Wine for the Table: Self-Construal, Group Size, and Choice for Self and Others

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This research examines how consumers make unilateral decisions on behalf of the self and multiple others, in situations where the chosen option will be shared and consumed jointly by the group—for instance, choosing wine for the table. Results across six studies using three different choice contexts (wine, books, and movies) demonstrate that such choices are shaped by the decision-maker's self-construal (independent vs. interdependent) and by the size of the group being chosen for (large vs. small). Specifically, we find that interdependent consumers consistently make choices that balance self and others' preferences, regardless of group size. In contrast, the choices of independent consumers differ depending on group size: for smaller groups, independents make choices that balance self and others' preferences, while for larger groups, they make choices that more strongly reflect their own preferences. Via mediation and moderation, the data show that differential attention to others underlies the combined effect of self-construal and group size on the joint consumption choices that consumers make for the self and others.

Keywords: self-construal, choice, group size, joint consumption

Imagine that you are out to dinner with a group of friends, and you have been tasked with selecting wine for the table to share. Some of your friends like full-bodied red wines, while others would prefer to forego the reds for a crisp white wine. Personally, your tastes run more toward the reds than the whites. How do you decide which wine to order for the table? How do you balance your preferences with those of others? What factors might affect your decision?

This research examines how consumers make decisions on behalf of the self and multiple others—without input from those others—in joint consumption situations, where the chosen option is shared with and consumed together by the group. Examples include ordering wine for the table, choosing a movie to watch with friends, and selecting a restaurant for a team dinner. Although the factors that determine how consumers make such choices are not well understood, the social nature of our everyday lives means that these decisions are relatively common. Indeed, a survey ($N = 106$; Amazon Mechanical Turk) revealed that 55% of consumers make joint consumption choices on behalf of the self and others more than three times a month, and that 20% make such choices more than three times a week. On average, consumers had made one such choice in the week prior to the survey ($M = 7.25$ days, SD = 8.65). Most often, these consumers were selecting food or drinks (66.0%) and

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entertainment or activity options (20.5%) for the self and others.

However, despite the frequency with which consumers make such choices, prior research has not investigated how they do so. The current research addresses this question by exploring how consumers balance their preferences with those of others in making such choices—that is, we examine when and why consumers might choose a robust red versus a crisp white wine for the table. To provide initial insight into this matter, we identify one individual factor and one situational factor that might shape joint consumption choices: consumers' self-construal (i.e., how the self is defined relative to others; Markus and Kitayama 1991) and the size of the group being chosen for. We focus on these factors because prior work suggests that both self-construal (Pöhlmann et al. 2007) and group size (Latané 1981) may play a role in how such choices are made, and because group size is a unique feature inherent in choosing for multiple others. In six studies, we find that these factors together predict how consumers balance self and others' preferences in making joint consumption choices. We also identify the mechanism underlying their influence: self-construal and group size jointly determine how much attention decision-makers pay to others, and attention to others ultimately drives choice.

We begin by reviewing prior work on choosing for others and by introducing the novel context of joint consumption choices that are made unilaterally on behalf of the self and multiple others. We then discuss how attention to others, self-construal, and group size might shape such choices, and present six studies that test our framework.

CONCEPTUAL DEVELOPMENT

Choices for Others

Despite the fact that consumers often choose for others, the majority of decision-making research has focused on choices made for and by individuals (Bettman, Luce, and Payne 1998), rather than on choices for others (Polman and Emich 2011). However, a growing body of research has begun to explore decision-making for others, with work consistently demonstrating that the processes and outcomes involved in choosing for others differ meaningfully from those involved in choosing for the self (Barasz, Kim, and John 2016). Conceptual work in the area has identified three dimensions along which choices for others can be categorized: 1) who the recipient is (i.e., a single other, multiple others, or the self and other[s]); 2) how the choice is made (i.e., collaboratively or unilaterally); and 3) how the choice outcome is consumed (i.e., jointly or not; Gorlin and Dhar 2012; Liu, Dallas, and Fitzsimons 2017).

First, the majority of work on choosing for others has examined decisions for single recipients. This research has focused on identifying differences between the choices individuals make for themselves and the choices they make for one other person. For instance, relative to choices for the self, choices for single others are more indulgent (Laran 2010), risky (Beisswanger et al. 2003; Polman 2012a), and varied (Choi et al. 2006), and are less subject to choice overload (Polman 2012b). Much less work has examined how individuals choose for the self and others, though notable exceptions have studied how choices are made on behalf of the self and a romantic partner (Etkin 2016; Yang, Chartrand, and Fitzsimons 2015), the self and a friend (Fisher, Grégoire, and Murray 2011; Tu et al. 2016), the self and a stigmatized other (Liu et al. 2013), and the self and an unknown other (Fisher et al. 2011; Tu et al. 2016). Similarly, little work has examined choices for multiple others. In the two articles that we are aware of, Lowrey, Otnes, and Ruth (2004) and Steffel and Le Boeuf (2014) explore choosing gifts for multiple others, where a separate choice is made for each recipient.

Second, research has examined how choices for others are made, with work focusing on both collaborative and unilateral choices. Research on collaborative choice has investigated how individuals work together to make decisions—for instance, in couples (Su, Fern, and Ye 2003), households (Corfman and Lehmann 1987; Park 1982), and experimentally assigned pairs (Dzhogleva and Lamberton 2014; Nikolova and Lamberton 2016). Research on unilateral choice has studied how individuals decide for others without their input—for example, in giving a gift (Cavanaugh, Gino, and Fitzsimons 2015; Chan and Mogilner 2017; Ward and Broniarczyk 2016) or advice to a single other (Jonas and Frey 2003).

Third, research has examined choices for others in which the chosen option is consumed separately (e.g., a gift recipient enjoys her gift independently of the giver) or jointly by all involved parties (e.g., a pizza is shared by everybody at the table). Although joint consumption situations are relatively common, prior research has focused on cases in which consumption is separate. Examples include work on choosing items for a single other to consume (Choi et al. 2006), for the self and a single other to consume separately (Liu et al. 2013), or for multiple others to consume separately (Lowrey et al. 2004; Steffel and Le Boeuf 2014). Of note, a small stream of research has examined how factors such as decision orientation (Fisher et al. 2011), interpersonal closeness (Tu et al. 2016), relationship length (Etkin 2016), and self-monitoring (Yang et al. 2015) affect choices that are consumed jointly. Critical to the current investigation, we note that all of this work investigates cases in which the choice outcome is shared between the self and a single other, rather than multiple others.

The present research builds on these three dimensions to identify a specific and novel class of choices: those that consumers make unilaterally on behalf of the self and multiple others, where the choice option is consumed jointly. Examples of such decisions abound—a conference

organizer makes such a choice when he finalizes a conference location, a soccer captain makes such a choice when she selects a team shirt, and a colleague makes such a choice when he settles on a bar for a department happy hour. Though these examples cover a range of settings, they share a set of defining characteristics: in each, a choice is made unilaterally for multiple others by a single decision-maker, and the chosen option is shared and consumed jointly by the group. These characteristics highlight two critical issues that guide the focus of this article.

First, the shared nature of the choice outcomes in joint consumption settings raises the question of how individuals balance self and others' preferences in making such choices. The present work uses the lens of self-construal to understand when consumers are more versus less inclined to account for others' preferences in choosing. To do so, we build on prior research that has identified self-construal as an important factor that impacts how individuals approach choosing for the self versus others (Pöhlmann et al. 2007; Polman and Vohs 2016). Second, the fact that these choices are made on behalf of multiple others raises the issue of how many others. Although prior work on choosing for others has not explored group size, research in psychology (Latané 1981) suggests that variations in the number of recipients may impact how individuals choose on behalf of the self and multiple others.

By examining how self-construal and group size determine how consumers choose on behalf of self and multiple others, our work extends the existing understanding of the types of choices that consumers make. Critically, we identify and highlight attention to others as an underlying process in making such choices; we discuss this next.

Attention to Others

A substantial body of work shows that by default, individuals focus more of their attention on the self than on others. For example, individuals direct cognitive resources toward self-related information even when it is irrelevant (Gray et al. 2004) and use the self as a baseline for a variety of judgments (Krueger and Clement 1994). Social interactions typically necessitate at least some measure of attention to others, however (Cavanaugh et al. 2015), and research suggests that when the situation warrants it, individuals can override their default tendencies and shift their attention away from the self (Zhang and Epley 2012), though this requires effort and motivation (Apperly et al. 2006; Epley et al. 2004).

When it comes to choosing for others, the social nature of the task requires that decision-makers direct at least some of their attention toward the recipient. This attention to others can be expressed in various ways, via attention to their preferences (Barasz et al. 2016; Cavanaugh et al. 2015; Gino and Flynn 2011), to their anticipated affective reactions (Yang and Urminsky 2018), or to the implications of the choice for the decision-maker and recipient's relationship (Liu et al. 2013; Ward and Broniarczyk 2016; Yang et al. 2015). In the context of joint consumption, we propose that the shared nature of the choice outcome should make the balance—or lack thereof—between self and others' preferences highly salient. Accordingly, in making joint consumption choices, we expect attention to others to be expressed by the decision-maker's incorporation of others' preferences into the choice, whereas a lack of attention to others should be expressed by a failure to incorporate others' preferences into the choice.

To examine the role of attention (and inattention) to others' preferences in making joint consumption choices, we draw on prior work that has linked attention to others with both self-construal and group size. We discuss each factor and its relation to attention below.

Self-Construal and Attention to Others. Self-construal refers to how individuals view the self in relation to the social environment (Markus and Kitayama 1991). Individuals with independent self-construals define themselves as separate, distinct beings with unique attributes and traits, while those with interdependent self-construals define themselves in terms of social relationships, duties, and roles. Historically, independent (interdependent) self-construals were tied to Western (Eastern) cultures (Markus and Kitayama 1991); however, recent work shows that all individuals have elements of both self-construals, and that these can be made temporarily accessible (Gardner, Gabriel, and Lee 1999).

In considering the link between self-construal and attention to others, the definition of self-construal implies that independents and interdependents should chronically differ in how much they attend to others. For independents, "behavior is organized and made meaningful primarily by reference to one's own internal repertoire of thoughts, feelings and action, rather than by [those] of others" (Markus and Kitayama 1991, 226). This suggests that independents may habitually pay more attention to the self than others. In contrast, although interdependents pay as much attention to the self as independents (Hong and Chang 2015; Lee, Aaker, and Gardner 2000; Ng et al. 2010; Zhu et al. 2007), "behavior is determined. . .by. . .the thoughts, feelings and actions of others" (Markus and Kitayama 1991, 227). This suggests that while all individuals pay attention to the self, interdependents pay more attention to others than independents.

Consistent with this idea, prior work shows that relative to independents, interdependents are more likely to integrate others' opinions into their own (Aaker and Maheswaran 1997), report childhood memories involving others (Wang 2001), take others' perspectives (Cohen and Gunz 2002), and adjust their behaviors in response to others (Morling, Kitayama, and Miyamoto 2002) and in

response to social information (Masuda et al. 2008; Torelli 2006). Specific to the context of choosing for others, prior work shows that those with an interdependent (vs. independent) self-construal are less depleted by choosing for others (Polman and Vohs 2016), and pay more attention to choice options when choosing for others (vs. themselves; Pöhlmann et al. 2007). The link between self-construal and attention to others has also been shown at the neurological level: in an action-observation task, priming interdependence (vs. independence) increases motor cortical output, an area of the brain that processes social input (Obhi, Hogeveen, and Pascual-Leone 2011).

Applying these ideas to the current context suggests that relative to individuals with an independent self-construal, those with an interdependent self-construal should pay more attention to others when making choices in a joint consumption context. In turn, this increased attention to others should lead to joint consumption choices that balance self and others' preferences—that is, to choices that are more likely to incorporate others' preferences as well as the decision-maker's own.

Group Size and Attention to Others. Although consumers frequently interact with groups of varying sizes, little research in consumer behavior has examined the effects of group size on decision-making. However, work in both psychology and economics shows that variation in group size affects behavior and perception (Latané 1981)—for example, in terms of effort in a group task (Latané, Williams, and Harkins 1979; Petty et al. 1977), helping behavior (Darley and Latané 1968), conformity (Insko et al. 1985), and group productivity (Wheelan 2009).

In considering the link between group size and decision-makers' attention, prior research converges to suggest that attention to others should be lower in larger (vs. smaller) groups. First, some work has directly examined audience size and attention to others, showing that individuals share different information with single versus multiple listeners because single listeners increase the sharer's focus on the audience (Barasch and Berger 2014). Although this research did not compare groups of varying sizes, this finding is consistent with the idea that attention to others decreases as the number of others increases. Second, although they have not examined attention specifically, several other streams of research on different sized groups suggest a similar pattern. For example, being the best or worst performer in a smaller group (e.g., five people) more strongly affects self-evaluation than knowing one's standing in a larger population (e.g., 1,500 people; Zell and Alicke 2009). Further, as group size increases (e.g., three or more), individuals working in teams feel less supported (Mueller 2012) and less "heard" (Hackman and Vidmar 1970). Finally, as group size increases (e.g., from three to six), groups are less likely to uncover unique pieces of information held by individuals (Lu, Yuan, and McLeod 2012; Stasser, Taylor, and Hanna 1989). Since evaluating oneself relative to others, feeling supported by others, and sharing information with others likely all require attention to those others, these lines of research together support the idea that attention to others decreases as group size increases.

Applying the idea of a negative correlation between attention to others and group size to the joint consumption context suggests that individuals should pay less attention to others and their preferences when making joint consumption choices for larger, relative to smaller, groups. In turn, this decreased attention to others should lead to less balanced joint consumption choices, which emphasize the decision-maker's preferences over those of others.

Next, we consider how self-construal and group size might interact to affect attention to others, and therefore joint consumption choices.

Self-Construal, Group Size, and Attention to Others

Our basic prediction is that self-construal (an internal, individual factor) and group size (an external, situational factor) will interact to predict attention to others in joint consumption contexts; in turn, differential attention to others should affect joint consumption choices. Following prior work, which has shown that culture-based effects occur automatically unless deliberately corrected (Briley and Aaker 2006), we expect self-construal to drive choice unless there is a reason for it not to (i.e., a situational factor). Accordingly, unless a group's small nature increases attention to others, the effects of self-construal should dominate. Thus, because attention to others is chronically heightened for interdependents, their choices should be more likely to balance self and others' preferences than those of independents—regardless of group size. In contrast, because attention to others is not chronically heightened for independents, their choices should be less likely to balance self and others' preferences than those of interdependents—unless the situation cues it. In a large group context where attention to others is not increased, independents' choices should more strongly reflect their own preferences. However, in a small group context where attention to others is increased, independents' choices should be more likely to incorporate—and balance—others' preferences, along with their own.

SUMMARY AND STUDY OVERVIEW

To summarize, the present research examines how consumers make unilateral joint consumption choices for the self and multiple others. We propose that choices in this context should be jointly determined by self-construal and group size, and that this effect will be mediated by the extent to which decision-makers pay attention to others. We

test these predictions in six studies. Study 1 uses the context of choosing wine for the table to examine our basic hypothesis about how group size and self-construal affect joint consumption choices. Studies 2A and 2B replicate our basic effect using the context of choosing movies and rule out several alternative explanations. Study 3 employs the context of choosing books to examine the mediating role of attention to others (measured via pronoun use). Our final two studies test attention as an underlying mechanism via moderation: study 4A manipulates other-focus, while study 4B manipulates cognitive load.

STUDY 1: WINE FOR THE TABLE

Study 1 tests our basic prediction that interdependents will make choices that reflect both self and others' preferences regardless of group size, but that independents will make different choices as group size varies. In this study, participants imagine a dining-out scenario in which they have been asked to choose either one bottle of red and one bottle of white wine to share with a group of friends, or one half-bottle of red and one half-bottle of white wine to share with one other friend. To make their choices, participants are given a fixed budget, a real wine list, and information about their companions' wine preferences. They are also told that, as part of their compensation, they will be entered into a lottery to win their chosen bottles of wine.

For our independent variables, we manipulate self-construal (interdependent vs. independent) and group size (group vs. single other), and we measure participants' preferences for red versus white wine. Our dependent measure is the mean-adjusted price difference between participants' chosen bottles of red and white wine. Since novice wine consumers believe that price is positively correlated with quality (Lockshin and Rhodus 1993; Plassmann et al. 2008), and since quizzes in our studies show that our samples comprise wine novices, our participants likely use price as an indicator of quality. Thus, the more participants spend on their preferred type of wine (and, by definition, given the budget, the less they spend on their less preferred type of wine), the more their choice reflects self rather than others' preferences.

Empirically, this mean-adjusted price index should be predicted by a three-way interaction between self-construal prime, group size, and participants' wine preferences. For interdependence-primed participants, we should see no group size by wine preference interaction: interdependents should choose equally priced bottles of red and white wine, irrespective of their own tastes and of whether they are choosing for a single other or a group. In contrast, for independence-primed participants, we should see a group size by wine preference interaction. When choosing for a single other, independents should select equally priced bottles of red and white wine, but when choosing for a group, they should select more (less) expensive bottles of their more (less) preferred type of wine.

Method

In this and subsequent studies, we screened potential participants to ensure they consumed the focal product; thus, in study 1, only those who drank wine (and who were of legal drinking age) qualified. Three hundred participants on Amazon's Mechanical Turk (MTurk) completed the 2 (self-construal prime: independent, interdependent) $\times$ 2 (group size: group, single other) $\times$ measured wine preference study. Compensation included a small cash payment and entry into a lottery to win the two bottles of wine that participants chose. Forty-seven participants were excluded from all analyses for completing the study improperly (e.g., choosing two bottles of the same type of wine, inputting their wine choices incorrectly, or exceeding the budget), leaving a final sample of 253 (age: 40% 26–34, 30% 35–54; 59% female). After the close of the study, two winners were randomly selected to receive a gift certificate to an online wine retailer.

Participants first completed a grammar task in which they were asked to read a paragraph about a trip to a city, and then to count and report the number of pronouns in the paragraph; this constituted our manipulation of self-construal (Brewer and Gardner 1996). In the independence-prime condition, the paragraph contained only "I" pronouns (e.g., me, mine); in the interdependence-prime condition, the paragraph contained only "we" pronouns (e.g., us, our).

Next, participants were asked to imagine that they were out to dinner with either a group of friends or with one friend, and that they were choosing wine for the table; they were told that half the group preferred red and half the group preferred white wine, or that their friend preferred red and white wine equally. Participants in the group (single other) condition were given \$110 (\$55) to spend on one (half) bottle of red and one (half) bottle of white wine; they chose off a real wine list from a restaurant. Prices on the list were halved in the single other condition, and these participants were informed that all prices were for half-bottles. The list included 111 wines; given their budget, participants could choose among 34 bottles of white (range \$30–68; $M = 45.73$, SD = 10.94) and 36 bottles of red wine (range \$40–80; $M = 59.05$, SD = 12.54).

Using the unique number on the wine list (e.g., #161), participants indicated which two (half) bottles they would choose, and indicated the prices of the bottles (to ensure that they were within budget). They reported their companion's wine preferences as a manipulation check and wrote down "everything that went through your mind as you were making your wine choices." They then answered a six-question general wine knowledge quiz (Melcher and

Schooler 1996) as well as a 10-question red and white grape varietal quiz, indicated their wine preferences (dichotomous: red/white), completed some demographic questions, and reported their wine-drinking frequency (seven options from "Once or twice a year" to "Every day"; $M = 4.49$, $SD = 1.78$).

Results

Prior to reporting our results, we note that we include frequency of consumption of the focal product (i.e., wine) as a covariate in the current study, as well as in subsequent studies, to account for variance in expertise or involvement (Alba and Hutchinson 1987; Zaichkowsky 1985). Across studies, we find the same pattern of results with and without covariates. Further, across studies, we use regression analysis and report standardized betas.

We first ensured that participants' wine preferences were not predicted by self-construal prime ($p = .24$), group size ($p = .73$), or their interaction ($p = .93$). We then tested participants' understanding of their companions' wine preferences. Most participants (84.6%) correctly reported that preferences were split between red and white wine; answers were not predicted by prime ($p = .81$), group size ($p = .52$), wine preference ($p = .12$), or their interactions ($ps > .36$).

Our dependent measure was a mean-adjusted price index, which accounts for differences in the average prices of red and white wines on the list. For each condition, we first divided the costs of participants' chosen red ($M_{group} = 52.94$, $SD = 9.20$; $M_{single\ other} = 25.46$, $SD = 5.10$) and white ($M_{group} = 46.41$, $SD = 9.99$; $M_{single\ other} = 22.13$, $SD = 5.00$) wines by the average prices of the red ($M_{group} = 59.05$; $M_{single\ other} = 28.50$) and white ($M_{group} = 45.73$; $M_{single\ other} = 23.00$) wines on the list, respectively. To create the index, we then subtracted the mean-adjusted cost of the chosen white wine from the mean-adjusted cost of the chosen red wine ($M = -.085$, $SD = .33$), so that positive (negative) numbers indicated choice of a more expensive red (white) wine.[1]

To assess choice, we entered self-construal prime, group size, wine preference, and their interactions into a regression with the mean-adjusted price index as the outcome measure. We included wine-drinking frequency as a covariate ($\beta = -.04$, $t(244) = -.68$, $p = .50$).

As predicted, the data showed a marginal three-way interaction between self-construal prime, group size, and wine preference in predicting the mean-adjusted price index ($\beta = .33$, $t(244) = 1.87$, $p = .06$; figure 1). Subsequent analysis revealed that when participants were primed with interdependence, the group size by wine preference interaction was not significant ($\beta = -.13$, $t(244) = -.89$, $p = .38$), indicating that interdependents chose equally priced bottles of wine regardless of group size and regardless of their own preferences. In contrast, when participants were primed with independence, this interaction was marginally significant ($\beta = .27$, $t(244) = 1.76$, $p = .08$). When independents were choosing for a single other, there was no effect of wine preference on the price index, indicating that independents in this condition chose equally priced bottles of wine ($\beta = -.12$, $t(244) = -.94$, $p = .35$). However, when independents were choosing for a group, there was a significant effect of wine preference on the price index, indicating that independents in this condition chose more expensive bottles of their preferred wine—that is, as their preference for red wine increased, participants chose more expensive bottles of red wine ($\beta = .43$, $t(244) = 3.50$, $p = .0006$).

Since we found a three-way interaction, in addition to examining the effects of wine preference and group size within self-construal, we also broke down the interaction by group size, examining the effects of wine preference and self-construal within group size. Detailed results by group size, for this study and subsequent studies, are available in the web appendix.

Although these results support our primary predictions, we explored two alternative explanations for this effect: participants' decision criteria and their expertise. To examine decision criteria, two independent coders assessed participants' written answers about their wine choices for references to familiarity, wine attributes (e.g., grape varietal), price or budget, and quality (1 = yes, 0 = no; κs .67–.89). Neither self-construal prime, group size, wine preference, nor their interactions predicted any of these criteria ($ps > .18$), suggesting that our results are not driven by individuals across conditions using different choice criteria.

We then examined whether participants' performance on the six-question wine quiz or the 10-question varietal quiz was predicted by our independent variables. Performance on both quizzes was low ($M_{general} = 1.75$, $SD = 1.26$; $M_{varietal} = 5.97$, $SD = 1.86$), and was not affected by self-construal prime, group size, wine preference, or their interactions ($ps > .27$), reducing concerns that our effects were due to differential levels of expertise across conditions.

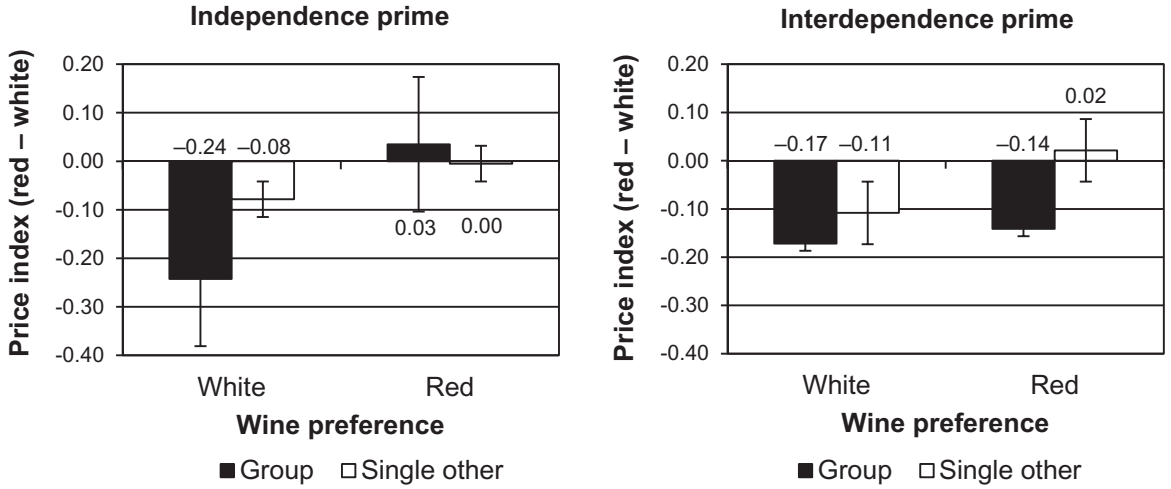
Discussion

Using a consequential choice paradigm, study 1 showed that participants' joint consumption choices differed depending on self-construal and group size. Whereas interdependence-primed individuals made choices that reflected both self and others' preferences regardless of group size and personal tastes, independence-primed individuals varied their choices based on group size. When

[1] We tested several alternative measures of price, both relative and absolute, including: 1) a simple price difference; 2) proportion of total budget spent on red (or white) wine; 3) a price index that was not mean-adjusted ([price red – price white] / [price red + price white]). These dependent variables all showed similar results.

FIGURE 1

MEAN-ADJUSTED PRICE INDEX BY SELF-CONSTRUAL PRIME, GROUP SIZE, AND WINE PREFERENCE, STUDY 1



choosing for the self and a single other, independents made choices that better accounted for both parties' tastes. However, when choosing for a group, independents made choices that tended to favor their own preferences. These results provide initial evidence that self-construal and group size are key drivers of joint consumption choices.

The fact that interdependents in this study chose equally priced wines across conditions might appear at odds with their definitional focus on others. However, as noted, interdependence does not necessarily entail neglecting the self—rather, it increases attention to others relative to independence. Interdependents think about themselves as much as they think about others, compared to independents, who think more about themselves (Hong and Chang 2015; Lee et al. 2000). Similarly, while independents show separate neural activation patterns for the self and close others, interdependents show similar activation patterns for the self and close others (Ng et al. 2010; Zhu et al. 2007). Taken together, this research suggests that self and others are equal for interdependents but not independents, and is consistent with our study 1 findings.

We note that while study 1 addressed decision criteria and expertise as alternative explanations, another possibility remains. Specifically, these results may have obtained because participants were given information about the group's preferences. It is possible that if independents do not receive information about others' preferences, they assume that these others share their own preferences. To test this possibility, we conducted a partial replication of study 1, measuring self-construal and using only the group condition (see web appendix). Participants read the wine scenario but received no information about the group's wine preferences; instead, their perceptions of the group's preferences were measured at the end of the study. We replicated the price index results from study 1. We also found that neither self-construal, wine preference, nor their interaction predicted perceptions of the group's wine preferences ($ps > .29$), suggesting that our results are not due to independents assuming that others share their preferences.

Our next two studies rule out additional alternative explanations and provide further evidence for our basic effect using a different choice context: movies.

STUDIES 2A AND 2B: MOVIE NIGHT WITH FRIENDS

Studies 2A and 2B build on study 1 in three ways. First, similar to study 1, study 2A uses a hypothetical choice scenario, while study 2B replicates our basic effect using a real choice paradigm. Second, consistent with study 1, both studies manipulate self-construal and group size and measure participants' preferences. However, to provide generalization, these studies employ a different decision context (selecting a set of movies or movie trailers for a group) and choice measure (the number of movies or trailers selected from participants' preferred genre). Third, prior research suggests that independents may have stronger preferences than interdependents (Heine and Lehman 1997; Hoshino-Browne et al. 2005; Kim and Sherman 2007). This raises the possibility that interdependents' preferences did not affect their choices in study 1 because they lack strong preferences, rather than because they have heightened attention to others, as we posit. We examine this prospect in study

2A by assessing preference extremity and strength, and testing whether these differ based on self-construal prime, group size, or movie preference.

Empirically, as in study 1, we expect a three-way interaction between self-construal prime, group size, and movie preference to predict choice.

Study 2A

Method. Participants (MTurk; $N = 372$; $M_{age} = 37.69$, SD = 11.09; 57% female) were compensated for completing a 2 (self-construal prime: independent, interdependent) × 2 (group size: large, small) × measured movie preference between-subjects design.

Participants first completed the self-construal prime used in study 1 (Brewer and Gardner 1996). They then read a scenario in which they were asked to imagine that they took part in regular movie nights with a group of friends. In the large group condition, the group consisted of the participant plus nine friends; in the small group condition, the group consisted of the participant plus three friends.[2] Participants read that their cable television provider was offering deals on movie packages featuring western and drama movies, and that their friends had nominated them to select a package for the group. Participants were given definitions and examples of western (e.g., *True Grit*) and drama (e.g., *The Help*) movies, and were told that the group's movie preferences were evenly split between these two genres. The movie deal specified that with the purchase of seven movies, one movie would be received for free; critically, the available packages varied in the proportion of western and drama movies offered. Participants were presented with eight movie packages, ranging from those including all western movies (seven westerns, zero dramas) to those including all drama movies (seven dramas, zero westerns). They were asked to select a movie package on a 1–8 scale, where higher numbers indicated a movie package with relatively more drama movies; this formed our dependent measure. As an attention check, participants then reported what proportion of the group preferred western to drama movies.

After responding to a filler scale, participants completed a purportedly separate survey about their movie preferences. They reported whether they would watch 14 different genres of movies (yes, no), and, if they answered "yes," how frequently they watched these genres (1 = every day; 7 = once or twice a year). Next, for seven pairs of genres, they indicated on a seven-point scale how much they preferred one genre over the other; embedded within these pairs was a western/drama pair (e.g., 1 = definitely prefer western; 7 = definitely prefer drama), which formed our movie preference measure ($M = 3.17$, SD = 1.83). To assess any differences in preference strength, participants reported how strong their feelings about each of the 14 genres were, and how confident they were in their attitude toward each of the genres, on 1–7 scales. After the movie questionnaire, participants reported on some basic demographics.

Results. First, we confirmed that movie preferences were not predicted by self-construal ($p = .95$), group size ($p = .49$), or their interaction ($p = .42$). Further, most participants (80.5%) correctly reported that the group's preferences were split between drama and western movies.

To assess choice, we entered self-construal prime, group size, movie preference, and their interactions into a regression with choice of movie package as the outcome measure ($M = 3.92$; SD = 1.00). We included frequency of watching each movie genre as covariates ($M_{drama} = 4.46$, SD = 1.51, $\beta = -.02$, $t(362) = -.36$, $p = .72$; $M_{western} = 5.77$, SD = 1.57, $\beta = .04$, $t(362) = .89$, $p = .37$). Results revealed a significant three-way interaction ($\beta = .23$, $t(362) = 2.17$, $p = .03$; figure 2).

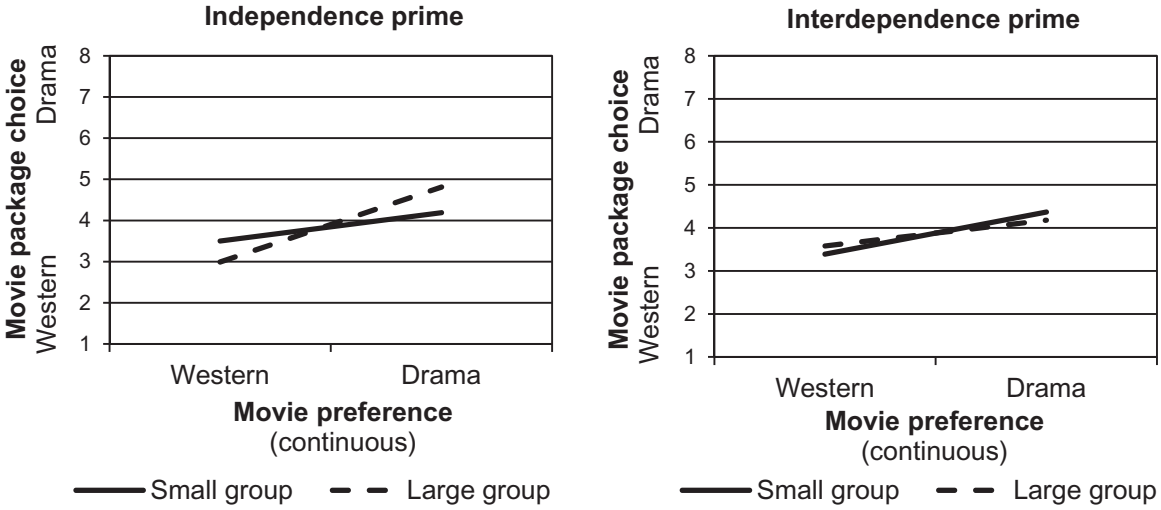
As expected, for interdependence-primed individuals, the group size by movie preference interaction did not predict movie package choice ($\beta = .07$, $t(362) = .75$, $p = .46$). In contrast, for independence-primed individuals, the group size by movie preference interaction did predict choice ($\beta = .23$, $t(362) = 2.35$, $p = .02$). When independents were choosing for a small group, there was a marginal effect of movie preference on choice ($\beta = .20$, $t(362) = 1.82$, $p = .07$). Further, as predicted by our framework, when independents were choosing for a large group, the effect of preference on choice was significant and stronger, such that as their preference for drama movies increased, participants chose movie packages that contained more dramas ($\beta = .52$, $t(362) = 5.23$, $p < .0001$).

Finally, we investigated whether differences in preference strength or extremity across self-construal might explain part of our effects. We calculated a 0–3 preference extremity score by subtracting 4 (the mid-point) from participants' seven-point response to the western/drama item and taking the absolute value of the result. We also averaged participants' reported strength of feelings and attitude confidence across the 14 genres, and for the western and drama genres separately. Regressions predicting each of these preference measures using self-construal prime, group size, and their interactions showed no significant effects ($ps > .35$), minimizing the possibility that our results were driven by differences in preferences between independents and interdependents.

[2] A between-subjects post-test (MTurk; $N = 288$) revealed differences in perceived group size in the small versus large group conditions across our study contexts ($ps < .001$): movies ($M_{large} = 4.50$; $M_{small} = 2.70$, $t(96) = 6.29$), wine ($M_{large} = 4.95$; $M_{small} = 2.29$, $t(93) = 10.14$), and book club ($M_{large} = 3.64$; $M_{small} = 2.21$, $t(93) = 5.67$).

FIGURE 2

MOVIE PACKAGE CHOICE BY SELF-CONSTRUAL PRIME, GROUP SIZE, AND MOVIE PREFERENCE, STUDY 2A



Study 2B

Method. Participants (MTurk; $N = 445$; $M_{age} = 37.25$, SD = 11.63; 47% female) were compensated for completing a 2 (self-construal prime: independent, interdependent) × 2 (group size: large, small) × measured movie preference between-subjects design.

Participants first indicated their initials, gender, and state. They were then (purportedly) put into a small or a large group with three or seven other participants, whose demographics were also displayed. The group completed a "getting to know you" task by answering four preference questions (e.g., What is your favorite season?). Participants saw their answers and their group members' (purported) answers. They completed the self-construal prime from study 1 and then proceeded to a movie trailer evaluation task. Participants were informed that one group member would be randomly chosen to select one of eight sets of movie trailers, where each set contained different proportions of western and drama movies. After this person chose, everybody in the group would watch a trailer chosen randomly from the selected set. All participants were told that they had been chosen to select the set of trailers (0 = all westerns; 8 = all dramas); this formed our dependent measure. After choosing, participants watched and rated a movie trailer, completed a filler scale, and responded to the movie preferences questionnaire as in study 2A.

Results. Participants' reported movie preferences were not predicted by self-construal prime ($p = .86$), group size ($p = .86$), or their interaction ($p = .26$).

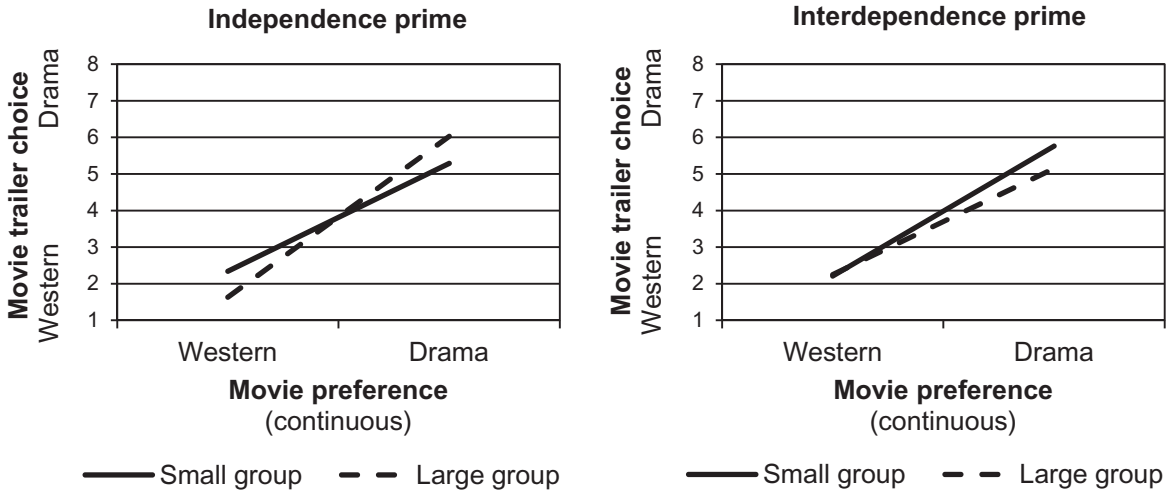
We regressed movie trailer choice ($M = 3.89$, SD = 1.66) on self-construal prime, group size, movie preference, and their interactions, with frequency of watching each movie genre as covariates ($M_{drama} = 5.80$, SD = 1.48, $\beta = .005$, $t(435) = .13$, $p = .90$; $M_{western} = 4.38$, SD = 1.60, $\beta = .07$, $t(435) = 1.52$, $p = .13$). The results revealed a significant three-way interaction ($\beta = .17$, $t(435) = 1.99$, $p = .05$; figure 3).

When individuals were primed with interdependence, the group size by movie preference interaction was not significant ($\beta = .07$, $t(435) = .86$, $p = .39$). However, when individuals were primed with independence, the group size by movie preference interaction was significant ($\beta = .16$, $t(435) = 1.97$, $p = .05$). When independents were choosing for a small group, there was an effect of preference on choice ($\beta = .44$, $t(435) = 5.40$, $p < .0001$); this effect was significantly stronger when independents were choosing for a large group, such that as their preference for drama movies increased, participants chose sets of movie trailers that contained more dramas ($\beta = .66$, $t(435) = 8.45$, $p < .0001$).

As a whole, study 2B replicates our findings using a real choice. However, while studies 1, 2A, and 2B reveal the same overall pattern of results, the current data showed greater reliance on self-preferences than our previous studies, such that movie preference predicted participants' choices across all conditions. Critically, however, and in line with our framework, this effect was strongest for independents in the large group condition. Indeed, it is not surprising that self-preferences were a stronger predictor of the real choices made in study 2B, for two reasons. First, prior work shows that while individuals making real and

FIGURE 3

MOVIE TRAILER CHOICE BY SELF-CONSTRUAL PRIME, GROUP SIZE, AND MOVIE PREFERENCE, STUDY 2B



hypothetical choices have similar neural activation patterns, the level of this activation is higher for real choices (Kang et al. 2011). Second, participants in this study were choosing movie trailers for group members they barely knew and with whom they did not interact while watching the trailer. These factors likely increase reliance on self-preferences relative to our scenarios (and daily life), where participants choose for friends and interact with them while consuming the chosen option.

Discussion

Studies 2A and 2B confirmed that group size and self-construal jointly determine how individuals choose for the self and others. Regardless of group size and their own preferences, interdependence-primed participants made balanced choices that reflected both self and others' preferences. On the other hand, independence-primed participants balanced self and others' preferences only when choosing for a small group; when choosing for a large group, they made choices that accounted more for their own preferences, rather than those of their group members. Overall, these studies corroborated study 1 using a different choice context (movies instead of wine) and a different measure of choice (movie genre quantity rather than price).

STUDY 3: ATTENTION TO OTHERS AS A MEDIATOR

Study 3 extends our findings in three ways. First, although studies 1, 2A, and 2B revealed that self-construal and group size shape choice, they did not provide evidence for the underlying role of attention to others; study 3 does so by testing attention as a mediator. We assess the proportion of "other" (i.e., he/she, they) pronouns participants use in an open-ended response about the group, and use this measure as a reflection of attention to others (Pennebaker 2011). Given their chronic attention to others, interdependents should use the same amount of "other" pronouns irrespective of group size. In contrast, independents should use more "other" pronouns when choosing for a smaller group, and fewer "other" pronouns when choosing for a larger group. Consistent with the fact that both independents and interdependents pay attention to the self (Lee et al. 2000), we do not expect differences in "I" pronoun use across conditions.

Second, past research has shown that individual differences in impression management can drive joint consumption choices (Yang et al. 2015). Thus, we measure self-monitoring (Snyder 1974) to examine whether it affects participants' choices. To rule out additional alternative explanations, we also ask participants to report on choice difficulty, accountability, and the need to justify their choice to others.

Third, for generalizability, this study uses a different joint consumption context from prior studies: choosing books for a book club.

Method

Participants (MTurk; $N = 250$; $M_{age} = 34.54$, $SD = 11.20$; 47% female) were compensated for completing a 2 (self-construal prime: independent,

interdependent) × 2 (group size: large, small) × measured book preference between-subjects design.

Participants first completed the self-construal prime used in prior studies. Next, they read a scenario where they imagined belonging to a book club that varied in size. The small book club consisted of the participant and three others; the large book club consisted of the participant and nine others. Participants imagined that they had come across some book deals that they thought would be a good option for the club. The deals specified that with the purchase of seven books, one book would be received for free; the book deals varied in the proportion of fiction and nonfiction books offered (definitions and examples were provided). Participants were told their book club had agreed to purchase a deal, and had asked the participant to select one for the club. The book club's preferences were described as equally split between fiction and nonfiction books.

After reading the scenario, participants were presented with eight book deals, ranging from those including all fiction books (seven fiction, zero nonfiction) to those including all nonfiction books (seven nonfiction, zero fiction). They were asked to select a book deal on a 1–8 scale, where higher numbers indicated a book deal with more nonfiction books; this formed our dependent measure. Following their choice, participants were asked to imagine their future book club meetings, and to write down what they thought reading the selected books with their book club would be like. Participants also reported how difficult it was to choose a book deal, how much effort they put into choosing, how accountable and responsible they would feel (two items), and how much they would need to justify and defend their choice (two items; all 1–7 scales, "not at all" to "very much"). They reported what proportion of the book club preferred fiction to nonfiction and then completed the self-monitoring scale (25 items coded as 1 or 0; summed to a max of 25).

Next, participants were asked to complete an allegedly separate survey about reading. They reported how often they read 14 book genres (1 = every day; 7 = once or twice a year), how frequently they read each genre (1 = every day; 7 = once or twice a year), and how much they liked each genre (1 = dislike very much; 7 = like very much). Buried within these lists were fiction and nonfiction categories; we used participants' responses to these questions to assess their preferences. We subtracted participants' preference for fiction from their preference for nonfiction books, so that higher numbers indicate a preference for nonfiction ($M = -.22$, $SD = 1.67$). Finally, participants completed some demographic questions.

Results

We first confirmed that our measures of book preference were not predicted by self-construal prime ($p = .92$), group size ($p = .91$), or their interaction ($p = .54$). Further, neither self-monitoring ($M = 11.35$, $SD = 4.45$; $ps > .40$), difficulty ($M = 2.42$, $SD = 1.44$; $ps > .59$), effort ($M = 4.98$, $SD = 1.54$; $ps > .33$), accountability ($M = 5.74$, $SD = 1.28$; $ps > .18$), nor justifiability ($M = 3.69$, $SD = 1.73$; $ps > .21$) varied by prime, group size, or their interaction. These variables also did not predict book deal choice ($ps > .47$), except for accountability ($\beta = .11$, $t(241) = 2.71$, $p = .007$). Given this finding, we include accountability as a covariate below.

Next, we regressed book deal choice ($M = 4.06$, $SD = .89$) on self-construal prime, group size, book preference, and their interactions, with frequency of reading each genre ($M_{nonfiction} = 5.25$, $SD = 1.69$, $\beta = -.13$, $t(239) = -1.78$, $p = .08$; $M_{fiction} = 5.17$, $SD = 1.60$, $\beta = .13$, $t(239) = 1.83$, $p = .07$) and accountability ($\beta = .16$, $t(239) = 2.64$, $p = .009$) as covariates. Results revealed a significant three-way interaction ($\beta = .33$, $t(239) = 2.20$, $p = .03$; figure 4).

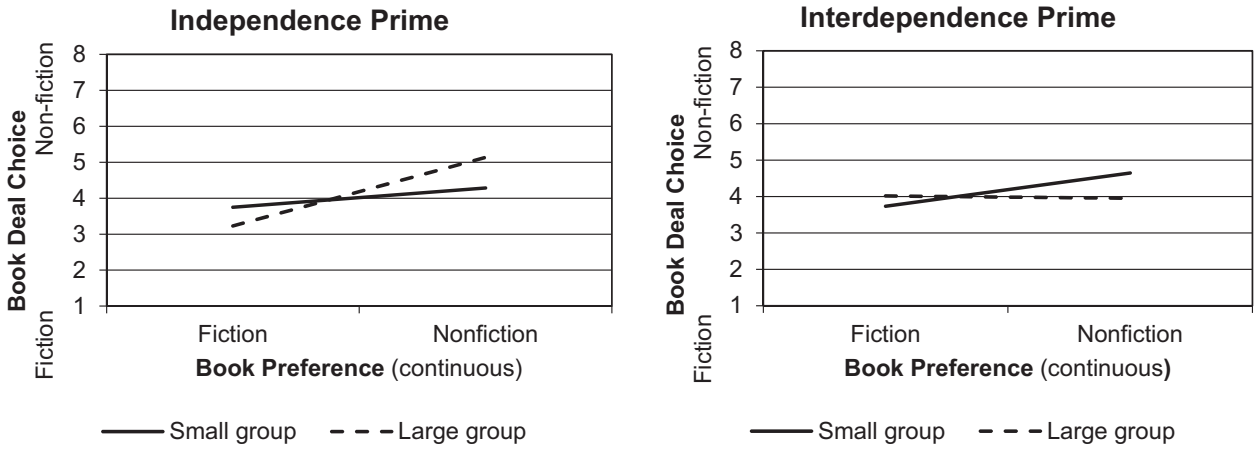
When participants were primed with interdependence, the group size by book preference interaction did not predict book deal choice ($\beta = .17$, $t(239) = 1.33$, $p = .18$). However, when participants were primed with independence, the group size by preference interaction marginally predicted book deal choice ($\beta = -.24$, $t(239) = -1.76$, $p = .08$). When independents were choosing for a small group, there was no effect of book preference on choice ($\beta = .05$, $t(239) = .32$, $p = .75$). As predicted, however, this effect was significant when independents were choosing for a large group, such that as their preference for nonfiction books increased, participants chose book deals with more nonfiction books ($\beta = .38$, $t(239) = 3.22$, $p = .002$).

To examine our hypothesized process, we tested for mediation by assessing pronoun use in participants' essays about their book clubs. We employed Linguistic Inquiry and Word Count (LIWC; Pennebaker et al. 2007) to count the proportions of self (i.e., I, me, mine) and other (i.e., they, he, she) pronouns in each essay. These measures of "I" pronouns and other pronouns represent self- and other-attention, respectively (Barasch and Berger 2014; Pennebaker 2011).

We used self-construal prime, group size, book preference, and their interactions, with frequency and accountability as covariates, to predict self- and other-attention. As expected, "I" pronoun use was predicted neither by the covariates, nor by the independent variables or their interactions ($ps > .26$). In contrast, other pronoun use showed only a significant self-construal prime by group size interaction ($\beta = -.24$, $t(239) = -2.01$, $p = .05$). For interdependence-primed individuals, group size did not affect pronoun use ($\beta = .12$, $t(239) = 1.42$, $p = .16$). However, for independence-primed individuals, there was a marginal effect of group size, such that those in the large group condition used fewer other pronouns ($\beta = .16$, $t(239) = 1.72$, $p = .08$).

FIGURE 4

BOOK PACKAGE CHOICE BY SELF-CONSTRUAL PRIME, GROUP SIZE, AND WINE PREFERENCE, STUDY 3



Given these differences, we explored other-attention as a mediator (Hayes 2013; model 5), using separate models for the independence- and interdependence-prime conditions. Each model included group size, book preferences, and their interaction as independent variables; the frequency and accountability measures as covariates; book deal choice as a dependent variable; and other pronouns as a mediator. For those primed with interdependence ($N = 127$), group size did not predict other pronoun use ($p > .22$), and pronoun use was not a significant mediator of book deal choice (CI: –.122 to .013, $p > .05$). For those primed with independence ($N = 123$), however, group size marginally predicted other pronoun use ($\beta = .58$, $t(118) = 1.79$, $p = .07$), pronoun use directionally predicted book deal choice ($\beta = .07$, $t(115) = 1.51$, $p = .13$), and pronoun use was a significant mediator (CI: .002 to .133, $p < .05$).

Discussion

The results of study 3 again showed that both self-construal and group size affect joint consumption choices. Interdependence-primed participants' choices tended to reflect self and others' preferences, regardless of group size. However, independence-primed participants' choices reflected self and others' preferences only when they were choosing for a small group; when choosing for a large group, independence-primed participants chose book deals more in line with their own preferences. Importantly, the proportion of other pronouns that participants used in their written responses provided insight into the underlying role of attention to others in making these choices. Interdependence-primed participants' use of other pronouns did not vary by group size, whereas independence-primed participants' use of other pronouns was higher in small (vs. large) groups, indicating greater attention to others in that setting. Other pronoun use mediated the effects of group size on choice for independence-primed participants, providing initial evidence that these effects are driven by differences in attention to others.

Of note, study 3 also ruled out several additional alternative explanations for our effects.

STUDIES 4A AND 4B: ATTENTION TO OTHERS AS A MODERATOR

Study 3 demonstrated that participants' joint consumption choices were mediated by attention to others, as measured by pronoun use. Our final two studies provide further evidence for the underlying role of attention to others via moderation (Spencer, Zanna, and Fong 2005). In study 4A, we directly manipulate attention to others. In study 4B, we manipulate participants' ability to attend to others. Since our data show that attention does not shift for those who are primed with interdependence, studies 4A and 4B focus only on those primed with independence.

Study 4A: Manipulating Attention to Others

In study 4A, using the book club scenario, we prime all participants with independence and ask them to choose a book deal for a large or a small group. We also manipulate

the amount of attention that they pay to others in the group. To do so, we ask some participants to name the members of their book club (Barasch and Berger 2014). We expect that when participants name the members of their book club, attention to others will be heightened regardless of group size, as naming individuals requires thinking about them. In contrast, when participants do not name the members of their book club, attention to others should vary by group size, as in prior studies.

Empirically, book deal choice in study 4A should be predicted by a three-way interaction between attention to others (heightened, not heightened), group size (large, small), and book preference. Since all participants are primed with independence, in the no heightened attention conditions, we should replicate our prior results: when choosing for a small group, participants should choose book deals that balance self and others' preferences, but when choosing for a large group, they should choose book deals that more strongly reflect their personal tastes. However, in the heightened attention conditions, independence-primed participants should make choices that balance self and others' preferences, regardless of their own tastes and group size.

Method. Participants (MTurk; $N = 292$; $M_{age} = 35.38$, SD = 11.55, 59% female) completed a 2 (attention to others: heightened, not heightened) × 2 (group size: large, small) × measured book preference between-subjects study.

All participants first completed the independence prime used in previous studies. Then, participants read a book club scenario similar to study 3, with a small (three friends) and a large (seven friends) group condition. Participants in the heightened attention to others condition were then asked to think of and write down the names of the friends in their book club; participants in the no heightened attention condition did not complete this task (Barasch and Berger 2014). Subsequently, all participants read the rest of the scenario, which was similar to study 3—their book club was going to purchase a book deal and they had been nominated to select one, which varied in its proportion of fiction and nonfiction books (1 = all fiction, 8 = all nonfiction); as before, book deal choice formed our dependent measure. Participants then completed a filler task, reported on their book preferences as in study 3, and reported on basic demographics.

Results. We first confirmed that our measures of book preference were not predicted by attention to others ($p = .48$), group size ($p = .21$), or their interaction ($p = .33$).

Next, we regressed book deal choice ($M = 4.12$, SD = .93) on attention to others, group size, book preference, and their interactions, with frequency of reading each genre as covariates ($M_{nonfiction} = 5.43$, SD = 1.97, $\beta = -.04$, $t(281) = -.51$, $p = .61$; $M_{fiction} = 5.35$, SD = 1.89, $\beta = -.02$, $t(281) = -.36$, $p = .72$). The model revealed a marginal three-way interaction between attention to others, group size, and book preference ($\beta = -.25$, $t(281) = -1.87$, $p = .06$; figure 5).

As predicted, when attention to others was heightened, the group size by book preference interaction did not predict book deal choice ($\beta = .03$, $t(281) = .22$, $p = .82$)—independence-primed participants made similar choices, regardless of group size and their own preferences. However, replicating our prior studies, when attention to others was not heightened, the group size by book preference interaction did predict book deal choice ($\beta = -.29$, $t(281) = -2.35$, $p = .02$). As expected, while independence-primed participants' book preferences did not predict choice in the small group condition ($\beta = .12$, $t(281) = 1.16$, $p = .25$), book preferences did predict choice in the large group condition ($\beta = .53$, $t(281) = 3.66$, $p = .0003$), such that as their preference for nonfiction books increased, participants chose deals with more nonfiction books.

Discussion. Study 4A showed that when attention to others was heightened by naming the members of a group, neither group size nor personal preferences drove independence-primed participants' choices on behalf of the self and others. When attention to others was not heightened, however, the results replicated our prior studies and showed that group size was a key determinant of how independents chose. In a small group context, independence-primed participants made choices that accounted for both self and others' tastes. In a large group context, however, independence-primed participants made choices that mainly reflected their own preferences. Taken together with the results of study 3, these results provide converging evidence for the underlying role of attention to others in determining how group size and self-construal shape joint consumption choices.

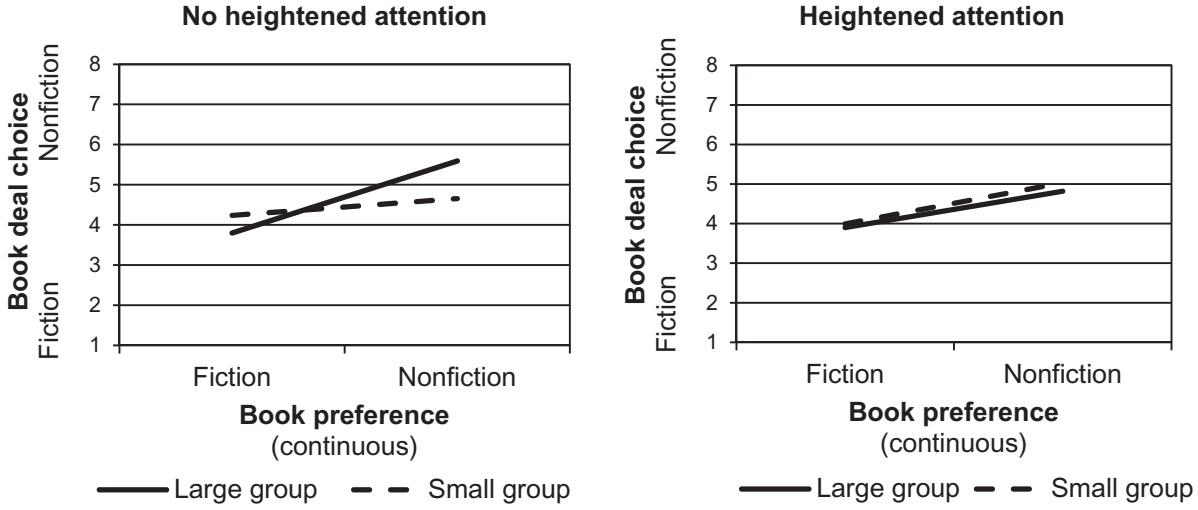
Study 4B: The Effects of Cognitive Load

The results of studies 3 and 4A suggest that the amount of attention paid to others is a key driver of how consumers choose for the self and others. Study 4B tests this notion in a different way. Prior research finds that attending to others is not an automatic process, and that it requires some level of effort and motivation in order to occur (Apperly et al. 2006; Epley, Morewedge, and Keysar 2004; Epley et al. 2004). Thus, if individuals lack the motivation or ability to pay attention to others, their attention should remain focused on the self, leading to joint consumption choices that favor their own preferences over those of others. To examine the role of effort and ability in joint consumption choice, study 4B focuses on independents choosing for a small group.

We suggest that given their definitional orientation to the self (Markus and Kitayama 1991), paying attention to

FIGURE 5

BOOK PACKAGE CHOICE BY ATTENTION TO OTHERS, GROUP SIZE, AND BOOK PREFERENCE, STUDY 4A



others should be effortful for independents, and should occur only when the situation calls for it; consistent with this reasoning, our previous studies show that independents make choices that account for others' preferences in small groups, where attention to others is situationally heightened (studies 1–3), or under the influence of an attention to others manipulation (study 4A). Using the context of choosing wine for the table, the present study manipulates cognitive load while independents are choosing for a small group. This should affect their ability to attend to others. When cognitive load is high, independent consumers should lack the ability to attend to others, resulting in choices that more strongly reflect their preferences, despite the small group setting. In contrast, when cognitive load is low, we should replicate our prior findings: independent consumers should be able to attend to others, resulting in choices that balance self and others' preferences.

Empirically, choice in study 4B should be predicted by a two-way interaction between cognitive load (high, low) and wine preference (percent of time participants drink red vs. white wine). Specifically, when cognitive resources are unconstrained (cognitive load is low), we expect independence-primed individuals to make choices that account for self and others' preferences, due to the fact that the small group context heightens attention to others. However, when cognitive resources are constrained (cognitive load is high), we expect independents to make choices that more strongly reflect their own preferences, as the lack of available cognitive resources will limit their ability to pay attention to others, even in a small group context.

Method. Participants (MTurk; $N = 447$) completed a cognitive load (high, low) × measured wine preference study. As in study 1, 14 respondents were excluded for completing the choice task improperly, leaving a sample of 433 ($M_{age} = 35.32$, SD = 10.75, 50% female).

Participants were first primed with independence, as in prior studies. Next, to manipulate cognitive load, participants received either a nine-digit or a two-digit number, which they were asked to remember while they completed the study (Shiv and Fedorikhin 1999). Participants then read a small-group wine scenario where they imagined choosing one half-bottle of red and one half-bottle of white wine when out for dinner with two friends. Participants read that their friends preferred red and white wine equally. After choosing, participants answered demographic questions, reported their wine preferences (0 = white, 100 = red; $M = 55.68$, SD = 31.21), and completed the wine quizzes. They also reported how difficult and taxing it was to recall the nine- or two-digit number, as well as how much it interfered with the wine choice task; these items were combined into a measure of cognitive resource constraint ($\alpha = .89$).

Results. First, we examined whether the cognitive load manipulation was successful. Participants in the high-load condition reported greater cognitive resource constraint ($M = 4.55$, SD = 1.56) than those in the low-load condition ($M = 1.55$, SD = 1.10; $F(1, 472) = 143.84$, $p < .0001$); neither wine preference ($p = .64$), nor the load by preference interaction ($p = .83$), predicted constraint. Further, wine preferences were not predicted by cognitive load ($p = .31$).

FIGURE 6

MEAN-ADJUSTED PRICE INDEX BY COGNITIVE LOAD AND WINE PREFERENCE, STUDY 4B

As in study 1, we created a mean-adjusted price index by dividing the cost of the chosen red ($M = 26.47$, $SD = 5.03$) and white ($M = 22.55$, $SD = 5.39$) wines by the average prices of the red ($M = 28.50$) and white ($M = 23.00$) wines on the list. We then took a difference score ($M = –.047$, $SD = .34$), such that higher numbers indicated choosing a more expensive red wine.

We regressed the price index on cognitive load, wine preference, their interaction, and wine-drinking frequency ($M = 4.26$, $SD = 1.76$; $\beta = .05$, $t(426) = 1.02$, $p = .31$), and found a significant cognitive load by wine preference interaction ($\beta = –.12$, $t(426) = –1.87$, $p = .05$; figure 6). When load was high, participants chose a more expensive red wine as their preference for red wine increased ($\beta = .19$, $t(426) = 2.85$, $p = .005$). When load was low, participants' wine preferences did not affect the price of the wines they chose ($\beta = .007$, $t(426) = .11$, $p = .91$).

Discussion. Study 4B showed that in a small group context, where attention to others is situationally heightened, independence-primed participants made choices that balanced self and others' preferences—but only when cognitive load was low. When cognitive load was high, independence-primed participants made choices that favored mainly their own preferences. These results suggest that small group contexts lead independents to attend to others and make more balanced choices only when they have the mental capacity to override their natural tendency to attend to the self. Thus, study 4B identifies cognitive capacity as a key boundary condition for our effects and provides additional process evidence for the role of attention to others via moderation (Spencer et al. 2005). Together with the results of the prior studies, these findings emphasize the role that group size can play in shifting consumers' attention to others.

GENERAL DISCUSSION

The present research examines how self-construal and group size interact to affect unilateral joint consumption choices made on behalf of the self and multiple others. We find that interdependent consumers consistently make choices that balance self and others' preferences, irrespective of the size of the group they are choosing for. Independent consumers, on the other hand, vary their choices depending on group size. When choosing on behalf of the self and a smaller group, independent decision-makers make choices that balance self and others' preferences. When choosing on behalf of the self and a larger group, however, those with independent self-construals make choices that more strongly reflect their own preferences. Six studies document this effect in various contexts, use product price and choice as outcome measures, address alternate explanations, identify a boundary condition, and trace this effect to the fact that both self-construal and group size shape decision-makers' attention to others.

A within-paper meta-analysis confirmed these findings. Across the relevant studies (1, 2A, 2B, 3), we calculated weighted effect sizes and significance levels for each interaction and simple effect (Rosenthal 1991). These results revealed that overall, the three-way interaction was significant ($r = .113$; $Z = 3.98$, $p < .0001$). Further, when individuals were primed with independence, the group size by preference interaction was significant ($r = .108$; $Z = 1.99$, $p < .0001$); when individuals were primed with interdependence, this interaction was not significant ($r = .033$; $Z = 1.20$, $p = .12$). Finally, the critical simple effect, whereby preference predicted choice for independence-primed individuals choosing for a large group, was significant ($r = .298$; $Z = 11.05$, $p < .0001$; for more details on the meta-analysis, see the web appendix).

Theoretical Contributions

In exploring two factors that affect choice on behalf of the self and others, we make several contributions to existing research on choosing for others, self-construal, and group size. First, we explore a novel type of choice for others. Although our pretest shows that consumers regularly choose on behalf of the self and multiple others, this type of unilateral group choice has not been considered in prior literature. Thus, our work extends the existing study of how consumers choose for others, and identifies the decision-maker's self-construal and the number of individuals being chosen for as important factors that shape choices on behalf of the self and multiple others.

Second, in exploring how the choices of independent and interdependent individuals cohere and diverge, our

work offers a new perspective to the literature on self-construal. Prior research has demonstrated that relative to independents, interdependents are more likely to adjust their behaviors, judgments, and choices in response to social information (Haberstroh et al. 2002; Masuda et al. 2008; Torelli 2006). However, our studies show that independents can and do adjust their decisions in response to social information (i.e., the number of others); in fact, across our studies, independents—not interdependents—adjusted their choices. Thus, our work extends the existing understanding of when independents and interdependents modify their behavior based on available social information, and identifies group size as a key moderator of such adjustment. More broadly, past work has largely focused on how interdependents, but not independents, adjust for other people (Morling et al. 2002). In demonstrating that choosing for a small group is a setting in which independents accommodate others, we contribute by identifying a boundary condition of when individuals with different self-construals adjust for others.

Third, in examining how variations in group size affect choice for multiple others, our work extends research on group size by demonstrating that the size of the group matters. Although prior work has examined the effects of group size on a number of psychological phenomena (Darley and Latané 1968; Wheelan 2009), little research has studied its influence on consumer choice. We also extend existing research by examining *why* group size affects choice: we find that group size changes the extent to which decision-makers pay attention to others, and by extension, the choices they make.

Fourth, in exploring joint consumption contexts in which choice outcomes are shared, we examine a facet of choosing for others that has not been systematically examined in prior literature. Although examples of choices with shared outcomes abound (e.g., choosing an appetizer for the table), research on choosing for others has focused on choices with nonshared outcomes (Lowrey et al. 2004). Further, the limited research that has focused on shared outcomes has examined only decisions for the self and a single other (Etkin 2016). The current research focuses on choices with shared outcomes in order to investigate the extent to which decision-makers pay attention to self versus others' preferences, and how these preferences are balanced to arrive at a final decision. In doing so, this work contributes to the budding literature on joint consumption by examining how self-construal, group size, and attention to others affect such decisions.

Implications

One practical implication of this research is that making individuals' interdependent selves salient may encourage them to make choices that better incorporate others' preferences. To do so, marketing managers and choice recipients could cue the decision-maker's interdependent self by using more others- or relationship-oriented language (e.g., we, us, friends, team; Gardner et al. 1999). The use of such language could also be incorporated into company-distributed materials, particularly in the case of information about bulk orders or party planning services, both of which involve consumers making decisions for larger groups.

Similarly, shaping groups to be smaller, as opposed to larger, may impact the degree to which consumers account for others' preferences in making joint consumption decisions. Thus, to the extent that consumers can choose how many people to include in a joint consumption experience, consuming with a smaller (vs. larger) group is more likely to result in choices that account for everybody's preferences. More generally, assuming that consumers are more likely to be satisfied when they feel that their preferences have been met, managers may want to encourage decision-makers to make more inclusive choices. One way to do so may be to break larger groups into smaller ones, if possible. For instance, managers could ask a large dinner party to consider being seated at several smaller tables near one another, rather than at a single table, as the smaller group format should lead decision-makers to make more inclusive decisions.

Future Research

While our results show that self-construal and group size interact to determine joint consumption choice on behalf of the self and multiple others, they also raise important questions that have yet to be answered. For instance, although we find that individuals pay more attention to others in small than in large groups, the current results do not address why this effect occurs.

One possible explanation lies in the effort required to attend to multiple others; given that shifting attention toward others requires effort and motivation (Epley et al. 2004), it seems plausible that increasing the number of people in a group also increases the amount of effort required to attend to them. This effort-based explanation also accounts for the different choice patterns exhibited by independents and interdependents. Given their orientation toward others, interdependents may be more practiced at attending to others, and therefore require less effort to do so, regardless of group size. Thus, group size may be less likely to affect interdependents' choices because paying attention to others requires minimal effort from them. On the other hand, given their orientation toward the self, independents are likely less adept at attending to others, and require more effort to do so. To the extent that paying attention to larger (vs. smaller) groups requires more effort, this argument suggests—consistent with our findings—that independents should be less likely to make choices that account for others' preferences when the group is larger. Such an explanation would also be consistent with study 4B, which

demonstrated that independents choosing for a smaller group fail to account for others' preferences when cognitive resources are constrained.

A second possible explanation is that choosing for smaller (vs. larger) groups may have more serious relational consequences. Prior research shows that individuals feel less identifiable when they work in groups (Karau and Williams 1993; Latané et al. 1979). Thus, decision-makers may feel that their preferences are less easily pinpointed in larger groups, in effect licensing them to make more self-oriented choices without worrying about others' judgments. In such an account, interdependents may consistently make choices that account for others' preferences (regardless of group size) because their orientation toward others leads them to prioritize their relationships over their own preferences. Independents, on the other hand, are less relationship-oriented than interdependents (Cross, Bacon, and Morris 2000), and may be strategically shifting their choices depending on whether the context (i.e., the size of the group) suggests that others will notice a self-prioritizing choice or not. Thus, one task for future research might be to disentangle which of these explanations underlies our effect.

In addition, although we focused on how self-construal interacts with group size to affect choice via shifting attention to others, future research could identify other factors that do so.

For example, since experts are highly knowledgeable in relevant domains, choosing for experts may heighten decision-makers' attention to others. We conducted a study to provide an initial test of this idea (see the web appendix for details). Consistent with our results for group size, we found that interdependents did not alter their wine choices, regardless of whether they were choosing for experts or novices. However, independents selected more expensive wines that matched their preferences when choosing for novices, but not when choosing for experts. These results suggest that factors other than group size may indeed shift attention to others and change joint consumption choices, and leave room for additional research that identifies such factors.

A final possibility for future research is to address the question of what constitutes a "larger" versus a "smaller" group. Rather than conceptualizing size as having a discrete cutoff point where a small group becomes large, we suggest that group size is likely a continuum where attention to others gradually decreases as group size increases. Indeed, prior work shows that increasing group size leads to diminishing marginal effects (Latané 1981). We speculate that the extent to which decision-makers view a group as entitative may also matter (Smith, Faro, and Burson 2013); if decision-makers perceive all members of the group as belonging to the same unit, that may "shrink" the group, causing it to be viewed as smaller rather than larger. Thus, future research might examine factors that shape perceptions of the group as large or small.

Conclusion

As exemplified by ordering wine for the table, consumers often make joint consumption choices on behalf of the self and multiple others. For diners hoping that their preferences will be taken into account, this research offers some advice: go to dinner with a smaller group or with interdependent individuals, and give the decision-maker plenty of time to choose. Otherwise, you could end up drinking house wine while the decision-maker enjoys an award-winning blend.

DATA COLLECTION INFORMATION

Data was collected on Amazon's Mechanical Turk as follows: study 1, January 2014; study 2A, December 2017; study 2B, December 2017; study 3, December 2015; study 4A, November 2016; study 4B, July 2017. The first and second authors supervised data collection and analyzed the data.

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