer reviews by testing the influence of reviews among participants deciding between two experiential or two material purchase options. We randomly varied which option within each choice pair received a positive or negative review, and predicted that participants deciding between the experiential options would be less swayed to choose the positively reviewed option compared to participants deciding between the material options. To make this a real choice, we entered participants into a drawing, and winners received their chosen option.

### Method

**Participants.** We recruited 212 university students to complete this study. Since this research focuses on people who are in the process of choosing what to buy, nine participants who had previously consumed the products were excluded from the analysis. Our analysis focuses on the remaining 203 participants (50% female,  $M_{\text{age}} = 20.4$ ).

**Purchase Type Manipulation.** In this between-subjects study, participants were presented with either two options of cooking classes (experiential condition) or two options of espresso machines (material condition) and asked to choose which they would prefer. They were informed that one in every 100 participants would be randomly selected to receive their chosen option. All options were valued at \$95–\$100.

These purchases were selected based on a pretest ( $N = 172$ ) showing that cooking classes and espresso machines differed in how experiential (vs. material) they were (1 = “purely material,” 9 = “purely experiential”;  $M_{\text{cooking\_class}} = 6.44$ ,  $SD = 1.89$  vs.  $M_{\text{espresso\_machine}} = 4.42$ ,  $SD = 2.30$ ;  $t(102) = 4.89$ ,  $p < .0001$ ), but not in participants’ caring, desire, or knowledge of these purchases (all  $ps > .33$ ).<sup>2</sup> Furthermore, study 1 found that material-experiential ratings were positively correlated with utilitarian-hedonic ratings (with experiences being viewed as more hedonic) and that review helpfulness differed between hedonic and utilitarian products (as in past research; Chu et al. 2015; Moore 2015; Sen and Lerman 2007). Given these observations, we addressed the possibility that the hedonic (vs. utilitarian) nature of the purchases might explain the effect of experiential (vs. material) purchase type by selecting a pair of purchases in which the

experiential purchase was not more hedonic than the material purchase. A separate pretest ( $N = 80$ ) showed that a cooking class was, in fact, viewed as *less* hedonic than an espresso machine (1 = “purely utilitarian,” 9 = “purely hedonic”;  $M_{\text{cooking\_class}} = 4.82$ ,  $SD = 1.47$  vs.  $M_{\text{espresso\_machine}} = 6.41$ ,  $SD = 2.12$ ;  $t(78) = 3.89$ ,  $p = .0002$ ).

In the main study, for each of the two options, we presented participants with a picture and product description (46–48 words, adapted from its online product information), along with one consumer review. The two options within each choice pair were presented side-by-side, with the order randomized. See appendix A for the study stimuli.

**Consumer Review Manipulation.** Within each choice pair, we randomly assigned a positive 5-star review to one option and a more negative 3-star review to the other option, thereby counterbalancing which option received the positive or negative review. These reviews were adapted from real 5- and 3-star online consumer reviews for cooking classes on Yelp and for espresso machines on Amazon. We ensured that all reviews had the same length (83–85 words), and all reviews of the same valence had the same structure (see appendix A). For example, positive 5-star reviews in each condition had eight sentences, beginning with the sentence “This is the best cooking class I have taken [espresso machine I have owned],” and concluding with the sentence “I would never have thought I could do it so easily!”

A pretest ( $N = 120$ ) confirmed that for both the cooking classes and espresso machines, the positive reviews were viewed as significantly more positive than the negative reviews ( $-3 =$  “very negative,”  $3 =$  “very positive”;  $M_{5\text{-star cooking class}} = 2.62$ ,  $SD = .93$  vs.  $M_{3\text{-star cooking class}} = .38$ ,  $SD = 1.07$ ;  $t(60) = 16.88$ ,  $p < .0001$ ;  $M_{5\text{-star espresso machine}} = 2.49$ ,  $SD = 1.15$  vs.  $M_{3\text{-star espresso machine}} = .37$ ,  $SD = 1.16$ ;  $t(58) = 13.90$ ,  $p < .0001$ ). Also, within each pair of options, the reviews were seen as significantly favoring the option with the positive review over the option with the negative review ( $-3 =$  “the reviews definitely favor Option A,”  $3 =$  “the reviews definitely favor Option B”;  $M_{\text{cooking class}} = 2.39$ ,  $SD = 1.05$  vs. the scale midpoint of 0;  $t(60) = 17.75$ ,  $p < .0001$ ;  $M_{\text{espresso machine}} = 2.25$ ,  $SD = 1.31$  vs. the scale midpoint of 0;  $t(58) = 13.24$ ,  $p < .0001$ ). Importantly, there were no significant differences between the cooking classes and espresso machines in terms of the positivity of the positive reviews, the negativity of the negative reviews, or the extent to which the reviews favored the option with the positive review over the option with the negative review (all  $ps > .49$ ). See web appendix C for the results of all study 2 pretests and the procedure for generating consumer reviews.

**Reliance on Consumer Reviews.** Participants chose one option from the two presented to them. The dependent measure was whether a participant chose the option with

<sup>2</sup> Pretest participants were presented with three purchases randomly selected from 10 purchases.

the positive review over the option with the negative review. This measure thereby assessed whether participants relied on the consumer reviews to make their choice.

**Manipulation Check.** Participants rated the extent to which a cooking class [an espresso machine] is a material or experiential purchase (1 = “purely material,” 9 = “purely experiential”).

**Other Measures.** Participants indicated whether they had previously heard of or visited either of the cooking schools (or had used either of the brands of espresso machine), and rated how knowledgeable they were about cooking classes (or espresso machines; 1 = “not at all knowledgeable,” 7 = “very knowledgeable”).

## Results and Discussion

**Manipulation Check.** The manipulation check confirmed that a cooking class is viewed as more experiential ( $M = 6.08$ ,  $SD = 1.75$ ) than an espresso machine ( $M = 4.85$ ,  $SD = 2.02$ ;  $t(201) = 4.62$ ,  $p < .0001$ ,  $d = .65$ ).

**Reliance on Consumer Reviews.** Participants in the experiential condition were less likely to choose the option with the positive review (66.34%) than those in the material condition (79.41%;  $\chi^2(1) = 4.39$ ,  $p = .036^3$ ). This suggests that though many participants relied on the consumer reviews when deciding on an experiential purchase, even more did when deciding on a material purchase. There was not a significant difference in participants' knowledge about these purchases ( $M_{\text{experiential}} = 2.33$ ,  $SD = 1.33$  vs.  $M_{\text{material}} = 2.38$ ,  $SD = 1.50$ ;  $t(201) = .28$ ,  $p = .78$ ,  $d = .04$ ).

One potential alternative explanation for this study's results is that the product information revealed more differences between the two cooking class options than between the two espresso machine options. With more product information to distinguish between the experiential options, people would not need to rely as much on the consumer reviews to make their selection in the experiential condition as in the material condition. However, this did not seem to be the case based on a pretest we conducted. In a within-subjects pretest ( $N = 30$ ), we presented participants with the same names, pictures, and product descriptions (without a consumer review) for each pair of options in random order, and asked participants to indicate which of the two options they would be more likely to choose. We found that the relative preferences for the two options did not differ between the two purchase types ( $M_{\text{experiential}} = 4.80$ ,  $SD = 1.69$  vs.  $M_{\text{material}} = 4.77$ ,  $SD = 1.87$ ;  $t(29) =$

$.07$ ,  $p = .94$ ).<sup>4</sup> Thus, the observed difference in reliance on consumer reviews in the main study was unlikely driven by variations in the provided product information.

Study 2 leveraged random assignment through an experimental design and corroborated the results of study 1's field data. Using a behavioral measure for reliance on consumer reviews and an incentive-compatible design, study 2 provided further evidence that people rely less on consumer reviews when making an experiential purchase than when making a material purchase.

We conducted two additional experiments that manipulated participants' focus on the experiential or material aspects of the same purchase (a sleeping bag in [web appendix D](#) and a mattress in [web appendix E](#)). Similar to [Carter and Gilovich \(2010; study 6\)](#), this approach is based on the insight that many purchases have both experiential and material attributes (e.g., a mattress is a material possession that offers the experience of a good night's sleep). The results indicated that participants relied less on consumer reviews in the experiential conditions than in the material conditions. With all aspects of the purchase held constant other than its experiential or material nature, these studies provide a conservative conceptual replication of the effect observed in study 2.

The next study again tests for the effect of experiential (vs. material) purchase type on review reliance, but in the context of real consumer reviews for purchases that participants actually plan to make. Further, the next study explores the psychological underpinnings for the effect.

## STUDY 3: THE ROLE OF QUALITY ASSESSMENT BELIEFS

Study 3 sought to conceptually replicate the effect observed in study 2 across a broad array of actual planned purchases by asking participants to describe either an experiential or material purchase they intended to make in the coming year. To further enhance realism, participants then searched online for and read real consumer reviews about their purchase, and reported the usefulness of these reviews for their purchase decision. Finally, this study tested the proposed mechanism by asking participants to report the extent to which the reviews reflected the previous consumers' assessments of the purchase's objective quality.

3 We conducted a logit regression to predict whether participants chose the option with a positive review as a function of the experiential (vs. material) manipulation. The binary indicator for the experiential condition had an odds ratio of 0.51 ( $SE = 0.16$ ,  $p = 0.038$ ), which can be translated into a Cohen's  $d$  of  $-.37$ .

4 This pretest (described in detail in [web appendix C](#)) additionally confirmed that the pair of cooking classes and the pair of espresso machines did not significantly differ in terms of (1) how much participants desired each pair of options ( $p = .57$ ), (2) how much participants cared about choosing between the two options within the pair ( $p = .82$ ), and (3) how familiar participants were with each option ( $ps$  for all pairwise comparisons  $> .14$ ).

## Method

**Participants.** A total of 301 participants (54% female;  $M_{\text{age}} = 36.7$ , 2 unspecified) recruited through MTurk completed this study in exchange for \$1.00.

**Purchase Type Manipulation.** In this between-subjects study, participants were randomly assigned to specify either an experiential or material purchase that cost at least \$50, which they planned to make in the coming year. Participants in the experiential condition were instructed to think of a purchase that “involves spending money with the primary intention of acquiring a life experience—an event or series of events that you personally will encounter or live through.” Participants in the material condition were instructed to think of a purchase that “involves spending money with the primary intention of acquiring a material possession—a tangible object that you obtain and keep in your possession” (adapted from Van Boven and Gilovich 2003). To control for the possibility that experiential purchases may be more hedonic or have fewer reviews available than material purchases, we additionally instructed participants in both conditions to list a fun and enjoyable purchase that had online consumer reviews available.

**Reliance on Consumer Reviews.** Participants were then instructed to search for and read five online reviews written by other consumers about the purchase they had specified. They were told that they could look for consumer reviews anywhere online and were asked to copy the five reviews they read into the survey. Importantly, participants spent a similar amount of time searching for and reading reviews between the experiential ( $M = 245.49$  seconds,  $SD = 148.06$ ) and material conditions ( $M = 267.28$  seconds,  $SD = 184.21$ ;  $t(299) = 1.11$ ,  $p = .27$ ,  $d = .13$ ), suggesting that it was not harder for participants to find reviews for one purchase type than the other. For the consumer reviews they read, participants reported how helpful the reviews were (1 = “not at all,” 7 = “extremely”), how useful the reviews were (1 = “not at all,” 7 = “extremely”), and how much they would rely on these consumer reviews for their purchase decision (1 = “not at all,” 7 = “very much”). These three items were averaged to serve as the primary dependent variable: reliance on consumer reviews ( $\alpha = .93$ ).

**Quality Assessment Beliefs.** To test the proposed mechanism, on the next page, we asked participants to indicate the extent to which the reviews they read reflected other consumers’ objective assessments of the purchase’s quality (1 = “not at all,” 7 = “a great deal”), which was adapted from Spiller and Belogolova (2017).

**Manipulation Check.** Participants rated the extent to which their planned purchase was material or experiential (1 = “purely material,” 9 = “purely experiential”).

**Other Measures.** Participants listed the website(s) on which they found the consumer reviews. For controls, we

also asked participants to indicate the number of different options their five reviews covered, as well as to rate how much they cared about their purchase decision, how important the purchase was to them, and how engaged they were in this purchase decision (1 = “not at all,” 7 = “very much”). These last three items were averaged to create a measure of *purchase importance* ( $\alpha = .82$ ). Finally, participants rated how knowledgeable they were about the purchase (1 = “not at all,” 7 = “very much”) and indicated how much money they would spend on the purchase. See [web appendix F](#) for the complete measures.

## Results

**Manipulation Check.** Participants listed a wide range of hedonic experiential purchases (e.g., dinner at a restaurant, vacations, and event tickets) and hedonic material purchases (e.g., home accessories, fun clothing items, and electronic gadgets). Participants in the experiential condition rated their planned purchase as more experiential ( $M = 7.81$ ,  $SD = 1.68$ ) than participants in the material condition ( $M = 3.36$ ,  $SD = 2.29$ ;  $t(299) = 18.86$ ,  $p < .0001$ ,  $d = 2.19$ ).

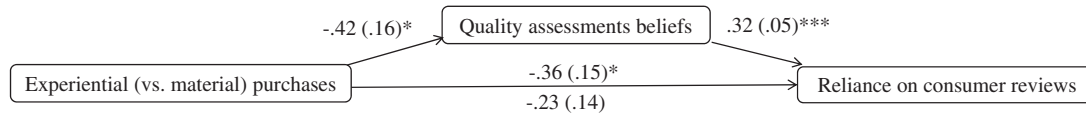
**Reliance on Consumer Reviews.** Participants largely found reviews on popular websites such as Yelp, TripAdvisor, Amazon, and Best Buy. On average, participants rated the reviews they read to be somewhat useful ( $M = 5.64$ ,  $p < .0001$  vs. the midpoint of 4); however, they found the consumer reviews for experiential purchases ( $M = 5.44$ ,  $SD = 1.39$ ) to be less useful than those for material purchases ( $M = 5.80$ ,  $SD = 1.15$ ;  $t(299) = 2.49$ ,  $p = .01$ ,  $d = .29$ ).

**Mediation by Quality Assessment Beliefs.** To test the proposed mechanism, we examined the role of quality assessment beliefs. As predicted, compared to material purchases ( $M = 5.28$ ,  $SD = 1.40$ ), participants perceived that reviews of an experiential purchase reflected quality assessments to a lesser degree ( $M = 4.86$ ,  $SD = 1.41$ ;  $t(299) = 2.57$ ,  $p = .01$ ,  $d = .30$ ). Moreover, a 5,000-sample bootstrap analysis (model 4 in Hayes 2013) estimated an indirect effect of purchase type on reliance on reviews via quality assessment beliefs as  $-.13$  ( $SE = .06$ ), and the 95% bias-corrected confidence interval (CI) of the indirect effect did not include zero ( $[-.26, -.04]$ ). Thus, quality assessment beliefs mediated the influence of purchase type on review reliance ([figure 2](#)).

**Other Measures.** The results indicated no significant differences between experiential and material purchases in the number of options discussed by the reviews participants read ( $M_{\text{experiential}} = 1.49$ ,  $SD = 1.05$  vs.  $M_{\text{material}} = 1.46$ ,  $SD = 1.09$ ;  $t(292) = .23$ ,  $p = .81$ ,  $d = .03$ ), purchase importance ( $M_{\text{experiential}} = 6.03$ ,  $SD = .96$  vs.  $M_{\text{material}} = 5.90$ ,  $SD = .97$ ;  $t(299) = 1.20$ ,  $p = .23$ ,  $d = .14$ ), purchase knowledge ( $M_{\text{experiential}} = 5.41$ ,  $SD = 1.27$  vs.  $M_{\text{material}} = 5.43$ ,  $SD = 1.24$ ;  $t(299) = .18$ ,  $p = .86$ ,  $d = .02$ ), or log-transformed

FIGURE 2

THE EFFECT OF EXPERIENTIAL (VS. MATERIAL) PURCHASE TYPE ON REVIEW RELIANCE IS MEDIATED BY QUALITY ASSESSMENT BELIEFS (STUDY 3)



NOTE.—Unstandardized regression coefficients are shown, and standard errors are presented in parentheses. The coefficient above the path from purchase type to reliance on consumer reviews represents the total effect without the mediator in the model; the coefficient below the path represents the direct effect when the mediator was included in the model. Coefficients significantly different from zero are indicated by asterisks (\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ ).

expected cost ( $M_{\text{experiential}} = 5.33$ ,  $SD = 1.21$  vs.  $M_{\text{material}} = 5.29$ ,  $SD = 1.04$ ;  $t(298) = .26$ ,  $p = .80$ ,  $d = .03$ ).<sup>5</sup> Furthermore, when we included all of these measures in a multi-mediator model (model 4 in Hayes 2013) along with quality assessment beliefs, quality assessment beliefs was the only significant mediator (indirect effect =  $-.11$ ,  $SE = .05$ , 95%  $CI = [-.24, -.03]$ ).

## Discussion

Amongst an array of experiential and material purchases that had consumer reviews readily available, people found the reviews they read to be less useful for experiential purchases than for material purchases. Indeed, people viewed assessments of experiential purchases to be less a matter of quality than material purchases, which drove the effect. This study explored a number of potential alternative explanations, none of which gained supportive evidence. Overall, study 3's results provide initial evidence that quality assessment beliefs play a unique role in the influence of purchase type on the extent to which people rely on consumer reviews. Though having participants search for and read online consumer reviews for purchases they were actually planning to make provided external validity, we sought to conceptually replicate these findings using more tightly controlled stimuli in the next study.

## STUDY 4: CONTROLLING REVIEW CONTENT, ANOTHER TEST OF MECHANISM

The objective of study 4 was to provide further evidence that quality assessment beliefs are responsible for the difference in review reliance between experiential and material purchases. Study 4 built on the previous studies in two

ways. First, like study 2, study 4 involved an incentive-compatible design, but used a new behavioral measure for reliance on consumer reviews: whether participants changed their mind after reading a negative review about their initial choice. Second, in addition to using a pair of experiential and material purchases that were in the same hedonic consumption domain (ice cream), study 4 presented all participants with a virtually identical consumer review. Not only did this ensure a high degree of experimental control, but it allowed us to test whether people *perceive* assessments written in consumer reviews for experiential purchases as less reflective of the purchase's objective quality than those for material purchases and, consequently, rely less on reviews for experiential purchases.

## Method

**Participants.** We recruited 238 participants from a university's subject pool that included students and community members. Given that this research focuses on people who are in the process of choosing what to buy, as in study 2, we excluded from the analysis 19 participants who had previously consumed the products. In addition, one participant who reported not being able to view the stimuli in the online survey was excluded from the analysis. The final sample included 218 participants (67% female, 3 unspecified;  $M_{\text{age}} = 23.6$ , 1 unspecified).

**Purchase Type Manipulation.** In this between-subjects study, participants were presented with either two options of nearby ice cream shops (experiential condition) or two options of ice cream makers that could be shipped to them for free (material condition) and asked to choose the option they would prefer. They were informed that one in every 100 participants would be randomly selected to receive their chosen option. All options were valued at \$50 (with the prize in the experiential condition being a \$50 gift certificate for the chosen ice cream shop). The two options within each pair were presented side-by-side, with the order randomized. See appendix B for the stimuli.

<sup>5</sup> When asked how many options were discussed in the five reviews they read, seven participants did not write down a valid number; these participants were excluded from the analysis for this question. Also, one participant did not give a valid value for expected cost and was excluded from the analysis involving expected cost.



A pretest ( $N = 54$ ) that presented participants with the same stimuli confirmed that the pair of ice cream shops and the pair of ice cream makers were comparable in the extent to which participants preferred one option over the other. Specifically, 66.67% of participants in the experiential condition and 70.37% of participants in the material condition preferred the same option in the pair over the other ( $\chi^2(1) = .09, p = .77$ ).

**Reliance on Consumer Reviews.** Participants were first asked to choose one of the two presented options, with the understanding that they had a chance of actually receiving their selected option. After participants made their initial selection, they saw a review ostensibly written by another consumer about their selected option. All participants were presented with the same slightly negative review: “When I visited this ice cream shop [used this ice cream maker], I was not very satisfied. I’m not sure I’d recommend it.” Participants were then offered an opportunity to change their mind and select the other option. The dependent measure was whether participants changed their mind and switched to the other option after reading a negative review about their initial choice.

**Quality Assessment Beliefs.** On the next page, participants were instructed to indicate the extent to which the review reflected the consumer’s assessment of the objective quality of the ice cream shop [ice cream maker] (1 = “not at all,” 9 = “a great deal”), adapted from Spiller and Belogolova (2017).

**Manipulation Check.** Participants rated the extent to which a visit to an ice cream shop [an ice cream maker] is material or experiential (1 = “purely material,” 9 = “purely experiential”).

**Other Measures.** Participants next rated how much they cared about their decision, how important the choice was to them, and how engaged they were in this decision (1 = “not at all,” 7 = “very much”). We averaged these three items to create a measure of *purchase importance* ( $\alpha = .88$ ). Participants indicated how knowledgeable they were about ice cream shops [ice cream makers] (1 = “not at all knowledgeable,” 7 = “very knowledgeable”) and whether they had previously heard of or visited [used] either of the ice cream shops [ice cream makers]. In addition, they rated the extent to which a visit to an ice cream shop [an ice cream maker] was hedonic (1 = “purely utilitarian,” 9 = “purely hedonic”). See [web appendix G](#) for the complete measures.

## Results

**Manipulation Check.** Participants viewed a visit to an ice cream shop as more experiential ( $M = 6.21, SD = 1.98$ ) than an ice cream maker ( $M = 5.17, SD = 2.01; t(216) = 3.84, p = .0002, d = .52$ ).

**Reliance on Consumer Reviews.** Participants in the experiential condition were less likely to change their mind (34.95%) after reading the negative review than those in the material condition (52.17%;  $\chi^2(1) = 6.54, p = .01, d = .39^6$ ). This suggests that participants relied less on the consumer review when deciding on an experiential purchase than when deciding on a material purchase.

**Mediation by Quality Assessment Beliefs.** Participants viewed the consumer review to be less reflective of the consumer’s assessment of the option’s objective quality for the experiential purchase ( $M = 4.08, SD = 2.11$ ) than for the material purchase ( $M = 5.03, SD = 1.91; t(216) = 3.52, p = .0005, d = .48$ ). Moreover, a 5,000-sample bootstrap analysis (model 4 in Hayes 2013) estimated an indirect effect of purchase type on reliance on reviews via quality assessment beliefs as  $-.30$  ( $SE = .12$ ), and the 95% bias-corrected CI of the indirect effect did not include zero ( $[-.58, -.12]$ ). These results suggest that quality assessment beliefs mediated the influence of purchase type on review reliance (figure 3).

**Other Measures.** Purchase importance did not differ between conditions ( $M_{\text{experiential}} = 3.56, SD = 1.31$  vs.  $M_{\text{material}} = 3.43, SD = 1.40; t(216) = .74, p = .46, d = .10$ ). We did find that participants were more knowledgeable about ice cream shops compared to ice cream makers ( $M_{\text{experiential}} = 2.87, SD = 1.67$  vs.  $M_{\text{material}} = 1.83, SD = 1.24; t(216) = 5.30, p < .0001, d = .72$ ) and rated a visit to an ice cream shop as more hedonic ( $M_{\text{experiential}} = 7.54, SD = 1.45$  vs.  $M_{\text{material}} = 6.65, SD = 1.77; t(216) = 4.03, p = .0001, d = .55$ ). Notably, however, when we included these items in a multi-mediator model (model 4 in Hayes 2013) along with quality assessment beliefs, quality assessment beliefs was the only significant mediator (indirect effect =  $-.31, SE = .05, 95\% CI = [-.61, -.11]$ ).

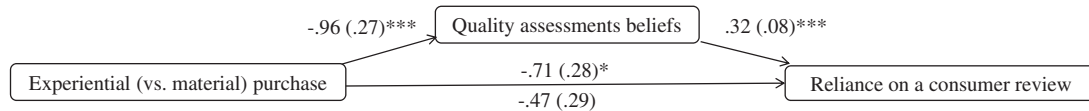
## Discussion

Employing a tightly controlled pair of experiential and material purchases, a new behavioral measure of review reliance, and a virtually identical consumer review across conditions, study 4 showed that people relied less on consumer reviews when making an experiential purchase than when making a material purchase. This effect was driven by people’s view that consumer reviews of experiential purchases are less likely to reflect objective quality than consumer reviews of material purchases. Furthermore, study 4 showed that alternative explanations (knowledge, importance, and the hedonic nature of a purchase) were not

6 We conducted a logit regression to predict whether participants chose the option with a positive review as a function of the experiential (vs. material) manipulation. The binary indicator for the experiential condition had an odds ratio of 0.49 ( $SE = 0.14, p = 0.01$ ), which can be translated into a Cohen’s  $d$  of  $-.39$ .

FIGURE 3

THE EFFECT OF EXPERIENTIAL (VS. MATERIAL) PURCHASE TYPE ON REVIEW RELIANCE IS MEDIATED BY QUALITY ASSESSMENT BELIEFS (STUDY 4)



NOTE.—Unstandardized regression coefficients are shown, and standard errors are presented in parentheses. The coefficient above the path from purchase type to reliance on consumer reviews represents the total effect without the mediator in the model; the coefficient below the path represents the direct effect when the mediator was included in the model. Coefficients significantly different from zero are indicated by asterisks (\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ ). A logistic regression was used to predict reliance on consumer reviews (a binary variable).

responsible for the difference in review reliance between purchase types, thus highlighting the critical role of quality assessment beliefs. In the next study, we sought additional evidence through a test of moderation that quality assessment beliefs are responsible for the influence of purchase type on review reliance.

## STUDY 5: TEST OF MECHANISM THROUGH MODERATION

The objective of study 5 was to provide further evidence for the underlying role of quality assessment beliefs by manipulating whether reviews explicitly contained quality-based assessments. If people believe that assessments of experiential purchases are less based on objective quality and this drives people to rely less on consumer reviews for experiential purchases than material purchases, then the difference in review reliance between purchase types should decrease when a review for an experiential purchase explicitly contains an assessment based on objective quality. This study followed a 2 (purchase type: experiential vs. material)  $\times$  2 (purchase assessment: control vs. quality) between-subjects design.

### Method

**Participants.** A total of 808 participants recruited through MTurk completed this study in exchange for \$.40. As in studies 2 and 4, we excluded from the analysis 36 participants who had previously consumed the products. In addition, 15 participants who reported that they could not view the stimuli in the online study were excluded from the analysis. The final sample included 757 participants (45% female, 3 unspecified;  $M_{\text{age}} = 36.1$ ).

**Purchase Type Manipulation.** Participants were asked to imagine that they were planning to go to an ice cream shop (experiential condition) or buy an ice cream maker (material condition), and that they were deciding between two options of approximately the same price. Using the same stimuli as in study 4 (see appendix B for stimuli), we

presented participants with either two options of ice cream shops or two options of ice cream makers.

**Quality Assessment Manipulation.** Participants were first asked to choose one of the two presented options. After making their initial selection, participants saw a review ostensibly written by another consumer about their selected option. The structure of the review was the same across all conditions, but the review in the quality condition explicitly assessed the objective quality of the option (see appendix B for stimuli).

**Reliance on Consumer Reviews.** After being presented with the slightly negative review, participants were asked whether they would change their mind and choose the other option (1 = “definitely stick to my original choice,” 7 = “definitely switch to the other ice cream shop [ice cream maker]”). The likelihood of being influenced by the review in their final decision served as the dependent measure of review reliance.

**Manipulation Checks.** On the next page, participants were instructed to indicate the extent to which the review they just read reflected the consumer’s assessment of the objective quality of the ice cream shop [ice cream maker] (1 = “not at all,” 9 = “a great deal”), adapted from Spiller and Belogolova (2017). Participants also rated the extent to which a visit to an ice cream shop [an ice cream maker] is material or experiential (1 = “purely material,” 9 = “purely experiential”).

**Other Measures.** We used the same scales and measures as in study 4 to assess purchase importance (three items;  $\alpha = .90$ ), knowledge about ice cream shops [ice cream makers], familiarity with the brands used in the study, and the hedonic nature of the purchase. See web appendix H for the complete measures.

### Results

**Manipulation Checks.** A 2 (purchase type)  $\times$  2 (purchase assessment) ANOVA on the quality assessment

manipulation check revealed a main effect of the quality assessment manipulation ( $M_{\text{quality}} = 6.93$ ,  $SD = 1.67$  vs.  $M_{\text{control}} = 5.50$ ,  $SD = 2.18$ ;  $F(1, 753) = 108.44$ ,  $p < .0001$ ,  $\eta_p^2 = .13$ ), a main effect of purchase type ( $M_{\text{experiential}} = 5.74$ ,  $SD = 2.18$  vs.  $M_{\text{material}} = 6.67$ ,  $SD = 1.85$ ;  $F(1, 753) = 44.35$ ,  $p < .0001$ ,  $\eta_p^2 = .06$ ), and a significant interaction ( $F(1, 753) = 14.34$ ,  $p = .0002$ ,  $\eta_p^2 = .02$ ). Consistent with our theory, participants in the control condition reported that the review of the experiential purchase was based less on quality ( $M = 4.79$ ,  $SD = 2.13$ ) than the review of the material purchase ( $M = 6.22$ ,  $SD = 1.99$ ;  $F(1, 753) = 55.36$ ,  $p < .0001$ ,  $d = .69$ ), and this difference was attenuated in the quality condition ( $M_{\text{experiential}} = 6.74$ ,  $SD = 1.75$  vs.  $M_{\text{material}} = 7.13$ ,  $SD = 1.58$ ;  $F(1, 753) = 4.07$ ,  $p = .04$ ,  $d = .24$ ).

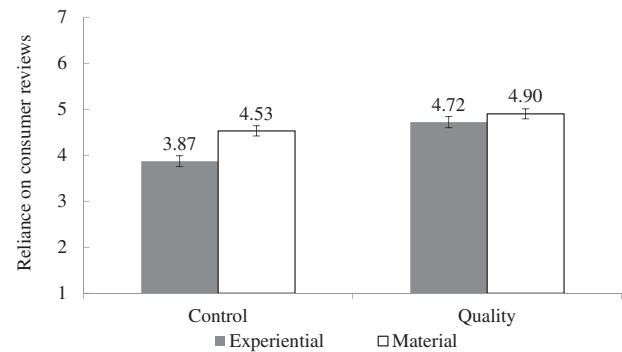
A two-way ANOVA on the experiential-material manipulation check showed only the expected main effect of purchase type ( $M_{\text{experiential}} = 6.54$ ,  $SD = 2.09$  vs.  $M_{\text{material}} = 4.33$ ,  $SD = 2.21$ ;  $F(1, 753) = 200.95$ ,  $p < .0001$ ,  $\eta_p^2 = .21$ ). There was neither a significant main effect of the quality manipulation ( $F(1, 753) = 3.22$ ,  $p = .07$ ,  $\eta_p^2 = .004$ ) nor an interaction ( $F(1, 753) = .14$ ,  $p = .70$ ,  $\eta_p^2 = .0002$ ).

**Reliance on Consumer Reviews.** A two-way ANOVA on review reliance revealed a main effect of purchase type ( $M_{\text{experiential}} = 4.28$ ,  $SD = 1.71$  vs.  $M_{\text{material}} = 4.72$ ,  $SD = 1.47$ ;  $F(1, 753) = 13.72$ ,  $p = .0002$ ,  $\eta_p^2 = .02$ ), a main effect of quality assessment ( $M_{\text{quality}} = 4.81$ ,  $SD = 1.56$  vs.  $M_{\text{control}} = 4.20$ ,  $SD = 1.60$ ;  $F(1, 753) = 28.88$ ,  $p < .0001$ ,  $\eta_p^2 = .04$ ), and the predicted interaction ( $F(1, 753) = 4.31$ ,  $p = .038$ ,  $\eta_p^2 = .01$ ). Specifically, in the control condition, participants relied less on the presented consumer review when making an experiential purchase ( $M = 3.87$ ,  $SD = 1.66$ ) than when making a material purchase ( $M = 4.53$ ,  $SD = 1.47$ ;  $F(1, 753) = 16.95$ ,  $p < .0001$ ,  $d = .42$ ); however, when the review explicitly assessed the option's objective quality, the difference between purchase types was not statistically significant ( $M_{\text{experiential}} = 4.72$ ,  $SD = 1.65$  vs.  $M_{\text{material}} = 4.90$ ,  $SD = 1.46$ ;  $F(1, 753) = 1.31$ ,  $p = .25$ ,  $d = .12$ ; figure 4).

**Other Measures.** A two-way ANOVA shows that purchase type had a main effect on purchase importance ( $M_{\text{experiential}} = 4.39$ ,  $SD = 1.45$  vs.  $M_{\text{material}} = 4.84$ ,  $SD = 1.37$ ;  $F(1, 753) = 19.01$ ,  $p < .0001$ ,  $\eta_p^2 = .02$ ), knowledge ( $M_{\text{experiential}} = 3.86$ ,  $SD = 1.56$  vs.  $M_{\text{material}} = 2.75$ ,  $SD = 1.64$ ;  $F(1, 753) = 91.84$ ,  $p < .0001$ ,  $\eta_p^2 = .11$ ), and hedonic ratings ( $M_{\text{experiential}} = 7.76$ ,  $SD = 1.50$  vs.  $M_{\text{material}} = 6.34$ ,  $SD = 2.19$ ;  $F(1, 753) = 107.36$ ,  $p < .0001$ ,  $\eta_p^2 = .12$ ), and the assessment manipulation influenced importance ( $M_{\text{quality}} = 4.73$ ,  $SD = 1.46$  vs.  $M_{\text{control}} = 4.50$ ,  $SD = 1.39$ ;  $F(1, 753) = 4.49$ ,  $p = .03$ ,  $\eta_p^2 = .006$ ) but not knowledge or hedonic ratings (both  $ps > .27$ ,  $\eta_p^2 < .002$ ). Importantly, there were no significant purchase type  $\times$  assessment interactions on any of these measures (all  $ps > .13$ ,  $\eta_p^2 < .003$ ).

FIGURE 4

SHOPPERS' RELIANCE ON CONSUMER REVIEWS AS A FUNCTION OF PURCHASE TYPE AND ASSESSMENT OF QUALITY (STUDY 5)



Furthermore, when we included these measures as covariates in a two-way ANCOVA model predicting review reliance, the main effect of purchase type ( $F(1, 753) = 5.40$ ,  $p = .02$ ,  $\eta_p^2 = .01$ ), the main effect of quality assessment ( $F(1, 753) = 25.44$ ,  $p < .0001$ ,  $\eta_p^2 = .03$ ), and their interaction ( $F(1, 753) = 6.10$ ,  $p = .01$ ,  $\eta_p^2 = .01$ ) all remained statistically significant.

## Discussion

As observed in our previous studies, study 5 showed that participants were less willing to rely on a consumer review when making an experiential purchase than when making a material purchase. However, when the review explicitly contained an assessment of the option's objective quality, people making an experiential purchase decision were as likely to rely on the review as those deciding on a material purchase. These findings provide further evidence for our hypothesis that beliefs about the extent to which consumer reviews contain assessments of objective quality are responsible for the lower reliance on consumer reviews observed for experiential purchases (relative to material purchases).

## GENERAL DISCUSSION

Online consumer reviews have become a pervasive form of social influence (Chen and Xie 2008). The present research examines whether and why the type of purchase—experiential or material—affects the extent to which people rely on this prevalent source of information in their decision-making.

Across one archival study, four experiments, and two additional replications reported in the web appendix, this research shows that although people often find reviews useful for both experiential and material purchases, they

rely *less* on consumer reviews for experiential purchases than for material purchases. This effect was robust across millions of actual shoppers on Amazon (study 1), people reading real consumer reviews they found online for a purchase they intended to make (study 3), and people making a consequential choice between two purchase options (studies 2 and 4). Across these studies, we observed the difference in review reliance for purchases that were relatively more experiential or material at different points along the material-experiential spectrum, including those closer to the material end (study 1) or the middle or experiential end (studies 2, 4, and 5). In particular, in study 3, the naturally occurring purchases participants intended to make tended to fall on one of the two ends of the material-experiential spectrum, which allows us to replicate our effects with prototypical material and experiential purchases.

This research also offers insight into the effect's underlying mechanism. Specifically, people believe assessments of experiential purchases are less based on objective quality than assessments of material purchases, and this belief undermines people's willingness to rely on other consumers' reviews for their experiential purchase decisions. Studies 3 and 4 provided evidence for this mechanism through mediation analyses, and study 5 provided evidence through moderation. Furthermore, the studies ruled out alternative explanations, such as purchase importance, purchase knowledge, cost, and product desirability, through stimuli selection, study design, and measurement.

## Theoretical and Practical Implications

This research makes important contributions to the literature comparing experiential and material purchases. Whereas the bulk of that literature has compared the downstream consequences of making experiential versus material purchases (Gilovich et al. 2015a), the current findings add to emerging work that tests pre-purchase differences. While this emerging work has identified when and why people might decide to make one type of purchase over the other (Goodman et al. 2016; Goodman and Lim 2018; Kumar et al. 2014; Kumar and Gilovich 2015, 2016; Pchelin and Howell 2014; Tully et al. 2015), our research further contributes by documenting a difference in how people decide which option to buy within each purchase type. Furthermore, by identifying the underlying role of people's beliefs about assessments as based on objective quality, our research adds this variable to the list of perceived differences—such as comparability, interchangeability, personal relevance, feelings of gratitude, and emotional intensity (Carter and Gilovich 2010, 2012; Chan and Mogilner 2017; Rosenzweig and Gilovich 2012; Walker et al. 2016)—that psychologically distinguishes experiential and material purchases.

This research also contributes to the body of research examining people's willingness to rely on consumer reviews

in two ways (Chen and Lurie 2013; de Langhe et al. 2016; Moore 2015; Naylor, Lamberton, and Norton 2011; Yin et al. 2014, 2017). First, our findings reveal the critical role of quality assessment beliefs in affecting review reliance. Second, these findings identify the experiential versus material nature of a purchase as a distinct and novel delineation across product domains that determines reliance on consumer reviews. This categorization is distinct from a product's hedonic versus utilitarian nature, which has also been shown to influence review helpfulness (Chu et al. 2015; Moore 2015; Sen and Lerman 2007). We show that the experiential-material effect persisted when we controlled for the purchase's hedonic (vs. utilitarian) nature (studies 1, 3, 4, and 5), and when the experiential purchase was viewed as *less* hedonic than the material purchase (study 2). This categorization is also distinct from the delineation between search goods and experience goods, which too has been shown to influence the impact of consumer reviews (Mudambi and Schuff 2010; Park and Lee 2009). While the experiential (vs. material) distinction centers on consumers' primary purpose of making a purchase (i.e., gaining an experience vs. acquiring a possession; Van Boven and Gilovich 2003), the search (vs. experience) goods distinction reflects how easily consumers can evaluate a product prior to consumption (Huang, Lurie, and Mitra 2009; Nelson 1970). Not only is the difference between search and experience goods blurred in the online context our research examines (Huang et al. 2009), but we replicated our effect controlling for differences in evaluability by having participants focus on the experiential (vs. material) aspects of the very same purchase (see the replication experiments in [web appendixes D and E](#)). The current research thus suggests a new way of slicing the consumer product landscape to identify the types of products that are more likely to benefit from word of mouth.

In addition, this research contributes to more recent research on quality assessment beliefs (Spiller and Belogolova 2017) by showing that beliefs about quality assessments systematically differ across product domains and affect people's susceptibility to social influence. Our results may also provide new insight into the construct. In Spiller and Belogolova (2017), participants were given the opportunity to justify their choice of option in one of three ways by reporting: a) the chosen option was objectively better than the forgone option, b) their choice was a matter of taste, or c) they did not have enough knowledge to judge. This implies that if people believe a purchase is primarily assessed based on objective quality, it is not based on taste. Interestingly, however, when we asked participants in the pilot study and study 3 to separately rate the extent to which they believed assessments of a purchase are (1) a matter of objective quality and (2) a matter of taste, we did not observe a significant negative correlation between these items. Moreover, though participants believed that assessments of experiential purchases were



more based on taste than material purchases, such beliefs did not significantly predict review reliance (see [web appendixes A and F](#)). We speculate this is because people tend to assume that other consumers share their tastes ([Naylor et al. 2011](#)) and thus may not discount reviews even if reviews contain taste-based assessments. Future research should more systematically examine the relationship between taste and quality assessment beliefs and compare their roles in social influence.

The current research offers a number of practical implications for firms and review websites. For instance, our results suggest that firms should take their product type (experiential vs. material) into account when designing their optimal communication strategy. In an additional experiment ( $N = 243$  MTurk participants, 40% female,  $M_{\text{age}} = 30.6$ ), we found that whereas people relied less on consumer reviews for an experiential purchase (a Broadway show ticket) than a material purchase (a pair of speakers), there was no significant difference in how useful people considered company-provided information ([web appendix I](#)). Noting that people do not discount *all* information more for experiential purchases, firms could leverage these insights to emphasize whichever would be the more persuasive source of information for their products. Further, retailers may be able to dampen the impact of a negative consumer review by highlighting the experiential aspects of their product. In addition, this research advises review websites (particularly those featuring experiential purchases) to address users' doubts about another consumer's evaluation as bearing on their own by helping users identify reviews that provide quality-based judgments or by encouraging review writers to explicitly include quality-based assessments in their reviews.

## Future Directions

These findings may lead readers to wonder about the popularity of websites that feature consumer reviews for experiential purchases. Indeed, websites such as Yelp and TripAdvisor have no shortage of engaged and active users. Importantly, the current findings do not suggest that people do not visit review websites or read reviews for experiential purchases. Rather, this research examined the extent to which people find the reviews they read useful and are influenced by them. More precisely, this research compares the extent to which people rely on consumer reviews for experiential purchases *relative to* material purchases during their decision process. Indeed, in our studies, we observe that people generally consider consumer reviews useful for both experiential and material purchases: the average review reliance was significantly above the scale midpoint for both experiential and material purchases in studies 1, 2, and 3 ( $ps < .002$ ). However, we also observe across all of the studies that people rely *less* on consumer reviews for experiences than for material goods.

Moreover, there are other factors—such as consumers' motivations to write reviews—that might also contribute to the popularity of review websites featuring experiential purchases. Self-enhancement and the desire to converse are two important drivers of individuals' motivation to spread word of mouth ([Lovett, Peres, and Shachar 2013](#)). Since people are judged more positively when talking about their experiential purchases than their material purchases ([Van Boven, Campbell, and Gilovich 2010](#)) and derive greater enjoyment from doing so ([Kumar and Gilovich 2015](#)), people may be more motivated to write and post a review about their recently acquired experience than about their newly acquired possession. Also, consumers are more likely to express gratefulness in their reviews for experiences than for material possessions ([Walker et al. 2016](#)). Future research should systematically explore the extent to which activity on review websites is driven by the motivations of the consumers writing the reviews.

At first glance, the findings documented in this research seem to counter those showing that conversation partners enjoy hearing more about each other's recent experiential purchase than each other's recent material purchase ([Van Boven et al. 2010](#)). Importantly, however, people likely have different motives when reading a review from an anonymous consumer to inform a purchase decision than when meeting someone in person and hearing his or her story about a recent purchase. Whereas people read consumer reviews with the primary intention to use those reviews to predict their own evaluations of a product, people engage in conversation with the primary intention to connect with others. Thus, the reasons people more easily connect with others who tell stories about their experiential purchases ([Van Boven et al. 2010](#))—experiential purchases evoke stronger emotions ([Chan and Mogilner 2017](#)), are less stigmatized as materialistic ([Van Boven et al. 2010](#)), and are more revealing of the storyteller's sense of self ([Carter and Gilovich 2010](#))—are not factors that would obviously contribute to the usefulness of consumer reviews. Still, future research could examine how shoppers' social motives influence their reliance on others' opinions, including those of anonymous online reviewers, in-store sales associates, and friends.

Study 4 showed that even when the review content was exactly the same, people perceived the review to be less reflective of the option's objective quality when the purchase was experiential (vs. material). This suggests that it may not just be the content of the reviews, but rather shoppers' *beliefs* about the basis of other consumers' assessments that underlie the observed effect on review reliance. This poses the interesting question of whether it is appropriate for people to discount the value of consumer reviews for experiential purchases (relative to material purchases). Notably, people's lay beliefs about the alignment between their own preferences and those of a stranger are not always accurate ([Barasz, Kim, and John 2016](#); [Naylor et al. 2011](#)), and

people underestimate the value of knowing others' reactions to an event in predicting their own reactions to that event (Eggleston et al. 2015; Gilbert et al. 2009; Müller-Trede et al. 2018). So, do people underestimate the value of consumer reviews for experiential purchases? An exploratory study that we conducted suggests so (web appendix J). In the study, half of the participants simply read a product review written by another participant who had tried the product (a bag of chips in the experiential condition or a flashlight in the material condition). These participants considered the review of the experiential purchase to be less useful than the review of the material purchase (as found in studies 1–5). The other half of participants actually tried the product prior to evaluating it and reading a review about it; the discrepancy in product evaluations between these participants and their corresponding review writers did not significantly differ between the experiential and material conditions. This observation provides preliminary evidence to suggest that people underestimate how much consumer reviews can predict their enjoyment of experiential purchases (relative to material purchases). It would be interesting for future research to identify whether people's reluctance to rely on reviews for experiential purchases (relative to material goods) might lead to inferior purchase decisions (Fitzsimons and Lehmann 2004).

Study 5 showed that people rely on reviews for experiential and material purchases equally when the reviews explicitly involve quality judgments. That is, when it is salient to shoppers that consumers' judgments of experiential purchases reflect objective quality, shoppers are more willing to rely on consumer reviews for experiential purchases. Future research could explore other cases in which such perceptions are heightened, perhaps from aggregated consumer ratings (e.g., average star ratings; de Langhe et al. 2016) or when the text of reviews contains minimal self-referencing language (Spiller and Belogolova 2017). Gaining a broader understanding of when people rely more on reviews for experiential purchases would be valuable.

Finally, future research might explore how characteristics of reviews and product type jointly influence review helpfulness. For instance, we conducted a post hoc analysis to examine the role of review valence using Amazon reviews (study 1). The positive and significant interaction between star rating and experiential rating ( $p < .001$ ; web appendix B) suggests that the differences in review helpfulness between experiential and material purchases may be smaller for positive reviews than for negative reviews. We note, however, that the negative relationship between experiential ratings and review helpfulness remained statistically significant at each star rating level (all  $ps < .001$ ),

which suggests that the negative effect of experiential (vs. material) purchase type on review helpfulness holds for both positive and negative reviews. Research could similarly examine how experiential-material purchase type interacts with other well-established purchase categorizations. For example, we explored whether the hedonic (vs. utilitarian) nature of a purchase moderates the effect of experiential (vs. material) purchase type on review reliance, but we did not find consistent results for the interaction across studies 1, 4, and 5 (see web appendixes B, G, and H). Future research that systematically investigates the interaction between review characteristics and various types of purchases would not only be theoretically interesting, but also practically meaningful to marketers who worry about the impact of negative reviews while wanting to leverage positive reviews.

## Conclusions

This research highlights that experiential and material purchases differ not only in their likelihood of being consumed or in their enjoyment once consumed, but also in the decision processes through which people choose which option to buy. Our findings reveal that people believe assessments of experiential purchases to be less a matter of objective quality than assessments of material purchases. Thus, people rely less on consumer reviews when deciding among experiences than when deciding among material goods, thereby suggesting that people are less receptive to advice on what to *do* than on what to *have*.

## DATA COLLECTION INFORMATION

Study 1 relied on data that was collected and made publicly available by other researchers (McAuley and Leskovec 2013; available at <https://snap.stanford.edu/data/web-Amazon.html>). The first author cleaned the original data to create a dataset appropriate for this article, and all authors jointly interpreted the data. For the experimental studies (studies 2–5), all authors supervised data collection, and the first author conducted analyses. Study 2 was run by research assistants at the University of Toronto in summer 2015 among participants recruited on campus and through the university behavioral lab. Studies 3 and 5 were conducted online using Amazon Mechanical Turk panelists and were run in spring 2018. Study 4 was conducted online using the subject pool of the Behavioral Lab at Anderson School of Management in spring 2018. Data from laboratory experiments are available at <https://osf.io/b25tm/>.

APPENDIX A

Study Stimuli (Study 2)

Below are the pictures, product descriptions, and consumer reviews used in study 2. We randomized which side (left or right) each option appeared, as well as which of the options received a positive review. One display order is shown here as an example.

EXPERIENTIAL CONDITION

<p style="text-align: center;"><b>Option A: Tapiscos by the Culinarium Cupboard Cooking School</b></p>  <p><b>Class Description:</b> You will learn how to make different styles of Tapas and their cousin Tapiscos. We will share with you the essentials for creating the perfect Tapiscos experience for your guests for any style of entertaining.</p> <ul style="list-style-type: none"> <li>• Rolled eggplant</li> <li>• Stuffed olives</li> <li>• Fish croquettes</li> <li>• Turkey koftas</li> <li>• Galician style seafood</li> </ul>	<p style="text-align: center;"><b>Option B: Spanish Tapas by the Chef Upstairs</b></p>  <p><b>Class Description:</b> This class is inspired by a Spanish restaurant named La Boca. We want to share their delightful Tapas menu and introduce you to this simple and tasty cuisine.</p> <ul style="list-style-type: none"> <li>• Tomatoes on crusty bread</li> <li>• Deep fried caper berries</li> <li>• Grilled fish...Spanish style</li> <li>• Classic Spanish meatballs</li> <li>• Spanish rice with seafood</li> </ul>
<p><b>Randomly selected consumer review:</b>   6/1/2015</p> <p>This is the best cooking class I have taken. I am quite experienced with Spanish food and I was very satisfied with this class. I can't get over how quickly the time flew by. The chef was efficient, and his demonstrations were clearer than many I have seen.</p> <p>Very neat experience, and definitely one I would do again. It was really fun. I can now make fish croquettes and stuffed olives at home. I would never have thought I could do it so easily!</p>	<p><b>Randomly selected consumer review:</b>   5/30/2015</p> <p>My first time attending this class was a little odd. I walked in, and there were no signs directing me to where I was supposed to go. I ended up having to call the school to find out where the class was.</p> <p>Once the class started, it was fine. But the pace was slow, which was not good for knowledgeable cooks like me. If the pace sped up, the class would be better, and the chef definitely has a passion for Spanish food.</p>

## MATERIAL CONDITION

<p style="text-align: center;"><b>Option A: Steam Espresso Machine by Krups</b></p>  <p><b>Product Description:</b> This espresso machine is ideal for preparing espresso drinks and keeping beverages warm while frothing milk.</p> <ul style="list-style-type: none"> <li>• Steam nozzle that quickly froths milk</li> <li>• A control dial and pressure safety valve</li> <li>• A 16 oz. glass carafe</li> <li>• Power indicator light</li> <li>• Metal cup warming tray on top with removable metal drip tray</li> </ul>	<p style="text-align: center;"><b>Option B: Espresso Machine by Oster</b></p>  <p><b>Product Description:</b> This espresso machine is like having a personal barista. You can make espresso drinks without leaving home.</p> <ul style="list-style-type: none"> <li>• Milk frother &amp; steam control</li> <li>• Thermoblock heating element that adjusts temperature and pressure</li> <li>• 15 bars of pressure for the perfect cup</li> <li>• Thermostat indicator light</li> <li>• Cup warming plate with removable drip tray</li> </ul>
<p><b>Randomly selected consumer review:</b></p> <p>★★★★★ 6/1/2015</p> <p>This is the best espresso machine I have owned. I am quite experienced with small home models and I am very satisfied with this machine. I can't get over how quickly the machine works. It is quieter, and its instructions were clearer than many machines I have had.</p> <p>Very neat product, and definitely one I would buy again. It is really functional. I can now make rich cappuccinos and lattes at home. I would never have thought I could do it so easily!</p>	<p><b>Randomly selected consumer review:</b></p> <p>★★★★☆ 5/30/2015</p> <p>My first time using this machine was a little odd. I switched on the machine, and there was a leak that caused a mess. I ended up having to call the company to find out how to attach the tray.</p> <p>Once the machine started, it was fine. But the thermostat indicator light was dim, which was not good for judging whether the water was heating. If the light was brighter, the machine would be better, and the machine definitely makes a quality espresso.</p>



APPENDIX B

Study Stimuli (Studies 4 and 5)

Below are the pictures and consumer reviews<sup>7</sup> used in studies 4 and 5. We randomized which side (left or right) each option appeared. One display order is shown here as an example.

EXPERIENTIAL CONDITION		MATERIAL CONDITION	
Option A: Smitten Ice Cream	Option B: Rori's Artisanal Creamery	Option A: PowerDoF Ice Cream Maker	Option B: EECOO Ice Cream Maker
			
			
<p>Consumer review in study 4:</p> <p>When I visited this ice cream shop, I was not very satisfied. I'm not sure I'd recommend it.</p>		<p>Consumer review in study 4:</p> <p>When I used this ice cream maker, I was not very satisfied. I'm not sure I'd recommend it.</p>	
<p>Consumer review in study 5:</p> <p><u>Control condition</u></p> <p>★★★★☆</p> <p>When I visited this ice cream shop, I was not very satisfied. I'm not sure I'd recommend it. The directions to the shop were not very clear, and it took forever to find it. The variety of flavor options wasn't as good as I had expected.</p> <p><u>Quality condition</u></p> <p>★★★★☆</p> <p>When I visited this ice cream shop, I was not very satisfied with the quality. I'm not sure I'd recommend it. The shop was not very well run, and it took forever to get ice cream. The quality of the ingredients wasn't as good as others I have tried.</p>		<p>Consumer review in study 5:</p> <p><u>Control condition</u></p> <p>★★★★☆</p> <p>When I used this ice cream maker, I was not very satisfied. I'm not sure I'd recommend it. The directions for the machine were not very clear, and it took forever to set up. The variety of setting options wasn't as good as I had expected.</p> <p><u>Quality condition</u></p> <p>★★★★☆</p> <p>When I used this ice cream maker, I was not very satisfied with the quality. I'm not sure I'd recommend it. The machine did not run very well, and it took forever to get ice cream. The quality of the machine parts wasn't as good as others I have tried.</p>	

<sup>7</sup> When developing the stimuli, our goal was to make the review in the control condition less explicitly based on judgments of quality than the review in the quality condition. Since individuals differ in their preference for variety (Steenkamp and Baumgartner 1992; Van Trijp et al. 1996), which suggests that a greater amount of variety is not objectively better than less variety and that variety is not considered a dimension of quality, we included mention of this attribute in the review for the control condition. The manipulation check confirmed that our manipulation was effective.

## REFERENCES

- Ante, Spencer E. (2009), "Amazon: Turning Consumer Opinions into Gold," *Bloomberg Businessweek*, October 15, <https://www.bloomberg.com/news/articles/2009-10-15/amazon-turning-consumer-opinions-into-gold>.
- Barasz, Kate, Tami Kim, and Leslie K. John (2016), "The Role of (Dis)Similarity in (Mis)Predicting Others' Preferences," *Journal of Marketing Research*, 53 (4), 597–607.
- Berger, Jonah (2014), "Word of Mouth and Interpersonal Communication: A Review and Directions for Future Research," *Journal of Consumer Psychology*, 24 (4), 586–607.
- Caprariello, Peter A. and Harry T. Reis (2013), "To Do, to Have, or to Share? Valuing Experiences over Material Possessions Depends on the Involvement of Others," *Journal of Personality and Social Psychology*, 104 (2), 199–215.
- Carter, Travis J. and Thomas Gilovich (2010), "The Relative Relativity of Material and Experiential Purchases," *Journal of Personality and Social Psychology*, 98 (1), 146–59.
- (2012), "I Am What I Do, Not What I Have: The Differential Centrality of Experiential and Material Purchases to the Self," *Journal of Personality and Social Psychology*, 102 (6), 1304–17.
- Chan, Cindy and Cassie Mogilner (2017), "Experiential Gifts Foster Stronger Social Relationships than Material Gifts," *Journal of Consumer Research*, 43 (6), 913–31.
- Chen, Pei-Yu, Samita Dhanasobhon, and Michael D. Smith (2008), "All Reviews Are Not Created Equal: The Disaggregate Impact of Reviews and Reviewers at Amazon.com," <https://dx.doi.org/10.2139/ssrn.918083>.
- Chen, Yubo and Jinhong Xie (2008), "Online Consumer Review: Word-of-Mouth as a New Element of Marketing Communication Mix," *Management Science*, 54 (3), 477–91.
- Chen, Zoey and Nicholas H. Lurie (2013), "Temporal Contiguity and Negativity Bias in the Impact of Online Word of Mouth," *Journal of Marketing Research*, 50 (4), 463–76.
- Chevalier, Judith A. and Dina Mayzlin (2006), "The Effect of Word of Mouth on Sales: Online Book Reviews," *Journal of Marketing Research*, 43 (3), 345–54.
- Chu, Wujin, Minjung Roh, and Kiwan Park (2015), "The Effect of the Dispersion of Review Ratings on Evaluations of Hedonic versus Utilitarian Products," *International Journal of Electronic Commerce*, 19 (2), 95–125.
- Cialdini, Robert B. and Noah J. Goldstein (2004), "Social Influence: Compliance and Conformity," *Annual Review of Psychology*, 55, 591–621.
- de Langhe, Bart, Philip M. Fernbach, and Donald R. Lichtenstein (2016), "Navigating by the Stars: Investigating the Actual and Perceived Validity of Online User Ratings," *Journal of Consumer Research*, 42 (6), 817–33.
- Eggleston, Casey M., Timothy D. Wilson, Minha Lee, and Daniel T. Gilbert (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.
- Eliashberg, Jehoshua and Mohanbir S. Sawhney (1994), "Modeling Goes to Hollywood: Predicting Individual Differences in Movie Enjoyment," *Management Science*, 40 (9), 1151–73.
- Feick, Lawrence and Robin A. Higie (1992), "The Effects of Preference Heterogeneity and Source Characteristics on Ad Processing and Judgments about Endorsers," *Journal of Advertising*, 21 (2), 9–24.
- Fitzsimons, Gavan J. and Donald R. Lehmann (2004), "Reactance to Recommendations: When Unsolicited Advice Yields Contrary Responses," *Marketing Science*, 23 (1), 82–94.
- Forman, Chris, Anindya Ghose, and Batia Wiesenfeld (2008), "Examining the Relationship between Reviews and Sales: The Role of Reviewer Identity Disclosure in Electronic Markets," *Information Systems Research*, 19 (3), 291–313.
- Gilbert, Daniel T., Matthew A. Killingsworth, Rebecca N. Eyre, and Timothy D. Wilson (2009), "The Surprising Power of Neighborly Advice," *Science*, 323 (5921), 1617–9.
- Gilovich, Thomas, Amit Kumar, and Lily Jampol (2015a), "A Wonderful Life: Experiential Consumption and the Pursuit of Happiness," *Journal of Consumer Psychology*, 25 (1), 152–65.
- (2015b), "The Beach, the Bikini, and the Best Buy: Replies to Dunn and Weidman, and to Schmitt, Brakus, and Zarantonello," *Journal of Consumer Psychology*, 25 (1), 179–84.
- Godes, David and Dina Mayzlin (2004), "Using Online Conversations to Study Word-of-Mouth Communication," *Marketing Science*, 23 (4), 545–60.
- Goldstein, Noah J., Robert B. Cialdini, and Vladas Griskevicius (2008), "A Room with a Viewpoint: Using Social Norms to Motivate Environmental Conservation in Hotels," *Journal of Consumer Research*, 35 (3), 472–82.
- Goodman, Joseph K. and Sarah Lim (2018), "When Consumers Prefer to Give Material Gifts Instead of Experiences: The Role of Social Distance," *Journal of Consumer Research*, 45 (2), 365–82.
- Goodman, Joseph K., Selin A. Malkoc, and Brittney L. Stephenson (2016), "Celebrate or Commemorate? A Material Purchase Advantage When Honoring Special Life Events," *Journal of the Association for Consumer Research*, 1 (4), 497–508.
- Gorenflo, Daniel W. and William D. Crano (1989), "Judgmental Subjectivity/Objectivity and Locus of Choice in Social Comparison," *Journal of Personality and Social Psychology*, 57 (4), 605–14.
- Hayes, Andrew F. (2013), *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach*, New York: Guilford.
- Holbrook, Morris B. and Elizabeth C. Hirschman (1982), "The Experiential Aspects of Consumption: Consumer Fantasies, Feelings, and Fun," *Journal of Consumer Research*, 9 (2), 132–40.
- Hong, Pat (2015), "The Amazon Customer Journey: Leading the Way for Consumer-Centric Ecommerce," *Linkdex*, May 21, <https://www.linkdex.com/en-us/inked/amazon-customer-journey/>.
- Huang, Peng, Nicholas H. Lurie, and Sabyasachi Mitra (2009), "Searching for Experience on the Web: An Empirical Examination of Consumer Behavior for Search and Experience Goods," *Journal of Marketing*, 73 (2), 55–69.
- Johansson, Johnny K., Susan P. Douglas, and Ikujiro Nonaka (1985), "Assessing the Impact of Country of Origin on Product Evaluations: A New Methodological Perspective," *Journal of Marketing Research*, 22 (4), 388–96.
- Keen, Andrew (2008), *The Cult of the Amateur: How Blogs, MySpace, YouTube, and the Rest of Today's User-Generated Media Are Destroying Our Economy, Our Culture, and Our Values*, New York: Crown.

- Kumar, Amit and Thomas Gilovich (2015), "Some 'Thing' to Talk About? Differential Story Utility from Experiential and Material Purchases," *Personality and Social Psychology Bulletin*, 41 (10), 1320–31.
- . (2016), "To Do or to Have, Now or Later? The Preferred Consumption Profiles of Material and Experiential Purchases," *Journal of Consumer Psychology*, 26 (2), 169–78.
- Kumar, Amit, Matthew A. Killingsworth, and Thomas Gilovich (2014), "Waiting for Merlot: Anticipatory Consumption of Experiential and Material Purchases," *Psychological Science*, 25 (10), 1924–31.
- Lovett, Mitchell J., Renana Peres, and Ron Shachar (2013), "On Brands and Word of Mouth," *Journal of Marketing Research*, 50 (4), 427–44.
- Marchant, Ross (2015), "Local Consumer Review Survey 2015," *BrightLocal*, October 19, <https://www.brightlocal.com/research/local-consumer-review-survey-2015/>.
- Mayzlin, Dina, Yaniv Dover, and Judith A. Chevalier (2012), "Promotional Reviews: An Empirical Investigation of Online Review Manipulation," NBER Working Paper No. 18340, National Bureau of Economic Research, Cambridge, MA 02138.
- McAuley, Julian and Jure Leskovec (2013), "Hidden Factors and Hidden Topics: Understanding Rating Dimensions with Review Text," in *Proceedings of the 7th ACM Conference on Recommender Systems*, ed. Qiang Yang, Irwin King, and Qing Li, New York: ACM, 165–72.
- Moe, Wendy W. and Michael Trusov (2011), "The Value of Social Dynamics in Online Product Ratings Forums," *Journal of Marketing Research*, 48 (3), 444–56.
- Moore, Sarah G. (2015), "Attitude Predictability and Helpfulness in Online Reviews: The Role of Explained Actions and Reactions," *Journal of Consumer Research*, 42 (1), 30–44.
- Mudambi, Susan M. and David Schuff (2010), "What Makes a Helpful Online Review? A Study of Customer Reviews on Amazon.com," *MIS Quarterly*, 34 (1), 185–200.
- Müller-Trede, Johannes, Shoham Choshen-Hillel, Meir Barneron, and Ilan Yaniv (2018), "The Wisdom of Crowds in Matters of Taste," *Management Science*, 64 (4), 1779–973.
- Naylor, Rebecca W., Cait P. Lambertson, and David A. Norton (2011), "Seeing Ourselves in Others: Reviewer Ambiguity, Egocentric Anchoring, and Persuasion," *Journal of Marketing Research*, 48 (3), 617–31.
- Nelson, Phillip (1970), "Information and Consumer Behavior," *Journal of Political Economy*, 78 (2), 311–29.
- Nicolao, Leonardo, Julie R. Irwin, and Joseph K. Goodman (2009), "Happiness for Sale: Do Experiential Purchases Make Consumers Happier than Material Purchases?" *Journal of Consumer Research*, 36 (2), 188–98.
- Nielsen (2015), "Recommendations from Friends Remain Most Credible Form of Advertising among Consumers; Branded Websites Are the Second-Highest-Rated Form," September 28, <http://www.nielsen.com/ca/en/press-room/2015/recommendations-from-friends-remain-most-credible-form-of-advertising.html>.
- Olson, James M., Robert J. Ellis, and Mark P. Zanna (1983), "Validating Objective versus Subjective Judgments: Interest in Social Comparison and Consistency Information," *Personality and Social Psychology Bulletin*, 9 (3), 427–36.
- Park, Cheol and Thae Min Lee (2009), "Information Direction, Website Reputation and eWOM Effect: A Moderating Role of Product Type," *Journal of Business Research*, 62 (1), 61–7.
- Pchelin, Paulina and Ryan T. Howell (2014), "The Hidden Cost of Value-Seeking: People Do Not Accurately Forecast the Economic Benefits of Experiential Purchases," *Journal of Positive Psychology*, 9 (4), 322–34.
- Price, Linda L., Lawrence F. Feick, and Robin A. Higie (1989), "Preference Heterogeneity and Coorientation as Determinants of Perceived Informational Influence," *Journal of Business Research*, 19 (3), 227–42.
- Rosenzweig, Emily and Thomas Gilovich (2012), "Buyer's Remorse or Missed Opportunity? Differential Regrets for Material and Experiential Purchases," *Journal of Personality and Social Psychology*, 102 (2), 215–23.
- Sen, Shahana and Dawn Lerman (2007), "Why Are You Telling Me This? An Examination into Negative Consumer Reviews on the Web," *Journal of Interactive Marketing*, 21 (4), 76–94.
- Simonson, Itamar and Emanuel Rosen (2014), *Absolute Value: What Really Influences Customers in the Age of (Nearly) Perfect Information*, New York: HarperCollins.
- Spears, Russell, Naomi Ellemers, and Bertjan Doojsje (2009), "Strength in Numbers or Less Is More? A Matter of Opinion and a Question of Taste," *Personality and Social Psychology Bulletin*, 35 (8), 1099–111.
- Spiller, Stephen A. and Lena Belogolova (2017), "On Consumer Beliefs about Quality and Taste," *Journal of Consumer Research*, 43 (6), 970–91.
- Steenkamp, Jan-Benedict E. M. and Hans Baumgartner (1992), "The Role of Optimum Stimulation Level in Exploratory Consumer Behavior," *Journal of Consumer Research*, 19 (3), 434–48.
- Tirole, Jean (1988), *The Theory of Industrial Organization*, Cambridge, MA: MIT Press.
- Tirunillai, Seshadri and Gerard J. Tellis (2012), "Does Chatter Really Matter? Dynamics of User-Generated Content and Stock Performance," *Marketing Science*, 31 (2), 198–215.
- Tully, Stephanie M., Hal E. Hershfield, and Tom Meyvis (2015), "Seeking Lasting Employment with Limited Money: Financial Constraints Increase Preference for Material Goods over Experiences," *Journal of Consumer Research*, 42 (1), 59–75.
- Van Boven, Leaf, Margaret C. Campbell, and Thomas Gilovich (2010), "Stigmatizing Materialism: On Stereotypes and Impressions of Materialistic and Experiential Pursuits," *Personality and Social Psychology Bulletin*, 36 (4), 551–63.
- Van Boven, Leaf and Thomas Gilovich (2003), "To Do or to Have? That Is the Question," *Journal of Personality and Social Psychology*, 85 (6), 1193–202.
- Van Trijp, Hans C. M., Wayne D. Hoyer, and J. Jeffrey Inman (1996), "Why Switch? Product Category: Level Explanations for True Variety-Seeking Behavior," *Journal of Marketing Research*, 33 (3), 281–92.
- Walker, Jesse, Amit Kumar, and Thomas Gilovich (2016), "Cultivating Gratitude and Giving through Experiential Consumption," *Emotion*, 16 (8), 1126–36.
- Yaniv, Ilan, Shoham Choshen-Hillel, and Maxim Milyavsky (2011), "Receiving Advice on Matters of Taste: Similarity,

- Majority Influence, and Taste Discrimination,” *Organizational Behavior and Human Decision Processes*, 115 (1), 111–20.
- Yin, Dezhi, Samuel Bond, and Han Zhang (2014), “Anxious or Angry? Effects of Discrete Emotions on the Perceived Helpfulness of Online Reviews,” *MIS Quarterly*, 38 (2), 539–60.
- . (2017), “Keep Your Cool or Let It Out: Nonlinear Effects of Expressed Arousal on Perceptions of Consumer Reviews,” *Journal of Marketing Research*, 54 (3), 447–63.
- Zeithaml, Valarie A. (1988), “Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence,” *Journal of Marketing*, 52 (3), 2–22.