

**Signaling Fun: Impression Management Motive  
Increases Consumption of Hedonic Items**

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## **CONTRIBUTION STATEMENT**

Prior research demonstrates that the presence of others impacts consumers' choices to assimilate an accompanying other's preferences, choices, and attitudes, resulting in congruency (Dzhogleva & Lamberton, 2014; Lowe & Haws, 2014; Mead et al., 2010; Ramanathan & McGill, 2006). The present work departs from this and presents a novel systematic impact that visibility to others has on consumer choice: consumption of hedonic items. In particular, we demonstrate that consumers select hedonic (vs. utilitarian) alternatives when another person can view their choice, even in the absence of knowing another person's choices or preferences. We further show that consumers employ hedonic choice to signal to others that they are having fun. Consumers anticipate that having fun is a positive social signal that can increase how much others like them and how much others will want to interact with them. Prior work on signaling has not yet investigated this desired signal nor its impact on hedonic choice (Ariely and Levav 2000; Berger and Heath 2007; Dzhogleva and Lamberton 2014; Kurt, Inman, and Argo 2011; Lowe and Haws 2014; Luo 2005; Rawn and Vohs 2011). Finally, whereas prior work on signaling and public (vs. private) choice has mostly investigated the impact of physical presence of others, the present work extends the scope of investigation into virtual presence of others. Specifically, we find that both physical accompaniment and anticipating to post about one's choices on social media increases consumers' choice of hedonic items.

## ABSTRACT

The current research demonstrates that consumers make hedonic choices when their choices are visible to others (i.e., public decision), in order to signal that they are having fun. Across six studies, we show that consumers are more likely to choose hedonic items when they are making a choice that is visible to others (e.g., physical accompaniment, social media posting), compared to a choice that is not visible to others. The choice shift to hedonic items was impacted by the motivation to present oneself in a positive light, particularly to signal that one is having fun. As such, consumption choices were impacted only when the signaling motive was activated, such as in the presence of a friend (vs. stranger), and when consumers anticipate future interactions with the audience. The paper concludes with implications for consumers, researchers, and managers.

*Keywords: signaling, fun, hedonic choice, public choice, social media*

Zoella is a social media star who weekly posts videos on YouTube. Some of her most popular videos are ‘haul’ videos, in which she reveals fun purchases including clothes and makeup, to the delight of her 11 million followers. Rather than an isolated example, Zoella is one of many who have become internet celebrities through their highly-visible consumption of fun products. Ryan ToysReview, one of the biggest channels on YouTube, gets over 100 million views for a video unboxing new toy story Kinder eggs. Of course, most consumers do not garner as large an audience for their consumption activities, but these internet sensations raise the question of whether there might be a desire on the part of everyday consumers to consume hedonic products when their choices are visible to others, whether online or in person. For example, a consumer shopping at a gourmet market could contemplate whether to purchase something that she could post on Instagram. Another consumer shopping with a friend knows that the friend will see what he chooses to consume. Imagine that either consumer passes by a bakery within the market and notices samples of freshly baked cookies. Might anticipated visibility of one’s consumption decision impact whether the consumer chooses to take a sample of the sweet treat?

Anticipating that another person will see one’s choice can lead a consumer to consider what impressions the choice would make on this other person. Prior work suggests that impression management concerns can lead people to want to communicate desired identities to others, related to their group affiliations (Berger and Heath 2007; Dzhogleva and Lamberton 2014; Lowe and Haws 2014) or personality traits (Ariely and Levav 2000; Kurt, Inman, and Argo 2011; Ratner and Kahn 2002). The question we pose here is how impression management concerns might impact consumers’ decisions about whether to select a hedonic item, such as a cookie from the display case at the gourmet market.

In the present work, we propose that one particular positive signal that consumers seek to send to others through their consumption choices is that they are having fun. We extend prior work in psychology that shows that people engage in verbal and nonverbal behaviors (such as smiling) to communicate positive dispositions, by proposing that consumers desire to show others that they are having fun through choice. Consumption choice affords a particular route to convey this signal: the consumption of hedonic items. We propose that the desire to signal that one is having fun is stronger when the choice is in view of close rather than more distant others (e.g., friends vs. strangers), although even for more distant others, we propose that anticipated future interaction can lead individuals to choose hedonic items to convey positive signals.

The remainder of the article develops the idea that consumers choose hedonic items as a result of impression management motives. The next section presents a review of the relevant literatures on impression management, which we use as a basis to develop our predictions about individuals' desire to signal that they are having fun through hedonic choices. We then present the results of six studies that support our hypothesis. We conclude with a discussion of implications for consumers and managers.

## **HEDONIC CHOICE AND IMPRESSION MANAGEMENT**

Consumers frequently make consumption choices that they anticipate will be visible to others (Argo, Dahl, and Manchanda 2005; Cottrell et al. 1968; Latané 1981; Zajonc 1965). For instance, consumers can go shopping with a friend or a family member, or a consumer could think about posting about their purchase later on social media (Barasch, Zauberaman, and Diehl 2017). The choices that a consumer makes in such public (vs. private) decision contexts can be

impacted by impression management concerns, as a choice made in view of another person can send signals (e.g., ‘what will my friend think of me when I purchase a cookie?’).

Prior work has shown that when impression management concerns are activated, consumers may value sending signals to the audience through certain consumption choices. Consumers can follow social norms to affiliate themselves with the socially dominant group (Luo 2005; Rawn and Vohs 2011; Raghunathan and Corfman 2006; Simpson, Griskevicius, and Rothman 2012). Consumers sometimes choose the same option as their accompanying other to benefit the relationship (Dzhogleva and Lamberton 2014; Lowe and Haws 2014). Consumers are even more willing to engaged in less-liked experiences for affiliation, such as eating chicken feet upon learning that their task partner loves these products (Mead et al. 2011). At the same time, consumers can sometimes be motivated to show that they stand out from the group. Individuals make risky choices, such as smoking, to convey their status in the group (Rawn and Vohs 2011). Consumers may choose options that deviate from others to signal their unique identity (Berger and Heath 2007). For example, at a restaurant, after seeing what the person sitting next to them orders, a consumer may order a dish different from what the other person has just selected (Ariely and Levav 2000). In sum, choice visibility may impact choices in conjunction with consumers’ beliefs about what the audience’s own preferences are, resulting in either convergent or divergent choices.

Consumers have also been shown to make consumption decisions to make desired impressions on others, even in the absence of knowing others’ preferences or choices (Ratner and Kahn 2002). For instance, when consumers think that another person will know (vs. not know) which items they choose, they incorporate more variety to signal their interestingness (Ratner and Kahn 2002). When another person will know whether the consumer chooses to use a

coupon to pay a bill, consumers are less likely to redeem the coupon, due to desire not to appear cheap (Ashworth, Darke and Schaller 2005). Similarly, when consumers are shopping with a companion, they spend more money to signal their competence (Kurt, Inman and Argo 2011; Luo 2005). Public (vs. private) consumption also can lead people to engage in more gender-stereotypical choices to make a positive impression on others (White and Dahl 2006).

The literature on accompanied consumption and signaling has yet to investigate whether consumers might select a hedonic (vs. utilitarian) item to convey information about themselves to others. Do consumers make more hedonic selections when their choices are visible? We propose that when one's choices are visible, such as when one is physically accompanied or anticipating to later post about the choice on social media, consumers are more likely to choose a hedonic item. The next section develops the rationale for this prediction.

### **SIGNALING THAT ONE IS HAVING FUN**

In the current research, we propose that consumers attempt to portray positive impressions by choosing hedonic (vs. utilitarian) items. Hedonic consumption is defined as consumption engaged in to obtain fun, pleasure, and excitement, compared to utilitarian consumption that is engaged in for instrumental and functional purposes (Dhar and Wertenbroch 2000; Holbrook and Hirschman 1982). We propose that consumers choose hedonic items when the choice can be known to another person, because they expect it to signal that they are experiencing positive affect and in particular, the fun and pleasure that comes from hedonic consumption.

At first blush, this proposed effect might seem similar to prior work that shows that social presence leads consumers to lose self-control and engage in impulsive purchases (Baumeister

2002; Luo 2005). However, the current research is distinct from this line of work with regard to the role of impression management. Most prior findings appear to predict that social presence would impact impulsivity regardless of whether one's choices are visible to the other person (Argo, Dahl, and Manchanda 2005). Research finds that the presence of friends versus family or others can have a differential impact on self-control, but those effects are not driven by impression management, but rather by processes related to depletion. In one interesting study that investigates impulsivity in terms of something akin to impression management rather than loss of control, consumers were found to make more impulsive joint decisions in order to preserve harmony in their relationship, when they believed their partner wanted to indulge (Dzhogleva and Lamberton 2014). We propose that choice visibility (i.e., public decision) plays a key role in our proposed effects, as consumers strategically shift their choices to send signals, even in the absence of their knowledge about their partner's preferences.

A body of work in psychology and organizational behavior shows that people use various ways to communicate a positive demeanor to others in order to be liked by them (i.e., as 'ingratiation' techniques; Baumeister 1982; Jones and Pittman 1982; Jones and Wortman 1973; Lyubomirsky, King, and Diener 2005; Saarni 1984). For instance, bowlers have been found to smile more when facing others rather than when they are facing the bowling pins, even after they score a strike (Kraut and Johnston 1979). Employees make jokes and agree with customers and supervisors to appear likeable (Cooper 2005; Jones et al. 1965; Godfrey et al. 1986). Even nonhuman primates exhibit a bared-teeth face (a "grin") to communicate that they are non-threatening (van Hooff 1972). These tactics are attempts to use verbal expression, facial cues, and subtle non-verbal behaviors to convey an individual's favorable orientation toward



interacting with the audience (Gordon 1996; Puccinelli 2006; Salovey and Mayer 1990; Wayne and Kacmar 1991).

Self-presentation motives also more generally lead people to want to share positive information with others. Online, this motivation manifests through the sharing of positive reviews (Chen 2017; Wojnicki and Godes 2011). This preference to spread positive word-of-mouth emerges partly due to people's desire to demonstrate their expertise and that they are "in the know" about novel events (Berger 2014; Dubois, Bonezzi, and De Angelis 2016; Wojnicki and Godes 2017). People are reluctant to share broadly about negative experiences that might reflect badly on their own decision making (for example, having purchased a low quality product; Barasch and Berger 2014). Indeed, people do evaluate more favorably others who convey positive attitudes toward a range of attitude objects (e.g., politicians, movies; Folkes and Sears 1976).

In addition, and central to the present theorizing, people want to convey to others positive information about their own current emotional experience. Evidence for this emerges in the typical response to a causal inquiry of "How are you?," as people focus on positives and neglect to mention the negatives (Reis et al. 2010). Indeed, such a desire appears to be validated by the reactions that people have to others who they think are happier. For example, people think they would like someone more and want to work with someone more who just reported a more positive emotional experience (i.e., feeling more comfortable, good, happy, pleasant, and positive; Bell 1978). College students rate more favorably someone they believed typically experiences positive emotions (Sommers 1984). Further, the more happiness and excitement that people express through their social media posts, the more others like them (Forest and Wood 2012).

We argue that people might be particularly attuned to signaling how much fun they are having (Reis, O’Keefe, and Lane 2017). Fun is defined as enjoyment of one’s activity, and the experience of fun can extend from low-arousal positive affect (i.e., “quiet joy”) such as reading a book to high-arousal positive affect (i.e., “active elation”) such as when playing a game. According to recent literature, people tend to think that others have more active social lives than they themselves have (Deri, Davidai, and Gilovich 2017), and they feel left out when they see others talking about social activities that they missed (i.e., “FOMO”; Hayran, Anik, and Gurhan-Canli 2016; Rifkin, Chan and Kahn 2015). These perceptions that others are having positive experiences can lead people to want to signal to others that they are also having fun and enjoying life (Valesia and Diehl 2017).

We propose that the domain of consumption affords a particular route that consumers can take to communicate to others that they are having fun. Specifically, we propose that consumers anticipate that hedonic (vs. utilitarian) consumption would be an efficient way to communicate to others that they are having a good time. Hedonic items are, by definition, particularly associated with feeling fun, excited, and cheerful (Babin, Darden, and Griffin 1994; Chitturi, Raghunathan, and Mahajan 2007; Holbrook and Hirschman 1982). As a result, regardless of one’s actual affective state, a consumer might think she will convey that she is having fun by choosing to eat a cookie in view of friend or posting a picture of the cookie online. Here we diverge from the word-of-mouth literature, which examines consumers’ decisions to talk about a consumption experience, after an event has already taken place (Berger 2014; Valesia and Diehl 2017; Wojnicki and Godes 2017). For example, prior literature examines what consumers choose to post about after visiting a bakery (Barasch and Berger 2014; Chen 2017). In this paper, we

examine how the anticipation of posting on social media or physical accompaniment at the bakery impacts what the consumer chooses to purchase at the bakery to begin with.

To preliminarily test if people are indeed motivated to signal that they are having fun and to understand the underlying reasons for this desired signal, we conducted a pilot study with 100 Amazon Mechanical Turk (“MTurk”) workers asking, “to what extent would you want others to think that you were having fun (i.e., enjoying yourself)?” (1=not at all, 7=to a great extent). The results confirmed that people indeed wanted to signal that they were having fun ( $M = 5.17$  vs. 4;  $t(99) = 8.723, p < .001$ ). MTurk workers were then asked why this was the case. Two lab assistants blind to the hypothesis counted whether respondents’ written answers mentioned the following four categories of reasons on a binary scale (0,1): 1) to be liked by others, 2) for positive future interactions, 3) to impact others to also have fun, and 4) don’t care about showing having fun. The two assistants independently coded for mentions of each category (82.6% agreement), which was followed by a discussion to resolve disagreements. Results revealed that 27 participants indicated that they want to signal that they were having fun to be liked by others (e.g., “I want to give the impression that I’m a likeable, easygoing person” or “I like to present myself in a positive light”). Sixteen participants mentioned that it would make others want to interact with them more (e.g., “Because they will want to hang out with me” or “It’s very important to have friendships in my life”), and 17 participants answered that it would positively impact others to have fun as well (e.g., “To spread positivity” or “I’m happy and I want others to

do the same”). Fourteen respondents indicated that they did not care about showing others that they are having fun<sup>1</sup>.

These preliminary findings suggest that not all choices that are visible to others would increase hedonic choice. Rather, consumers would be motivated to signal that they are having fun when they want to be liked by the audience, pursue future interactions with them and have positive impacts on them. Various contexts could activate this motivation. In particular, consumers would want to signal that they are having fun to close (vs. distant) audiences. To illustrate, a consumer would be more likely to purchase a cookie when they are at a bakery with a close friend, rather than with a less close acquaintance or in view of a stranger. Sharing positive events of one’s life with close others is critical to happiness and maintaining relationships (Caprariello and Reis 2013). Talking about one’s positive experience (e.g., having fun) is expected to be particularly well-received by close (vs. distant) others, because people expect the other person to feel happy for them and, in turn, experience positive affect (Beach and Tesser 1995; Gable et al. 2004; Reis et al. 2010; Wilcox and Stephen 2012). Research has also shown that sometimes people want to share negative experiences with close others, though this emerges when they anticipate that negative information will be useful or build an emotional

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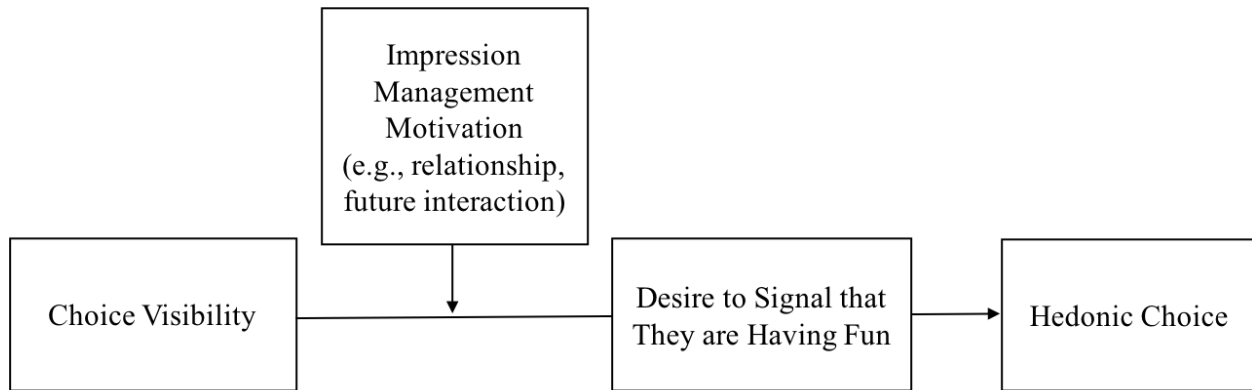
<sup>1</sup> Twenty-five participants reaffirmed their motivation to signal that they were having fun, rather than providing further insights. For example, they reported that “I want other people to realize I can have fun and enjoy myself” or “this is a fact.” Another 25 participants’ responses were illegible or did not follow instructions (e.g., no written response, “good,” “you never know who’s out to get you”).

connection (Barasch and Berger 2014; Chen 2017; Dubois et al. 2016), which is not present in our context of choosing to consume a fun experience.

To be sure, individuals are motivated to present themselves in a positive light to both friends and strangers. In particular, interacting with strangers can activate a relationship formation goal, which can activate self-presentation motives (Chen 2017; Dubois et al. 2016). We propose that when consumers are motivated to pursue positive future interactions with a stranger, they will want to convey that they are having fun. Showing that one is able and willing to enjoy life implies that interacting with the individual in the future would also be positive. Thus, even if the social presence at the bakery is another customer who is a stranger, if the consumer expects to see this customer again in the future, rather than a one-time interaction, she would be more likely to purchase a cookie.

To summarize, we propose that when one's consumption choice is visible to others, consumers choose hedonic items (see Figure 1). This choice shift occurs when impression management motives are activated, such as when the audience is someone the consumer is close with or when the consumer is motivated to pursue positive future interactions with the other person. Consumers' hedonic choice in such contexts are driven by their desire to signal that they are having fun.

**FIGURE 1. EFFECTS OF CHOICE VISIBILITY ON HEDONIC CHOICE**



We test these predictions across six studies. Study 1 and a follow-up to study 1 test the basic hypothesis that when one's choice is visible (vs. not visible) to another person by physical accompaniment, individuals' choice of a hedonic (vs. utilitarian) item increases. In the lab, participants were asked to choose whether they would like to receive a relatively more hedonic item (a mint cookie) or a more utilitarian item (a granola bar). Study 2 investigates the moderating role of impression management by testing whether certain audiences (i.e., a closer relationship) can increase hedonic choice more than others (i.e., a more distant relationship). In study 2a, individuals in the lab were accompanied by either someone relatively more close (i.e., an individual with whom they had completed a short personal conversation) or distant (i.e., with whom they had not just completed a short personal conversation), and their decision to redeem or forego a hedonic item was compared to a decision that was not visible to others. Study 2b replicates study 2a using a shopping scenario and shows that the effects are mediated by the motive to signal that one is having fun. In study 3, we further explore the signaling process, by demonstrating that even amongst strangers, when individuals expect future interactions, they choose hedonic items for their anticipated signal value. Finally, study 4 shows that the effects of

anticipating posting about one's choice on social media also increases hedonic choice, mediated by the desire to signal that one is having fun.

### **STUDY 1: MINT COOKIE VS. GRANOLA BAR**

The goal of study 1 is to test the basic proposition that when one's choice is visible to another person (i.e., to a friend who is physically present next to them), consumers choose hedonic (vs. utilitarian) items, compared to when one's choice is not visible to another person. We examine this prediction using real choice, by offering lab participants either a relatively more hedonic (i.e., mint chocolate cookie) or utilitarian snack (i.e., granola bar). Specifically, we predict that when an individual is making a choice that will be visible to a friend, they will be more likely to choose the more hedonic item (i.e., the cookie) compared to when making a private decision. We operationalize privacy of the decision in two different ways in this study: participants in one condition are told their selected item will be distributed in a paper bag rather than plastic (to make the decision seem opaque to the friend), and participants in another condition are asked to make the decision while sitting alone at a cubicle with dividers between them and other participants.

#### *Pretest*

A pretest ( $N = 138$ ,  $M_{\text{age}} = 20.12$ , 35.5% female, 64.5% male) was conducted with a different sample of the same student participant pool used in the main study to test that a mint chocolate cookie is indeed perceived to be more hedonic compared to a granola bar. Participants were presented with ten different types of snacks (e.g., ice cream, yogurt, cotton candy) including the two target options: mint chocolate cookie and granola bar. They were asked to rate

“how hedonic or utilitarian” they thought each of the ten items were (1=very utilitarian, 4=equally utilitarian and hedonic, 7=very hedonic), along with a brief definition of hedonic and utilitarian products (i.e., “Consumer goods that are primarily utilitarian are useful, practical, functional, something that helps you achieve a goal. For example, a vacuum cleaner. Primarily hedonic goods are pleasant and fun, something that is enjoyable and appeals to your senses. For example, a perfume”; adopted from Dhar and Wertenbroch 2000). Participants were then asked to indicate how much they like the same ten items (1=not like at all, 4=neutral, 7=like very much), to test whether participants had similar attitudes toward the mint chocolate cookie versus a granola bar. A repeated measures GLM regression analysis confirmed that a mint chocolate cookie was indeed perceived to be significantly more hedonic ( $M = 4.86$ ) than a granola bar ( $M = 3.54$ ;  $F(1, 137) = 36.65, p < .001, \eta_p^2 = .211$ ). Participants also indicated that they liked mint chocolate cookies ( $M = 3.83$ ) significantly less than granola bars ( $M = 4.59$ ;  $F(1, 137) = 13.40, p < .001, \eta_p^2 = .089$ ). The effect on liking was not anticipated, although it provides an even more conservative test of our prediction that impression management concerns could lead a consumer to select a hedonic item that they would not otherwise favor.

### *Method & Procedure*

Two hundred and forty-four students ( $M_{\text{age}} = 20.25$ , 45.1% female, 54.5% male, .4% prefer not to answer) at a large North American university participated in the study as part of an introductory marketing course for credit. The study used a 3-cell (condition: alone vs. friend-public vs. friend-private) between-subjects design. One participant failed to complete the study and was excluded from further analyses. In one of the sessions, the research assistants failed to inform participants of the public versus private manipulation procedure (e.g., announcement that



snack will be distributed in a brown bag in the friend-private condition); as a result, ten participants' responses from this lab session were removed from further analyses. A total of 233 responses were used for analyses.

The study consisted of three parts. The first part of the study was a communication task intended to manipulate relationship closeness. Specifically, participants assigned to the two "friend" conditions were told that they would be working with a person sitting next to them and were instructed to pull their chairs together. To generate relationship between the pair in a laboratory setting (for a review, see Sedikides et al. 1999), the paired participants first engaged in a conversation using an abridged version of the relationship closeness induction task ("RCIT<sup>2</sup>") for four minutes. After the communication task, they were told that they would work together again in a subsequent unrelated study (i.e., third part of the study), so that participants understood that their partner will be present in close physical proximity and able to observe them for the next few minutes. Participants assigned to the alone condition were not paired with another participant. Instead, they were instructed to write about "the classes they were taking this semester" for a few minutes. They were then told that they would work on a subsequent unrelated study alone.

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<sup>2</sup> RCIT includes two sets of questions that participants can ask each other and answer. The first set of questions are more introductory, including questions such as "what is your first name?" The second set of questions ask more detailed and personal questions such as "what is one recent accomplishment you are proud of?" Participants were instructed to engage in a "communication task" with their paired partner using the two lists. Research assistants instructed participants how long to spend on each list (see Appendix A for the full set of questions).

The second part of the study was guised as a short break before starting participants on their next study. Here, we manipulated whether the decision was public or private for the friend conditions and measured the focal dependent variable: choice between mint chocolate cookie and granola bar. Specifically, after the first part of the study, research assistants announced to lab participants that as a thank you for their participation, they could receive either a mint chocolate cookie or a granola bar. In the friend-public and the alone condition, participants were then told that “we will put whichever you choose into a clear plastic bag and hand it to you now, before you start the next study.” Participants in the friend-private condition were told that “we will put whichever you choose into a brown paper bag and hand it to you now, before you start the next study.” After this announcement, research assistants handed out a slip of paper (i.e., decision slip) that participants could indicate which they would like to receive (see Appendix B for an example of the decision slip). On this piece of paper, participants individually indicated whether they would prefer to receive the mint chocolate cookie versus a granola bar. After retrieving decision slips, research assistants then distributed either a mint chocolate cookie or a granola bar to each participant in a clear plastic bag or a brown bag according to the assigned conditions (see Appendix C for materials used in study 1).

In the final part of the study, participants conducted a filler task for a few minutes (e.g., browsing a restaurant review website) either with their partner or alone, consistent with prior instructions. Next, participants answered a set of questions about the filler task and importantly, their decision to receive a mint chocolate cookie or a granola bar. Specifically, participants answered manipulation check items for relationship closeness (i.e., “how much do you know about the person next to you?”; 1=not at all, 7=to a great extent) and the public versus private nature of their decisions (i.e., “to what extent could the person next to you see which item you

received?"; 1=not at all, 7=to a great extent). Finally, after reporting their demographic information, participants were debriefed and thanked for their participation.

### *Results & Discussion*

**Manipulation Check.** Participants in the two friend conditions reported that they knew the person next to them significantly better than those in the alone condition ( $M_{\text{friend-public}} = 2.26$ ,  $SD = 1.22$  vs.  $M_{\text{alone}} = 1.60$ ,  $SD = 1.30$ ;  $F(1, 151) = 10.56$ ;  $p = .001$ ,  $\eta_p^2 = .065$ ;  $M_{\text{friend-private}} = 2.31$ ,  $SD = 1.25$  vs.  $M_{\text{alone}} = 1.60$ ,  $SD = 1.30$ ;  $F(1, 161) = 10.00$ ;  $p = .002$ ,  $\eta_p^2 = .058$ ), confirming manipulation of relationship closeness. The two friend conditions did not differ on how much participants reported they knew the person next to them ( $M_{\text{friend-public}} = 2.26$ ,  $SD = 1.22$  vs.  $M_{\text{friend-private}} = 2.31$ ,  $SD = 1.25$ ;  $p = 1.000$ ). Moreover, participants in the friend-public condition indicated that the person next to them could see which item they received, more so than both the friend-private condition ( $M_{\text{friend-public}} = 5.58$ ,  $SD = 1.64$  vs.  $M_{\text{friend-private}} = 3.26$ ,  $SD = 2.35$ ;  $F(1, 170) = 50.55$ ;  $p < .001$ ,  $\eta_p^2 = .229$ ) and the alone condition ( $M_{\text{friend-public}} = 5.58$ ,  $SD = 1.64$  vs.  $M_{\text{alone}} = 4.38$ ,  $SD = 1.94$ ;  $F(1, 151) = 17.33$ ;  $p < .001$ ,  $\eta_p^2 = .103$ ). However, although participants in the friend-private condition reported that the person next to them could not see the item they received ( $M_{\text{friend-private}} = 3.26$ ,  $SD = 2.35$  vs.  $M_{\text{alone}} = 4.38$ ,  $SD = 1.94$ ;  $F(1, 161) = 8.73$ ;  $p = .004$ ,  $\eta_p^2 = .051$ ), some of them verbally shared which snack they chose. We discuss this unexpected behavior in the section that includes the choice results.

**Snack Choice.** We ran binary logistic regressions with snack choice as the dependent variable (0 = Granola bar and 1 = Mint chocolate cookie), and the manipulated conditions (alone vs. friend-public vs. friend-private) as the independent variable. Dummy variables were created as there were three levels of the manipulated conditions. In the first logistic regression, we

created the two dummy variables with the alone condition as the baseline, which allowed us to compare the alone condition with either the friend-public condition or the friend-private condition. In the second logistic regression, we created the two dummy variables with the friend-private condition as the baseline, which allowed us to compare the friend-private condition with either the friend-public condition or the alone condition.

Consistent with our predictions, results revealed that the friend-public condition chose to redeem the mint chocolate cookie (vs. granola bar) marginally significantly more than the alone condition (63.0% vs. 47.2%,  $\chi^2 (1) = 3.79, p = .052$ ). However, the friend-private condition's hedonic snack choice was not significantly different from the alone condition (57.5% vs. 47.2%,  $\chi^2 (1) = 1.60, p = .206$ ).

Contrary to predictions, the friend-public condition and the friend-private condition differed directionally but not significantly on the percentage of hedonic snacks chosen (63.0% vs. 57.5%,  $\chi^2 (1) = .50, p = .479$ ). Additional questions to these participants revealed that this unexpected result may have been due to participants in the friend-private condition voluntarily disclosing their snack choices to their friend, contaminating the manipulation. While the distribution of snacks in a brown paper bag was intended to prevent partners from seeing each other's choice, 12 out of 58 participants asked indicated that they had voluntarily disclosed their choice to their partner. Of these 12 participants, 83.3% had chosen the mint chocolate cookie. This high percentage of choice of the hedonic item among those who disclosed their choice is consistent with our general proposition that when the audience triggers impression management motives, consumers want to convey that they are having fun. Of those who did not disclose their choice ( $N = 46$ ), 52.5% had chosen the mint chocolate cookie (83.3% vs. 52.5%;  $\chi^2 (1) = 3.60, p = .058$ ). Follow-up analysis excluding these 12 participants lowered choice of hedonic item in

the friend-private condition, consistent with our predictions, although its difference from the friend-public condition did not reach significance (63.0% vs. 52.5%;  $\chi^2 (1) = 1.52, p = .217$ ), presumably due to low power.

In a follow-up study, we re-ran the two friends conditions with identical procedures as the main study 1, but with changes designed to bolster the private versus public manipulation. Specifically, while handing out the decision slips, the lab administrators verbally announced to the participants that their chosen snack will be distributed in either a plastic or a brown bag (depending on condition), and held up the type of bag that would be given to participants as demonstration. Ninety-seven participants were recruited for this follow-up study in exchange for course credit. With this bolstered manipulation of private versus public within the friends condition, the difference between friend-public and friend-private conditions in choice of the hedonic item (i.e., mint chocolate cookie) emerged as significant (70% vs. 49.1%;  $\chi^2 (1) = 4.11, p = .043$ ), as predicted.

One relevant question is whether these shifts toward consumption of a hedonic item resulted to the same degree for men and women. We did not predict gender to interact with the manipulation of one's choice visibility to impact the selection of a hedonic item. Consistent with this, no main effects or interaction effects with gender emerged in study 1 or the follow-up to study 1 (see web appendix; no interactions with gender emerged in the later studies as well, as reported in the web appendix).

In sum, the main study 1 and follow-up to study 1 provided preliminary evidence for the main prediction that when making a public (vs. private) decision, consumers shift to choosing the more hedonic (vs. utilitarian) alternative. In the next study, we test whether the signaling motive

is attenuated when the relationship to the audience is less (vs. more) close, moderating the effects on hedonic choice.

## **STUDY 2: MANIPULATING IMPRESSION MANAGEMENT MOTIVE**

Study 2 investigates whether the effects of choice visibility on hedonic choice is moderated by impression management motives. Specifically, we had theorized that consumers want to signal that they are having fun by choosing hedonic options, when they have high (vs. low) impression management motives. One way to manipulate this impression management motive is by manipulating closeness to the audience. For example, a consumer would desire to make positive impressions toward a friend with whom they would interact in the future, compared to someone with whom they are less close. Thus, even if one's choices are visible, if the target audience is a less close other, impression management motives would decrease, and the effect on hedonic choice would be mitigated.

### **Study 2a: Mint Cookie Study**

Study 2a had two additional objectives. First, whereas study 1 provides preliminary evidence that consumers' choices shift to hedonic options when the decision is public to a friend, one could argue that this pattern results from an aversion to utilitarian options in the presence of others, rather than a desire to display hedonic choices. We argue that the proposed patterns emerge due to the latter account. In study 2a, we offer participants with an option to choose or forego a hedonic choice to demonstrate this argument. Participants are presented with real choice of redeeming a cookie and report actual consumption behavior (i.e., how much they eat the cookie) to test if it aligns with their decisions. Second, prior work in shared consumption shows

that people indulge more when they are with others because it helps them feel less guilty about their consumption (Lowe and Haws 2014). We measure experienced guilt to rule out this alternative explanation.

### *Method & Procedure*

One hundred and seventy-two students ( $M_{\text{age}} = 19.95$ , 48.8% female, 51.2% male) at a large North American university participated in the study as part of an introductory marketing course for credit. The study used a 3-cell (condition: friend-public vs. control-public vs. alone) between-subjects design.

The study procedure was similar to that of study 1. In the first part of the study, participants in the friend-public condition were paired with a person sitting next to them and engaged in a communication task consistent with study 1 (i.e., RCIT). The participants in the control-public condition did not go through this relationship induction task but were paired with a person sitting next to them<sup>3</sup>. Thus, participants in both the public conditions shared one computer screen and were able to observe each other's choice, whereas the participants in the alone condition engaged in the same filler task on individual computer screens with dividers.

The second part of the study was guised as a short break before starting participants on their next study, similar to study 1. It measured the focal dependent variable, choice of

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<sup>3</sup> When asked "how well did you know the person next to you, prior to participating in today's study?" (1=Not at all well, 7= Very well) both friend-public and control-public conditions were equally low ( $M_{\text{friend-public}} = 1.91$ ,  $SD = 1.40$  vs.  $M_{\text{control-public}} = 1.50$ ,  $SD = 1.74$ ;  $p = .179$ ). There were only five and four participants in respective conditions that rated above the mid-point (4).

redeeming a hedonic item: a mint cookie. Specifically, after completing the first part of the study, research assistants announced to lab participants that “we would like to offer you a fudge mint cookie as a thank you for your participation. If you decide to redeem the cookie, we will distribute the cookies now, before starting the next study.” With this announcement, the research assistants handed out a slip of paper (i.e., decision slip) where participants indicated their choice by answering the question “would like to redeem a fudge mint cookie? (yes vs. no cookie for me).” After the research assistants retrieved the decision slip, participants indicated their signaling motive by rating “to what extent do you want the person next to you to think that you are having a good time?” (1=not at all, 7=to a great extent). Research assistants then distributed a cookie to participants who said yes to redeeming the mint cookie.

In the final part of the study, participants engaged in a filler task (e.g., browse a restaurant review website) either with the person next to them in the public conditions or alone for a few minutes. Next, participants answered a set of questions about the filler task and about their thoughts regarding their decision to redeem a mint cookie. Specifically, participants answered a manipulation check item for relationship closeness after the task (i.e., “how well do you know the person next to you?”; 1=not at all well, 7=very well) and before (i.e., “how well did you know the person next to you, prior to the study?”; 1=not at all well, 7=very well). Participants then indicated “how much of the cookie they ate while browsing the website” (1=not at all, 7=all of it). Next, they were asked “how guilty they felt about the cookie consumption” (1=not at all, 7=very much). Finally, after reporting their demographic information, participants were debriefed and thanked for their participation.

### *Results & Discussion*



**Manipulation Check.** Participants in the friend-public condition reported that they knew the person next to them significantly better than both those in the alone ( $M_{\text{friend-public}} = 3.55$ ,  $SD = 1.61$  vs.  $M_{\text{alone}} = 2.18$ ,  $SD = 1.71$ ;  $F(1,116) = 19.68$ ,  $p < .001$ ,  $\eta_p^2 = .146$ ) and the control-public condition ( $M_{\text{friend-public}} = 3.55$ ,  $SD = 1.61$  vs.  $M_{\text{control-public}} = 2.17$ ,  $SD = 1.60$ ,  $F(1,108) = 20.15$ ,  $p < .001$ ,  $\eta_p^2 = .158$ ).

**Decision to Redeem Mint Cookie.** We ran binary logistic regressions with decision to redeem the mint cookie as the dependent variable (0 = No cookie for me and 1 = Yes), and the manipulated conditions (friend-public vs. control-public vs. alone) as the independent variable. Dummy variables were created as there were three levels of the manipulated conditions. In the first logistic regression, we created the two dummy variables with the friend-public condition as the baseline, which allowed us to compare the friend-public condition with either the alone condition or the control-public condition. In the second logistic regression, we created the two dummy variables with the control-public condition as the baseline, which allowed us to compare the control-public condition with either the alone condition or the friend-public condition.

Consistent with our predictions, results revealed that the friend-public condition chose to redeem the cookie significantly more than the alone condition (75.9% vs. 58.3%,  $\chi^2(1) = 3.88$ ,  $p = .049$ ). The friend-public condition participants marginally significantly chose to redeem the cookie more than the control-public condition (75.9% vs. 59.3%,  $\chi^2(1) = 3.37$ ,  $p = .067$ ). In addition, there was no difference between alone and control-public condition in the percentage of participants who chose to redeem the cookie (58.3% vs. 59.3%,  $\chi^2(1) = .01$ ,  $p = .920$ ). These patterns support our prediction that the type of audience moderate consumers' decision to choose hedonic items. Specifically, when one's decision is visible to a friend, consumers want to display hedonic choices to them. However, when the decision is visible to someone they feel they know

less well, consumers are less motivated to display hedonic choices to them. We acknowledge that while the control-public condition participants did not go through a friendship induction task, they had worked on a prior study together, and that this may have contributed to a certain level of rapport. While the manipulation check suggests that the alone and control-public condition participants felt no difference in how much they knew about the person next to them, participants in the control-public condition versus alone condition may have cared somewhat more about the other person. We also note that the alone condition may be a purer test of being surrounded by strangers. In a real purchase situation, consumers visiting a cookie store alone would be observed by strangers (i.e., other consumers in the store), with whom they engage in no interaction at all, much like the alone condition. This point is further investigated in study 2b.

**Signaling Motive.** A one-way ANOVA with the manipulated conditions significantly predicted signaling motives ( $F(2,169) = 6.53, p = .002, \eta_p^2 = .072$ ), such that those in the friend-public condition had stronger signaling motives compared to both those in the control-public condition ( $M_{\text{friend-public}} = 4.65, SD = 1.87$  vs.  $M_{\text{control-public}} = 3.94, SD = 1.92; F(1,107) = 3.84, p = .053, \eta_p^2 = .035$ ) and those in the alone condition ( $M_{\text{friend-public}} = 4.65, SD = 1.87$  vs.  $M_{\text{alone}} = 3.43, SD = 1.75; F(1,116) = 13.55, p < .001, \eta_p^2 = .105$ ). While the signaling motive pattern is consistent with our predictions, a mediation analysis testing signaling motive's impact on hedonic choice did not reach significance ( $b = -.0153, SE = .0592; 95\% \text{ CI: } [-.1423 \text{ to } .0973]$ ). We note that this non-significant mediation result may be due to some limitations by using the student sample, such that the participants might be taking the same class and thus might have wanted to signal that they are having fun for potential future interactions. In fact, the control-public condition's signaling motive was only marginally significantly different from that of the friend-public condition. We use the same mediation item in study 2b with a different sample to

provide further evidence for the process. Furthermore, participants in the alone condition may have been confused by the question. In study 2b, we exclude the item in the alone condition and test the impact of different audiences across two public decision conditions.

**Cookie consumption.** A one-way ANOVA with the manipulated condition as the predicting variable on participants' actual consumption behavior of the fudge mint cookie was consistent with choice patterns ( $F(2,106) = 4.706, p = .011, \eta_p^2 = .082$ ). Of the 108 participants that chose to redeem the cookie, participants in the friend-public condition consumed the cookie significantly more than those in the alone condition ( $M_{\text{friend-public}} = 4.22, SD = 2.96$  vs.  $M_{\text{alone}} = 2.33, SD = 2.53; F(1,75) = 8.90, p = .004, \eta_p^2 = .106$ ). The control-public condition again fell in the middle. It was marginally significantly lower than the friend-public condition ( $M_{\text{control-public}} = 2.88, SD = 2.83$  vs.  $M_{\text{friend-public}} = 4.22, SD = 2.96; F(1,71) = 3.85, p = .054, \eta_p^2 = .051$ ), and it did not differ from the alone condition ( $M_{\text{control-public}} = 2.88, SD = 2.83$  vs.  $M_{\text{alone}} = 2.33, SD = 2.53; F(1,66) = .70, p = .407$ ).

**Alternative: Guilt.** A one-way ANOVA showed that there was no difference in experienced guilt among the 108 participants that redeemed the cookie, depending on manipulated condition ( $p = .914$ ), ruling out this alternative explanation. In fact, the amount of cookie consumed did not predict experienced guilt in any of the manipulated conditions (all  $ps > .347$ ).

## Study 2b: Ice Cream Study

In study 2a, the control-public condition's hedonic choice was marginally different from that in the friend-public condition. That the difference was not larger might have been due to the rapport built through working together as partners, despite not going through a relationship

induction task, encouraging impression management motives. Study 2b tests the role of audience by presenting a purer form of strangers. Specifically, consumers in real consumption settings visiting a store might easily be surrounded by other consumers shopping in the store (i.e., strangers). Our theory suggests that hedonic choice shift is impacted by the activation of impression management motives (such as in the presence of a friend, but not a stranger), rather than the mere physical presence of others. If, alternatively, consumers' hedonic choice is impacted by the mere presence of others (Argo, Dahl, and Manchanda 2005), reminding consumers that there are strangers observing one's choice would produce similar effects as being observed by a friend.

Furthermore, study 2b measures participants' signaling motives with the same item used in study 2a (i.e., having a good time) and test if it serves as a statistically significant mediator.

### *Method & Procedure*

One hundred and fifty-eight individuals ( $M_{\text{age}} = 37.08$ , 49.4% female, 50.0% male, .6% prefer not to answer) were recruited on Amazon Mechanical Turk ("MTurk") to participate in the experiment in exchange for a small monetary reward. The study used a 3-cell (condition: friend vs. alone vs. stranger) between-subjects design.

Participants were welcomed to a study investigating consumers' shopping experiences. The friend condition participants were first asked to think about a friend of their same gender and indicate that person's name. They were then asked to imagine going shopping with the friend on a Saturday afternoon, and instructed write to a few sentences about "what they would do and see" on this shopping trip to help visualize the situation. The alone and stranger condition

participants were asked to imagine “going shopping alone on a Saturday afternoon,” and were also instructed to write about the experience.

Participants were then told that “during the shopping trip, [you vs. you and your friend] wanted a bite to eat and stopped by a casual dining place.” The friend and alone condition participants then read that “after finishing your meal, you see that the restaurant offers a selection of ice cream for dessert, with many flavors.” To remind participants of the strangers observing their choice, those in the stranger condition read that “after finishing your meal, another patron sitting near you is also finished with their meal. You see that the restaurant offers a selection of ice cream for dessert, with many flavors.”

As the focal dependent measure, participants then rated “how likely it is for them to order a scoop of ice cream” (1=not at all likely, 7=very likely). Next, participants in the friend and stranger conditions were asked about their signaling motive to their respective audiences: “when you were deciding whether to order ice cream or not, to what extent did you want [your friend vs. other patrons in the restaurant] to think that you were having a good time?” on a 1(not at all) to 7(to a great extent) Likert scale. Next, participants rated the extent to which they thought ice cream was hedonic (1=very utilitarian, 7=very hedonic) as a manipulation check of the target item. As a manipulation check of relationship closeness with the target audience, participants in the friend and stranger conditions were also asked “how well would you know the [friend vs. patron]?” (1=not at all, 7=very well). Finally, after reporting their demographic information, participants were debriefed and thanked for their participation.

### *Results & Discussion*

**Manipulation Check.** As intended, participants rated ice cream as significantly more hedonic than the mid-point on a 7-point Likert scale ( $M = 5.98$  vs. 4,  $SD = 1.48$ ,  $t(157) = 16.85$ ,  $p < .001$ ). Moreover, participants in the friend condition reported that they knew the friend significantly better than the patron in the stranger condition ( $M_{\text{friend}} = 6.44$ ,  $SD = 1.02$  vs.  $M_{\text{stranger}} = 2.23$ ,  $SD = 1.70$ ;  $F(1,103) = 237.75$ ,  $p < .001$ ,  $\eta_p^2 = .698$ ).

**Ice Cream Purchase Likelihood.** As predicted, a one-way ANOVA with the manipulated condition as the predicting variable on ratings of ice cream purchase likelihood revealed a significant omnibus result ( $F(2,155) = 7.61$ ,  $p = .001$ ,  $\eta_p^2 = .089$ ). Subsequent planned contrasts showed that consumers in the friend condition were significantly more likely to purchase ice cream compared to alone consumers ( $M_{\text{friend}} = 4.81$ ,  $SD = 1.97$  vs.  $M_{\text{alone}} = 3.30$ ,  $SD = 2.12$ ;  $F(1,103) = 14.22$ ,  $p < .001$ ,  $\eta_p^2 = .121$ ). Moreover, consumers in the friend condition were significantly more likely to purchase ice cream compared to stranger condition consumers ( $M_{\text{friend}} = 4.81$ ,  $SD = 1.97$  vs.  $M_{\text{stranger}} = 3.87$ ,  $SD = 1.97$ ;  $F(1,103) = 6.22$ ,  $p = .014$ ,  $\eta_p^2 = .057$ ). There was no difference in likelihood of purchasing ice cream between the alone and stranger condition consumers ( $M_{\text{alone}} = 3.30$ ,  $SD = 2.12$  vs.  $M_{\text{stranger}} = 3.87$ ,  $SD = 1.89$ ;  $F(1,104) = 2.11$ ,  $p = .150$ ). This pattern replicates the results found in study 2a that employed real choice in the lab.

**Signaling Motive.** We hypothesized that hedonic choices are driven by consumers' desire to signal that they are having fun. To address the limitations found in study 2a, study 2b focused on the two conditions with explicit target audiences, friend and stranger conditions, and asked participants how much they thought about signaling having a good time to their respective audience when they made their choice. A one-way ANOVA supported our predictions, such that those in the friend condition had stronger signaling motives compared to those in the stranger condition ( $M_{\text{friend}} = 5.88$ ,  $SD = 1.34$  vs.  $M_{\text{stranger}} = 4.72$ ,  $SD = 1.67$ ;  $F(1,103) = 22.74$ ,  $p < .001$ ,

$\eta_p^2 = .181$ ). Furthermore, a mediation analysis (Hayes 2012, Model 4) with a 10,000 resample bootstrap confirmed that participants' signaling motive significantly mediated the effect of manipulated conditions on participants' likelihood of purchasing ice cream ( $b = -.4673$ ,  $SE = .2153$ ; 95% CI:  $[-.9800, -.1214]$ ).

In sum, studies 2a and 2b investigated whether the proposed effect of the visibility of one's choice (i.e., public choice) on preference for hedonic options is moderated by impression management motives. In particular, we propose and find that one way to manipulate the degree to which a consumer is motivated to send positive signals by choosing hedonic items is through type of target audience. When participants were motivated to manage positive impressions to the observing person, such as a friend, participants were more likely to make hedonic choices. Interestingly, this effect did not occur when the person observing was someone they were less motivated to manage impressions toward, such as a stranger. We find directional and statistical mediation evidence that the different audiences differently impacted consumers' desire to signal that they are having fun, which further impacted hedonic choice.

### **STUDY 3: ANTICIPATED FUTURE INTERACTION**

The main goal of study 3 is to understand the core mechanism underlying consumers' motivation to signal that they are having fun: a desire for future interactions. According to our theory and pilot study, consumers want to signal to others that they are having fun because they think it will positively impact future interactions. This implies that when consumers expect future interactions even with strangers, they would be motivated to signal that they are having fun. For example, when attending a photography class that will meet multiple times, consumers would make hedonic choices to show others in the class that they are having fun, because they

anticipate future interactions with the strangers. However, if consumers know that a photography class is only one session (i.e., no future classes), consumers would be less inclined to make hedonic choices, because signaling that they are having fun to strangers with whom they will interact with just once, matters less. This motivation to signal that one is having fun would be even stronger when the other person determines future interactions. In study 3, we hold all conditions constant as public choices and manipulate potential future interactions with strangers to test how it impacts hedonic choice.

### *Method & Procedure*

Five hundred and eighty individuals ( $M_{\text{age}} = 35.98$ , 50.0% female, 49.5% male, .5% prefer not to answer) were recruited on Amazon Mechanical Turk (“MTurk”) to participate in the experiment in exchange for a small monetary reward. The study used a 3-cell (Conditions: one session vs. three sessions-student decision vs. three sessions-instructor decision) between-subjects design.

Participants were welcomed to a study investigating a photography class. In the one session condition, participants were asked to “imagine that you are attending a photography class that meets one time only (this Sunday afternoon). This class is a 90 minute-session, taught by a professional photographer.” Meanwhile, in both three sessions conditions, participants were asked to “imagine that you are attending a photography class that meets once a week for each of three consecutive weeks on Sunday afternoons. This class is a 90 minute-session, taught by a professional photographer.” All conditions were then told to imagine attending a photography class session on a Sunday. They were told that in the class, the final activity was to work together with a partner, and that they enjoyed working with the partner and felt like they had learned new



photography techniques. Then, those in the three sessions-student decision were told that the “instructor announced that in the next session, students will be able to decide whether to work with the same partner again.” However, the three sessions-instructor decision were told that the “instructor announced that in the next session, the instructor will decide whether students will work with the same partner again.”

Next, all participants were told that when they were “finishing up working with the partner, the instructor offers everyone either a mint chocolate cookie or a granola bar.” And were asked to indicate which one they would take (i.e., I would take a mint chocolate cookie vs. I would take a granola bar), which served as the main dependent choice measure, similar to study 1. Participants were then asked, “to what extent would you care about the impressions you make on the partner?” (1=not at all, 7=to a great extent) to test the mediating process of the extent to which the participant would feel motivated to send positive signals. Then, participants rated manipulation check items for future interaction (i.e., “Did you imagine that you would interact with the partner again in the future?”; 1=not at all, 7=to a great extent), public nature of the decision (i.e., “To what extent did you imagine that the partner would see your choice?”; 1=definitely not see, 7=definitely see), and the hedonic versus utilitarian nature of the choice options (i.e., “How hedonic or utilitarian do you think the following items are?: 1. Mint chocolate cookie, 2. Granola bar; 1=completely utilitarian, 7=completely hedonic). Finally, after reporting their demographic information, participants were debriefed and thanked for their participation.

## *Results & Discussion*

### **Manipulation Checks.**

*Future interaction.* A one-way ANOVA confirmed that participants indeed perceived less future interaction with the partner in the one session compared to the three sessions-student decision condition ( $M_{\text{one session}} = 4.95$ ,  $SD = 1.66$  vs.  $M_{\text{three sessions-student decision}} = 6.00$ ,  $SD = 1.05$ ;  $F(1,386) = 54.89$ ,  $p < .001$ ,  $\eta_p^2 = .124$ ) as well as the three session-instructor decision condition ( $M_{\text{one session}} = 4.95$ ,  $SD = 1.66$  vs.  $M_{\text{three sessions-instructor decision}} = 5.58$ ,  $SD = 1.34$ ;  $F(1,385) = 16.54$ ,  $p < .001$ ,  $\eta_p^2 = .041$ ). Interestingly, participants thought there would be more future interactions when they could decide future partners, compared to when the instructor made the decision ( $M_{\text{three sessions-student decision}} = 6.00$ ,  $SD = 1.05$  vs.  $M_{\text{three sessions-instructor decision}} = 5.58$ ,  $SD = 1.34$ ;  $F(1,383) = 11.91$ ,  $p = .001$ ,  $\eta_p^2 = .030$ ), perhaps because they anticipated that they and their partner would choose to work together again.

*Public choice.* As in all conditions, the participants imagined that they would be choosing a snack in view of their partner and others in the photography class ( $M = 4.65$  vs. the scale midpoint of 4,  $SD = 1.75$ ,  $t(579) = 8.97$ ,  $p < .001$ ), there was no difference across the three conditions, as predicted ( $F(2,577) = .53$ ,  $p = .588$ ).

*Hedonic option perception.* A repeated measures ANOVA revealed that participants indeed perceived the mint cookie to be more hedonic compared to the granola bar, consistent with the results in study 1 that employed student samples (i.e.,  $M_{\text{mint cookie}} = 5.84$ ,  $SD = 1.35$  vs.  $M_{\text{granola bar}} = 4.11$ ,  $SD = 1.79$ ,  $F(1,579) = 357.06$ ,  $p < .001$ ,  $\eta_p^2 = .381$ ).

**Snack Choice.** We ran binary logistic regressions with the snack choice of cookie (vs. granola bar) as the dependent variable (0 = Mint cookie and 1 = Granola bar), and the manipulated conditions (one session vs. three sessions-student decision vs. three sessions-instructor decision) as the independent variable. Dummy variables were created as there were three levels of the manipulated conditions. In the first logistic regression, we created the two

dummy variables with the three sessions-student decision condition as the baseline, which allowed us to compare the three sessions-student decision condition with either the one session condition or the three sessions-instructor decision condition. In the second logistic regression, we created the two dummy variables with the three sessions-instructor decision condition as the baseline, which allowed us to compare the three sessions-instructor decision condition with either the one session condition or the three sessions-student decision condition.

Results revealed that the three sessions-student decision condition significantly chose the cookie more than the one session condition (62.2% vs. 47.2%,  $\chi^2(1) = 8.73, p = .003$ ), supporting our predictions. The three sessions-instructor decision condition landed in the middle. There was no significant difference in the percentage of participants who chose the cookie between the three sessions-student decision condition and three sessions-instructor decision condition (62.2% vs. 54.7%,  $\chi^2(1) = 2.22, p = .136$ ). There also was no significant difference between the three sessions-instructor decision and one session condition (54.7% vs. 47.2%,  $\chi^2(1) = 2.18, p = .140$ ). Overall, the results suggest that while the possibility (vs. no possibility) of seeing the partner in consecutive class sessions directionally increase hedonic choice, the effects are strongest when consumers have greater desires to signal to the target audience that they are having fun (i.e., three sessions-student decision condition), and thus would like to work together again in the future. While participants in the three sessions-instructor decision anticipated consecutive classes, it would have been unclear to them whether the instructor would pair them up with the same partner again, decreasing their choice of cookie. We further test this mechanism with the measured signaling motive.

**Signaling Motive.** Consistent with our predictions, a one-way ANOVA with the manipulated condition as the predicting variable on signaling motive revealed a significant

omnibus result ( $F(2,577) = 8.84, p < .001, \eta_p^2 = .030$ ). Subsequent planned contrasts showed that compared to those in the one session condition, participants who expected to see their partner in two consecutive classes and were able to decide their own partners had significantly greater signaling motives ( $M_{\text{three sessions-student decision}} = 5.56, SD = 1.19$  vs.  $M_{\text{one session}} = 4.92, SD = 1.70$ ;  $F(1,386) = 18.52, p < .001, \eta_p^2 = .046$ ). Furthermore, participants in the three sessions-student decision condition had significantly greater signaling motives than those in the three sessions-instructor decision condition ( $M_{\text{three sessions-student decision}} = 5.56, SD = 1.19$  vs.  $M_{\text{three sessions-instructor decision}} = 5.15, SD = 1.62$ ;  $F(1,383) = 7.97, p = .005, \eta_p^2 = .020$ ). Even when participants anticipated future interactions, when the partner decision was made by the instructor, participants did not show greater signaling motives compared to the one session condition ( $M_{\text{three sessions-instructor decision}} = 5.15, SD = 1.62$  vs.  $M_{\text{one session}} = 4.92, SD = 1.70$ ;  $F(1,385) = 1.90, p = .169$ ). In addition, although a mediation analysis (Hayes 2012, Model 4) with all conditions did not reach significance (CI: [-.1645, .5946]), a mediation analysis (Hayes 2012, Model 4) comparing the one session condition and the three sessions-student decision condition supported that the manipulation lead to different signaling motivations, which subsequently impacted hedonic choices ( $b = -.0936$ ;  $SE = .0515$ , 95% CI: [-.2157, -.0079]).

#### **STUDY 4: SOCIAL MEDIA POSTING INCREASES HEDONIC CHOICE**

Studies 1-3 focused on the impact of choice visibility by examining how physical accompaniment increases consumers' tendency to choose hedonic options. This is because one's choice becomes visibly accessible to an audience in close physical proximity. We further propose that physical accompaniment is not the only context where one's choices become public. Consumers can post about their choices on social media and make their choices public, even if

they are physically alone at the time of consumption choice. Of course, social media posting and physical accompaniment may vary in various other ways. We predict that despite such subtle differences, they similarly impact hedonic (vs. utilitarian) choice because the choice visibility increases consumers' desires to signal that they are having fun.

We also add measures of the mediation process in study 4. We employ measures of self-presentation concerns used in prior literature (Barasch et al. 2017), in addition to the measures used in the previous study to increase reliability of the process measure. Finally, the target item that the choice decision was made on in studies 1-3 were limited to food items. We expand the scope of the choice product category to demonstrate the generalizability of the results.

### *Method & Procedure*

Three hundred and ninety-one individuals ( $M_{\text{age}} = 37.07$ , 48.1% female, 51.4% male, .5% prefer not to answer) were recruited on Amazon Mechanical Turk ("MTurk") to participate in the experiment in exchange for a small monetary reward. The study used a 2-cell (Conditions: social media vs. control) between-subjects design.

Participants were welcomed to a study investigating consumers' evaluations of gift cards and brands. They were asked to imagine receiving a \$10 gift card at a retailer of their choice. In the control condition, participants were shown four different retailers, including Starbucks, CVS, AMC Theaters, and Home Depot. To facilitate imagination of the scenario, they were asked to write a few sentences describing "what they would purchase with the gift card." Meanwhile, in the social media condition, participants were told to imagine "uploading a photo of whatever they buy with the gift card, to a social media account of their choice," and were shown the same four retailers. They were further instructed to write a few sentences describing "what you would

write in the post you upload about your gift card purchase and what the photo would be.” All participants then indicated their choice, which served as the main dependent variable (i.e., “which \$10 gift card would you choose to receive?”; Starbucks vs. CVS vs. AMC Theaters vs. Home Depot).

Next, participants were asked about their signaling motive on four items. The first item was consistent with that used in study 2a and 2b (i.e., “When making the choice between gift cards, to what extent did you want others to think that you were having a good time?”) and a new item asking “to what extent did you want others to think that you are a fun person?”, both on 1(not at all) to 7(to a great extent) Likert scales. The other two items were impression management measures adopted from prior work (Barasch, Zauberger, and Diehl 2017): “How worried were you that you were making a choice that would show yourself in the best possible light?” and “To what extent were you attempting to control the impression you make through your choice?” (1=not at all, 7=extremely). Four items loaded on one factor and were averaged to form a signaling motive index ( $\alpha = .857$ ). Then, as a manipulation check of public (vs. private) nature of their choice participants were asked “to what extent they thought that others would know about your decision” (1=not at all, 7=to a great extent). Also, as manipulation checks that Starbucks and AMC Theaters were perceived to be more hedonic options compared to CVS and Home Depot, participants were asked to rate how hedonic or utilitarian they thought each retailer was (1=completely utilitarian, 7=completely hedonic). Finally, after reporting their demographic information, participants were debriefed and thanked for their participation.

### *Results & Discussion*

**Manipulation Check.** As intended, participants in the social media condition thought that others would know about their decision significantly more than the control condition ( $M_{\text{social media}} = 4.51$ ,  $SD = 2.00$  vs.  $M_{\text{control}} = 2.40$ ,  $SD = 1.92$ ,  $F(1,390) = 114.13$ ,  $p < .001$ ,  $\eta_p^2 = .227$ ). Furthermore, a repeated measures ANOVA revealed that participants indeed perceived the two hedonic options (i.e., Starbucks and AMC Theaters;  $M_{\text{Starbucks}} = 5.77$ ,  $SD = 1.51$  and  $M_{\text{AMC Theaters}} = 6.11$ ,  $SD = 1.44$ ) as more hedonic retailers compared to the two utilitarian options (i.e., CVS and Home Depot;  $M_{\text{CVS}} = 2.75$ ,  $SD = 1.59$  and  $M_{\text{Home Depot}} = 2.42$ ,  $SD = 1.63$ ,  $F(1,390) = 863.62$ ,  $p < .001$ ,  $\eta_p^2 = .689$ ).

**Gift Card Choice.** As predicted, more participants in the social media condition (64.6%) chose a hedonic gift card than in the control condition (53.8%;  $\chi^2(1) = 4.71$ ,  $p = .030$ ). This result replicates the pattern from previous studies, where public (vs. private) choice context significantly shifts consumers' choices to hedonic (vs. utilitarian) options. Participants who anticipated to post about their gift card choice on social media chose a hedonic gift card more than those who did not anticipate posting about their choice on social media (for choice patterns of each gift card, see the web appendix).

**Signaling Motive.** Consistent with our predictions, a one-way ANOVA with the manipulated condition as the predicting variable on the signaling motive index revealed a significant difference in how motivated participants were when they made their gift card choice decision ( $M_{\text{social media}} = 3.44$ ,  $SD = 1.56$  vs.  $M_{\text{control}} = 2.42$ ,  $SD = 1.59$ ,  $F(1,390) = 40.67$ ,  $p < .001$ ,  $\eta_p^2 = .095$ ). Furthermore, a mediation analysis (Hayes 2012, Model 4) with a 10,000 resample bootstrap confirmed that an increase in participants' signaling motive significantly mediated the manipulation of anticipating social media sharing on increased choice for hedonic options ( $b = .2107$ ,  $SE = .0798$ ; 95% CI: [.0754, .3872]).

## **GENERAL DISCUSSION**

In summary, six studies demonstrate that consumers choose hedonic (vs. utilitarian) items when they expect their choices to be observed by others, because consumers want to signal that they are having fun. Further, we show that not all public choices lead to hedonic choice. Consumers shift to select hedonic items when they are motivated to present themselves in a positive light, such as when the audience is someone with whom they have closer (vs. distant) relationships, or when they anticipate (vs. do not anticipate) future interactions with the audience. Furthermore, we show that consumers anticipate their choice to be visible to others in several situations, including physical accompaniment and anticipation of posting on social media.

### *Theoretical Contributions*

The current research extends and contributes to prior work in three important ways. First, we demonstrate that the visibility of one's choices to others (i.e., public choice) impacts a novel choice outcome: selection of hedonic (vs. utilitarian) items. This finding contributes to both the consumer behavior and social psychology literature. Whereas prior work in consumer behavior has shown that consumers employ certain choices to send signals (e.g., choice variety, divergent or convergent choice; Ariely and Levav 2000; Bellezza, Gino, and Keinan 2013; Berger and Heath 2007; Dzhogleva and Lamberton 2014; Ratner and Kahn 2002; Rawn and Vohs 2011), research had yet to examine how consumers' signaling motives in social settings could systematically increase hedonic (vs. utilitarian) consumption. In social psychology, while putting one's best 'face' forward in social settings is not a new finding (for a review on ingratiation, see



Jones and Wortman 1973), their investigations were limited to facial expressions (e.g., smiling) and verbal communication (e.g., making jokes, agreeing with another person) as ingratiation tools, not consumption choice (Jones et al. 1965; Godfrey et al. 1986).

Second, we identify a novel signaling motive, consumers' desire to signal that they are having fun, which drives their choice shift to hedonic (vs. utilitarian) options in social contexts. Our theory predicts that in any given consumption choice situation, a consumer would be motivated to signal that one is having fun when another person observing their choice invokes impression management motives. An interesting question is whether there are some audiences, such as a co-worker or a supervisor, to whom one would want to signal a desire to work over having fun. Our theorizing would predict that as an individual would want to be liked and enjoy positive future interactions with both a friend and a supervisor, they would similarly activate the motivation to signal that one is having fun. To test for this generalizability, we asked 260 MTurk workers to imagine either being alone at a dessert buffet with strangers, or with a friend, a co-worker, or a supervisor. When asked to rate the extent to which they would want their audience to think they were "having a good time," participants indeed indicated that they wanted their friend, co-worker, and supervisor to equally think that they were having fun, significantly more than they wanted a stranger to think that they were having fun (all  $ps < .014$ ). We note that in many consumption contexts, an individual is presented with a hedonic option that represents a sufficiently small indulgence that the consumption would not compromise their ability to meet other goals. For example, a consumer presented with dessert options at a work reception might anticipate that choosing a cookie would signal that they are having fun in a way that would not interfere with work, unlike choosing multiple glasses of champagne that they might anticipate would signal a disregard for their subsequent work productivity. Indeed, these

more costly forms of hedonic consumption that would undermine other impressions the consumer would want to make (e.g., competent) could lead to attenuations of the present effects.

Third, we expand the scope of prior work on shared consumption and public (vs. private) choice by directly exploring the impact of anticipating posting on social media on consumer choice. We build on prior work (Barasch et al. 2017) and demonstrate that the anticipation of posting about one's choice on social media impacts choice of hedonic products, consistent with choice visibility through physical accompaniment. This proposition departs from prior work on word-of-mouth, which has predominantly focused on ex-post sharing (for a review, see Berger 2014). Specifically, prior literature has focused on consumers' decision to share certain information with others, after the consumption has already taken place. For example, after visiting a gourmet market, consumers may choose to post about their positive or negative experience on social media, depending on who the target audience is (Barasch and Berger 2014; Chen 2017; Dubois, Bonezzi, and DeAngelis 2016; Wojnicki and Godes 2008). We propose that anticipating posting on social media frames one's choice as a public (vs. private) one, visible to social media friends, and show that it leads consumers to choose hedonic items that they can later use as the focus of a post.

### *Implications and Directions for Future Research*

One question raised by the current research is if consumers are better or worse off that public (vs. private) choice pushes them into making more hedonic choices. On one hand, it could hurt consumers, especially if their personal preference is to choose a utilitarian option and they are choosing a hedonic option just for the sake of signaling, as in study 1. If so, frequent engagement in public consumption, such as going shopping with a friend or thinking about

posting on social media, may derive less satisfaction in the long-run for consumers. On the other hand, a push to make hedonic choices might benefit consumers, if they otherwise do not allow themselves to indulge or exhibit hyperopia (Kivetz and Keinan 2006). Thus, consumers might feel less guilt toward hedonic consumption activities and derive more happiness from engaging in such hedonic experiences. While the results from the current research does not find a difference in how much satisfaction participants felt after redeeming a cookie versus receiving a granola bar (e.g., in study 1), we do not investigate the long-term satisfaction or enjoyment from engaging in public hedonic choices. It would be fruitful for future research to investigate long-term consumers well-fare implications of engaging in hedonic choices for the sake of signaling.

Another question that naturally follows is, are consumers' efforts to send signals through hedonic choice compensated? That is, do observers correctly interpret consumers' hedonic choice as meaning that they are having fun? As mentioned before, hedonic choices can be costly, such as being a personally less preferred option or imposing more health risks. While consumers make such costly hedonic choices with the intention of signaling that they are having fun to their desired audience, it may not be as effective of a signal as consumers expect (Gilovich, Medvec, and Savitsky 2000). To gain insight regarding observer's actual perceptions in comparison to consumers' predictions, we randomly assigned 204 students to one of the conditions in a  $2(\text{perspective: actor vs. observer}) \times 2(\text{hedonic consumption: order vs. forego})$  between-subjects design. The study was set up similar to that of study 2b, where participants were asked to imagine going shopping with a friend and then stopping by a restaurant to get food. They were asked to imagine that after their meal, they saw that the restaurant was offering a selection of delicious ice cream. Participants in the actor condition were first asked to imagine that they either ordered (i.e., order condition) or did not order (i.e., forego condition) the ice cream. They

were then asked to rate, “to what extent would your friend think that you are having a good time?” Participants in the observer condition were first asked to imagine that their friend either ordered (i.e., order condition) or did not order (i.e., forego condition) the ice cream. They were then asked to rate, “to what extent would you think that your friend is having a good time?” Interestingly, results revealed that while the actors predicted a significant increase in signaling when they order (vs. forego) the ice cream, observers did not perceive a difference between the actor’s decision to order vs. forego the ice cream, suggesting that actors may be overestimating the impact of signaling through hedonic choice. Future research could benefit from investigating the perceptions of hedonic choice and exploring the conditions under which signaling through hedonic choice is effective. We also note that while individuals expect sharing good fortune to make them appear more likeable, it can backfire. For instance, when the gap between an individual’s experience and the audience’s own experience is too big, the audience can engage in negative comparison and feel envious (Tesser, Millar, and Moore 1988). Should positive sharing become too excessive, the audience might perceive the self-enhancing acts as bragging (Scopelliti, Loewenstein, and Vosgerau 2015).

Furthermore, an interesting implication for marketing practitioners would be how the anticipation of posting on social media impacts what products consumers buy. A recent survey found that two-thirds of the adult population in the U.S. uses social media, and three-quarters of those people use it on a daily basis (Pew Research Center 2018). While it may be clear how celebrities who want to post attractive content on their social media accounts and Youtube content uploaders would be constantly aware of purchasing for the purpose of posting on social media, it might be less clear how the anticipation of posting and using social media impacts everyday consumers’ purchase behaviors. This research suggests that even regular consumers are

motivated to make hedonic purchases for the purpose of posting them on their social media accounts. Whether it be a friend, a potential romantic partner, a co-worker, or a supervisor that a consumer considers an audience on their social media accounts, anticipating to post about it increases their purchase of hedonic purchase, because they want to signal that they are having fun.

**APPENDIX A****COMMUNICATION TASK (ADOPTED FROM SEDIKIDES ET AL. 1999)  
IN STUDIES 1 AND 2A****LIST I**

1. What is your first name?
2. Where are you from?
3. What year are you at UMD?
4. What are your hobbies?
5. What would you like to do after graduating from UMD?

**LIST II**

1. If you could travel anywhere in the world, where would you go and why?
2. What is one thing happening in your life that makes you stressed out?
3. If you could have one wish granted, what would that be?
4. What is one recent accomplishment that you are proud of?

## APPENDIX B

### SAMPLE DECISION SLIPS IN STUDY 1 (SIMILAR FORM USED IN STUDY 2A)

Public condition:

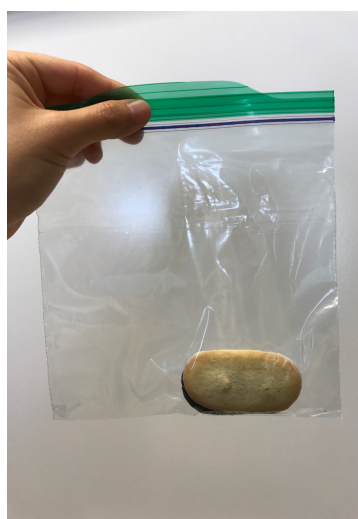
<p><i>Your session letter.</i> ____</p> <p><i>Your station number.</i> ____</p> <p>As a thank you for your participation, we are offering you either a mint chocolate cookie or a granola bar. <b>We will put whichever you choose into a clear plastic bag and hand it to you now</b>, before you start the browsing task.</p> <p><b>Would you like to a mint chocolate cookie or a granola bar?</b></p> <p>_____ Mint chocolate cookie      _____ Granola bar</p>
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Private condition:

<p><i>Your session letter.</i> ____</p> <p><i>Your station number.</i> ____</p> <p>As a thank you for your participation, we are offering you either a mint chocolate cookie or a granola bar. <b>We will put whichever you choose into a brown paper bag and hand it to you now</b>, before you start the browsing task.</p> <p><b>Would you like a mint chocolate cookie or a granola bar?</b></p> <p>_____ Mint chocolate cookie      _____ Granola bar</p>
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**APPENDIX C****HEDONIC AND UTILITARIAN ITEMS USED IN STUDY 1**

Public condition:



Private condition:





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