



Person vs. purchase comparison: how material and experiential purchases evoke consumption-related envy in others

Joowon Park^{a,*}, Sachin Banker^b, Tamara Masters^c, Grace Yu-Buck^d

^a The University of Utah, SFEBS 8231, 1655 Campus Center Dr, Salt Lake City, UT 84112, United States

^b The University of Utah, SFEBS 7117, 1655 Campus Center Dr, Salt Lake City, UT 84112, United States

^c The University of Utah, SFEBS 7222, 1655 Campus Center Dr, Salt Lake City, UT 84112, United States

^d University of Houston Clear Lake, B3121, 2700 Bay Area Boulevard, Houston, TX 77058, United States

ARTICLE INFO

Keywords:

Envy
Material vs. experiential consumption
Social comparison
Consumption emulation

ABSTRACT

Consumers feel envious of others more frequently than ever as they are constantly exposed to the purchases of others through social media. The extant literature is divided on whether consumers are more likely to envy the experiential purchases or material purchases of others. The current research identifies a moderator delineating when experiential vs. material purchases elicit greater feelings of envy. Specifically, we show that in a natural state when people compare the well-being of the purchaser to their own well-being, experiential purchases elicit greater envy than material purchases. In contrast, when people are prompted to compare the purchase to their own comparable purchase, material purchases elicit greater envy than experiential purchases. We further demonstrate the implications of understanding the psychology of consumption-related envy for marketers who seek to increase consumer engagement and purchase intention.

1. Introduction

Imagine browsing through Facebook or Instagram for updates and discovering photos posted by your friends of the recent purchases they made. One friend posted about a purchase of a top-of-the-line TV. Another friend posted about a recent vacation to a tropical beach. In what situations would each post, material purchase or experiential purchase, make you more envious and nudge you to get one yourself? Furthermore, does it matter whether you are thinking about the specific features of your friend's purchase or their overall happiness relative to your own?

The answer to these questions from previous research might not be unequivocal. On one hand, some work has postulated that consumers would feel greater envy in response to others' material rather than experiential purchases (e.g., Gilovich et al., 2015). On the other hand, another line of research suggests that consumers may feel greater envy in response to others' experiential rather than material purchases (Hellén & Sääksjärvi, 2017; Lin et al., 2018). This research reconciles these differences and delineates when experiential vs. material purchases evoke greater envy by highlighting the moderating role of the type of comparison.

Specifically, we propose that people engage in two types of comparisons: person-to-person comparison and purchase-to-purchase comparison. During person-to-person comparison, or person-comparison in short, observers focus on and compare the happiness of the purchaser to their own happiness. In contrast, during purchase-to-purchase comparison, or purchase-comparison, observers focus on and compare the purchase to their own comparable purchase (e.g., superiority of the product or a deal one got in the purchase process). We propose that when consumers engage in purchase-comparison, items that are more easily comparable (i.e., material purchases) will evoke greater envy. However, when consumers engage in person-comparison, items that are more central to the self-concept (i.e., experiential purchases) evoke greater envy.

This research makes contributions in several ways. First, this research resolves a discrepancy in the literature by identifying a moderator for when experiential vs. material purchases elicit greater consumer envy. Second, our findings have implications for marketers by describing how the type of purchase (material vs. experiential) and type of comparison (purchase-comparison vs. person-comparison) interact when generating envy. Because feelings of envy are intimately linked to consumption emulation behaviors (Belk, 2011; Parrott, 1991; Van de

* Corresponding author.

E-mail addresses: joowon.park@eccles.utah.edu (J. Park), sachin.banker@eccles.utah.edu (S. Banker), tamara.masters@utah.edu (T. Masters), yubuck@uhcl.edu (G. Yu-Buck).

<https://doi.org/10.1016/j.jbusres.2023.114014>

Received 7 March 2022; Received in revised form 26 April 2023; Accepted 27 April 2023

Available online 20 May 2023

0148-2963/© 2023 Elsevier Inc. All rights reserved.

Ven et al., 2009), firms may leverage these findings to effectively address ad campaign objectives such as traffic, signups, or sales.

2. Conceptual background

2.1. Envy and experiential vs. material purchases

Envy is a powerful emotion that has been widely discussed (De Clercq et al., 2018; Ferreira & Botelho, 2021; Wang et al., 2022). Envy is an emotion produced when a person perceives another's superiority in some way and wishes they had that as well (Parrott & Smith, 1993). Envy has also been long examined within the marketing domain. While envy can sometimes lead to negative behaviors, such as shopping addiction (Jhamb & Mittal, 2022), unethical selling practices (Hancock et al., 2022) or negative WOM (Hancock et al., 2020), envy often inspires or motivates people to engage in behavior to improve their situation through consumption emulation (Belk, 2011; Parrott, 1991; Salerno et al., 2019; Van de Ven et al., 2011). We examine such "consumption-related envy" which has strong implications for marketers in this research and focus specifically on understanding how sharing about material vs. experiential purchases differentially evokes envy in observers.

Advantages of experiential purchases over material purchases are well-documented. Experiential purchases can help improve social relationships as they are often shared with others (Caprariello & Reis, 2013), carry more conversational value (Bastos & Brucks, 2017; Bastos & Moore, 2021; Kumar & Gilovich, 2015), lead to more favorable social evaluation (Van Boven et al., 2010), and foster stronger social connection as gifts (Chan & Mogilner, 2017). One question that remains and is not clearly answered is whether consumers envy experiential or material purchases more. Consider again the example that we began with: will consumers feel more envy about the friend who posted about a purchase of a top-of-the-line TV (material purchase) or the friend who posted about a vacation to a tropical beach (experiential purchase)?

2.2. Prediction 1 from the literature: greater envy toward material purchases

Because it is difficult to compare one's own experiences to those of others (Carter & Gilovich, 2010) and because experiential purchases can inspire gracious reactions in individuals (Gilovich et al., 2015), prior work has theorized that material purchases would evoke greater envy. Illustrating this using our example, this line of research argues that it is easier to compare my TV to my friend's new TV than to compare my vacation trip to my friend's vacation trip. For a material purchase such as a TV, consumers can use multiple objective criteria (e.g., screen size, resolution, price) for comparison. However, for an experiential purchase such as a vacation trip, individuals tend to have different experiences during a trip, even if it was to the same destination. This nature of experiential purchases makes it harder to perform a side-by-side comparison. Thus, per this line of research, consumers would experience greater envy in response to others' material purchases than experiential purchases.

2.3. Prediction 2 from the literature: greater envy toward experiential purchases

A different line of theoretical reasoning predicts that experiential purchases would evoke greater envy. This rationale relates to one key aspect as to why experiences confer greater benefits to consumers compared to material purchases: the greater centrality of experiences to the self (Carter & Gilovich, 2012). Experiences reside internally, held perpetually in memory and shaping the self-concept over time. On the other hand, material goods, are physical possessions that are held externally, surviving independently of their owners, and stored separately and disconnected from the self. Thus, experiential goods are

connected to a higher degree to the self, and observing others enjoy superior experiences (vs. materials) will be perceived as a more significant threat during social comparison. Furthermore, as individuals are motivated to maintain their positive self-evaluations, the experience of threat to the self can lead to the expression of emotions and behaviors that aim to resolve such self-discrepancies (Mandel et al., 2017; Tesser, 1988). In particular, when negative self-discrepancies result from being on the losing end of social comparisons, individuals experience more intense feelings of envy (Salovey & Rodin, 1984, 1991).

Illustrating this using our example, this line of research argues that a vacation trip is more central to a person's identity than a new TV is. Therefore, the trip will engender greater envy than the TV as observing a friend enjoying a vacation trip is more likely to result in a threat to one's self-concept than observing a friend purchasing a TV. A handful of studies have offered support for these predictions (Hellén & Sääksjärvi, 2017; Lin et al., 2018), which seems to conflict with the previous line of reasoning predicting greater envy toward material purchases.

2.4. Current research: reconciling the discrepancy in the literature by highlighting the role of type of comparison

The current research sets out to contribute to literature by reconciling this discrepancy. Are there conditions under which consumers are more envious of experiential purchases or more envious of material purchases?

Upon observing others making purchases, consumers can engage in a comparison based on different aspects of the purchases. On one hand, consumers can focus on the particular product or the purchase process and compare it to their own comparable product or purchase process. For example, seeing a friend buying a new TV can trigger consumers to compare the TV to their own TV. We refer to this type of comparison as *purchase-comparison*. On the other hand, consumers can focus on the person who made the purchase and compare the happiness or well-being of the person to their own happiness or well-being. For example, seeing a friend enjoying a vacation trip to a tropical island can trigger consumers to compare how happy the friend is compared to how happy they are. We refer to this type of comparison as *person-comparison*. We argue that the type of comparison consumers engage in is critical in determining which type of envy prevails. Specifically, we predict that when consumers engage in person-comparison, they are likely to feel more envious of experiences than material purchases. On the other hand, when consumers engage in purchase-comparison, they are likely to feel more envious of material purchases than experiences.

Why do we predict that consumers will envy experiential purchases more when they engage in person-comparison? As reviewed earlier, it is well-established in the experiential consumption literature that experiential purchases are more central to one's identity than are material purchases (Carter & Gilovich, 2012; Gilovich et al., 2015). It is also well-established in the social comparison literature that when individuals compare themselves to others, they are more likely to feel bad when the social comparison is made in the domain that's more central to one's identity (Aronson et al., 1999; Salovey & Rodin, 1984, 1991). Extending these, we argue that during person-comparison, experiential purchases that are more central to one's identity than material purchases evoke greater envy in observers.

Why do we predict that consumers will envy material purchases more when they engage in purchase-comparison? As reviewed above, one of the key characteristics of material purchases compared to experiential purchases is that material purchases are easier to compare side-by-side. Researchers argue that experiential purchases, compared to material purchases, are more difficult to compare and therefore less likely to trigger comparison and negative feelings from relative inferiority (Carter & Gilovich, 2010; Gilovich et al., 2015). Several studies provide strong support that individuals are less pleased after learning about others' material possessions, than their experiences. For example, in one study (Carter & Gilovich, 2010; Study 4), participants who were

informed that they would not receive a mug (the superior material possession) reported lower satisfaction with the pens they had received (the inferior material possession) whereas participants who were informed that they would not receive high-end chocolate bars (the superior experience) did not report any lower satisfaction with the potato chips they had received (the inferior experience). A careful look at this study reveals that participants were led to compare their items to the items of others. Thus, we argue that when the salience of one's own comparable purchase is high and therefore consumers engage in purchase-comparison, material purchases that are easier to compare evoke greater envy in observers.

2.4.1. Could one type of comparison be more prevalent than the other?

An important question that remains is whether one type of comparison might be more prevalent than the other. We assert that unless prompted to engage in purchase-comparison by increasing the salience of one's comparable purchase, consumers naturally engage in person-comparison and envy experiences more. This theorization is based on the research on social comparison which posits that people spontaneously engage in self-evaluation and one prevalent way to accomplish this is by comparing themselves to others (Festinger, 1954; Goethals, 1986; Pillai & Nair, 2021; Suls & Miller, 1977; Ye et al., 2021). People evaluate their own progress in life in comparison to their peers'. Consequently, purchases made by others, whether experiential or material, can trigger social comparison processes that impact subsequent preferences, behaviors, and emotional outcomes (Argo et al., 2006; Bearden & Rose, 1990; Van de Ven et al., 2009). While the purchases made by others can trigger evaluation of one's progress through social comparison, the comparison and evaluation can take place without necessarily bringing to mind one's similar purchase. For example, a person while running errands, seeing on social media her friend's trip to a tropical island would feel envious of her happy friend without necessarily thinking of her own trip. Due to such asymmetry, we argue that person-comparison is more prevalent than purchase-comparison.

In sum, we argue that when purchase-comparisons are prompted, by making salient a comparable purchase an individual made, individuals will develop greater feelings of envy to the superior material purchases. However, in typical social situations in which individuals are not prompted to engage in purchase-comparison, they will naturally engage in person-comparison which will result in greater envy in response to experiential purchases. We next present six studies that support this theoretical account.

3. Overview of studies

Our theorization suggests that when people engage in person-comparison and focus on the happiness of the person, the experiential purchases that others made engender greater envy than material purchases. On the other hand, when people engage in purchase-comparison and focus on the superiority of the purchase, the material purchases that others made engender greater envy than experiential purchases. In our studies, we highlight the role of type of comparison (person-comparison vs. purchase-comparison). Studies 1–3 demonstrate that different types of comparison people engage in shapes the feelings of envy toward experiential vs. material purchases. We investigate responses to real social media posts that participants encountered in their personal social media feeds as well as purchases they recalled from memory. In Studies 4 and 5, we manipulate the type of comparison using an established paradigm to examine its impact. Finally, Study 6 examines implications for marketers by showing that consumption envy increases consumption emulation behaviors.

4. Study 1

This study was conducted to evaluate whether experiential purchases (vs. material purchases) engender greater envy in observers when

consumers engage in person-comparison in a natural setting. We tested the proposed effect in a setting where individuals are often exposed to the purchases made by others: social media. Participants browsed through their own personal social media feeds viewing posts made by others. They then described a post that they felt the most envious of and classified it as being more of a material or experiential purchase. Deriving from the proposition that consumers are more likely to engage in person-comparison than purchase-comparison in a natural setting, we anticipated participants to identify more experiential purchases (vs. material purchases) as the most envy-inducing.

4.1. Method

4.1.1. Participants

Two hundred five participants located in the United States (117 women, age $M = 33.06$, $SD = 10.63$) completed the study online through Amazon Mechanical Turk. Because we were interested in evaluating participants' responses to social media posts of others, we asked participants which social media platform they used most frequently; those who indicated they do not use social media were not allowed to participate.

4.1.2. Procedures

Participants were asked to browse through their own personal social media feeds using their computer or their smartphone. Our data revealed distribution of participants across several platforms (Facebook: 131, Instagram: 37, Twitter: 21, Snapchat: 11, Other: 5).

Participants were instructed to find the one post made by a friend involving a purchase that made them feel the most envious. They were told that it did not matter whether the post was about an experiential purchase or a material purchase and were given the definitions and examples of experiential purchases and material purchases (adopted from Van Boven & Gilovich, 2003). Participants described specifically what the post was about before moving forward.

On the subsequent screen, participants were once again provided with the definitions of experiential purchases and material purchases. They were then asked to classify the purchase that they just described as being more material or experiential in nature on a 5-point scale (1 = definitely material, 5 = definitely experiential). Finally, we collected basic demographic information. The stimuli used in this study are shown in Appendix A.

4.2. Results

4.2.1. Response exclusion

Twenty participants who did not comply with the instructions by failing to describe a post they saw on social media were excluded from the analyses, leaving a sample of 185 participants. Importantly, the exclusion did not impact the significance of the key results of this study. The results of the analysis with all 205 participants are reported in Appendix B.

4.2.2. Envy

Because responses were not normally distributed, we applied a nonparametric Wilcoxon signed-rank test for the analysis (results are similarly significant when applying a traditional t -test). A test against the scale midpoint confirmed that the social media posts participants felt the most envy towards were more experiential than material in nature (median = 4, $M = 3.37$, $SD = 1.71$, $Z = 4958$, $p < .0001$). Examining the distribution of responses revealed that more participants considered the most envy-inducing post to be about an experiential purchase (definitely experiential: 44.3%, largely experiential: 12.4%) than a material purchase (definitely material: 25.4%, largely material: 13.5%). Fig. 1 displays these results.

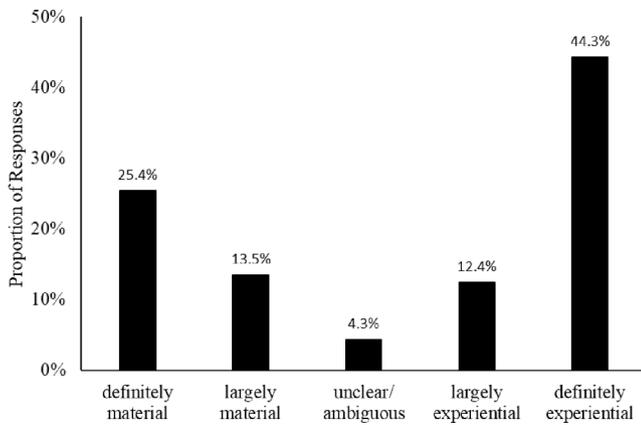


Fig. 1. Distribution of participants' classification of the most envy-inducing social media post (Study 1).

4.3. Discussion

In Study 1, when participants were asked to identify on their social media the most envy-inducing purchases made by others, participants identified more experiential purchases than material purchases. This finding supports our proposition that, in a natural setting where they are not prompted to do otherwise, consumers are more likely to engage in person-comparison (vs. purchase-comparison) and feel more envious of experiential (vs. material) purchases.

5. Study 2

Study 2 aimed to demonstrate that when consumers are prompted to engage in purchase-comparison by comparing the purchased product or the purchasing process to theirs, they will identify material purchases (easier to compare to my purchase) as more envy-inducing than experiential purchases (harder to compare to my purchase). To activate purchase-comparison, participants in this study were told to think of specific incidents where they felt envious of others' purchases because the products others purchased were better than the similar products they purchased.

5.1. Method

5.1.1. Participants and design

Two hundred six participants located in the United States (104 women, age $M = 37.46$, $SD = 12.05$) completed the study through Amazon Mechanical Turk.

5.1.2. Procedures

In order to construct a purchase-comparison situation, all participants were first told to think of any contexts in which "the product purchased by your friend or family is better than a similar product you purchased at a similar price" or "your friend or family purchased a product similar to yours with a better deal (e.g., lower price, freebies you didn't get)." They were told that the item could be either an experiential purchase or a material purchase, and were provided with definitions of experiential and material purchases. They were then asked to write and describe such a purchase.

After describing the purchase, participants were asked to classify the purchase as being more material or experiential in nature on a 6-point scale (1 = definitely material, 6 = definitely experiential). Finally, we collected basic demographic information. The stimuli used in this study are described in Appendix C.

5.2. Results

5.2.1. Response exclusion

The responses from eight participants who did not follow the instructions were excluded from the analyses resulting in responses from 198 participants. Task noncompliance involved responses that failed to describe a purchase by a friend or family member. Importantly, the exclusion, did not affect the pattern of our results. The results of the main analysis with all 206 participants are reported in Appendix D.

5.2.2. Envy

We applied a nonparametric Wilcoxon signed-rank test to assess whether the social media posts eliciting envy were more likely to feature material or experiential purchases (results are similarly significant when applying a traditional *t*-test). A test against the scale midpoint confirmed that the purchases participants felt the most envy towards were more material than experiential in nature (median = 2, $M = 2.52$, $SD = 1.68$, $Z = 5619$, $p < .001$). Examining the distribution of responses revealed that nearly three times as many participants considered the most envy-inducing purchases to be a material purchase (definitely material: 38.4%, material: 25.8%, somewhat material: 9.6%) than an experiential purchase (definitely experiential: 5.1%, experiential: 14.1%, somewhat experiential: 7.1%). See Fig. 2. These findings illustrate that when participants were prompted to engage in purchase-comparison, they were more likely to identify material purchases as more envy-inducing than experiential purchases.

5.3. Discussion

Study 2 shows that when participants engage in purchase-comparison, they are more envious of material purchases of others than experiential purchases. When participants were asked to think specifically of purchases of others that made them feel envious because it was superior to their own comparable purchase (i.e., they thus engaged in purchase-comparison), participants were more likely to recall and describe a situation involving a material purchase than an experiential purchase. This result complements Study 1 where participants engaged in person-comparison in a natural setting and recalled more situations involving experiential purchases than material purchases. Considered together, these results support our theorization that person-comparison engenders envy toward experiential purchases while purchase-comparison engenders envy toward material purchases.

Although these two studies support our theorization, there are some limitations. First, while we experimentally prompted participants to engage in purchase-comparison in Study 2, we let participants naturally engage in person-comparison without any experimental prompt in Study 1. Second, while Study 1 used a 5-point scale, Study 2 used a 6-point

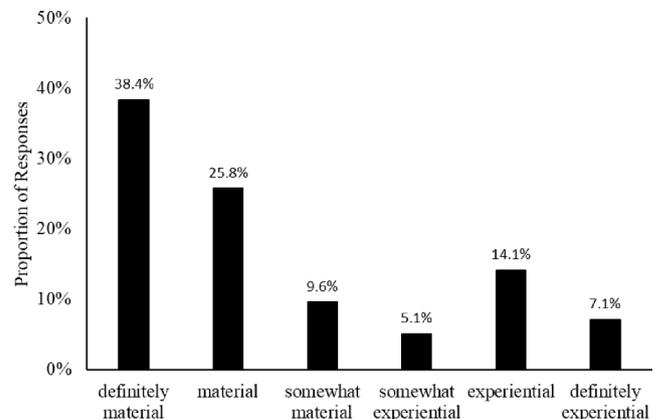


Fig. 2. Distribution of participants' classification of the most envy-inducing social media post when engaged in a purchase-comparison situation (Study 2).

scale. These concerns are addressed in Study 3.

6. Study 3

Study 3 was designed to further demonstrate the role of different types of comparison on envy. In this study, we procedurally prompted participants to recall specific instances to engage them in person-comparison or purchase-comparison. We predicted that participants engaging in purchase-comparison would identify relatively more material purchases as envy-inducing than the participants engaging in person-comparison.

6.1. Method

6.1.1. Participants and design

Three hundred and sixty-seven participants from a United States university (157 women, age $M = 20.9$, $SD = 3.48$) completed the study for partial course credit. Participants were randomly assigned to one of two conditions: person-comparison condition or purchase-comparison condition.

6.1.2. Procedures

Participants in the person-comparison condition were asked to describe a particular envy-inducing context where “your friend or family spent money on something that allowed them to have more fun in life than you do” or “your friend or family spent money on something that brings more happiness in their lives than you have in your life.” Participants in the purchase-comparison condition were asked to describe a particular envy-inducing context where “the product purchased by your friend or family is better than a similar product you purchased at a similar price” or “your friend or family purchased a product similar to yours with a better deal (e.g., lower price, freebies you didn’t get).”

After describing the purchase, participants were asked to classify the purchase they just described as being more material or experiential in nature on a 6-point scale (1 = definitely material, 6 = definitely experiential). The stimuli used in this study are described in Appendix E.

6.2. Results

Participants’ classification of the envy-inducing purchase was submitted to one-way ANOVA. As predicted, participants in the purchase-comparison condition described items that were more material in nature ($M_{purchase} = 2.44$, $SD = 1.75$) than participants in the person-comparison condition ($M_{person} = 3.33$, $SD = 2.14$), $F(1, 365) = 18.5$, $p < .0001$, $\eta^2 = 0.07$.

6.3. Discussion

Study 3 further highlights the role of different types of comparison on consumers’ envy toward different types of purchases while conceptually replicating Studies 1 and 2. Considered together, Studies 1–3 illustrate the moderating role the type of comparison plays on envy. When engaging in person-comparison, consumers are more inclined to feel envious toward experiential purchases, but when engaging in purchase-comparison consumers are more inclined to feel envious toward material purchases.

7. Study 4

Study 4 was conducted to further investigate the moderating role of type of comparison. This study has two key differences from our previous studies. First, instead of asking participants to recall purchases they observed, we use a scenario-based approach to reduce heterogeneity. Second, instead of asking participants to classify a purchase as either experiential or material, we adopt established stimuli in the literature and ask participants to indicate the extent to which they feel envious.

This design allows us to directly test the interaction of type of purchase (material vs. experiential) and type of comparison (person vs. purchase) on envy. We predicted that when individuals engage in person-comparison, they will be more envious of experiential purchases others made. On the other hand, when individuals engage in purchase-comparison, they will be more envious of material purchases others made.

7.1. Method

7.1.1. Participants and design

Two hundred participants located in the United States (119 women, age $M = 34.92$, $SD = 10.87$) completed the study through Amazon Mechanical Turk. The study adopted a 2 (type of purchase: material vs. experiential) \times 2 (type of comparison: person vs. purchase) between-participants design.

7.1.2. Procedure

Our experimental design adapted a thought experiment introduced by Gilovich et al. (2015; p. 158). In this scenario, a person who just acquired an item (either material: having just bought a laptop, or experiential: having just returned from a trip to Patagonia) is approached by a colleague who reveals that he got a better deal on a similar item. Following the original thought experiment, we used these same items as stimuli for the material and experiential purchases.

Participants were randomly assigned to one of the four scenarios. In the purchase-comparison conditions, participants were prompted to consider having purchased a similar item themselves before hearing about an acquaintance’s recent purchase. Thus, the purchase-comparison conditions corresponded directly to the original thought experiment in Gilovich et al. (2015). The scenarios in the person-comparison conditions did not include the part on one’s own purchase and only included the part where they hear about an acquaintance’s recent purchase. See Appendix F for full scenarios. A separate manipulation check with an independent sample ($N = 62$ participants from Mechanical Turk) confirmed that those who read about a purchase-comparison scenario were more inclined to compare their own purchases to those of the acquaintance, relative to those who read about a person-comparison scenario ($M = 5.87$ vs. 4.58, 1 = not at all, 7 = very much; $t(60) = 2.94$, $p < .01$).

After reading the scenario, participants indicated how envious they would feel in this situation using a 6-point scale (1 = no envy at all, 6 = very strong envy).

7.2. Results

We submitted envy to a 2 (type of purchase: material vs. experiential) \times 2 (type of comparison: person vs. purchase) GLM analysis with both variables modeled as between-participants factors. Our findings revealed a significant main effect of type of comparison purchase on envy; participants generally expressed greater levels of envy when they engaged in a purchase-comparison than in a person-comparison ($M_{person} = 2.72$, $M_{purchase} = 4.33$), $F(1, 196) = 82.81$, $p < .0001$, $d = 1.20$. More importantly, the analysis also revealed a significant interaction between the type of purchase and type of comparison, $F(1, 196) = 29.77$, $p < .0001$. Contrast analyses revealed that when participants engaged in purchase-comparison, participants expressed greater envy toward superior material purchase than toward superior experiential purchase ($M_{purchase-experiential} = 3.78$, $M_{purchase-material} = 4.88$), $F(1, 196) = 19.39$, $p < .0001$, $d = 1.00$. However, when participants naturally engaged in person-comparison, participants instead expressed greater envy toward an experiential purchase than toward a material purchase ($M_{person-experiential} = 3.14$, $M_{person-material} = 2.31$), $F(1, 196) = 11.01$, $p = .001$, $d = 0.62$. These contrast patterns are consistent with our prediction. Fig. 3 displays these results.

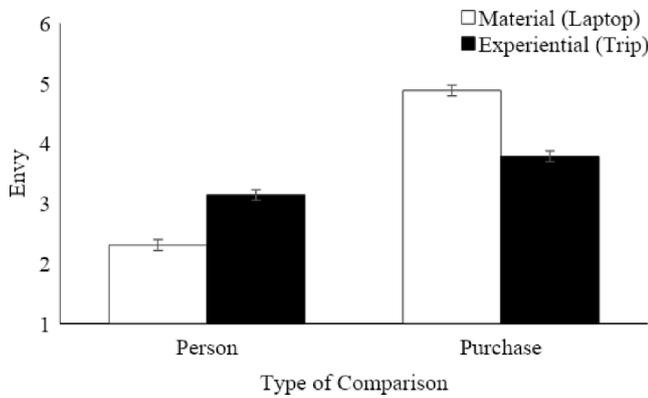


Fig. 3. Pattern of envy toward material and experiential purchases across different types of comparison (Study 4).

8. Study 5

Study 5 presents a conceptual replication of the findings from Study 4 with modification to the scenario.

8.1. Method

8.1.1. Participants and design

Two hundred one participants located in the United States (130 women, age $M = 38.81$, $SD = 11.69$) completed the study through Amazon Mechanical Turk. The study adopted a 2 (type of purchase: material vs. experiential) \times 2 (type of comparison: person vs. purchase) between-participants design.

8.1.2. Procedure

The design of this study was similar to that of Study 4 with some modification. In the person-comparison conditions, participants only heard about a purchase their acquaintance made. In the purchase-comparison condition, participants heard that their acquaintance made a similar purchase as they did but the acquaintance's purchase came with added benefits. This scenario is similar to the approach used in Carter & Gilovich (2010; Study 5C). Appendix G shows the scenarios. After reading the scenario, participants indicated how envious they would feel in this situation using a 6-point scale (1 = no envy at all, 6 = very strong envy).

8.2. Results

We submitted envy to a 2 (type of purchase: material vs. experiential) \times 2 (type of comparison: person vs. purchase) GLM analysis in which both variables were modeled as between-participants factors. Our findings revealed a significant main effect of type of comparison on envy; envy was greater in the purchase-comparison condition than in the person-comparison condition ($M_{person}=2.59$, $M_{purchase} = 3.04$), $F(1, 197) = 6.09$, $p = .014$, $d = 0.13$. More importantly, the analysis also revealed a significant interaction between the type of purchase and type of comparison, $F(1, 197) = 12.67$, $p < .001$. Contrast analysis revealed that when participants engaged in purchase-comparison, they expressed greater envy when others received a superior deal on a material item than an experiential item ($M_{purchase-experiential}=2.70$, $M_{purchase-material}=3.38$), $F(1, 197) = 6.84$, $p < .01$, $d = 0.12$. However, when participants naturally engaged in person-comparison, participants instead expressed greater envy toward an experiential purchase ($M_{person-experiential}=3.14$, $M_{person-material}=2.31$), $F(1, 197) = 5.84$, $p = .017$, $d = 0.11$. These results are consistent with our prediction. Fig. 4 displays these results.

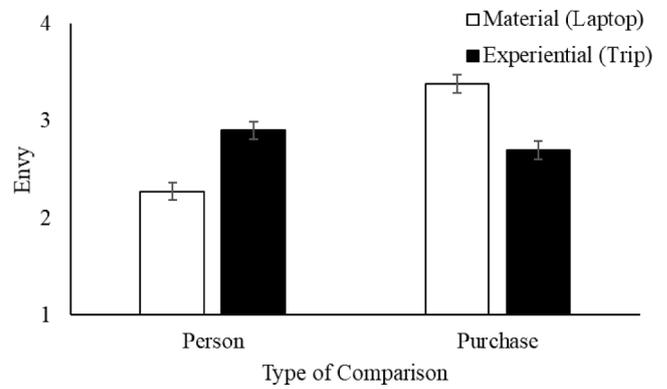


Fig. 4. Pattern of envy toward others' material and experiential purchases across different types of comparison (Study 5).

8.3. Discussion

Studies 4 and 5 further demonstrate the moderating role of type of comparison on envy toward different types of purchases. Consistent with our prediction, we found that when participants engaged in person-comparison, they were more envious of experiential purchases. On the other hand, when participants engaged in product-comparison, they were more envious of material purchases. These findings reconcile the seeming discrepancy in the literature by delineating when experiential purchases engender greater envy in observers (e.g., Hellén & Sääksjärvi, 2017; Lin et al., 2018) and when material purchases engender greater envy (e.g., Carter & Gilovich, 2010; Gilovich et al., 2015).

9. Study 6

Studies 1–5 theoretically advance our understanding of the consumption of material vs. experiential goods by resolving a discrepancy in the literature through the delineation of an important moderator (i.e., type of comparison). Study 6 was designed to illustrate marketing implications by investigating how feelings of envy can drive consumption emulation intentions (i.e., consumption-related envy) rather than of denigration of others' purchase (i.e., non-consumption envy).

9.1. Method

9.1.1. Participants and design

One hundred and two participants located in the United States completed the study through Prolific (50 women, age $M = 29.43$, $SD = 10.54$). All participants saw identical questions in this study.

9.1.2. Procedures

The stimuli used in this study were adopted from Tully et al., (2015, Study 4) that had been pretested to ensure that the two items in each pair matched in value and desirability (video game title vs. Upper deck baseball tickets pair was removed as many people consider video game titles as experiential purchases). The remaining four pairs of stimuli were used as stimuli in this study (Gap scarf vs. hour of bowling, gloves vs. baseball game bleacher tickets, Kindle Touch vs. dinner cruise, winter coat vs. Broadway show tickets). To further minimize potential bias caused by differential price perception, we told participants that the two items in each pair are of similar price.

Participants were told to imagine browsing through social media and discovering that their friend had purchased certain items. They were told that they would see several statements that describe how some individuals react to friends' purchases and to indicate the degree to which each statement is characteristic or uncharacteristic of themselves. On each screen, participants saw a pair of items, one material and one experiential.

For each product, participants answered two questions, one question measuring non-consumption envy and one question measuring consumption-related envy adapted from Van de Ven et al. (2009) (see Table 1 for stimuli). Each question was answered using a 9-point scale (1 = very uncharacteristic of me, 9 = very characteristic of me).

9.2. Results

We submitted envy to a 2 (type of purchase: material vs. experiential) × 4 (purchase item replicate) × 2 (type of envy: consumption vs. non-consumption) × 2 (envy question replicate) mixed model analysis with all variables modeled as within-participant factors. There was a main effect of type of purchase such that participants reported significantly greater envy toward others' experiential purchases ($M = 2.93$) than material purchases ($M = 2.73$), $F(1, 101) = 6.54, p = .01$, model-free $d = 0.17$. In addition, there was a main effect of type of envy where participants felt greater consumption-related envy ($M = 3.90$) than non-consumption envy ($M = 1.75$), $F(1, 101) = 721.05, p < .0001, d = 1.55$. Furthermore, we observed a significant interaction of type of purchase and type of envy, $F(1, 101) = 6.08, p < .02$. Contrast analyses revealed no difference in the non-consumption envy toward experiential and material purchases ($M_{experiential} = 1.76, M_{material} = 1.75$), $F(1, 101) < 0.01, p > .94, d = 0.01$, but a significant difference for consumption-related envy ($M_{experiential} = 4.10, M_{material} = 3.70$), $F(1, 101) = 12.62, p$

Table 1
Behavioral Intention Questions in Study 6.

Stimuli	Consumption-related envy	Non-consumption envy
Pair 1 Material	I become more motivated to buy a scarf and browse the internet to gather information about the next scarf I want to purchase.	I hope that the scarf did not meet his/her expectations and covertly look for something wrong with the scarf.
Pair 1 Experiential	I become more motivated to go bowling and browse the internet to gather information for my next bowling outing.	I hope that the bowling outing did not meet his/her expectations and covertly look for something wrong with the bowling outing
Pair 2 Material	I become more motivated to buy gloves and browse the internet to gather information about the next gloves I want to purchase.	I hope that the gloves did not meet his/her expectations and covertly look for something wrong with the gloves.
Pair 2 Experiential	I become more motivated to go watch a baseball game and browse the internet to gather information for my next visit to a baseball game.	I hope that the baseball game outing did not meet his/her expectations and covertly look for something wrong with the baseball game outing.
Pair 3 Material	I become more motivated to buy a Kindle Touch (or a similar ebook reader) and browse the internet to gather information about the next Kindle Touch (or a similar ebook reader) I want to purchase.	I hope that the Kindle Touch did not meet his/her expectations and covertly look for something wrong with the Kindle Touch.
Pair 3 Experiential	I become more motivated to go on a dinner cruise and browse the internet to gather information for my next dinner cruise.	I hope that the dinner cruise did not meet his/her expectations and covertly look for something wrong with the dinner cruise.
Pair 4 Material	I become more motivated to buy a winter coat and browse the internet to gather information about the next winter coat I want to purchase.	I hope that the winter coat did not meet his/her expectations and covertly look for something wrong with the winter coat.
Pair 4 Experiential	I become more motivated to go watch a Broadway show (or a similar theatrical performance) and browse the internet to gather information for my next Broadway show (or a similar theatrical performance).	I hope that the Broadway show did not meet his/her expectations and covertly look for something wrong with the Broadway show.

< .001, $d = 0.22$. Fig. 5 displays the intensity of consumption-related and non-consumption envy across each stimulus pair.

9.3. Discussion

Several findings emerged in Study 6. First, replicating the findings from previous studies, participants indicated feeling greater envy toward experiential purchases than material purchases when there was no prompt to guide comparison type. Second, the envy that participants reported feeling was largely a consumption-related envy, characterized by increased consumption emulation. That is, these feelings of envy motivate observers to make a similar purchase they were envious of. This has important implications for marketers who seek ways to increase purchase intention of consumers.

10. General discussion

Consumers are exposed to others' purchases throughout the day. The current research shows whether consumers are more envious of others' experiential purchases or material purchases depends on the type of comparison consumers engage in. When they engage in person-comparison, they are more envious of experiential purchases. When they engage in purchase-comparison, they are more envious of material purchases. Moreover, we show that consumers naturally engage in person-comparison unless prompted to engage in purchase-comparison. This makes envy toward experiential purchases more prevalent than envy toward material purchases. We also showed implications for markers by demonstrating that envy can increase intentions for consumption emulation.

10.1. Theoretical implications

Our research makes a clear contribution to the literature studying the type of purchase (experiential vs. material) and consumers' feelings of envy by reconciling a discrepancy of whether material purchases or experiential purchases engender greater envy in observers (Carter & Gilovich, 2010; Gilovich et al., 2015; Hellén & Sääksjärvi, 2017; Lin et al., 2018). The current research resolves this disparity and extends current knowledge about envy by showing that material purchases engender greater envy during purchase-comparison, but experiential purchases engender greater envy during person-comparison. We demonstrated these effects both when participants recalled real observations from their life (Studies 1–3) as well as using scenarios adapted from the extant literature (Studies 4–5). This addition to the theory on envy provides researchers with greater understanding of when this effect may be observed and provides a new line of research to further

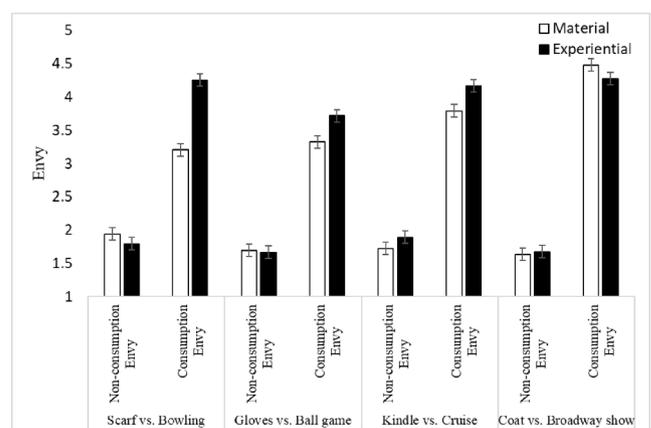


Fig. 5. The extent to which participants would experience consumption and non-consumption envy toward different purchases made by their friends (Study 6).

understand other potential moderators of consumption envy.

10.2. Managerial implications

Among many negative emotions, envy is particularly interesting to marketers as consumers try to resolve envy through consumption emulation. Researchers have argued that in the affluent modern marketplace where desirable products are widely available, envy is often an important force that drives consumption (Belk, 2011; Parrott, 1991; Van de Ven et al., 2009). The result from Study 6 provides additional evidence that envy can be an effective vehicle to increase consumer engagement. Importantly, our findings also provide additional insights by showing that experiential purchases are more likely to engender envy, but marketers can also create conditions to engender envy toward material purchases.

Marketers can take advantage of these findings in several ways. Depending on the type of offerings, marketers can design promotion campaigns that are more likely to trigger envy-driven consumption emulation. One implication from our findings is that envy-driven consumption emulation is more likely to be effective for experiential purchases than for material goods as person-comparison is more prevalent than purchase-comparisons. Marketers promoting experiential products such as vacation packages or flight tickets could consider organizing social media-centered campaigns to engender envy and consumption emulation. If marketers promoting material products consider organizing similar campaigns, they should ask participants to highlight the experiential aspect of the product as previous research has shown that the perception of a product as more experiential or material is malleable (Tully et al., 2015). For example, a social media post of an outdoor grill that focuses on the experience of cooking delicious food and sharing with loved ones could harness the power of envy better than a post focused on hardware specs. Our findings also delineate a specific condition wherein material purchases are more likely to engender envy, when purchase-comparison is triggered. This insight suggests that the promotion of material products is more likely to engender envy when the promotion highlights how the new product is superior to its well-known competitors or older products. It also suggests that the promotion of experiential products should focus on added happiness from the experiences rather than comparing how the new experiences might be better than similar past experiences.

10.3. Limitations and future research

One potential limitation of the current research, and research in experiential consumption in general, is that a larger proportion of experiential purchases could be considered more hedonic or luxurious than of material purchases. Future research could try to control this more tightly or even investigate the role of this construct on consumers' perception, preference, and purchase of experiential and material purchases.

It is also worth noting that the envy we studied in this research is not extremely painful but rather mild and short-lived. As Roese (2005) pointed out, negative emotions tend to be more useful in guiding actions when they are mild and short-lived than when they are severe and long-lasting in which case it can lead to depression or mental disorder. With our focus to reflect natural conditions of mild negative emotion (i.e., envy) we see this as a useful contribution as it is consistent with the viewpoint that negative emotions are useful in guiding behavior when they are mild.

Funding

This work was supported by the David Eccles School of Business at the University of Utah.

CRedit authorship contribution statement

Joowon Park: Visualization, Validation, Supervision, Project administration, Methodology, Investigation, Formal analysis, Data

curation, Conceptualization, Funding acquisition, Writing - original draft, Writing - review & editing. **Sachin Banker:** Visualization, Validation, Supervision, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization, Funding acquisition, Writing - original draft, Writing - review & editing. **Tamara Masters:** Project administration, Methodology, Conceptualization, Writing - review & editing. **Grace Yu-Buck:** Project administration, Methodology, Formal analysis, Conceptualization, Writing - review & editing.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jbusres.2023.114014>.

References

- Argo, J. J., White, K., & Dahl, D. W. (2006). Social comparison theory and deception in the interpersonal exchange of consumption information. *Journal of Consumer Research*, 33(1), 99–108. <https://doi.org/10.1086/504140>
- Aronson, J., Lustina, M. J., Good, C., Keough, K., Steele, C. M., & Brown, J. (1999). When white men can't do math: Necessary and sufficient factors in stereotype threat. *Journal of Experimental Social Psychology*, 35(1), 29–46. <https://doi.org/10.1006/jesp.1998.1371>
- Bastos, W., & Brucks, M. (2017). How and Why Conversational Value Leads to Happiness for Experiential and Material Purchases. *Journal of Consumer Research*, 44(3), 598–612. <https://doi.org/10.1093/jcr/ucx054>
- Bastos, W., & Moore, S. G. (2021). Making word-of-mouth impactful: Why consumers react more to WOM about experiential than material purchases. *Journal of Business Research*, 130(June), 110–123. <https://doi.org/10.1016/j.jbusres.2021.03.022>
- Bearden, W. O., & Rose, R. L. (1990). Attention to social comparison information: An individual difference factor affecting consumer conformity. *Journal of Consumer Research*, 16(4), 461–471. <https://doi.org/10.1086/209231>
- Belk, R. (2011). Benign envy. *AMS Review*, 1(3–4), 117–134. <https://doi.org/10.1007/s13162-011-0018-x>
- Caprariello, P. A., & Reis, H. T. (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. <https://doi.org/10.1037/a0030953>
- Carter, T. J., & Gilovich, T. (2010). The relative relativity of material and experiential purchases. *Journal of Personality and Social Psychology*, 98(1), 146–159. <https://doi.org/10.1037/a0017145>
- Carter, T. J., & Gilovich, T. (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), 1304–1317. <https://doi.org/10.1037/a0027407>
- Chan, C., & Mogilner, C. (2017). Experiential gifts foster stronger social relationships than material gifts. *Journal of Consumer Research*, 43(6), 913–931. <https://doi.org/10.1093/jcr/ucw067>
- De Clercq, D., Haq, I. U., & Azeem, M. U. (2018). The roles of informational unfairness and political climate in the relationship between dispositional envy and job performance in Pakistani organizations. *Journal of Business Research*, 82(January), 117–126. <https://doi.org/10.1016/j.jbusres.2017.09.006>
- Ferreira, K., & Botelho, D. (2021). (Un)deservingness distinctions impact envy subtypes: Implications for brand attitude and choice. *Journal of Business Research*, 125(March), 89–102. <https://doi.org/10.1016/j.jbusres.2020.12.008>
- Festinger, L. (1954). A Theory of Social Comparison Processes. *Human Relations*, 7(2), 117–140. <https://doi.org/10.1177/001872675400700202>
- Gilovich, T., Kumar, A., & Jampol, L. (2015). A wonderful life: Experiential consumption and the pursuit of happiness. *Journal of Consumer Psychology*, 25(1), 152–165. <https://doi.org/10.1016/j.jcps.2014.08.004>
- Goethals, G. R. (1986). Social comparison theory: Psychology from the lost and found. *Personality and Social Psychology Bulletin*, 12(3), 261–278. <https://doi.org/10.1177/0146167286123001>
- Hancock, T., Adams, F. G., Breazeale, M., & Lueg, J. E. (2020). Exploring jealousy and envy in communal relationship revenge-seeking. *Journal of Consumer Marketing*, 37(6), 687–699. <https://doi.org/10.1108/JCM-06-2019-3300>
- Hancock, T., Pullins, E. B., Johnson, C. M., & Mallin, M. L. (2022). Understanding How Salesperson Envy and Emotional Exhaustion Lead to Negative Consequences: The Role of Motivation. *Journal of Business-to-Business Marketing*, 29(3–4), 369–386. <https://doi.org/10.1080/1051712X.2022.2121504>
- Hellén, K., & Sääksjärvi, M. (2017). *Experiences and Material Purchases Differently Evoke Envious Reactions* (A. Gneezy, V. Griskevicius, & P. Williams, Eds.; Vol. 45, pp. 657–658).

- Jhamb, D., & Mittal, A. (2022). How do possessiveness, nongenerosity and envy in young female consumers convert into shopping addiction? *Journal of Consumer Behaviour*, 21(4), 728–742. <https://doi.org/10.1002/cb.2027>
- Kumar, A., & Gilovich, T. (2015). Some “thing” to talk about? Differential story utility from experiential and material purchases. *Personality and Social Psychology Bulletin*, 41(10), 1320–1331. <https://doi.org/10.1177/0146167215594591>
- Lin, R., van de Ven, N., & Utz, S. (2018). What triggers envy on Social Network Sites? A comparison between shared experiential and material purchases. *Computers in Human Behavior*, 85(August), 271–281. <https://doi.org/10.1016/j.chb.2018.03.049>
- Mandel, N., Rucker, D. D., Levav, J., & Galinsky, A. D. (2017). The Compensatory Consumer Behavior Model: How self-discrepancies drive consumer behavior. *Journal of Consumer Psychology*, 27(1), 133–146. <https://doi.org/10.1016/j.jcps.2016.05.003>
- Parrott, W. G. (1991). Experiences of envy and jealousy. In *The Psychology of Jealousy and Envy* (Vol. 1991, pp. 3–30). Guilford Press.
- Parrott, W. G., & Smith, R. H. (1993). Distinguishing the experiences of envy and jealousy. *Journal of Personality and Social Psychology*, 64(6), 906–920. <https://doi.org/10.1037/0022-3514.64.6.906>
- Pillai, K. G., & Nair, S. R. (2021). The effect of social comparison orientation on luxury purchase intentions. *Journal of Business Research*, 134(September), 89–100. <https://doi.org/10.1016/j.jbusres.2021.05.033>
- Roese, N. J. (2005). *If only: How to turn regret into opportunity* ((1st ed.)). Broadway Books.
- Salerno, A., Laran, J., & Janiszewski, C. (2019). The bad can be good: When benign and malicious envy motivate goal pursuit. *Journal of Consumer Research*, 46(2), 388–405. <https://doi.org/10.1093/jcr/ucy077>
- Salovey, P., & Rodin, J. (1984). Some antecedents and consequences of social-comparison jealousy. *Journal of Personality and Social Psychology*, 47(4), 780–792. <https://doi.org/10.1037/0022-3514.47.4.780>
- Salovey, P., & Rodin, J. (1991). Provoking jealousy and envy: Domain relevance and self-esteem threat. *Journal of Social and Clinical Psychology*, 10(4), 395–413. <https://doi.org/10.1521/jscp.1991.10.4.395>
- Suls, J. M., & Miller, R. L. (Eds.). (1977). *Social comparison processes: Theoretical and empirical perspectives*. Hemisphere.
- Tesser, A. (1988). Toward a self-evaluation maintenance model of social behavior. In *Advances in experimental social psychology* (Vol. 21, pp. 181–227). Elsevier.
- Tully, S. M., Hershfield, H. E., & Meyvis, T. (2015). Seeking lasting enjoyment with limited money: Financial constraints increase preference for material goods over experiences. *Journal of Consumer Research*, 42(1), 59–75. <https://doi.org/10.1093/jcr/ucv007>
- Van Boven, L., Campbell, M. C., & Gilovich, T. (2010). Stigmatizing Materialism: On Stereotypes and Impressions of Materialistic and Experiential Pursuits. *Personality and Social Psychology Bulletin*, 36(4), 551–563. <https://doi.org/10.1177/014616721036279>
- Van Boven, L., & Gilovich, T. (2003). To Do or to Have? That Is the Question. *Journal of Personality and Social Psychology*, 85(6), 1193–1202. <https://doi.org/10.1037/0022-3514.85.6.1193>
- Van de Ven, N., Zeelenberg, M., & Pieters, R. (2009). Leveling up and down: The experiences of benign and malicious envy. *Emotion*, 9(3), 419–429. <https://doi.org/10.1037/a0015669>
- Van de Ven, N., Zeelenberg, M., & Pieters, R. (2011). The envy premium in product evaluation. *Journal of Consumer Research*, 37(6), 984–998. <https://doi.org/10.1086/657239>
- Wang, L., Luo, X. R., & Li, H. (2022). Envy or conformity? An empirical investigation of peer influence on the purchase of non-functional items in mobile free-to-play games. *Journal of Business Research*, 147(August), 308–324. <https://doi.org/10.1016/j.jbusres.2022.04.011>
- Ye, J., Zhou, K., & Chen, R. (2021). Numerical or verbal Information: The effect of comparative information in social comparison on prosocial behavior. *Journal of Business Research*, 124(January), 198–211. <https://doi.org/10.1016/j.jbusres.2020.11.053>
- Joonwon Park received the PhD in marketing in 2017 from Cornell University. He is Assistant Professor of Marketing in the Department of Marketing, The University of Utah. His main area of research is consumer affect.
- Sachin Banker received his PhD from the Sloan School of Management at the Massachusetts Institute of Technology. He is currently Assistant Professor of Marketing in the Department of Marketing at the David Eccles School of Business, University of Utah. His research focuses on consumer decision making and applies methods from behavioral economics, neuroeconomics, and computational social science.
- Tamara Masters, Marketing Professor at the University of Utah. Her research in consumer judgement and decision making utilizes field studies, lab studies and biometrics. Her research has been published in *Journal of Consumer Research*, *Journal of Consumer Psychology*, *Journal of NeuroPsychoEconomics* and other top academic journals. Her research appears in CNN, USNews and World Report, Wall Street Journal and other media outlets.
- Grace Yu-Buck is an assistant professor of marketing at the University of Houston Clear Lake. She received her Ph.D. from the University of Utah. Her research focuses on understanding how language influences the perceptions, attitudes, and choices of customers. The methodological techniques she has used include natural language processing algorithms, experiments, and qualitative research methods.