How Consumers Make Unilateral Decisions in Joint Consumption

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ABSTRACT

Consumers do not live in a social vacuum, and many of our consumption behaviors involves the participation of others, that is commonly called "joint consumption". The current research examines how consumers make unilateral decisions for joint consumption (e.g., choosing a shared appetizer for the table or choosing a movie to watch with friends). In this thesis, thirteen studies demonstrate that, compared to when making a decision for their own consumption, consumers are less likely to choose their personal favorite option in making unilateral choices for joint consumption, when preferences are double-blinded (i.e. when decision-makers' and their co-consumers' preferences were not known to each other). My research further reveal that one of the main drivers of the observed effect is the self-signaling motive of selflessness. Consistent with this selflessness self-signaling account, I further found that the observed effect weakened or disappeared 1) when they are self-affirmed, 2) when decision makers perceive high self–other similarity, or 3) when self-interest is deemed appropriate in the decision context. I also found that participants' knowledge of their co-consumers' preference would impact the effect I observed (Study 2) and after avoiding personal favorite option, participants in the joint consumption condition are not more likely to choose their second-ranked option than those in the individual consumption condition (Study 3). In the current work I mainly focused on the unilateral joint consumption decisions in double-blinded preferences context, future research can be explored in other context (e.g., larger group). My research contributes to the literature on consumers' joint consumption by introducing the influence of unilateral decisions on joint consumption on consumers' personal choices. It also extends my understanding of avoiding personal favorite as a novel costly self-signaling behavior in decision making. From the consumers and policy makers' perspective, my research suggest that it is important to make decision-makers realize that

giving up their personal favorites in unilateral decision-making for joint consumption may not necessarily maximize the welfare of their consumption partners. From the marketers' perspective, marketers could encourage customers to make their own decisions or make a joint decision for joint consumptions.

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LIST OF APPENDIXES

CHAPTER 1. INTRODUCTION

Joint consumption is not a new phenomenon. From family vacation trips to party food and entertainment for groups of friends, many of our consumption episodes are shared with others and the proportion of joint consumption appears to be larger in today's society. Statistics show that the percentage of tourists who travel with others has risen from 57% in 2011 to 76% in 2016 (U.S. Travel Association 2018). Moreover, 56% of frequent game players play with others at least once a week (Entertainment Software Association 2018). Supporting the notion that joint consumption has become a prevalent phenomenon in consumers' lives today, in a survey of American adults it was found that over half of consumers make joint consumption decisions more than three times a month, most often relating to food and drink or entertainment and activities (Wu, Moore, and Fitzsimons 2019). Consistent with this finding, participants in a pilot study also reported that 51.27% of their daily consumption activities can be categorized as joint consumption (see Appendix A).

The format of joint consumption varies. In some joint-consumption situations, the consumption decision is made collaboratively by those involved (e.g., family members may decide upon a vacation trip destination after a heated discussion). In other joint-consumption situations, however, one member of the group may bear the decision-making responsibility alone (e.g., the husband may need to decide whether to purchase concert tickets for both him and his wife), a phenomenon referred to as a unilateral joint consumption decision (e.g., Aggarwal and Mazumdar 2008; Etkin 2016; Liu and Min 2020; Steffel and Williams 2017; Steffel, Williams, and Perrmann-Graham 2016; Wu, Moore, and Fitzsimons 2019; Yang, Chartrand, and Fitzsimons 2015). Unilateral decisions account for a considerable portion of joint consumption decisions (Liu and Min 2020; Wu, Moore, and Fitzsimons 2019). For instance, the pilot study mentioned above revealed that 49.67% of joint consumption

decisions are made unilaterally (see Appendix A).

Moreover, in a departure from traditional forms of joint consumption, which usually take place with acquaintances, friends, or family members, joint consumption often occurs among a group of consumers who do not know each other well. For example, today it is fairly common for consumers to travel with strangers (e.g., Uber Pool), play with strangers (e.g., Xbox Live), and date strangers (e.g., Tinder). Even when the co-consumers in a joint consumption episode know each other, they may not have full knowledge of each other's preference for the focal product/service options under consideration. For example, you may know your colleague well, but you may not know his/her favorite yogurt flavor. In these situations, preferences are double-blinded, and it is quite common for unilateral decisions to be made with double-blinded preferences. Indeed, my pilot study showed that about 40.42% of the recalled unilateral decisions for joint consumption were made without double-blinded preferences (see Appendix A).

Contributing to the growing literature on joint consumption (e.g., Cavanaugh 2016; Etkin 2016; Liu and Min 2020; Ratner and Hamilton 2015; Woolley and Fishbach 2017; Wu, Moore, and Fitzsimons 2019; Yang, Chartrand, and Fitzsimons 2015), in the current research I look at how consumers make unilateral decisions for themselves and others, in a joint-consumption context, when preferences are double-blinded (i.e., when decision makers' and their co-consumers' preferences are not known to each other). Based on the literature on joint consumption, self-signaling, and perception of selflessness, I predict and find through 13 studies that, compared to when making a decision for their own consumption, consumers are less likely to choose their personal favorite option when making unilateral joint consumption decisions with double-blinded preferences. Consistent with a selflessness signaling account, I further show that this effect weakens or disappears 1) when they are self-affirmed, 2) when consumers perceive high self–other similarity, or 3) when self-interest is deemed appropriate

in the decision context.

This research contributes to the existing literature on joint consumption by providing more insight into decision-making patterns for unilateral joint consumption decisions. It also adds to the growing literature on self-signaling by demonstrating a novel way of self-signaling one's selflessness: self-sacrificing by avoiding one's personal favorite option in unilateral joint consumption decisions. Managerially, the findings of this research suggest that companies may want to strategically position their marketing campaigns in different ways to maximize persuasiveness for consumers who purchase for individual consumption and those who make unilateral joint consumption decisions.

CHAPTER 2. UNILATERAL DECISIONS FOR JOINT CONSUMPTION

2.1. INTRODUCTION

We do not live in a social vacuum, and many of our decisions are influenced by those around us (Dahl 2013). Some of these interpersonal influences are interactive in nature—that is, they are pervasive influences generated by different individuals who are nearby, such as companions, retailers, and other shoppers (e.g., Argo, Dahl, and Morales 2006, 2008; Argo, White, and Dahl 2006; Kurt, Inman, and Argo 2011; White and Argo 2011; White and Dahl 2006, 2007; White, Simpson, and Argo 2014). For example, consumers tend to have greater dissociative responses, such as possession disposal intentions, when they are mimicked by a similar other compared to a dissimilar other (White and Argo 2011). The motive for comparing oneself to other consumers and the nature of those other consumers, as revealed through comparison, has been shown to influence consumers' intention to lie during the exchange of consumption information (Argo, Dahl, and Morales 2006). Past literature in this

area suggests that even the mere presence of others in the consumption context can influence consumers' decision-making (e.g., Argo, Dahl, and Manchanda 2005; Dahl, Manchanda, and Argo 2001; Huang, Huang, and Wyer 2017; McFerran, Dahl, Fitzsimons, and Morales 2009, 2010; Xu, Shen, and Wyer 2012). For example, research has found that the presence of other people created embarrassment for consumers during the purchase of an embarrassing product (e.g., condoms; Dahl, Manchanda, and Argo 2001). Moreover, the body type of others, such as servers or fellow shoppers, has been shown to potentially affect food choices and the quantity consumed (McFerran, Dahl, Fitzsimons, and Morales 2009, 2010).

In contrast to being an opponent or merely being present in the consumption context, other consumers can act as consumption partners of the focal consumer, engaging in joint consumption. Gorlin and Dhar (2012) proposed four possible types of decision episodes, defined by whether the decision and consumption stages occur singly or jointly: 1) single decision and single consumption; 2) joint decision and single consumption; 3) single decision and joint consumption; and 4) joint decision and joint consumption. In my thesis, I focus on the "single decision and joint consumption" type of decision episode.

2.2. JOINT CONSUMPTION

Felson and Spaeth (1978) define joint consumption as "events in which one or more persons consume economic goods or services in the process of engaging in joint activities with one or more others" (p. 614). Over the years, researchers have considered the construct of joint consumption and investigated how consumers make consumption decisions involving not just themselves, but co-consumers as well. One line of research explicitly accounts for the other person's influence by having two consumers decide together on one joint consumption outcome. This is referred to as a "joint choosers" joint consumption type, which maps onto

one type of decision-making in Gorlin and Dhar's (2012)'s framework in which two consumers make a decision for joint consumption (e.g., two consumers jointly deciding on buying a new car). Past research has examined how choices are made together by groups or dyads (e.g., Davis 1970, 1976; Dhar 1997; Dzhogleva and Lamberton 2014; Filiatrault and Ritchie 1980; Kim, Gutter, and Spangler 2017; Nikolova and Lamberton 2016; Nikolova, Lamberton, and Coleman 2017; Rao and Steckel 1991; Ward and Reingen 1990; Woolley and Fishbach 2017), such as how married couples make joint decisions (Davis 1970, 1976; Filiatrault and Ritchie 1980; Kim, Gutter, and Spangler 2017) or how different compositions of dyads make joint choices (Dzhogleva and Lamberton 2014; Nikolova and Lamberton 2016). For example, Nikolova and colleagues (2017) found that dyads tend to make more unethical consumption decisions than individuals when partners in a dyad do not share a social bond with each other. It has also been shown that consumer dyads tend to make less indulgent consumption choices when both consumers in the dyad have high self-control, compared to when only one of them or neither of them does (Dzhogleva and Lamberton 2014).

The stream of literature referred to above primarily focuses on the situation in which co-consumers make joint consumption decisions. However, this is not the only form of joint consumption decision-making. Another line of research examines one consumer making a unilateral joint consumption choice for multiple consumers. As illustrated in Liu and Min's (2020) paper, I refer to this type of joint consumption as a "unilateral chooser" joint consumption type, mapping onto the type of decision-making in Gorlin and Dhar's (2012) framework in which a single chooser makes a decision for joint consumption (e.g., one person deciding on a surprise getaway for themselves and others). Prior research on unilateral decisions for joint consumption has shown that various factors affect the choices made by the decision-maker (e.g., Briley and Wyer 2002; Etkin 2016; Lerouge and Warlop 2006; Mullen

et al. 1985; Ross, Greene, and House 1977; Wiltermuth 2011; Wu, Moore, and Fitzsimons 2019; Yang, Chartrand, and Fitzsimons 2015), including the relationship time horizon (Etkin 2016), the co-consumer's cultural identity (Briley and Wyer 2002), and group size and the choosers' self-construal level (Wu, Moore, and Fitzsimons 2019). For instance, Etkin (2016) showed that when consumers perceive that there will be more (vs. less) time ahead in a committed relationship, they prefer more variety for joint consumption. It has also been found that when consumers' cultural identity is made salient, they prefer more equality in group consumption (Briley and Wyer 2002).

According to the seminal framework proposed by Liu and her colleagues (Liu et al. 2019), when making unilateral joint consumption decisions, the decision-maker has a relationship focus and will balance their own preference with their co-consumers'. Indeed, the need to balance multiple consumption preferences is unique to joint consumption decisions — it does not exist in individual consumption —whether made for themselves or for others (e.g., gift giving; Galak, Givi, and Williams 2016; Steffel and LeBoeuf 2014). Consistent with this conceptualization, past literature has shown that unilateral decision-makers are likely to adjust their decisions based on their understanding of their co-consumers' preferences (e.g., Kim, Barasch, Zwebner, and Schrift 2020; Wu, Moore, and Fitzsimons 2019; Yang, Chartrand, and Fitzsimons 2015). For example, Kim and her colleagues (2020) found that unilateral choosers feel that their decision is more difficult when co-consumers explicitly express no preference.

However, we do not live in a world with perfect information. In many situations, decision-makers have to make decisions for themselves and their co-consumers when preferences are double-blinded (i.e. when decision-makers' and their co-consumers' preferences are not known to each other; e.g., Etkin 2016; Fisher, Gregoire and Murray 2011; Gorlin and Dhar 2012; Stone 2016; Wu, Moore, and Fitzsimons 2019). For example, we may

not know our guests' food preferences when inviting them to a dinner party (Fisher, Gregoire and Murray 2011), or we may not know a friend's preference when planning activities for a group tour (Stone 2016). In the current work, I examine how consumers make unilateral decisions for themselves and others in a joint consumption context, with double-blinded preferences. Specifically, I argue that in such a case, the unilateral decision-maker will be less likely to choose a personal favorite option, mainly because of the motive to self-signal that they are not a selfish person.

CHAPTER 3. SELF-SIGNALING OF SELFLESSNESS

3.1. SIGNALING

Signaling theory suggests that individuals often engage in behaviors that are costly as a way of signaling information about themselves (McAndrew 2019), such as public philanthropy (Bereczkei, Birkas and Kerekes 2010; Haley and Fessler 2005; Vugt and Hardy 2010), risk taking and heroism (McAndrew and Perilloux 2012; Willer 2009), and conspicuous consumption (e.g., Griskevicius, Tybur, and Van den Bergh 2010; Wang and Griskevicius 2014). Consistent with this notion, past research has found that consumers often use symbolic meanings behind their consumption behavior to signal (costly) to others what type of (good) person they are (e.g., Berger and Heath 2007, 2008; Berger and Rand 2008; Belk 1988; Han, Nunes, and Drèze 2010; Grewal, Stephen, and Coleman 2019; Ward and Broniarczyk 2016). For example, Berger and Heath (2007) show that consumers often diverge to signal their identity to others. Similarly, consumers sometimes give gifts that are *not* on the gift registry to their friends to signal their close relationship (Ward and Broniarczyk 2016). Many engage in conspicuous consumption, even buying counterfeit

products, to try to signal their status (Han et al. 2010).

Another similar theory is “impression management theory”, which refers. Researchers has been devoting more and more attention to this area which revolves around the converns of individuals for making positive impressions on others (e.g., Felson 1982, Gardner and Martinko 1988, Schlenker 1980, Tedeschi and Rosenfeld 1981, Tedeschi 2013)

Persons are aware that they are being categorized or typified by others in different situations. In parallel with these public behaviors, consumers may engage in signaling behaviors even when the behavior is not observed by others. While impression management theory focuses on external audiences and public behavior, symbolic interaction theory (Aksan, Kısac, Aydın, and Demirbuken 2009, Mead 1934, Schenk and Holman 1980) suggests that behavior performed in private may reflect concern for the reaction of an internalized audience. Bodner and Prelec (2003) defined self-signaling as people choosing options to signal information to themselves about their own characteristics. For example, Jang and Chu (2012) conclude that consumers often pay more in a pay-what-you-want setting to signal to themselves that they are fair, even when no one else is observing them. Similarly, it was found that consumers self-signal their self-control capacity by resisting tempting vice consumption options; specifically, selecting a candy bar (vice) over fresh fruit (virtue) represents a strong signal to oneself that one is weak-willed (Dhar and Wertenbroch 2012).

3.2. COSTLY SELF-SIGNALING OF SELFLESSNESS

Selfishness is defined as a heightened concern with one’s own personal profit or pleasure (Cialdini 1991; Dubois, Rucker, and Galinsky 2015), and involves choosing to benefit oneself when faced with an opportunity to benefit others (Berman and Small 2012). Berman and Small (2012) find that when individuals select a self-interest option over a

prosocial option, they are likely to feel selfish, which is undesirable. Similarly, I expect that when individuals select a personal favorite option (self-interest) over non-favorite options, they are likely to feel selfish, which is undesirable. Derived from the definition of selfishness, behavior not based on self-interest is interpreted as selflessness (Force 2003), which is highly desirable. It should be noted that although "selflessness" and "altruism" are sometimes used interchangeably, they are distinct psychological constructs. While "altruism" means increased concerns toward enhancing benefits for others, "selflessness" refers to reduced concerns toward enhancing benefits for the self (Van Lange 2008).

In most cases, selflessness is seen as a positive personal characteristic, and people feel good about themselves if they act selflessly (e.g., Ariely et al. 2009; Dubois, Rucker, and Galinsky 2015; Roux, Goldsmith, and Bonezzi 2015). Prior research has shown that individuals use different selfless behaviors to maintain positive self-image (e.g., Ariely, Bracha, and Meier 2009; Gneezy, Gneezy, Riener, and Nelson 2012; Savary, Goldsmith, and Dhar 2015; White and Peloza 2009). For example, people tend to show their selflessness by reducing the effort they put into tasks with financial benefits (Ariely, Bracha, and Meier 2009), by donating to charities (White and Peloza 2009), or by increasing donations while referencing a hedonic rather than a utilitarian product (Savary, Goldsmith, and Dhar 2015). As a consequence, individuals who make sacrifices for others usually experience positive effects from feeling that they are a good, responsive, and selfless person (Berman and Small 2012), and people experience less enjoyment when sacrificing the needs of others for their own gain (Righetti and Impett 2017).

In a joint consumption context, decision-makers are motivated to maintain a sense of being good and selfless. As argued by Liu and her colleagues (Liu, Dallas, and Fitzsimons 2019), the decision-maker should have a relationship focus and will balance their own preference with their co-consumers' when making unilateral joint consumption decisions. In

this context, choosing the co-consumer's preferred option would be a direct method for signaling the decision-makers' selflessness. However, we do not live in a world with perfect information and there are situations in which preferences are double-blinded (i.e., when decision-makers' and their co-consumers' preferences are not known to each other). In these situations, it would be impossible for decision-makers to choose their co-consumers' preferred options because they do not have that information. How can the unilateral decision-maker signal his or her selflessness? Psychological egoism (Cialdini 1991; Dovidio 1991; Schroeder, Dovidio, Sibicky, Matthews, and Allen 1988) posits that all human actions, including seemingly selfless acts, are ultimately motivated by self-interest. I propose that choosing personal favorite options in this context would fulfill the decision-makers' tastes but signal their selfishness, whereas avoiding personal favorite options could benefit oneself by serving as a costly signal for selflessness. Following Smith and Bird's (2000) points, avoiding personal favorite options in the double-blinded preferences context can be qualified as a costly signal, because it could 1) be easily observed by the decision-maker themselves; 2) be costly to the decision-makers in the personal preference domain; 3) be a reliable indicator of the selflessness traits or characteristics of the signaler; and 4) lead to increased personal evaluation of the signaler. Given double-blind preferences, decision-makers only have information about their own preferences. Whether avoiding personal favorite options really increases the well-being of the co-consumer or overall group welfare is uncertain (it depends on the co-consumer's preference), but such a decision could serve as a signal to the decision-maker that they are not selfish (because they did not make decisions based on their self-interest). It should be noted that avoiding personal favorite options in the current context is likely to serve as a self-signal, but not a social signal, of selflessness, because co-consumers (and potential observers) do not know the decision-maker's preferences in the current double-blinded preference context.

To validate the assumption that avoiding personal favorite options in unilateral choice for joint consumption with double-blinded preferences is considered by the decision-maker to be a self-signal of one's selflessness, I conducted two pilot studies:

Pilot Study 1

One hundred and two US adult consumers (55.9% males, M_{age} = 36.8) from Amazon's Mechanical Turk participated in this study in exchange for a payment of $0.10. Participants were asked to read a consumption scenario, and then were randomly assigned to either a joint-consumption condition or an individual-consumption condition. In the *joint-consumption* condition, participants imagined that a person named Jay was driving to another city, carpooling with a stranger, and chose to play his favorite music in the car during the trip, while in the *individual-consumption* condition, participants imagined that Jay was driving to another city alone and chose to play his favorite music in the car during the trip. Participants then evaluated the extent to which they thought that Jay was selfish (1 = "not selfish at all," 9 = "very selfish"). Supporting our basic assumption, participants considered Jay more selfish if he chose to play his favorite music when sharing this experience with another person (M = 4.71, SD = 2.54) than when he was alone (M = 2.25, SD = 1.97; F(1, 101) = 29.67, $p < .001$; $\eta^2 = 0.23$). This suggests that consumers do perceive choosing a personal favorite option for joint consumption as more selfish behavior than when the same choice is made for individual consumption.

Pilot Study 2

Two hundred and one US adult consumers (48.3% males, Mage = 38.5) from Amazon's Mechanical Turk participated in this study in exchange for a $0.10 payment. Participants were randomly assigned to two between-subjects conditions (individual consumption vs. joint consumption). All participants imagined a consumption scenario in which they were having dinner with their friend and their friend was arriving late. In the joint-consumption condition, participants were told that their friend asked them to order a shareable appetizer first, whereas in the individual-consumption condition, participants were told to order an appetizer for themselves. Next, participants were asked to report how they would feel about themselves if they chose their personal favorite appetizer. Specifically, they completed a 4-item selfishness perception measurement (i.e., "I am a selfish person," "I am self-centered," "I am egocentric," "I am self-interested"; $\alpha = .92$; adapted from Feinberg, 2007; Raine and Uh 2019) on a seven-point scale (1= "Strongly Disagree," 7 = "Strongly Agree"). Supporting my basic assumption, when making unilateral decisions for joint consumption with double-blinded preferences, participants interpreted choosing personal favorite options as a stronger signal of selfishness (M = 3.82, SD = 1.43) than when those making decisions for individual consumption (M = 3.30, SD = 1.59; $F(1, 200) = 5.85$, $p = .016$; $\eta^2 = .029$).

CHAPTER 4. THE CURRENT RESEARCH

Putting these observations together, I predict that consumers will be less likely to choose their personal favorite option when making unilateral choices for joint consumption with double-blinded preferences. I further predict that one of the main drivers of this proposed effect is that consumers consider forgoing personal favorite options in unilateral choices for joint consumption with double-blinded preferences as a signal to themselves that

they are selfless. Putting it formally:

> ***H1:*** *Compared to when making a unilateral consumption choice, in making unilateral choices for joint consumption with double-blinded preferences, consumers are less likely to choose their personal favorite option*
>
> ***H2:*** *The proposed effect is driven mainly by the motive to self-signal one's selflessness.*

I hypothesized that this predicted effect is driven by consumers' desire to self-signal selflessness. The purpose of signaling is to maintain one's positive self-concept (e.g., Batson and Shaw 1991; Carlo, Eisenberg, Troyer, Switzer, and Speer 1991; Eisenberg, Miller, Schaller, Fabes, Fultz, Shell, and Shea 1989). If this self-enhancement goal can be fulfilled through other means, the need for signaling will decrease. Consistent with this notion, past research shows that the endowment effect, seen as self-enhancement in response to threat, can be mitigated by self-enhancement measures (Chatterjee, Irmak, and Rose 2013).

Self-affirmation, which entails the explicit affirmation of a characteristic or value that individuals regard as central to their lives (e.g., Steele 1988; Steele and Liu 1983), is one method of affirming important aspects of the self. Past research demonstrates that this can restore one's positive self-image after receiving threats or serve as a buffer when threatened (e.g., Steele and Liu 1983; Steele, Spencer, and Lynch 1993; Steele and Spencer 1997; Steele 1988). For example, individuals are less likely to evaluate a person negatively if their self-image has been previously bolstered through a self-affirmation procedure (Fein and Spencer 1997). Therefore, I hypothesize that decision-makers who undergo such a process of self-affirmation will have less need or desire to signal their positive personal characteristics (such as selflessness). Consequently, the proposed effect is weakened or dismissed among these

individuals. Stating it formally:

H3: *The proposed effect weakens or disappears among self-affirmed consumers.*

I argue that when deciding to forgo their favorite options in unilateral choice for joint consumption with double-blinded preferences, consumers believe that they are sacrificing their own interests to benefit their co-consumers (i.e., demonstrating selflessness). One assumption underlying this prediction is that consumers need to hold the belief that their preferences are different from those of their co-consumers. However, if it is clear to the decision-maker that the consumption group has a unanimous preference, forgoing one's own personal favorite option will hurt the co-consumers' welfare (and the overall group welfare as well), and may override the effect of self-signaling.

Consumers' predictions about their co-consumers' preferences can come from their beliefs about self–other similarities (e.g., Aron, Aron, Tudor, and Nelson 1991; Gilovich, Jennings, and Jennings 1983; Marks and Miller 1987; Mullen, Atkins, Champion, Edwards, Hardy, Story, and Vanderklok 1985; Ross, Greene, and House 1977; Zuckerman and Mann 1979). While past research in social psychology has repeatedly shown that individuals seek to establish and maintain a sense of self-distinctiveness (Snyder and Fromkin 1977), and hold strong beliefs in self–other differences (Aron, Aron, Tudor, and Nelson 1991; Prentice 1990), the perceived self–other similarity can be influenced by both personality and situational factors (e.g., Campbell 1986; Marks 1984; Suls and Wan 1987). For example, individuals who consider themselves as fearless tend to underestimate the percentage of others who are similarly fearless (Suls and Wan 1987).

In the current research, I hypothesize that when consumers perceive high self–other similarity between themselves and their co-consumers, they will predict that their co-

consumers have a similar preference in the joint consumption context to them. This weakens my proposed effect because, in this context, the consideration of the welfare of the co-consumer and the overall group welfare may override the effect of self-signaling. Putting it formally:

> ***H4:*** *The proposed effect weakens or disappears when perceived self–other similarity is high.*

Finally, the context of joint consumption is also likely to moderate the proposed effect. Past research on selflessness demonstrates that, although in most cases selfishness is seen as a negative personal characteristic and thus individuals try hard to avoid it (e.g., Ariely et al. 2009; Dubois, Rucker, and Galinsky 2015; Roux, Goldsmith, and Bonezzi 2015)—there are situations in which self-interest is not only expected but is considered appropriate (e.g., Chen, Gully, and Eden 2001; White and Dahl 2006).

I have argued that decision-makers choose to forgo their personal favorite options in unilateral choice for joint consumption with double-blinded preferences because they want to signal to themselves and others that they are selfless. If this is true, I should expect that this effect will weaken or disappear in consumption contexts in which self-interest is deemed appropriate, making selflessness signaling not applicable. In many contexts, benefitting oneself over others is the norm. For example, considering the case when a consumer celebrates his or her birthday with a group of friends, even when an opportunity exists to benefit others, people may not necessarily see themselves as selfish for not doing so. This is because the consumption context is mostly about the focal individual and self-centered considerations should be acceptable and deemed appropriate. I predict that, in situations like this, there is no need for selflessness signaling because consumers are allowed to be self-

centered and somewhat selfish, and my proposed effect is likely to be weakened or to disappear. Stating this hypothesis formally:

> ***H5:*** *The proposed effect weakens or disappears when selfishness is deemed appropriate.*

I examined these hypotheses in 13 studies. Studies 1A and 1B demonstrated that, compared to when making individual consumption decisions, consumers were less likely to choose their personal favorite option in unilateral joint consumption decisions with double-blinded preferences, and ruled out an alternative explanation. Study 1C replicated the proposed effect using real consequential behaviors. Study 2 investigated the impact of participants' knowledge of their co-consumers' preferences on the effect I observed. Study 3 further investigated the choice pattern of unilateral joint consumption decisions and ruled out an alternative explanation. Study 4 showed that consumers were less likely to choose their personal favorite option in unilateral joint consumption decisions with double-blinded preferences than for their individual consumption because of selflessness signaling. Studies 5, 6, and 7 provided additional evidence for the proposed signaling mechanism. Specifically, these studies showed that this effect was weakened when self-affirmed (Study 5), perceived self–other similarity was high (Study 6), and in contexts where self-interest was considered appropriate (Study 7), consistent with my prediction that this effect is mainly driven by the motivation to signal selflessness.

The target sample size in these studies was conservatively selected on the basis of previous findings of research on unilateral decisions (e.g., Aggarwal and Mazumdar 2008; Steffel and Williams 2017; Steffel et al. 2016; Wu, Moore, and Fitzsimons 2019) and joint consumption (e.g., Cavanaugh 2016; Etkin 2016; Ratner and Hamilton 2015; Woolley and

Fishbach 2017; Yang et al. 2015). Power analyses using G*Power confirmed that the target sample sizes in all studies can provide adequate power to detect moderate effects (e.g., Faul et al. 2009). I report all data exclusions (if any), all manipulations, and all hypothesis-related measures.

CHAPTER 5. EMPIRICAL INVESTIGATION

5.1 STUDY 1

Study 1 tests my basic hypothesis that consumers are less likely to choose their personal favorite option in unilateral joint consumption decisions than for their individual consumption when the preferences are double-blinded (i.e., when decision-makers' and their co-consumers' preferences are not known to each other). It is possible that consumers have a lower likelihood of choosing their personal favorite option in unilateral joint consumption decisions than for their individual consumption, because they worry about negative evaluations of their personal tastes by others (Buckner, DeWall, Schmidt, and Maner 2010; Maner, DeWall, Baumeister, and Schaller 2007; Wang, Zhu, and Shiv 2012). This possibility was tested in the present study.

5.1.1. STUDY 1A

Study 1A tests my proposed effect using a hypothetical scenario and an intention indication. One hundred and sixty-two US adult consumers (49.4% males, M_{age} = 36.1) from Amazon's Mechanical Turk participated in this study in exchange for a $0.20 payment.

Participants were randomly assigned to either a joint consumption condition or an individual consumption condition.

First, in a randomized order, participants were asked to indicate their favorite among the options provided across several personal-interest domains (e.g., music, movies, food, etc.). The focal question among them related to the participants' music preferences. Specifically, participants indicated their favorite music style among 11 options (i.e., Blues, Country, Hip-hop, Jazz, Rock, Electronic, R&B and Soul, Latin, Folk, Pop, Classical).

After that, the participants imagined a consumption scenario. In the *joint-consumption* condition, participants imagined that they were driving to another city and carpooled with a stranger, whereas in the *individual-consumption* condition, participants imagined that they were driving to another city alone. Participants further imagined that, to make the road trip less boring, they decided to play music in the car. Then, participants were asked to indicate how likely they would be to choose to play their favorite style of music (1 = "not at all likely," 9 = "very likely"). Finally, the participants completed basic demographic measures, such as gender and age.

Supporting this hypothesis, there is a significant effect of consumption type on participants' likelihood of choosing to play their favorite music ($F(1, 161) = 74.09$, $p < .001$; $\eta^2 = 0.32$), such that consumers are less likely to choose to play their favorite music when they share this experience with others they do not know well ($M = 5.64$, $SD = 1.88$) than when they are alone ($M = 8.02$, $SD = 1.64$).

In these and later studies, adding demographic measures such as gender and age as control variables in my data analyses did not significantly change the data pattern; thus, these variables were not discussed further.

5.1.2. STUDY 1B

Study 1B tests my proposed effect with a hypothetical scenario, which is a more realistic measurement of individuals' choices. Two hundred and ninety-six adult consumers (50% males, M_{age} = 28.7) from Prolific participated in this study in exchange for a payment of USD 0.25. Participants were randomly assigned to either a joint consumption condition or an individual consumption condition.

First, in a randomized order, participants were asked to indicate their favorite among the options provided across several personal-interest domains (e.g., music, movies, food, etc.). The focal question among them related to participants' music preferences. Specifically, participants indicated their favorite music style among eight options (i.e., Blues, Country, Hip-hop, Jazz, Rock, Electronic, R&B and Soul, and Classical).

After that, the participants imagined a consumption scenario. In the *joint-consumption* condition, participants imagined that they were participating in a road trip event and were assigned to carpool with other travelers (i.e. strangers); whereas in the *individual-consumption* condition, participants imagined that they were participating in a road trip event and were assigned to drive alone. Participants further imagined that they would like to take CDs to play during the road trip. Then, participants were asked to pick one music style that they would like to take with them from the same list of eight music styles they viewed previously.

After that, all participants responded to a one-scale question measuring a person's tolerance for the possibility that their preference may be judged by others on a 7-point scale (1 = "strongly disagree," 7 = "strongly agree"). Finally, the participants completed basic demographic measures, such as gender and age.

To investigate whether participants chose their favorite option, I coded the consistency between their previously indicated favorite music style and the music style they

finally selected to play on the road (0 = "not personal favorite," 1 = "personal favorite"). Supporting my hypothesis, participants were significantly less likely to choose to play their favorite music CD in the joint-consumption condition (65.5%) than in the individual-consumption condition (84.5%; $\chi^2(1) = 14.13$, $p < .000$; OR = 2.86).

I also tested whether fear of negative evaluation of their preferences played a role in the observed effect. I found that participants were more afraid of negative evaluation of their preferences in the joint-consumption condition (M = 3.27) than in the individual-consumption condition (M = 2.70, F(1, 295) = 8.263, $p = .004$). However, participants' fear of negative evaluation of preferences also did not moderate the effect of consumption type on music choice ($\beta = 0.1828$, Wald $\chi^2 = .16$, $p = .275$). As expected, the observed effect remained significant when I used fear of negative evaluation of preference measurement as a covariate in the analyses.

5.1.3. STUDY 1C

Study 1C replicates the findings of Studies 1A and 1B in a field setting and with real consequential consumption choices. This study was conducted with the cooperation of a medium-sized Chinese company. One day before the main study, all non-management company employees completed a food-interest survey on their cellphones, indicating their favorite among the options provided across several food domains (e.g., chips, ice cream, yogurt, etc.) in a randomized order. The focal question among them related to participants' yogurt flavor preferences. Specifically, participants indicated their favorite yogurt flavor among four options (i.e., berries, coconut, apple, and honeydew)[1].

[1]These four yogurt flavors were perceived as equally popular, based on a pretest (see Appendix B).

The next day, a number of employees in the company's shared office space (N = 150; 55.3% males, M_{age} = 36.6) were approached by research assistants during their lunch break, and were randomly assigned to either a joint-consumption condition or an individual-consumption condition. Specifically, research assistants told participants that they were promoting new yogurt products and participants were invited to try a small pack of sample yogurt (from the four available flavors: berries, coconut, apple, and honeydew). In the individual-consumption condition, participants chose one small pack of yogurt and ate by themselves, and in the joint-consumption condition, participants were asked to choose one pair of yogurts (same flavor in each pack) and ate together with the colleague sitting next to them[2].

To investigate whether participants chose their favorite option, I coded the consistency between their previously indicated favorite yogurt flavor and the flavor of the yogurt sample they finally selected to eat (0 = "not personal favorite," 1 = "personal favorite"). As expected, participants were significantly less likely to choose their favorite yogurt flavor in the joint-consumption condition (66.7%) than in the individual-consumption condition (85.3%; $\chi^2(1) = 7.16$, $p = .007$; OR = 2.91).

5.1.4. DISCUSSION

Study 1 provided converging support for my hypothesis in both hypothetical (Study 1A) and real consequential settings (Study 1B). I showed that compared to individual consumption, consumers are less likely to choose their personal favorite options when they make a unilateral joint consumption decision. In Study 1A, my participants were less likely to

[2]In this condition, research assistants only approached participants sitting next to another company employee.

pick their favorite type of music when they imagined carpooling with others (instead of driving alone); in Study 1B, my participants were less likely to pick their favorite flavor when they ate the yogurt with their co-workers (instead of eating it alone).

Interestingly, in all studies, participants and their co-consumers' preferences were double-blinded; thus, the observed effect was less likely to be driven by knowledge of the co-consumers' preferences. Decision-makers' knowledge about their co-consumers' preferences, however, could potentially have a big impact on their unilateral decision-making for joint consumption. Thus, in my next study I look at its impact on the observed effects.

5.2 STUDY 2

Study 2 tests the impact of participants' knowledge of their co-consumers' preferences on the effect I observed. Specifically, I look at five different decision-making situations that vary in the consumption type and the extent to which decision-makers know of their co-consumers' preferences: 1) when participants choose a product for their own individual consumption; 2) when participants choose a product for joint consumption, without knowing their co-consumers' product preferences; 3) when participants choose a product for joint consumption, knowing that their co-consumers have the same product preference as their own; 4) when participants choose a product for a joint consumption, knowing that their co-consumers have a different product preference from their own; and 5) when participants choose a product for joint consumption, knowing that their co-consumers are indifferent about the product options.

Method

Five hundred and eighty-two adult UK consumers (68.2% males, M_{age} = 25.8) from Prolific participated in this study in exchange for a payment of USD 0.48. Participants were randomly assigned to the five between-subjects consumption conditions (individual vs. joint-unknown vs. joint-same vs. joint-different vs. joint-indifferent).

First, participants completed a personal-interest survey, indicating their favorite among the options provided across several product domains (e.g., music, movie, appetizer, etc.) in a randomized order. The focal question among them is about participants' appetizer preferences. Specifically, participants indicated their favorite appetizer among three options (i.e., potato fries, mozzarella sticks, and chicken strips)[3].

After that, participants imagined a consumption scenario in which they were having dinner with a friend who would be arriving late. In the four joint-consumption conditions, participants were told that their friend asked them to order a shareable appetizer first. In addition, in the *joint-same* condition, participants were told that they knew that their friend likes the same appetizer that they like; in the *joint-different* condition, participants were told that they knew that their friend did not like the appetizer that they like; in the *joint-unknown* condition, participants were told that they did not know what type of appetizer their friend likes; in the *joint-indifferent* condition, participants were told that they knew that their friend did not have a strong preference for any type of appetizer (i.e., he/she is indifferent about the appetizer). However, in the *individual* condition, participants were told that their friend asked them to order their own appetizer first. Participants in all conditions then picked one appetizer they would like to order from the same list of three appetizers that they viewed previously.

[3]These three appetizers were perceived as equally risky, based on a pretest (see Appendix B).

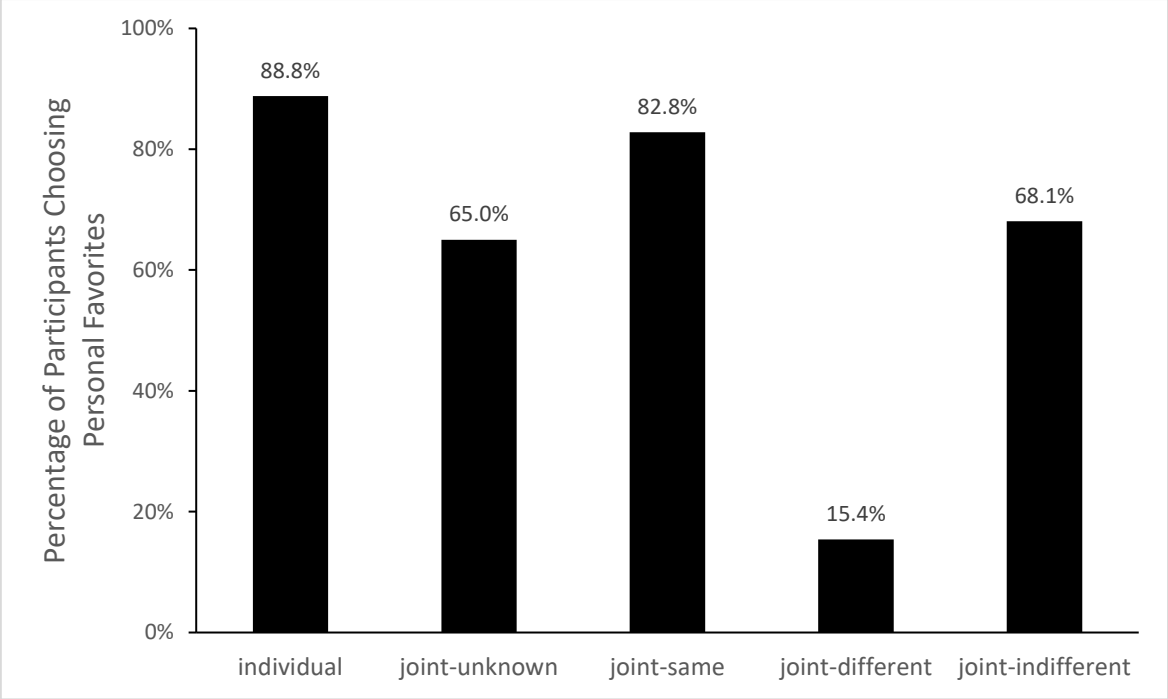
Results

To investigate whether participants chose their favorite option, I coded the consistency between their previously indicated favorite appetizer and the appetizer they finally chose to order (0 = "not personal favorite," 1 = "personal favorite"). I observed a significant difference in participants' choices across different consumption scenarios ($\chi^2(4) = 169.41$, $p < .001$). I then conducted several pairwise contrasts to deconstruct the effects (for the full set of statistics, see Appendix C).

Replicating my previous findings, I found that participants were less likely to order their favorite appetizer when it was shared with a friend with unknown preferences (i.e., the joint-unknown condition; 65.0%), compared to the individual condition (88.8%; $\chi^2(1) = 18.59$, $p < .001$; OR = 4.27). In addition, knowledge of their co-consumers' preferences mattered. I found that those participants who knew that their friend likes the same appetizer they like (i.e., the joint-same condition) are equally likely to order their favorite appetizer (82.8%) than their peers in the individual condition (88.8%; $\chi^2(1) = 1.73$, $p = .188$). Those participants who knew that their friend did not like the appetizer they like (i.e., the joint-different condition) were much less likely to order their favorite appetizer (15.4%) than their peers in the individual condition (88.8%; $\chi^2(1) = 125.74$, $p < .001$; OR = 43.58). Finally, participants were also less likely to order their favorite appetizer when it was shared with a friend with an indifferent preference (i.e., the joint-indifferent condition; 68.1%), compared to the individual condition (88.8%; $\chi^2(1) = 14.69$, $p < .001$; OR = 3.71; see Figure I).

Figure I

STUDY 2: PERCENTAGE OF PARTICIPANTS CHOOSING PERSONAL FAVORITES AS A FUNCTION OF CONSUMPTION TYPE



Discussion

Through five different consumption scenarios, Study 2 replicated my previous finding that consumers are less likely to choose their personal favorite options when they make a unilateral joint consumption decision with double-blinded preferences, as compared to their individual consumption. In addition, as I expected, this study also shows that knowledge of co-consumers' preferences has a big impact on consumers' unilateral decision-making for joint consumption: my observed effect is eliminated when the decision-maker knows clearly that their co-consumers have the same product preference as their own, presumably because in this case, the avoidance of personal favorite product options will hurt the welfare of their co-consumers.

Interestingly, I replicated the effect when the decision-maker knows that their co-consumers are indifferent about product options. In this situation, whichever option the decision-maker chooses will not influence the welfare of their co-consumers, because they do

not have a strong preference for any product option. However, the self-signaling value of giving up one's favorite option still exists; thus, the observed effect appears.

It should be noted that the consumption context is slightly different in this study than in Studies 1A, 1B, and 1C. In Study 1, participants in the individual consumption condition will consume alone, without the presence of their co-consumers. However, in this study, participants in the individual consumption condition imagined that they would consume the product in the presence of their co-consumers. The fact that I observed the effect in all studies seems to suggest that what drives the effect is the "joint" nature of joint consumption.

5.3 STUDY 3

The objectives of Study 3 were threefold. First, I aim to replicate the findings of previous studies in a different product domain. Second, past literature has suggested that people's behavior in a public context is subjective to concerns of impression management (e.g., Kim and Yi 2016; Luo 2005; Ratner and Kahn 2002; Schlenker 1980; White and Dahl 2006). Thus, it is possible that consumers have a lower likelihood of choosing their personal favorite option in unilateral joint consumption decisions than for their individual consumption, because they worry about negative evaluations of their behaviors by others (e.g., Fiske, Cuddy, and Glick 2007; Leary and Kowalski 1990; Schlenker 1980; Tedeschi 2013). This possibility was tested in the present study. Third, I am also interested in what exactly consumers will do after they avoid their personal favorite option in unilateral joint consumption decisions. Will they choose their second-ranked option? Or will they also avoid their second-favorite option? I look at this issue in Study 3.

Method

Two hundred and three Hong Kong undergraduate students (25.6% males, M_{age} = 22.1) participated in this study in exchange for payment of HKD 10. Participants were randomly assigned to either a joint consumption condition or an individual consumption condition.

Participants first completed a personal-interest survey, indicating their favorite among the options provided across several personal-interest domains (e.g., music, movies, food, etc.) in a randomized order. The focal question among them related to the participants' movie preferences. Specifically, participants ranked movie genres among eight options based on their own preferences (i.e., Action and Adventure, Comedy, Drama and Romance, Fantasy, Documentary, Horror and Thriller, Science Fiction, Military and War; from 1 = "most liked" to 8 = "least liked").

Then, all participants imagined that they just moved into a new dorm and would like to watch a movie in the dorm. Specifically, in the individual-consumption condition, participants were going to watch the movie alone, whereas in the joint-consumption condition, participants were going to watch the movie with their new roommate. They were presented with the same list of movie genres as the one used to measure their personal preference previously, and were asked to pick one type of movie they would like to watch.

After that, all participants completed the 8-item Fear of Negative Evaluation scale (Carleton, Collimore, and Asmundson 2007; see Appendix I), which measures a person's tolerance for the possibility they may be judged disparagingly or hostilely by others (e.g., "I am afraid that others will not approve of me," "If I know someone is judging me, it tends to bother me") on a 7-point scale (1 = "strongly disagree," 7 = "strongly agree; " α = .91). A high number represents a higher level of fear of receiving a negative judgment.

Results

First, to investigate whether participants chose their favorite option, I coded the consistency between their previously first-ranked movie genre and the movie genre they finally chose to watch (0 = "not personal favorite," 1 = "personal favorite"). As expected, participants were significantly less likely to choose to watch their favorite movie genre in the joint-consumption condition (50.5%) than in the individual-consumption condition (66.7%; $\chi^2(1) = 5.47$, $p = .019$; OR = 1.96).

I also tested whether fear of negative evaluation played a role in the observed effect. As expected, participants' fear of negative evaluation did not vary across all conditions ($F(1, 202) = .02$, $p = .885$). Participants' fear of negative evaluation also did not moderate the effect of consumption type on movie choice ($\beta = 0.025$, Wald $\chi^2 = .29$, $p = .932$). In addition, the observed effect remained significant when I used fear of negative evaluation measurement as a covariate in the analyses.

Finally, I looked at what consumers do after avoiding their personal favorite option in unilateral joint consumption decisions. In this analysis, I only focused on those participants who did not choose their first-ranked option, and coded the consistency between their previously second-ranked movie genre and the movie genre they finally chose to watch (0 = "not 2nd choice," 1 = "2nd choice"). Interestingly, I found that after avoiding the personal favorite option, participants in the joint consumption condition were not more likely to choose their second-ranked option (42%) than those in the individual consumption condition (50%; $\chi^2(1) = .52$, $p = .470$).

Discussion

Replicating the findings in my previous studies, Study 3 shows that consumers are less likely to choose their personal favorite options when making unilateral decisions for a shared movie-watching experience with double-blinded preferences than for themselves

alone.

The fear of negative evaluation measurement used in this study does not moderate or mediate the observed effect, suggesting that it is less likely that the effect is driven by participants' impression management concerns. Moreover, in my research paradigm, participants' product preferences are not explicitly disclosed to others (e.g., their co-consumers), so it is less likely that consumers will believe that others will judge my participants negatively if they choose their favorite product option.

Interestingly, with ranked preference, I found that after avoiding the personal favorite option, participants in the joint consumption condition were not more likely to choose their second-ranked option than those in the individual consumption condition. I speculate that since people's second-ranked option does not have a strong signaling function (compared to their favorite option), participants do not have a signaling concern. That is probably why I do not observe the same effect on participants' choice of the second-ranked option.

5.4 STUDY 4

I hypothesized that when facing unilateral joint consumption decisions with double-blinded preferences, consumers have a heightened motivation to self-signal their selflessness. Since not choosing personal favorite options in joint consumptions symbolizes selflessness, which can fulfill the need of consumers to signal that they are selfless, consumers are less likely to choose their personal favorite options when they make unilateral joint consumption decisions with double-blinded preferences than for individual consumption. Study 4 tests this possibility (H2) directly by investigating the mediating role of self-signaling in selflessness.

In addition, I aim to rule out another alternative explanation for this study. Unilateral decision-makers in joint consumptions may have a desire to avoid feeling responsible or

being blamed for sub-optimal decisions they may make (e.g., Steffel, Williams, and Perrmann-Graham 2016). Thus, it is possible that when making unilateral joint consumption decisions, consumers avoid their personal favorite because they feel more responsible for picking their personal favorite option and worry that their choice may not be optimal, compared to individual consumption. I also tested this possibility in Study 4.

Method

A total of two hundred ninety-seven US adult consumers (44.1% males, M_{age} = 37.3) from Amazon's Mechanical Turk participated in this study in exchange for a USD 0.25 payment. Participants were randomly assigned to either a joint consumption condition or an individual consumption condition.

Participants first indicated their favorite option among those provided across several personal-interest domains (e.g., soda drinks, pizzas, bar snacks, etc.) in a randomized order. The focal question related to participants' preferences for bar snacks. As in previous studies, participants indicated their favorite bar snacks among five options (i.e., Potato Fries, Mozzarella Sticks, Chips and Dip, Chicken Strips, Onion Rings) based on their preferences.

All participants then imagined a scenario in which they were going to a bar for happy hour with one of their friends and the friend would be arriving late. In the *joint-consumption* condition, participants were told that they were going to order bar snacks to share first, whereas in the *individual-consumption* condition, participants imagined that they were going to order the bar snacks for themselves. Participants were further presented with the same list of bar snacks as the one used to measure their personal preference previously, and were asked to pick one bar snack that they would like to order.

Next, following the method used in Savary, Goldsmith, and Dhar (2015), participants reported how they would feel about themselves if they chose their personal favorite, using the

same four-item signaling measure used in pilot study 2 (α = .94). Specifically, participants rated the extent to which they agreed with the following statements if they chose their personal favorite product option: "I am a selfish person," "I am self-centered," "I am egocentric," and "I am self-interested," on seven-point scales (1= "Strongly Disagree," 7 = "Strongly Agree"; adapted from Feinberg 2007, Raine and Uh 2019). Finally, participants completed a 3-item responsibility measurement (i.e., "I feel a very high degree of personal responsibility for the choice I made," "I feel I should take the credit or blame for the results of my choice," "Whether or not my choice gets good results is clearly my responsibility;" 1 = "strongly disagree," 7 = "strongly agree"; α = .77; adapted from Hackman and Oldham 1974).

Results

I coded the consistency between the favorite bar snacks participants previously indicated and the type of bar snacks they chose to consume (0 = "not personal favorite," 1 = "personal favorite"). Consistent with my expectations, participants were significantly less likely to order their favorite bar snack in the joint-consumption condition (57.0%) than in the individual-consumption condition (88.4%; $\chi^2(1) = 36.62$, $p < .001$; OR = 5.74).

I also found a significant effect of consumption type on selflessness self-signaling ($F(1, 296) = 32.81$, $p < .001$; $\eta^2 = .10$). Specifically, when making decisions for joint consumption, participants interpreted choosing personal favorite options as a weaker signal of selflessness (M = 3.85, SD = 1.59) than those making decisions for individual consumption (M = 4.96, SD = 1.77).

A mediation analysis was then conducted, with consumption type as the independent variable, selflessness self-signaling as the mediator, and snack choice as the dependent variable (see Appendix E). As expected, the mediation analysis (PROCESS model 4 with

5,000 bootstrap samples; Hayes 2013) yielded a 95% confidence interval excluding zero (-0.45, -0.01), suggesting a significant mediating effect of selflessness self-signaling on the impact of consumption type on snack choice.

In addition, I found that participants' perceived responsibility did not vary across conditions ($F(1, 297) = 2.09$, $p = .15$). The observed effect remained significant when I put perceived responsibility as a covariate in the analyses, suggesting that it is less likely that the observed effect is driven by participants' perception of responsibility.

Finally, I recoded the data by coding the consistency between the most popular bar snacks participants indicated previously and the type of bar snacks they chose to consume (0 = "not most popular," 1 = "most popular"). I found that for participants who did not choose their personal favorite option, the likelihood of choosing the most popular option was similar between the individual-consumption and joint-consumption conditions (41.2% vs. 44.6%; $\chi^2(1) = .07$, $p = .799$).

Discussion

The findings of Study 4 provide direct support for my proposed mechanism, that is, consumers are less likely to choose their favorite option when making unilateral joint consumption decisions with double-blinded preferences, because they want to signal to themselves that they are selfless. At the same time, I rule out the possibility that the observed effect is driven by participants' perceptions of responsibility. Furthermore, I rule out the alternative explanation of choosing more popular options while making unilateral decisions for joint consumption by selecting items from a separate popularity pretest and a direct perceived popularity question.

5.5 STUDY 5

I hypothesized that consumers are less likely to choose their favorite option when making unilateral decisions for joint consumption because they want to signal their selflessness to themselves. If, as I hypothesized, this effect indeed operates through a self-perception-related mechanism such as signaling, I should expect a psychological process that increases one's self-evaluation (e.g., self-affirmation) to be able to bolster one's positive self-view; consequently, one should be less motivated to signal other positive self-traits (e.g., Dunning 2007). Study 5 tests this possibility by investigating the moderating role of self-affirmation.

Method

Three hundred and twenty-three US adult consumers (50.5% males, M_{age} = 36.5) from Amazon's Mechanical Turk participated in this study in exchange for a nominal payment. Participants were randomly assigned to conditions of a 2 (consumption type: individual vs. joint) × 2 (self-affirmation: self-affirmed vs. control) between-subjects factorial design.

Participants first indicated their favorite option among those provided across several personal-interest domains (e.g., music, movies, food, etc.) in a randomized order. The focal preference question in this study was the participants' music preference. As in previous studies, participants indicated their favorite music style among 11 options. Then, in the *self-affirmed* condition, participants completed a classic self-affirmation writing task (e.g., Blanton, Cooper, Slkurnik, and Aronson 1997; Matz and Wood 2005; Van den Bos 2001). Specifically, participants wrote and explained three positive aspects of themselves. In contrast, participants in the *control* condition were asked to write three statements to describe their everyday routines.

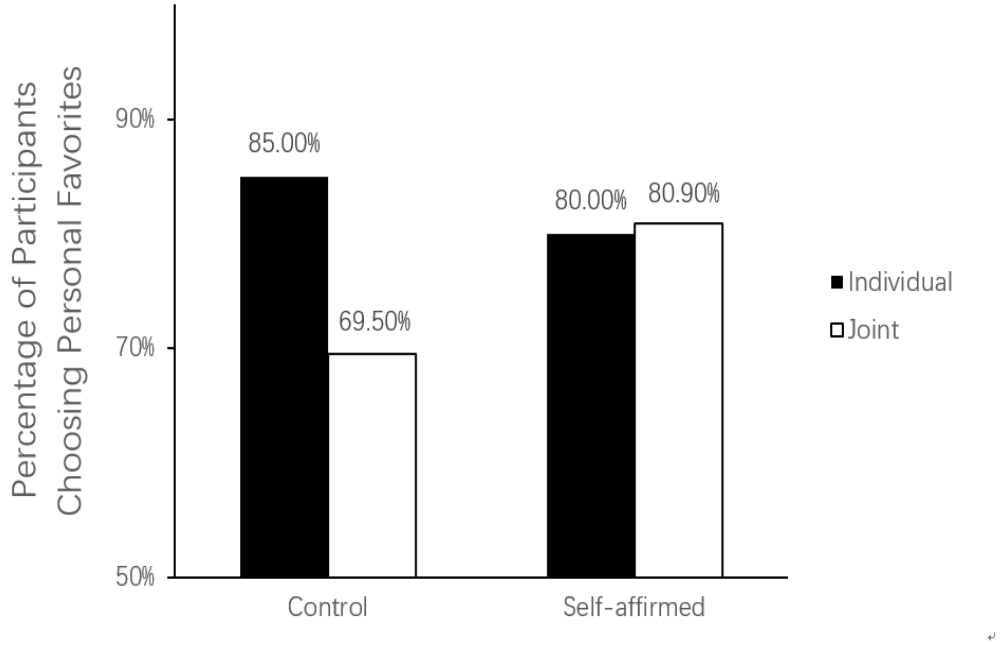
All participants imagined a scenario similar to that used in Study 1A. In the *joint-consumption* condition, participants imagined that they were driving to another city and carpooled with a stranger, whereas in the *individual-consumption* condition, participants imagined that they were driving to another city alone. Participants further imagined that, to make the road trip less boring, they decided to play music in the car. They were presented with the same list of music styles as the one used to measure their personal preference previously, and were asked to pick one type of music they would like to play in the car.

Results

I coded the consistency between the favorite type of music participants previously indicated and the type of music they chose to play in the car (0 = "not personal favorite," 1 = "personal favorite"). A binary logistic regression on consumption type, self-affirmation, and their interaction revealed a significant main effect of consumption type ($\beta = -0.91$, Wald $\chi^2 = 5.64$, $p = .018$), qualified by a marginally significant interaction ($\beta = 0.97$, Wald $\chi^2 = 2.92$, $p = .087$; see Figure II). Consistent with my expectations, in the control condition, participants were significantly less likely to choose to play their favorite type of music in the joint-consumption condition (69.5%) than in the individual-consumption condition (85.0%; $\chi^2(1) = 5.84$, $p = .016$; OR = 0.40). However, this effect was dismissed after self-affirmation (80.9% vs. 80.0%, respectively; $\chi^2(1) = 0.02$, $p = .893$).

Figure II

STUDY 5: PERCENTAGE OF PARTICIPANTS CHOOSING PERSONAL FAVORITES AS A FUNCTION OF CONSUMPTION TYPE AND SELF-AFFIRMATION



Discussion

The findings of Study 5 provide support for my proposed underlying mechanism of the observed effect, that is, consumers are less likely to choose their favorite option when making unilateral decisions for joint consumption because they want to signal their selflessness to themselves. Consistent with this mechanism, I found in this study that self-affirmation, a psychological process that bolsters one's positive self-view, moderated the effect. Specifically, the previously observed effect was dismissed when participants were self-affirmed. This suggests that, consistent with my theory, the effect I observed is likely to operate through a self-perception-related mechanism.

5.6. STUDY 6

As demonstrated in Study 2, avoiding one's personal favorite product option would not signal selflessness if the decision-maker and the co-consumer share the same product preference. Thus, another important assumption underlying the proposed mechanism of the

observed effect is that consumers believe that there is relatively low self–other similarity in product preference (e.g., Lynn and Harris 1997; Snyder and Fromkin 1977; Tian, Bearden, and Hunter 2001). In other words, by default, consumers believe that others may have different preferences for product options to their own, presumably driven by their uniqueness motivation (e.g., Lynn and Harris 1997; Snyder and Fromkin 1977; Tian, Bearden, and Hunter 2001). Following this logic, I would expect the previously observed effect to be weakened or to disappear when this assumption is violated (i.e., when consumers believe that there is high self–other similarity in product preference).

Studies 6A, 6B, and 6C tested this possibility from two perspectives. Specifically, in Studies 6A and 6B, we manipulated the perceived self–other similarity between decision-makers and their partners in the joint consumption to see whether the observed effect would be affected; in Study 6C, we tested whether participants' general belief about self–other similarity (e.g., Karylowski 1990; McFarland and Miller 1990; Mikulincer, Orbach, and Iavnieli 1998) would moderate the previously observed effect.

5.6.1. STUDY 6A

Individuals often generalize perceived self–other similarities from one domain to another (e.g., Aron et al. 1991; Brewer 1979; Jackson et al. 1996; LeBoeuf, Shafir, and Bayuk 2010). For example, Aron et al. (1991) found that individuals will use their own tastes to predict their friends' preferences when making a choice for a close and similar person. In the current study, I manipulated the perceived self–other similarity between decision-makers (i.e., my participants) and their partners in the joint consumption by providing the decision-maker with information about the similar preference of his/her co-consumer in domains different from the focal decision-making domain. I predicted that my previously observed

effect would be weakened or dismissed when participants learned that they have many preferences in common with their consumption partners; they will then assume high self–other similarity between them.

Three hundred and twenty-three Hong Kong undergraduate students (25.5% males, M_{age} = 21.7) participated in this study online in exchange for HKD 30. They were randomly assigned to one of the three between-subjects conditions (individual vs. joint-similar vs. joint-dissimilar).

As in previous studies, participants first indicated their favorite among the options provided across several personal-interest domains (e.g., music, movies, food, etc.) in a randomized order. The focal question among them related to participants' movie preferences (among eight options: Action and Adventure, Comedy, Drama and Romance, Fantasy, Documentary, Horror and Thriller, Science Fiction, Military and War).

Afterwards, they completed a purportedly unrelated task. In this task, I manipulated the perceived self–other similarity between decision-makers (i.e., my participants) and their co-consumers in the joint consumption by providing participants with information about the preference of their co-consumers in domains different from the focal decision-making domain. Specifically, in the two joint-consumption conditions, participants were told that they were randomly paired with another participant and were given some information about this co-consumer, including his/her name, gender, and things he/she likes (e.g., his/her favorite color, sports, music; see Appendix K for details). Unknown to my participants, this information varied based on the participants' own gender and personal favorite options that they had indicated previously. Specifically, in the *joint-similar* condition, the co-consumer was shown to be of the same gender and to be liking the same type of music, sports, food, and drinks, as my participants. However, in the *joint-dissimilar* condition, the co-consumer was shown as being a different gender and having different tastes in music, sports, food, and

drinks, compared to my participants. After receiving this information, participants were told that they were going to watch a movie clip together with this co-consumer this weekend via Zoom, and they were asked to choose the type of movie from a set of eight options from different genres (i.e., the same list as the one I used before). As a manipulation check, participants in these two conditions indicated the extent to which they thought their co-consumer was similar to them, on a 9-point scale (1 = "not at all," 9 = "very much"). Participants in the *individual* condition, however, were simply told that they were going to watch movie clips by themselves on the weekend via Zoom and to indicate their movie choice from the same list. To complete my cover story, all participants watched a movie clip from their selected genre that weekend online via Zoom, either individually (the individual condition) or with a student helper (the two joint conditions).

Results

As expected, participants in the joint-similar condition rated their co-consumer as more similar to themselves (M = 6.50, SD = 1.43) than did those in the joint-dissimilar condition (M = 2.75, SD = 1.33; $F(1, 212) = 392.85$, $p < .001$).

I coded the consistency between participants' favorite movie type and the type of movie they chose to watch (0 = "not personal favorite," 1 = "personal favorite"). A chi-square test revealed a significant effect of consumption type ($\chi^2(2) = 10.51$, $p = .005$). Specifically, consistent with my prediction, participants in the joint-dissimilar condition were significantly less likely to choose to watch their favorite type of movie (46.7%) than were those in both the individual condition (68.2%; $\chi^2(1) = 10.22$, $p = .001$; OR = 2.44) and the joint-similar condition (60.4%; $\chi^2(1) = 3.99$, $p = .046$; OR = 1.74). However, the latter two conditions did not differ significantly ($\chi^2(1) = 1.43$, $p = .231$).

5.6.2. STUDY 6B

In contrast to Study 6A, in which I manipulated the perceived self–other similarity between decision-makers and their co-consumers in the joint consumption by providing the co-consumers' information on the same day. In Study 6B, I tested whether the effect remained the same if the co-consumer's information was provided separately from the decision-makers' preference expression. I predicted that the effect I observed would be the same.

One hundred and four undergraduate Hong Kong students participated in this study in exchange for a HKD 30 payment. They were randomly assigned to one of the three between-subjects conditions (individual-consumption vs. consumption-with-similar-others vs. consumption-with-dissimilar-others). This study utilized a two-stage design to see whether our effect still holds when participants' focal personal preference is not made salient before they make the decision. Participants were required to come to our laboratory twice (one day apart) to complete this study. Eleven participants (five in the individual-consumption condition, three in the consumption-with-similar-others condition, and three in the consumption-with-dissimilar-others condition) did not show up for the second stage of the study, and their data were not further analyzed. This left us with a final sample size of 93 (29% males, M_{age} = 21.9).

In the participants' first visit to the lab, they first indicated their favorite among the options provided across several personal-interest domains (e.g., music, movies, food, etc.) in a randomized order. The focal preference question in this study was the participants' movie preferences. Similar to previous studies, participants indicated their favorite movie genre among the options. Afterwards, they completed a few filler tasks for unrelated research projects and were dismissed.

The next day, the participants were invited back to the lab to complete unrelated tasks. In the two joint-consumption conditions, participants imagined that they needed to host a foreign exchange student soon. They were given a page of information about this exchange student, including his/her name, background information (e.g., gender and major), and things he/she likes (e.g., his/her favorite color, sports, TV show, animal; see Appendix L). Unknown to our participants, however, this information varied based on participants' own gender and major, and the personal favorite options that they indicated the previous day. Specifically, in the *consumption-with-similar-others* condition, the exchange student was shown to have the same gender and major, and liked the same type of color, sports, TV show, and animal, as our participants; whereas in the *consumption-with-dissimilar-others* condition, the exchange student was shown to have a different gender and major, and different tastes in color, sports, TV show, and animal, compared to our participants. After receiving this information, participants imagined that they would invite the exchange student to see a movie together, and they were asked to choose the type of movie from a set of 13 options from different genres (i.e., the same list as the one we used in the first stage). As a manipulation check, participants indicated to what extent they thought the exchange student was similar to them on a 9-point scale (1 = "not at all," 9 = "very much"). Participants in the *individual-consumption* condition, however, were simply asked to imagine that they planned to see a movie themselves and to indicate their movie choice from the same list.

Results

As expected, participants in the consumption-with-similar-others condition rated the exchange student as more similar to themselves (M = 6.91, SD = 1.49) than did those in the consumption-with-dissimilar-others condition (M = 3.94, SD = 2.02; $F(1, 64) = 44.93$, $p < .001$). We coded the consistency between participants' previously indicated favorite movie

type and the type of movie they chose to watch (0 = "not personal favorite," 1 = "personal favorite"). A chi-square test revealed a significant effect of consumption type ($\chi^2(2) = 22.00$, $p < .001$). Consistent with our prediction, participants in the consumption-with-dissimilar-others condition were significantly less likely to choose to watch their favorite type of movie (15.63%) than those in both the individual-consumption condition (72.41%; $\chi^2(1) = 20.06$, $p < .001$; OR = 0.07) and the consumption-with-similar-others condition (59.4%; $\chi^2(1) = 13.07$, $p < .001$; OR = 0.13). However, the latter two conditions did not differ significantly ($\chi^2(1) = 1.15$, $p = .284$).

5.6.3 STUDY 6C

In contrast to Studies 6A and 6B, in which we manipulated the perceived self–other similarity between decision-makers and their co-consumers in joint consumption, in Study 6C, I tested whether consumers' general belief about self–other similarity (e.g., Karylowski 1990; McFarland and Miller 1990; Mikulincer et al. 1998) would moderate the observed effect. I predicted that the effect I observed would be weakened or dismissed when consumers believe in general that people are similar to each other.

One hundred and ninety-nine US adult consumers (48.0% males, $M_{age} = 37.40$) from Amazon's Mechanical Turk participated in this study in exchange for a nominal payment. Participants were randomly assigned to either an individual or a joint consumption condition.

Participants first indicated their favorite option among those provided across several personal-interest domains (e.g., music, movies, food, etc.) in a randomized order. The focal preference question in this study was the participants' movie preferences. Specifically, similar to Studies 6A and 6B, participants indicated their favorite movie genre among thirteen options. Then, participants responded to four questions measuring their beliefs about how

similar people are to each other (i.e., "human beings are very similar to one another," "human beings are very resembling one another," "people are very alike," and "human beings are homogenous"), all on a nine-point scale (1 = "not at all," 9 = "very much"). Afterwards, the participants imagined a DVD rental scenario. Specifically, participants in the *joint-consumption* condition were asked to imagine that one night they needed to rent a DVD movie to watch with their new neighbor, whereas participants in the *individual-consumption* condition imagined that they wanted to rent a DVD movie to watch alone. Participants then indicated the type of movie they would like to rent from the same list of movie types used in the previous section.

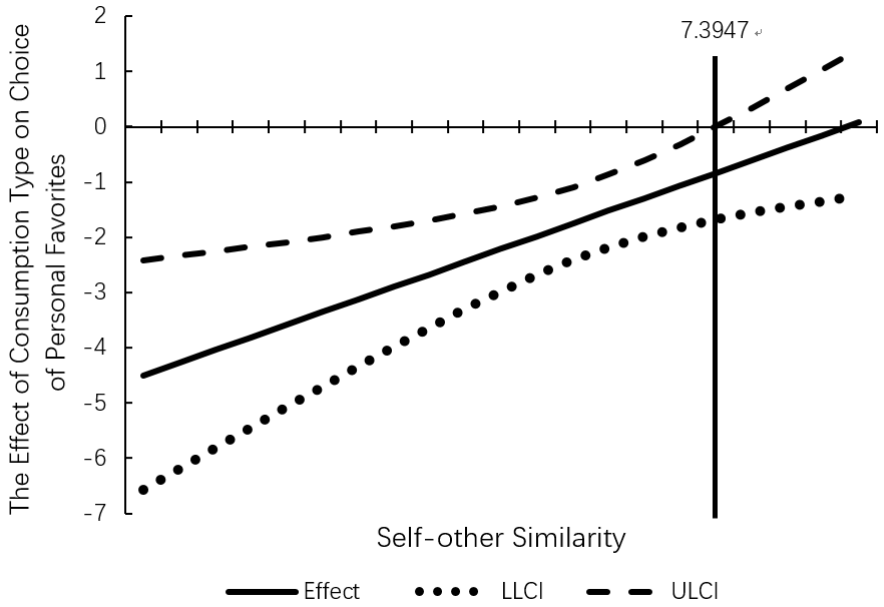
Results

I coded the consistency between participants' previously indicated favorite movie type and the type of movie they finally chose to watch (0 = "not personal favorite," 1 = "personal favorite"). Replicating my previous findings, logistic regression showed that consumption type had a significant main effect ($\beta = -5.069$, Wald $\chi^2 = 16.429$, $p < .001$), such that individuals in the joint-consumption condition were significantly less likely to choose to watch their favorite type of movie (44.1%) than were those in the individual-consumption condition (81.1%; $\chi^2(1) = 29.444$, $p < .001$; OR = 0.1834). More importantly, as expected, there was also a significant interaction between consumption type and self-other similarity belief ($\beta = 0.572$, Wald $\chi^2 = 8.210$, $p = .004$). Due to the fact that the proposed moderator in this study, self-other similarity belief, was a continuous variable, I used the Johnson-Neyman "floodlight" approach recommended in recent literature (e.g., Spiller, Fitzsimons, Lynch, and McClelland, 2013) to explore this interaction (see figure III). I found that in line with my predictions, joint consumption decreased participants' likelihood of selecting their personal favorite product option when they believed that, in general, people are different from each

other (a self-other similarity score of 7.3947 or lower; 81.91% of the participants). However, this effect disappeared among participants who believed that in general people are similar to each other (a self-other similarity score higher than 7.3947; 18.09% of the participants).

Figure III

STUDY 6C: PERCEIVED SELF–OTHER SIMILARITY MODERATES THE EFFECT OF CONSUMPTION TYPE ON PARTICIPANTS CHOOSING PERSONAL FAVORITES (FLOODLIGHT ANALYSIS)



Note: The graph, drawn on the basis of a floodlight analysis (Spiller et al. 2013), illustrates how perception of self-other similarity moderates the effect of consumption type on participants choosing personal favorites. Confidence bands are presented, and the Johnson-Neyman points are obtained at self-other similarity = 7.3947 (p = .05).

5.6.2. DISCUSSION

Putting these results together, Studies 6A, 6B, and 6C showed that the effect I found can be moderated by the perceived self–other similarity, operationalized as either the specific similarity between the decision-maker and the co-consumer (Studies 6A and 6B) or the general belief about self–other similarity among human beings (Study 6C). These findings

provide strong support for my assumption that avoiding one's personal favorite product option signals selflessness only if the decision-maker and co-consumers do not share the same product preference. If there is high perceived self–other similarity between the decision-maker and the co-consumers, the signaling effect is weakened and the likelihood of selecting one's personal favorite option will rise.

5.7. STUDY 7

Study 7 offers evidence for my proposed signaling mechanism by investigating another moderator—the appropriateness of self-interest. As I hypothesized earlier, although selfishness is seen as a negative characteristic in most cases, self-interest is deemed appropriate in situations where the context is clearly self-centered (e.g., one's own birthday party or an event honoring one's work). I predicted that my observed effect will weaken or disappear when the decision-making context is highly related to the decision-makers themselves. In such a situation, self-interest would be expected and considered appropriate; thus, the motivation to signal selflessness by avoiding a personal favorite option in joint consumption would likely be weakened or would disappear.

Method

Four hundred and five US adult consumers (50.9% males, M_{age} = 37.2) from Amazon's Mechanical Turk participated in this study in exchange for a USD 0.25 payment. They were randomly assigned to the five between-subjects conditions (baseline-individual vs. self-centered-individual vs. baseline-joint vs. self-centered-joint vs. other-centered-joint).

As in previous studies, participants first indicated their favorite among the options provided across several personal-interest domains (e.g., music, movies, food, etc.) in a

randomized order. The focal preference question in this study related to the participants' flavor preference for cakes. Specifically, participants indicated their favorite flavor among ten options (i.e., chocolate, cheesecake, strawberry, vanilla, red velvet, marble, carrot, lemon, coconut, and pecan cream).

After that, all participants imagined a scenario in which they needed to purchase a cake. In the *self-centered-joint* condition, participants imagined that Saturday is their birthday, and they plan to have a cake together with a colleague to celebrate. In the *other-centered-joint* condition, participants imagined that Saturday is a colleague's birthday, and they plan to have a cake together to celebrate his or her birthday. In the *baseline-joint* condition, participants imagined that Saturday is a public holiday and they plan to have a cake together with a colleague to enjoy the holiday. In the *self-centered-individual* condition, participants imagined that Saturday is their birthday, and they plan to have a cake alone to mark the event. Finally, in the *baseline-individual* condition, participants imagined that Saturday is a public holiday and they plan to have a cake alone to enjoy the holiday. Participants in all conditions were asked to pick one flavor of the cake they would like to purchase from the same list of cake flavors they viewed previously.

Results

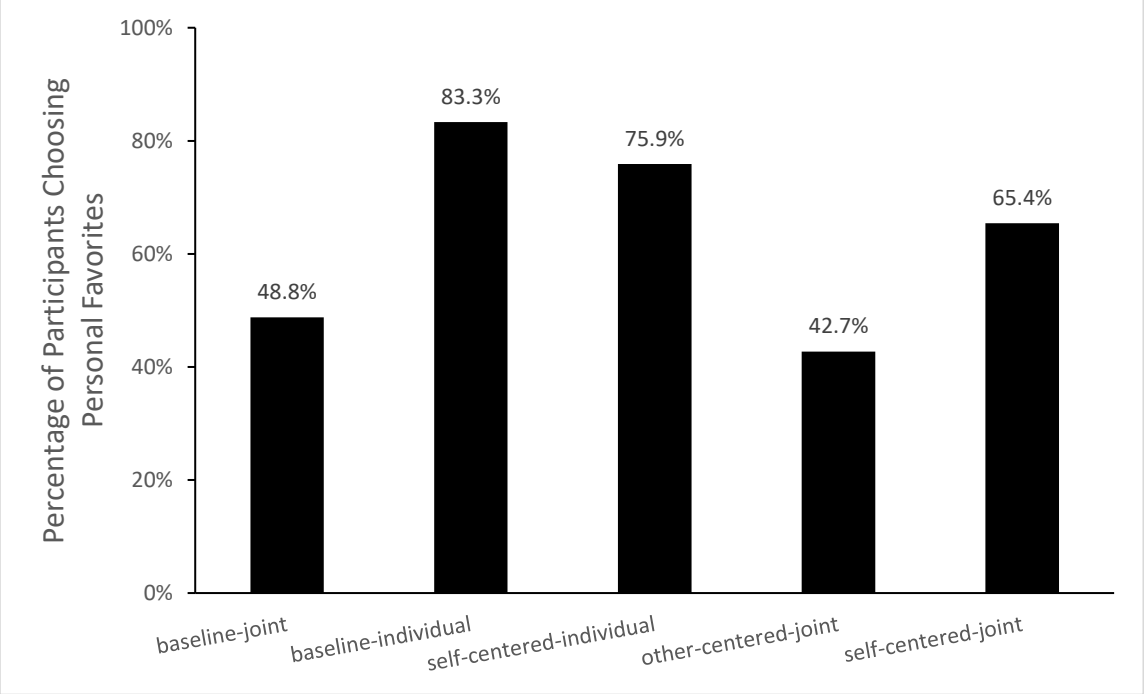
I coded the consistency between the favorite flavor of cake participants had previously indicated and the cake flavor they chose to purchase (0 = "not personal favorite," 1 = "personal favorite"). Replicating my previous findings, participants in the baseline-joint condition were significantly less likely to order their favorite flavor of cake (48.8%) than those in the baseline-individual condition (83.3%; $\chi^2(1) = 21.31$, $p < .001$; OR = 0.19). Moreover, participants in the baseline-individual condition (83.3%) were equally as likely to order their favorite flavor of cake as those in the self-centered-individual condition (75.9%;

$\chi^2(1) = 1.36$, $p = .243$) and more likely to order their favorite flavor of cake than those in the self-centered-joint condition (65.4%; $\chi^2(1) = 6.59$, $p = .010$), and participants in the other-centered-joint condition did not differ significantly from those in the baseline-joint condition (42.7% vs. 48.8%, respectively; $\chi^2(1) = 0.63$, $p = .428$).

More importantly, participants in the self-centered-joint-consumption condition were equally as likely to order their favorite flavor of cake (65.4%) as those in the self-centered-individual condition (75.9%; $\chi^2(1) = 2.15$, $p = .142$). The likelihood of purchasing the participants' favorite flavor of cake was also significantly higher in the self-centered-joint condition (65.4%) than in the other-centered-joint condition (42.7%; $\chi^2(1) = 8.29$, $p = .004$; OR = 0.39) and in the baseline-joint condition (48.8%; $\chi^2(1) = 4.53$, $p = .033$; OR = 0.50; see Figure IV; for the full set of statistics, see Appendix D).

Figure IV

STUDY 7: PERCENTAGE OF PARTICIPANTS CHOOSING PERSONAL FAVORITES AS A FUNCTION OF CONSUMPTION TYPE



Discussion

The findings of Study 6 confirmed my prediction that the observed effect of joint consumption on the likelihood of selecting one's personal favorite option is weakened when the joint consumption context is highly self-centered. In such a situation, self-interest is considered legitimate and the motivation to signal selflessness is weakened; therefore, decision-makers do not need to forgo their personal favorite options in joint consumption.

CHAPTER 6. CONCLUSION

This research shows that the context of joint consumption affects consumers' unilateral decision-making processes. Through 13 studies, I compared unilateral joint consumption decisions with those made for individual consumption in both hypothetical scenarios and real consequential behaviors. Specifically, Study 1 shows that when consumers make unilateral choices for joint consumption with double-blinded preferences, they are less likely to choose their personal favorite options than those who make unilateral choices for themselves. I also found that participants' knowledge of their co-consumers' preference would impact the effect I observed (Study 2), and after avoiding personal favorite options, participants in the joint consumption condition were not more likely to choose their second-ranked option than those in the individual consumption condition (Study 3). I further proposed that this effect occurs because of individuals' self-signaling of selflessness, and Study 4 provides direct evidence that my proposed effect is mediated by self-signaling of selflessness. Consistent with my proposed selflessness-signaling account, I further found that this effect is weakened 1) when they are self-affirmed (Study 5), 2) when they perceive high self–other similarity (Study 6), or 2) when self-interest is deemed appropriate in the decision context (Study 7).

Theoretical Contributions

My research contributes to the literature on joint consumption by exploring the phenomenon of unilateral joint consumption decisions. Past literature has primarily focused on the process and strategies of making joint decisions regarding joint consumption. Most existing research in this area focuses on household perspectives (Filiatrault and Ritchie 1980; Wu, Holmes, and Tribe 2010; Yang, Zhao, Erdem, and Zhao 2010) and examines household decisions such as regular grocery shopping (Brody, Stoneman, Lane, and Sanders 1981), purchasing of durable goods (Beatty and Talpade 1994), and leisure activities (DeVault 2000). Nevertheless, many products consumed jointly are not jointly chosen, but instead are chosen by one individual decision-maker (Ward and Reingen 1990). Adding to this stream of research (e.g., Aggarwal and Mazumdar 2008; Steffel and Williams 2017; Steffel et al. 2016; Wu, Moore, and Fitzsimons 2019), the current study offers new insights into how unilateral joint consumption decisions are made. My findings suggest that when preference is double-blinded, decision-makers often forgo their own personal favorite option in making unilateral choices for joint consumption as a self-signal of selflessness. I hope that this work will stimulate future research to investigate more choice patterns of unilateral decisions in joint consumption.

My research also adds to the growing literature on signaling by demonstrating a novel way of costly self-signaling of one's selflessness: avoiding one's personal favorite option when making unilateral joint consumption decisions. Past research demonstrates many kinds of signaling (either to oneself or to others), which indicates the type of person one wishes to convey (e.g., Berger and Heath 2007, 2008; Berger and Rand 2008; Dhar and Wertenbroch 2012; Dunning 2007; Han et al. 2010; Jang and Chu 2012; Mijović-Prelec and Prelec 2010; Sedikides et al. 2007) or social relationships (e.g., Ward and Broniarczyk 2016). However, most research in this domain has focused on social signaling instead of self-signaling. My

research investigates individuals' costly self-signaling of selflessness. Prior research has also shown that individuals use different behaviors to signal their selflessness (e.g., Ariely et al. 2009; Savary, Goldsmith, and Dhar 2015; White and Peloza 2009), such as reducing the effort they put into tasks with financial benefits (Ariely et al. 2009), donations to charities (White and Peloza 2009), or increasing donations while referencing a hedonic product rather than a utilitarian product (Savary et al. 2015). Adding to this stream of research, I found that one way for individuals to self-signal their selflessness is by avoiding personal favorite options in unilateral joint consumption decisions. Thus, my work extends existing knowledge on self-signaling as well as the signaling of selflessness.

Although prior studies have examined the logic and motivation of unilateral decisions for joint consumption based on a number of psychological phenomena (e.g., Etkin 2016; Lerouge and Warlop 2006; Mullen et al. 1985; Ross et al. 1977; Wiltermuth 2011; Wu, Moore, and Fitzsimons 2019; Yang, Chartrand, and Fitzsimons 2015), no study has examined the relationship between unilateral decision-making for joint consumption and consumer choice of personal favorites. I add to this stream of research by examining why individuals are more likely to forego their personal favorites in unilateral joint consumption decisions, and find that a unilateral joint consumption decision changes the extent to which decision-makers are motivated to signal their positive aspects to themselves, and as a consequence, it influences the choices they make.

Alternative Explanations

I have addressed several alternative explanations for my findings in this research. For example, it is possible that unilateral decision-makers in joint consumption forego personal favorite options so they can choose the more popular or less risky option. To rule out these alternative explanations, I pretested stimuli used in my studies to ensure that they do not differ in perceived popularity (Study 1C) or risk (Study 2). I found that even when the available

options were perceived as equally popular or risky, consumers still diverged from their own personal favorite while making unilateral joint consumption decisions. In addition, I conducted ad-hoc analyses for all studies to see whether participants chose the most popular option (based on post-test ratings) more when not choosing their personal favorite option. I found that for participants who did not choose their personal favorite option, the likelihood of choosing the most popular option did not differ across conditions, suggesting that unilateral decision-makers in joint consumption did not forego their personal favorite option in order to choose the more popular option.

Another alternative explanation of my effect is that unilateral decision-makers in joint consumption forego personal favorite options so they can keep their personal preferences private. Indeed, there are situations in which people may worry that their personal preference, taste, or behavior may receive negative judgment from others. However, I believe that this is not likely to be the case in the current research. This is because, in my context, preference is double-blinded; thus, other people in the consumption context (e.g., co-consumers or observers) do not clearly know whether the chosen option is the decision-makers' personal favorite. Consistent with this premise, I measured participants' worries about the negative public evaluations of their personal preference/taste (Study 1C) and behavior (Study 3), and found that these factors did not influence my data pattern.

Future Research Directions

In the current work, I mainly focused on unilateral joint consumption decisions in dyad or small-sized groups. Prior studies have examined the effects of group size on decision making (e.g., Barasch and Berger 2014; Darley and Latane 1968; Lu, Yuan, and McLeod 2012; Insko, Smith, Alicke, Wade, and Taylor 1985; Wheelan 2009; Wu, Moore, and Fitzsimons 2019). For example, consumers are less likely to uncover unique pieces of information as group size increases (Lu et al. 2012), and attention to the audience decreases

as the audience size increases (Barasch and Berger 2014). In my context, decision-makers may feel that their preferences are less (or more) easily pinpointed in larger (vs. smaller) groups, in effect licensing them to make more (vs. less) self-oriented choices without worrying about being judged as selfish. Therefore, unilateral decision-makers may strategically shift their choices depending on whether the size of the group is large or small. Thus, one task for future research might be to consider whether variation in group size moderates this effect.

Another avenue for future research is to test the role of product category or preference strength in the observed effect. In the current research, the products being chosen are generally hedonic, such as music, movies, or cakes. Drawing on Liu and Min's (2020) notion that as preference strength increases, consumers' likelihood of expressing a preference increases, and it is possible that when unilateral decision-makers' preference strength increases, they are more likely to choose their personal favorite options in joint consumption. Future research could test this possibility.

Future work could also test whether domain-specific expertise or familiarity moderates the observed effect. In the current research, I focused on common product domains with which participants should be fairly familiar but could not claim to have a high level of expertise. However, in situations where decision-makers feel that they have high expertise in the domain of product options, they may be more likely to pick their personal favorite because they want to share their expertise with co-consumers, and they believe that their favorite option will ensure a positive consumption outcome. Thus, domain-specific expertise or familiarity could be an interesting moderator for future research.

People from different cultural backgrounds may treat selflessness differently. For example, past research has found that people from individualist and collectivist cultures value egoistic and altruistic values differently (e.g., Aaker and Williams 1998; Hui and Triandis

1986; Shavitt, Nelson, and Yuan 1997). Nonetheless, we found a converging data pattern among participants from both individualistic (North American, Studies 1A, 1B, 2, 4, 5, 6C, and 7) and collectivist cultures (Hong Kong and Mainland China, Studies 1C, 3, 6A, and 6B). This seems to suggest that, at least in our current research context, avoiding a personal favorite option in decision-making for joint consumption is a universal phenomenon. Further investigations are required to validate this possibility.

It would also be interesting to examine the downstream consequences of the observed phenomenon. For instance, future work could examine whether consumers have signaled to themselves that they are selfless by avoiding personal favorite options, how it affects their emotions or enjoyment (Kovacheva and Lamberton 2018; Raghunathan and Corfman 2006), satisfaction (Halstead and Page 1992; Reibstein, Youngblood, and Fromkin 1975), affiliation (Lowe and Haws 2014; Min, Liu, and Kim 2018), and subsequent joint or individual consumption. Some past literature suggests that people may use their own preferences as an anchor when predicting others' preferences, which results in the false consensus effect (e.g., Mullen et al. 1985, Ross et al. 1977). In addition, in the current research, co-consumers are strangers, co-workers, or friends of the decision-maker. Future research could also examine whether other types of relationships between the decision-maker and co-consumers would alter the observed effect. For instance, in long-term romantic relationships, both the willingness to display authentic self and habitual patterns may be more established, which may affect the observed effect.

Finally, I observed in my studies that even in individual consumption conditions, there were always some participants who did not choose their favorite options. I speculate that this is likely driven by the difference between context-free and context-specific preferences. Past research has shown that preferences are context sensitive and are not always stable (e.g., Amir and Levav 2008; Drolet, Luce, Simonson 2009; Maier, Barchfeld, Elliot,

and Pekrun 2009; Simonson 2008). While our participants reported their context-free preferences among various options at first, their later decision-making could deviate slightly due to the consideration of contextual factors in the decision-making context. How this nature of preference influences my findings is another interesting future research possibility.

Practical Implications

In today's connected world, more consumption occurs in a shared format. Thus, joint consumption has become an important phenomenon, receiving a growing level of attention from society. Insights on how consumers make unilateral decisions for joint consumption will certainly provide important substantive implications for consumers, marketers, and policymakers. From the consumers' and policymakers' perspectives, my research suggests that it is important for decision-makers to realize that giving up their personal favorites in unilateral decision-making for joint consumption may not necessarily maximize the welfare of their consumption partners. In fact, it may lead to inferior overall outcomes for the entire consumption group.

From the marketers' perspective, given that consumer satisfaction with both individual and joint consumption has significant consequences for consumers' future consumption behavior (e.g., repurchase behavior), it seems more beneficial for marketers to discourage their customers from sacrificing their own welfare in order to signal selflessness when making unilateral decisions for joint consumption. To achieve this goal, marketers could encourage customers to make their own decisions or make joint decisions for joint consumption. For example, when restaurants accommodate a group of customers, they can offer individual menus to each customer or use a mobile app to take individual orders, so that customers can make their own individual decisions. Another possible way to do that might be to add more variety into the selection of products that companies provide. Specifically,

instead of offering single-flavor party-size products, companies could offer more mixed flavor products in party size designs (e.g., Cheetos Mix-ups). A variety of options in one product design are likely to satisfy multiple consumers' needs simultaneously, reducing the need for decision-makers to sacrifice their own interests in unilateral decisions for joint consumption.

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APPENDIX

Appendix A

Pilot Studies

The first pilot study aimed to identify the prevalence and importance of the focal decision. Ninety nine US adult consumers (45.5% male, Mage = 36.31) participated in this study for a $0.10 payment. Participants were asked to response a few questions related to their own everyday consumption, for example:

- "How many percent of your own consumptions can be categorized as joint consumptions?"
- "In the past, how many percent of your own joint consumptions was decided by one particular member in your consumption group?"
- "In the past, when a group member (either you or another person) made decisions for your own consumption group, what's the percentage of the situation that the decision-maker was uncertain about group members' consumption preferences?"

Results revealed that 51.27% of their daily consumption activities can be categorized as joint consumptions and 49.67% of the decisions in joint consumptions are made unilaterally. Furthermore, about 40.42 % of the recalled unilateral decisions for joint consumption were made without double-blinded preferences

Appendix B

Pretest 1

The first pretest aimed to test perceived risks of each item in certain personal interest domain. Two hundred and ninety-nine adult UK consumers (66.3% males, M_{age} = 29.2) from Prolific participated in this study for a payment of USD0.15. All participants were invited to complete a short survey about product evaluation on risk. Specifically, participants were told to rate each of the option on risk among ten Appetizer options (e.g., chicken wing, cheese bread, mini crab cake, potato fries, onion rings, potstickers, stuffed mushrooms, cheese bites, mozzarella sticks, chicken strips), on a five-point scale (1 = "not risky at all," 5 = "extremely risky"). In order to rule out the alternative explanation that participants were choosing the less risky options, we would like to select the "moderately risky" items to be used in the main study. Three appetizer options (e.g., potato fries, mozzarella sticks, chicken strips) were selected around "moderately risky" level and participants' perceived risk on each option was examined using ANOVA's with the appetizer options as a within-subjects factor, we found that there is no significant difference ($F(2, 298) = 1.65$, $p = .193$) among these three appetizer options.

Pretest 2

The second pretest aimed to test perceived popularity of each item in certain personal interest domain. Seventy four adult Chinese consumers (37.8% males, M_{age} = 34.9) participated in this study voluntarily. All participants were invited to complete a short survey about product evaluation on popularity. Specifically, participants were told to rate each of the option on popularity among four yogurt options (e.g., berries, coconut, apple, and honeydew),

on a five-point scale (1 = “not popular at all,” 5 = “extremely popular”). Participants’ perceived popularity on each option was examined using ANOVA’s with the yogurt options as a within-subjects factor, we found that there is no significant difference ($F(3, 73) = .54$, $p = .658$) among these four yogurt options.

Appendix C

Table I

Full Pairwise Contrasts from Study 2

	Joint-unknown	Joint-same	Joint-different	Joint-indifferent
Individual	$p < .001$	$p = .188$	$p < .001$	$p < .001$
Joint-unknown		$p = .002$	$p < .001$	$p = .611$
Joint-same			$p < .001$	$p = .010$
Joint-different				$p < .001$

Appendix D

Table II

Full Pairwise Contrasts from Study 7

	self-centered-individual	baseline-joint	self-centered-joint	other-centered-joint
baseline-individual	$p = .243$	$p < .001$	$p = .010$	$p < .001$
self-centered-individual		$p < .001$	$p = .142$	$p < .001$
baseline-joint			$p = .033$	$p = .428$
self-centered-joint				$p = .004$

Appendix E

Mediation Analyses in Study 4

We tested our hypothesis that the participants' selflessness self-signaling would mediate the effect of consumption type on choice towards personal favorite option. First, participants indicated that they would significantly feel themselves as selfish if they choose their personal favorite for joint consumption rather than individual consumption ($\beta = 1.12$, $p < .001$). Second, making an unilateral decision for joint consumptions decreased their likelihood choosing their personal favorite options ($\beta = -1.75$, $p < .001$). Third, the more selfish people believed they would feel, the more likely they were to avoid choosing personal favorite options ($\beta = -.29$, $p < .001$). This pattern is consistent with our hypothesis that people are avoiding personal favorite options when making unilateral decisions for joint consumption because they are attempting to avoid the negative information (selfishness) that might be signaled. Further, regressing participants' likelihood choosing their personal favorite options on both consumption type and self-signaling of selflessness resulted in a significant effect of consumption type ($\beta = -1.58$, $p < .001$) and a significant effect of self-signaling of selflessness ($\beta = -.19$, $p = .030$). Bootstrapping analyses (PROCESS Model 4 with 5,000 bootstrapping samples; Hayes 2013) confirmed that the indirect effect of consumption type on likelihood choosing their personal favorite options was significant (95% confidence interval [CI]: -0.45 to -0.01). These results suggest that the effect of consumption type on participants' likelihood choosing their personal favorite options was mediated by their desire for self-signaling of selflessness.

Appendix F

Study 1A: Supporting Materials Used as Measurement of Personal Preferences

1. **What is your favorite food style?**
    a. American Style
    b. Chinese Style
    c. Mexican Style
    d. Indian Style
    e. Italian Style
    f. Thai Style
    g. Japanese Style
2. **What is your favorite music style?**
    a. Blues
    b. Country
    c. Hip hop
    d. Jazz
    e. Rock
    f. Electronic
    g. R&B and Soul
    h. Latin
    i. Folk
    j. Pop
    k. Classic
3. **What is your favorite sport?**
    a. Basketball

b. Football

c. Soccer

d. Lacrosse

e. Baseball

f. Badminton

g. Tennis

4. What is your favorite ice cream flavor?

a. Chocolate

b. Vanilla

c. Strawberry

d. Mango

e. Coconut

f. Peanut Butter

g. Lemon

h. Pistachio

i. Coffee

j. Peppermint

5. What is your favorite snack type?

a. Cookies

b. Nuts

c. Cheese bites

d. Chips

e. Crackers or biscuits

f. Candy

g. Chocolate

h. Jelly or Pudding

Appendix G

Study 1C: Stimuli Used as Choice of Yogurt

Individual condition

Joint condition

Appendix H

Study 2: Different Scenarios Used in Study 2

Condition	Scenario
individual	Imagine that you are going to have dinner with a friend. Your friend arrived late asked you to choose your own appetizer first. On the appetizer menu, there are three options available for you to choose from. Which one would you like to choose to share?
joint-unknown	Imagine that you are going to have dinner with a friend. Your friend arrived late and asked you to choose a shareable appetizer first. On the appetizer menu, there are three options available for you to choose from and you do not know your friend's preference. Which one would you like to choose to share?
joint-same	Imagine that you are going to have dinner with a friend. Your friend arrived late and asked you to choose a shareable appetizer first. On the appetizer menu, there are three options available for you to choose from and you know that your friend likes the appetizer you like. Which one would you like to choose to share?

joint-different	Imagine that you are going to have dinner with a friend. Your friend arrived late and asked you to choose a shareable appetizer first. On the appetizer menu, there are three options available for you to choose from and you know that your friend does not likes the appetizer you like. Which one would you like to choose to share?
joint-indifferent	Imagine that you are going to have dinner with a friend. Your friend arrived late and asked you to choose a shareable appetizer first. On the appetizer menu, there are three options available for you to choose from and your friend does not have a strong preference for any type of appetizer. Which one would you like to choose to share?

Appendix I

Study 3: Fear of Negative Evaluation scale (Carleton, Collimore, and Asmundson 2007)

I worry about what other people will think of me even when I know it doesn't make any difference.
I am frequently afraid of other people noticing my shortcomings.
I am afraid that others will not approve of me.
I am concerned about other people's opinions of me.
When I am talking to someone, I worry about what they may be thinking about me.
I am usually worried about what kind of impression I make.
If I know someone is judging me, it tends to bother me.
I often worry that I will say or do wrong things.

Appendix J

Study 5: Supporting Materials Used as Manipulation of Self–affirmation

Control Condition	*Self-affirmation Condition*
Writing Task What do you usually do between 5:00 pm to 7:00 pm in a typical day? Please list what you do without disclosing details.	Writing Task Please write about three or four positive aspects of yourself. Please explain why these aspects are important to you and make you feel proud. They can be any aspects of your identity, a talent, or a basic value.

Appendix K

Study 6A: Supporting Materials Used as Manipulation of Self–Other Similarity (vs. Self–Other Difference)

joint-similar condition	*joint-dissimilar condition*
Name: Jay	Name: Jay
Gender: ___Same_____	Gender: ___Different_____
Favorite Music: ____Same_____	Favorite Music: ____ Different _____
Favorite Sports: ____Same_____	Favorite Sports: ____ Different _____
Favorite Color: ____Different_____	Favorite Color: ____ Same _____
Favorite Food: ____Same_____	Favorite Food: ____ Different _____
Favorite Book: ____Same_____	Favorite Book: ____ Different _____

Appendix L

Study 6B: Supporting Materials Used as Manipulation of Self–Other Similarity (vs. Self–Other Difference)

Personal Information

Name: _____

Gender：_____

Age: _____

Major: _____

Language: _____

Nationality: _____

Favorite Color: _____

Favorite TV Show: _____

Favorite Sports: _____

Favorite Movie Actor: _____

Favorite Animal: _____

Appendix M

Study 7: Different Scenarios Used in Study 7

Condition	Scenarios
baseline-individual	Imagine that this Saturday is a national holiday. You plan to have dinner to celebrate the holiday. On Friday, you plan to order a cake. In this situation, which cake type would you like to order?
self-centered-individual	Imagine that this Saturday is your birthday. You plan to have dinner to celebrate your birthday. On Friday, you plan to order a cake. In this situation, which cake type would you like to order?
baseline-joint	Imagine that this Saturday is a national holiday. You plan to invite this new colleague to have dinner together to celebrate the holiday. On Friday, you plan to order a cake. In this situation, which cake type would you like to order?
self-centered-joint	Imagine that this Saturday is your birthday. You plan to invite a new colleague to have dinner together to celebrate your birthday. On Friday, you plan to order a cake. In this situation, which cake type would you like to order?
other-centered-joint	Imagine that this Saturday is a new colleague's birthday. You plan to invite this new colleague to have dinner together to celebrate his/her

birthday. On Friday, you plan to order a cake. In this situation, which cake type would you like to order?