The limited effects of power on satisfaction with joint consumption decisions

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Abstract

We conduct three experiments in which participants in dyads choose between two restaurants, each of which is preferred by only one participant, and one participant has the power to decide which restaurant both will patronize. We find that the power to make a joint decision increases satisfaction with the choice only when those involved have a competitive decision orientation, a weak or anonymous relationship, and the outcome they choose is subsequently available. Participants who have a cooperative orientation are satisfied whether or not they have power and whether or not the resulting choice is consistent with their initial preferences.

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Decisions involving two or more consumers are both significant and pervasive. Families jointly or collectively make major decisions such as where to go on vacation, the types and brands of automobiles they buy, the home furnishings and appliances they purchase, and the home and neighborhood in which they live. They also make a variety of mundane decisions ranging from grocery purchases at the supermarket to the television programs they watch in the evening. Joint consumption decisions extend beyond the family to include friends making plans for the weekend, neighbors selecting the design of a shared fence, roommates deciding what to cook for dinner, and employees choosing a gift for a departing colleague.

A major emphasis in prior research on joint decisions has been on power, which is defined as a person’s ability to influence or determine the behaviors of others (Anderson and Berdahl, 2002; Dépret and Fiske, 1993; Keltner, Gruenfeld and Anderson, 2003; Torelli and Shavitt 2010). Although a child might influence the brand of breakfast cereal a family buys, for example, the parent makes the final selection because of his or her legitimate authority and ability to pay. Similarly, the most popular teen might have the most influence over what a group of friends does on Saturday night, the host might determine the menu for a dinner party after a discussion with those invited, and the boss has the final say as to what restaurant is patronized for an office luncheon. Power is a relative concept because it is defined by the relationship between individuals rather than existing in any absolute sense (Cook and Emerson, 1978; Emerson, 1962) and it is derived from various sources including the ability to coerce or reward others, expertise, a legitimate role or office, and social attractiveness (French and Raven, 1959).

Power is inherently satisfying because it enables consumers to make choices that are consistent with their preferences (Botti and McGill, 2006; Botti and Iyengar, 2004; Payne, Bettman and Johnson, 1993), which leads to a sense of personal freedom and autonomy (de Charms, 1968; van Prooijen, 2009), and positive emotional states (Keltner et al, 2003). Yet power also has a darker side in interpersonal contexts (Su, Fermin and Ye, 2003). Power provides freedom to those who have it but simultaneously reduces the autonomy and control of those who have choices imposed upon them. The absence of power is associated with negative

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affect, attention to threats and punishments, and inhibited social behaviors (Keltner et al., 2003). When people are powerless they feel vulnerable and uncertain (Rucker and Galinsky, 2008). The use of power increases interpersonal conflict (Thomas, 1976), reduces procedural justice (Brockner and Wiesenfeld, 1996), and can have negative consequences for interpersonal relationships (Corfman and Lehmann, 1987).

The objective of the present research is to examine the conditions under which the use of power is satisfying to consumers involved in a joint consumption decision. Our thesis is that power is satisfying only when those involved care little about the outcomes that accrue to each other, which is atypical of most joint decisions. We examine two characteristics of these decisions that lead consumers to care about their partner’s outcomes, the first of which is whether they have a cooperative versus competitive decision orientation. Within a dyadic context a competitive orientation is one in which there is a desire to satisfy oneself but little or no desire to satisfy the other, whereas a cooperative orientation is characterized by a desire to satisfy both oneself and the other (Thomas, 1976; Tjosvold, 1985).

Consumers tend to have a cooperative orientation, perhaps because they are cooperative by nature (Stapel and Koomen, 2005) or because the decision relates to a shared consumption experience in which the satisfaction of one consumer depends on the satisfaction of the other (Deutsch, 1949). The second characteristic we consider that leads consumers to care about the outcomes that accrue to their dyadic partner is a close interpersonal relationship. Consumers who make joint decisions with their spouse or a family member, for example, expect balance or equity in the relationship over time (Macneil, 1978).

As a consequence they place less importance on the outcomes associated with any individual decision even when they have a competitive decision orientation and even when the other party uses power to get his or her way.

We test our hypotheses related to the effects of power on satisfaction in three experiments. Studies 1 and 2 involve participants who make a joint decision after interacting via a popular text-messaging program. In study 1 the dyads are composed of friends and acquaintances, whereas the dyads in study 2 are randomly selected and anonymous. Our use of a computer-mediated methodology reflects the growing reliance of consumers on online communication via instant messaging, social networking websites, online communities, and multi-player internet games (Grossman, 2006). The decision environment also enables us to track all aspects of the dyadic interactions between participants, and to ensure that the decision orientations of the participants within the dyads are uncorrelated with their relative power, the degree to which their preferences are shared, and the strength of their relationship. In natural settings the factors are typically confounded—a cooperative orientation is more likely when the parties involved share power, have similar preferences, or a close relationship. Further, power is used much less frequently in cooperative versus competitive decision processes in situ. In the third study we use a scenario-based design to assess the independent effects of the power to choose and the preference-consistency of the resulting choice on satisfaction.

Hypotheses

Effects of power, decision orientation, and relationship strength on satisfaction

Consider a simple example in which two friends (X and Y) are selecting a restaurant for an evening out. X has the power to make the final decision, perhaps because X is paying, it is X’s birthday, or the friends alternate as to who selects each time they go out and it is X’s turn. To ensure that there is no obvious choice that is preferred by both, we assume that preferences are different for the two options. As a result, one of them must accept a less-preferred choice if their initial preferences do not change as a result of their discussion. The fact that X and Y are friends means that X is concerned about Y’s satisfaction and how the decision-making process affects their relationship. Any satisfaction that X derives from selecting the restaurant that he or she likes is affected by the knowledge that the choice is not preferred by Y. The friendship between X and Y means that they see their outcomes as intertwined because the decision is part of an on-going stream of interactions. Participants in such a relationship expect decision “wins” and “losses” to balance out over time, leading to less emphasis placed on the outcomes associated with a given decision (Macneil, 1978; Su et al., 2003).

If X and Y are merely acquaintances, rather than friends, they may have a cooperative orientation toward the decision despite a weak relationship because they are cooperative by nature (Loewenstein et al. 1989; Stapel and Koomen, 2005) or because they want to create a good impression (Danheiser and Graziano, 1982). Alternatively, a cooperative decision orientation might exist simply because the decision results in a shared experience—X realizes that his or her dining pleasure will be diminished if Y does not like the restaurant they patronize together (and vice versa). Based on the same reasoning a cooperative orientation is likely when roommates select a video game to play together, a television program to watch in the evening, or a club or bar to visit on the weekend.

When X and Y have a cooperative orientation their goal is to make a mutually satisfying decision. A cooperative orientation requires that both parties are actively involved in the decision process in order to understand and respond to each other’s preferences (Alper, Tjosvold and Law, 1998; Thomas, 1976). It also reduces the coercive use of power, which is designed to achieve compliance without regard for the underlying preferences of the influence target (Boyle et al., 1992). Although X might have the power to coerce Y because he or she is Y’s boss or because he or she is paying for the meal, X is not interested in imposing his or her preferences on Y if the goal is mutual satisfaction. The power to decide (and therefore X’s ability to impose his or her preferences on Y) is not inherently satisfying because the objective is to have both agree on or at least accept the final choice.

It is only when X and Y have both a competitive orientation and a weak relationship that the power to choose is expected to enhance decision satisfaction. In our example, X would force his or her preferences on Y only if he or she does not care about Y’s satisfaction with the restaurant choice. Either a cooperative decision orientation or a strong relationship within the dyad will lead the
parties involved to care about the outcomes that accrue to the other and mitigate the effects of power on decision satisfaction. We formally express this logic in the following hypothesis:

**H1a.** Power has a positive effect on satisfaction with a joint decision only when there is a competitive decision orientation and a weak or non-existent relationship.

**H1b.** Power has no effect on satisfaction with a joint decision when there is either a cooperative decision orientation or a strong relationship.

**Effects of power and decision orientation on preference-choice consistency**

Consumers’ preferences are more likely to change when they have a cooperative versus competitive decision orientation. When consumers care about the outcomes that accrue to each other their initial preferences are merely starting points for the discussion—in some instances, the most mutually satisfying decision is one that is different from the preferences of both dyad members. For example, the fact that X and Y in our earlier example prefer different types of food might lead them to identify and select a third restaurant that is acceptable to both. If we do not allow a compromise solution and assume that X and Y must decide between the two restaurants, at least one person must change his or her preferences if they are to dine together.

A cooperative decision orientation should lead those with superior power to avoid imposing their preferences because of the desire for mutual satisfaction. Although high-power dyad members have the ability to get what they want, they are sensitive to the needs and wants of low-power dyad members. In contrast, preferences tend to be rigid and inflexible when there is a competitive decision orientation because the preferences of others are not salient in the decision process. When people see their outcomes as independent, those without power are less willing to communicate their preferences (Snodgrass, Hecht and Ploutz-Snyder, 1998) and people with power lack the motivation to understand and respond to their lower-power counterparts (Kelner and Robinson, 1997). Consequently, high-power dyad members should be less inclined to change their preferences when there is a competitive versus cooperative decision orientation. We expect that high-power dyad members are also less likely to change their preferences when they have a weak relationship because they do not see their outcomes as intertwined. Formally,

**H2.** The choices made by high-power dyad members are most consistent with their initial preferences when there is both a competitive decision orientation and a weak relationship.

**Effects of power and preference-choice consistency on decision satisfaction**

The extent to which the final choice is consistent with consumers’ initial preferences (i.e., their stated preferences before they interact with their decision partner) should depend on both their decision orientation and relative power. For high-power dyad members we expect no effect of preference-choice consistency on decision satisfaction regardless of the strength of the dyadic relationship or decision orientation, because choices that are made freely reveal the preferences of the decision maker (Botti and McGill, 2006; Botti and Iyengar, 2004; Samuelson, 1948). High-power decision makers should be satisfied regardless of whether or not their choice is consistent with their initial preferences because, by definition, they have the ability to choose whatever they want.

In contrast, for low-power dyad members the effects of preference-choice consistency on satisfaction should be contingent on both the decision orientation and the relationship between those involved. We propose that either a cooperative decision orientation or a strong relationship will mitigate the effects of preference-choice consistency on satisfaction for low-power consumers. First, the importance of preference-choice consistency is reduced in a strong relationship because choices are embedded within the context of an ongoing stream of interactions. Prior research has found that spouses, for example, actively work to achieve equity or balance over a series of interactions (Corfman and Lehmann, 1987). As a consequence, consumers within a strong relationship should be less dissatisfied when a particular decision is preference-inconsistent because they expect that their preferences will be accommodated in one or more future decisions. Second, in a cooperative orientation the desire to achieve a mutually satisfying outcome leads to a decision process in which the preferences of both parties are important. Indeed, a cooperative decision orientation requires that both dyad members agree on the final decision, which might occur because one dyad member accommodates the other or because preferences change as a result of the decision process. It is only when there is both a competitive decision orientation and a weak relationship that the preference-choice consistency is the primary determinant of the satisfaction of low-power members. Formally,

**H3.** Preference-choice consistency only enhances the satisfaction of low-power consumers who have both a competitive decision orientation and a weak relationship.

**Study 1: friends and acquaintances**

**Procedure**

Study 1 was a 2 (power: high, low) by 2 (decision orientation: cooperative, competitive) by 2 (relationship strength: weak, strong) between-subjects experiment. The power and decision orientation factors were manipulated, whereas the relationship strength factor was based on a median split of the measured construct. Participants were students from an introductory undergraduate course and their friend or acquaintance. Students within the class were asked to bring along “someone they knew” to take part in a study on restaurant preferences. Participants were required to complete a survey measuring covariates two weeks before the main experiment. All participants were paid $10, and students registered in the course received course credit. The computer-mediated experiment was run in a computer laboratory.
in batches of between two and twelve participants. One hundred
and ninety two participants in ninety-six dyads completed study 1.

At the beginning of the session, pairs of participants were
randomly assigned to personal computers that were connected
but located in separate cubicles in a laboratory setting.
Participants were told they would have an online chat with
their friend or acquaintance, and they were asked to do so in
silence. This instruction was given to replicate the natural
context of a chat on the Internet. The experiment was composed
of five distinct parts that were performed in a single online
session of approximately 25 minutes in length. The procedure
and manipulations were pre-tested on an independent sample
(n=84) from the same participant population.

Part 1

After a brief introduction to a study of “restaurant preferences,”
participants were presented with representative menu items from
six restaurants (i.e., Chinese, French, Indian, Italian, Mexican, and
Japanese). Participants were asked to assume that the restaurants
were all within a 10 minute drive. Next, they were asked to rank
each restaurant from 1 to 6 based on their preferences.

Part 2

Based on participants’ rankings, an algorithm identified the
two restaurants that would be considered within each dyad.
Each dyad member was endowed with a restaurant that he or she
liked (preference consistent) but which the other dyad member
disliked (preference inconsistent). For dyads in which both
participants ranked the same restaurant highest, the algorithm
found the highest-ranking choices that were maximally different
in terms of participants’ preferences. In the instructions
preceding the online chat, participants were informed that
they would be asked to choose between their endowed selection
and that of their partner in the dyad.

Part 2 was necessary to ensure that participants within each
dyad had different preferences—if both dyad members initially
preferred the same choice there would be no basis for a
discussion and the use of power would be irrelevant. Part 2 also
enabled us to ensure that significant differences in preferences
were consistent across conditions because variations on this
measure might affect the decision process within the dyads. For
example, a cooperative decision orientation would be likely
when dyad members’ preferences were similar because a
mutually satisfying outcome would be easy to obtain.

At this point, participants were shown a screen with the
decision orientation and power manipulations. Participants
within each dyad were randomly assigned to either compete
(i.e., “Your objective is to persuade your decision partner to
select the restaurant that you prefer.”) or cooperate (i.e., “Your
objective is to cooperate with your decision partner to select the
restaurant that is the best for both of you.”). Within each dyad,
participants were randomly assigned to either the high or low
power condition. In the high-power condition participants were
asked to imagine that it was their birthday, so they would have
the final say as to which restaurant they would patronize. Low-
power participants were told that it was their friend’s birthday
so he or she would be making the final decision. Power was
therefore operationalized as the absolute ability to determine the
restaurant that would be patronized by both dyad members
(Anderson and Berdahl, 2002). The source of power was
legitimate in the sense that someone who is celebrating a
birthday is often afforded special status such as the ability to
decide where to celebrate the occasion (French and Raven,
1959). Participants were told that they would be entered in a
random draw for a $75 gift certificate for the restaurant selected
by their dyad to increase task involvement.

Part 3

After reading the instructions in Part 2, participants were asked
to click on a link to an online chat program (MSN Messenger*).
They were given 3 minutes to interact online and decide on a
restaurant.

Part 4

Next, participants were asked to exit MSN Messenger* and
the high-power participants within each dyad were instructed
via an on-screen message to select one of the two restaurants.
Low-power participants were informed that their partner would
make the final decision and they were asked to wait a few
moments until a decision had been made. Neither participant
was able to progress to the next stage of the experiment until a
decision was submitted. Thus, the manipulation was unambig-
uous and ensured that high-power participants actually made the
choice. Once the decision was made, it was electronically
communicated to the low-power partner, and both participants
proceeded to the final part of the experiment.

Part 5

Following the decision, both participants completed a
questionnaire with scales measuring cooperative and competitive
decision orientations, process and decision satisfaction, and
relationship strength. Upon completing the questionnaire partic-
ipants were paid and the chat logs for each dyad were down-
loaded from the terminals. Participants were debriefed in class
after the data collection was complete (approximately three weeks
later).

Results

Relationship strength

The frequency of interaction between dyad members was used
to measure relationship strength (Berscheid, Snyder and Omoto,
1989; Hinde, 1979). Participants were divided into strong and weak
relationship groups based on a median split on the number of hours
spent together each week. Participants in the weak relationship
group spent an average of 9.89 hours per week with their decision
partner, compared to 70.02 hours for those in the strong relationship
group (F [1, 191]=189.64, p<.001). Participants in the strong
relationship group reported knowing their decision partner better
than those in the weak relationship group (F [1, 191]=34.91,
p<.001; Mweak relationship=5.81<Mstrong relationship=6.74; on a seven
point semantic differential scale).
Manipulation checks

We examine the effects of our manipulations on the online discussions to assess the decision orientation with each dyad. Two coders who were blind to the hypotheses read the chat logs and coded the statements made within each dyad during the pre-decision discussion. Competitive statements were defined as those in which participants tried to ensure the final choice reflected their own preferences, and cooperative statements as those in which participants sought to achieve a choice that reflected the preferences of both dyad members. Examples of these statements can be found in Table 1. Inter-coder reliability was high (.88) and disagreements between coders were resolved through discussion.

Full-factorial ANOVAs revealed that the decision orientation manipulation had a significant effect on the number of both competitive ($F[1, 191]=8.81, p=.01; M_{competitive}=3.63 > M_{cooperative}=2.75$) and cooperative ($F[1, 191]=13.22, p<.001; M_{cooperative}=3.32 > M_{competitive}=2.31$) statements made within the dyads, with the means in the expected directions. Neither the interaction terms nor the main effects (i.e., power or relationship strength) influenced the total number of statements in either category ($p s>.18$).

We measured perceived power with two semantic differential items (Fisher and Grégoire, 2006). The items were “what you (versus your friend) thought was most important for this decision” and “you (versus your friend) had the most influence on this decision” ($M=3.98, SD=1.71$). The items are measured on a seven-point semantic differential scale (1=the participant had greater power and 7=the other dyad members had greater power). A full factorial ANOVA revealed that the power manipulation had a significant effect on perceived power, with the means in the expected direction ($M_{high-power}=4.25 > M_{low-power}=3.57; F[1, 191]=8.48, p<.001$). Neither of the other factors nor their interactions had a significant effect on perceived power (all $p s>.10$).

We ran two tests with respect to preference differences within the dyads. First, we needed to ensure that significant divergence existed in preferences for the restaurants endowed to participants within each dyad. Using a single item that ranged from dislike (1) to like (7), a $t$-test indicated that the restaurant endowed to the participant was liked significantly more than the restaurant endowed to the other dyad member ($t[191]=8.07; p<.001; M_{endowed}=6.09 > M_{not\, endowed}=4.97$). Second, a full-factorial ANOVA with the absolute difference between preferences for the own- versus other-endowed restaurant as the dependent variable confirmed that there were no significant differences across conditions on this measure ($p s>.16$).

Hypothesis tests

H1a and H1b were tested with ANCOVA. Process satisfaction was included as a covariate because of the interdependence of process and outcome satisfaction judgments (Su et al., 2003). We measured process satisfaction with three items including “I enjoyed our decision process” and “the decision process we used was a good one” ($M=5.34, SD=1.48, \alpha=.88$). Decision satisfaction was measured with three items that reflect the extent to which participants were pleased with the dyad’s purchase decision. Based on Oliver (1996) the items were, “I am very satisfied with the decision that was made,” “The decision was a good one,” and “I think this decision was the right choice” ($M=5.77, SD=1.41, \alpha=.95$).

We found significant main effects of decision orientation ($F[1, 191]=5.67, p=.041$) and power ($F[1, 191]=7.73, p=.006$) and no main effect of relationship strength ($F[1, 191]=.17, p=.68$) on decision satisfaction. The main effects were qualified by the presence of the expected significant three-way interaction between decision orientation, power, and relationship strength ($F[1, 191]=6.89, p=.009$). Note that none of the two-way interactions were significant ($p s>.06$) and that process satisfaction was a significant covariate ($F[1, 191]=180.71, p<.001$). The results of this analysis are presented graphically in Fig. 1.

In the weak relationship strength group simple effects tests revealed that high-power participants were more satisfied than low-power participants when they had a competitive decision orientation ($F[1, 37]=6.57, p=.015; M_{high\, power}=5.50 > M_{low\, power}=4.73$), but they were equally satisfied when they had a cooperative decision orientation ($F[1, 61]=.59, p=.45; M_{high\, power}=6.23 = M_{low\, power}=6.07$). Power did not have a significant effect on decision satisfaction in the strong relationship group when there was either a competitive

<table>
<thead>
<tr>
<th>Table 1</th>
</tr>
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<tbody>
<tr>
<td>Competitive statements are those in which participants are trying to impose their preferences on their dyadic partner by paying limited attention to their partner’s preferences.</td>
</tr>
<tr>
<td>• I want Mexican and that’s final.</td>
</tr>
<tr>
<td>• I think Indian would be good.</td>
</tr>
<tr>
<td>• Chinese gets you full and it’s not that pricey.</td>
</tr>
<tr>
<td>• I want Indian food!</td>
</tr>
<tr>
<td>• You know I don’t do spicy well.</td>
</tr>
<tr>
<td>Cooperative statements are those in which participants are attempting to find a mutually satisfying decision by expressing their preferences, but also by understanding and responding to their partner’s preferences.</td>
</tr>
<tr>
<td>• Mexican food usually offers something we can both agree on.</td>
</tr>
<tr>
<td>• I know it’s your birthday, and since you are my very best friend I think we should go there.</td>
</tr>
<tr>
<td>• What are you thinking? I’m leaning toward Chinese.</td>
</tr>
<tr>
<td>• Both Mexican and Italian are high on my list.</td>
</tr>
</tbody>
</table>

Note: Each bullet point relates to a different chat.

Fig. 1. A decision orientation by power by relationship strength interaction effect: Study 1.
We found that it was only when participants had both a competitive orientation and a weak relationship that power had a significant effect on decision satisfaction. In contrast, power had no effect on the satisfaction of participants who cared about the outcomes that accrued to their decision partner because of either a strong relationship or a cooperative decision orientation. The results suggest that power was only satisfying when participants had little reason to care about the outcomes that accrued to their decision partner.

We were unable to find a significant effect of power on satisfaction when there was a cooperative decision orientation or strong relationship despite an unambiguous manipulation of power. Not only was it clear which dyad member would make the final choice from the instructions, but the administration of the study would not proceed until the high-power participant actually made a choice. Nevertheless, power increased satisfaction only when participants had both a weak relationship with their dyadic partner and a competitive orientation. In real-world contexts the likelihood of finding an effect is even lower because consumers within established relationships do not necessarily agree upon their relative power (Fisher and Grégoire, 2006), and power has been found to vary across decisions on factors such as preference intensity, expertise in the product category, and decision history (Corfman and Lehmann, 1987). Moreover, we ensured that preferences were significantly different within the dyads so participants had a strong incentive to make a preference-consistent choice if they had the power to do so, and to be dissatisfied if a preference-inconsistent choice was made by their counterpart in the dyad.

The tests of hypotheses 2 and 3 provide further insights into the results. When participants had a cooperative decision orientation the proportion of choices that were consistent with the initial preferences of the high-power participant was significantly lower than when there was a competitive orientation. Indeed, 43% of the choices made by high-power dyad members with a cooperative decision orientation were inconsistent with their initial preferences despite the fact that they had the absolute power to choose. Contrary to expectations, no difference in preference-choice consistency was found for participants who were in a strong versus weak relationship. One explanation for the null finding is that participants in the weak relationship condition could reasonably expect to interact after the study because they were classmates. As a consequence, any inequity that is created by a choice can be counterbalanced by subsequent choices that favor the dyad member who did not “get his or her way.”

With respect to H3, as expected we found that preference-choice consistency only affected the satisfaction of low-power participants who had both a competitive orientation and a weak relationship. High-power participants were always satisfied, even when they made a dyadic choice that was inconsistent with their initial preferences. Our manipulation gave participants the absolute power to reveal their preferences at the time of the choice, which may or may not have changed after they interacted with their counterpart in the dyad. Low-power participants were
also satisfied regardless of the preference-choice consistency of the choice when they had either a cooperative orientation or a strong relationship.

**Study 2: anonymous participants**

In study 2 we used anonymous participants to maximize the likelihood of finding a significant effect of power on decision satisfaction within the cooperative decision orientation condition. Given that study 1 participants were at least acquainted they could expect to interact after the experiment, and as a result they might infer that the use of power to achieve a selfish rather than mutually satisfactory outcome would have negative social consequences. If this were the case the effect of power on decision satisfaction would be attenuated for high-power participants even in the weak relationship condition. We remove any expectation of reciprocal future interactions in study 2 by using anonymous dyads in a 2 (power: low, high) by 2 (decision orientation: cooperative, competitive) between-subjects experiment.

To further increase the odds of finding a significant effect of power we explained that high-power (low-power) condition participants would have a 70% (30%) probability of deciding which restaurant would be patronized by both dyad members. The level of decision power was expressed as a probability to increase the likelihood that low-power participants would believe that they could influence the final choice, leading to greater involvement in the decision process as well as a stronger commitment to their initial choice. As in study 1, however, all high-power participants ultimately made the decision on behalf of their dyad.

**Procedure**

Individual students from the school’s subject pool were recruited and then randomly assigned to a personal computer that was linked to one other personal computer in the laboratory. To maintain anonymity, the linked terminals were not contiguous and participants were instructed not to reveal their identity to their decision partner. Subsequent examination of the online interactions between participants indicated that no one violated this rule. Overall, 96 participants in 48 randomly-determined dyads participated in study 2. As in study 1, the experiment was composed of five distinct parts, which were performed in one online session of approximately 25 minutes in length. The restaurant choice context and options were the same as those used in the previous study.

**Results**

**Manipulation checks**

We examine the effects of our decision orientation manipulation on the content of the chat logs using the same procedure as study 1. Inter-coder reliability was high (.83) and disagreements between coders were resolved through discussion. Full-factorial ANOVAs revealed that the decision orientation manipulation had a significant effect on the number of cooperative ($F[1, 95] = 14.94, p < .001$; $M_{\text{cooperative}} = 5.61 > M_{\text{competitive}} = 3.60$) and competitive ($F[1, 95] = 22.95, p < .001$; $M_{\text{competitive}} = 2.50 > M_{\text{cooperative}} = .63$) statements made within the dyads, with the means in the expected directions. The decision manipulation did not affect the total number of statements in either category ($p > .30$). We used the same manipulation check for power as was used in study 1 ($M = 4.07, SD = 1.71$). A full factorial analysis of variance revealed that the power manipulation had a significant effect on perceived power with the means in the expected direction ($M_{\text{high-power}} = 4.77 > M_{\text{low-power}} = 3.36; F[1, 191] = 19.47, p < .001$). Neither decision orientation nor the power manipulation, nor their interaction, had a significant effect on perceived power ($p > .20$).

As in the first study, we found significant preference asymmetry within the dyads. The restaurant endowed to the participant was liked significantly more than the restaurant endowed to the other dyad member ($r [95] = 8.06; p < .001; M_{\text{endowed}} = 5.83 > M_{\text{not endowed}} = 4.32$). A full-factorial ANOVA with the absolute difference between preferences for the own- versus other-endowed restaurant as the dependent variable confirmed that there was no significant difference across cells on this measure ($p > .20$).

**Hypothesis test**

Replicating the approach followed in the first study, $H1a$ and $H1b$ were tested with ANCOVA. Decision satisfaction was the dependent variable ($M = 5.62, SD = 1.25, \alpha = .88$) and process satisfaction ($M = 4.95, SD = 1.59, \alpha = .89$) was incorporated as a covariate. The hypothesized interaction between decision orientation and power was significant ($F[1, 95] = 5.10, p = .03$) and the process satisfaction covariate had a significant main effect ($F[1, 95] = 73.20, p < .001$). The results are presented graphically in Fig. 2.

The findings mirror the results found for the weak relationship strength group in study 1, providing support for $H1a$ and $H1b$. Simple effects tests revealed that high-power participants were more satisfied than low-power participants when they had a competitive decision orientation ($F[1, 49] = 6.08, p = .02; M_{\text{high power}} = 5.64 > M_{\text{low power}} = 4.77$), but not when they...
M had a cooperative decision orientation \((F[1, 45] = .09, p = .78; M_{\text{high power}} = 6.03 \approx M_{\text{low power}} = 6.12)\). The interaction was driven by a significantly lower level of satisfaction in the low-versus high-power cell of the competitive decision orientation condition.

As in study 1, we performed a logistic regression to test H2. The logistic regression model included main effects of process satisfaction, power, decision orientation, and a power by decision orientation interaction term. The dependent variable was satisfaction only when participants had a competitive decision orientation. Despite these methodological changes we found a significant main effect of decision orientation \((\beta = 1.786; \text{Wald} = 7.32; p = .01)\), no main effects of power or process satisfaction \((p > .10)\), and more importantly, a significant two-way interaction between decision orientation and power \((\beta = -3.188; \text{Wald} = 12.408; p < .001)\). The results of the logistic regression support H2 with the probability of choosing a restaurant that is consistent with the high-power dyad member’s initial preferences greater with a competitive \((76\%)\) compared to a cooperative \((39\%)\) decision orientation.

To test H3, we performed a 2 (decision orientation) by 2 (power) by 2 (preference-choice consistency: yes, no) ANCOVA on decision satisfaction. Process satisfaction was a significant covariate \((F[1, 95] = 67.98, p < .001)\). Decision orientation, power, and preference-choice consistency did not have significant main effects \((p > .08)\) and the only significant two-way interaction was power by preference-choice consistency \((F[1, 95] = 6.54, p = .01)\). As hypothesized, the three-way interaction between decision orientation, power, and preference-choice consistency was significant \((F[1, 95] = 4.99, p = .03)\). Simple effects tests replicated the results found in study 1 in the weak relationship strength subgroup. Low-power participants were less satisfied when the final choice was inconsistent versus consistent with their preferences when they had a competitive \((F[1, 24] = 9.31, p = .01; M_{\text{consistent}} = 6.06 > M_{\text{inconsistent}} = 4.37)\), but not when they had a cooperative \((F[1, 22] = 1.03, p = .42; M_{\text{consistent}} = 6.29 \approx M_{\text{inconsistent}} = 5.85)\) decision orientation. As expected, there was no effect of preference consistency on satisfaction for high-power participants under either a competitive \((F[1, 24] = 1.47, p = .24; M_{\text{consistent}} = 5.49 \approx M_{\text{inconsistent}} = 6.11)\) or a cooperative \((F[1, 22] = 3.61, p = .07; M_{\text{consistent}} = 6.41 \approx M_{\text{inconsistent}} = 5.79)\) decision orientation.

**Discussion**

The objective of study 2 was to maximize the likelihood of finding a significant relationship between power and satisfaction for cooperating dyads by restricting our study to anonymous participants. Our logic was that anonymous participants would be less likely to care about the outcomes that accrue to their decision partners, and they will be maximally predisposed to use power to satisfy themselves as a result. We also included a probabilistic manipulation of power to increase participant engagement in the decision-making process and commitment to their initial positions. Despite these methodological changes we found results consistent with the weak relationship condition in study 1, that is, power had a significant effect on decision satisfaction only when participants had a competitive decision orientation. This finding provides further support for H1a and H1b.

The results related to the second hypothesis indicate that high-power members of competing dyads were more likely to select the restaurant that was consistent with their initial preferences than members of cooperating dyads \((76\% \text{ versus } 39\% \text{ of the choices, respectively})\). The fact that the majority of high-power participants in the cooperative condition made a decision that was inconsistent with their pre-discussion preferences indicates that low-power dyad members significantly influenced the final choice. The result also suggests that the high-power participant cared about the satisfaction of their dyadic partner because they allowed themselves to be influenced—within our experiment they held absolute power, and the anonymity of the interaction eliminated the potential for negative social outcomes associated with acting competitively.

Consistent with the third hypothesis, preference-choice inconsistency reduced decision satisfaction only for low-power participants with a competitive orientation. It was only under these conditions that participants cared about getting the outcome that was consistent with their pre-discussion preferences. Low-power participants who had a cooperative orientation were satisfied regardless of the choice made by their decision partner, and all high-power participants were satisfied whether the choice they made was consistent or inconsistent with their pre-discussion preferences.

**Study 3**

Whereas studies 1 and 2 ensured that the power to make a decision always led to a preference-consistent outcome, in study 3 we manipulate the availability of the choice after the decision to assess the independent effects of the ability to choose and actually obtaining the desired choice on satisfaction. Study 3 is a scenario-based experiment with a 2 (power: high, low) by 2 (decision orientation: cooperative, competitive) by 2 (choice available: yes, no) full-factorial design. Participants \((n = 74)\) were recruited from an advanced marketing class and asked to read a scenario that described a choice between two restaurants, one they prefer and one that is preferred by their best friend. Participants were described as either having a cooperative or a competitive decision orientation, and the power to make the final choice was manipulated on the basis of who was going to pay for the meal. Availability of the choice was manipulated by informing participants that a table at their preferred restaurant was either available or unavailable when they called to make a reservation. Participants considered the scenario to be plausible based on a seven-point strongly disagree to agree scale, which asked them to rate whether the consumption situation was “believable” and “possible” \((M = 6.04, SD = 1.03, r = .79)\). No differences were found between conditions or their interactions on perceived plausibility \((p > .08)\). The scenario and manipulations can be found in the Appendix.
Our hypothesis is that power will affect satisfaction only for participants with a competitive decision orientation but that the direction of the effect found in previous studies will be reversed in the choice-unavailable condition. As argued previously, the satisfaction of consumers who have a competitive decision orientation depends on achieving a preference-consistent outcome so power should be satisfying for these consumers when their preferred choice is available. In contrast, high-power consumers who have a competitive decision orientation both expect and value a preference-consistent outcome so they will be dissatisfied if their choice is unavailable (Oliver, 1996). Such a disconfirmation of expectations might occur because of unforeseen circumstances such as a product stockout or service overbooking. Consumers who do not have power will not have the same expectations and will not be dissatisfied if their choice is unavailable. As before, we expect no effect of power on satisfaction when there is a cooperative orientation—participants seeking a mutually beneficial outcome should be satisfied whether a preference-inconsistent choice is the result of their partner’s decision or unforeseen circumstances. Formally,

H4a. Power has a positive effect on satisfaction with a joint decision when there is a competitive decision orientation and the preferred choice is subsequently found to be available.

H4b. Power has a negative effect on satisfaction with a joint decision when there is a competitive decision orientation and the preferred choice is subsequently found to be unavailable.

Manipulation checks

We measured both the cooperative (M = 2.91, SD = .92, α = .72) and competitive (M = 3.41, SD = 1.10, α = .78) decision orientations with multi-item rating scales. The cooperative decision orientation scale was designed to reflect the extent to which participants believed they would have engaged in cooperative behaviors. The scale included four items such as “Based on the scenario, I would have tried to influence my decision partner know I was interested in what he or she said.” The competitive decision orientation scale included items related to coercive influence such as the use of pressure, threats, and demands. For example, one item was “Based on the scenario, I would have tried to influence my decision partner by pressuring him or her to go along with what I wanted.” The results of the manipulation checks were as expected, with participants in the competitive decision orientation condition reporting a greater use of coercive influence tactics than participants in the cooperative decision orientation condition (Mcompetitive = 3.92 > Mcooperative = 2.88; F [1, 73] = 19.61, p < .001). Also as expected, participants in the cooperative decision orientation condition reported more cooperative behaviors than participants in the competitive decision orientation condition (Mcompetitive = 2.51 < Mcooperative = 3.32; F [1, 73] = 18.12, p < .001). None of the other manipulations or their interactions had a significant effect on either manipulation check (all ps > .18).

We used the same power manipulation check as with the previous studies (M = 3.98, SD = 1.71). A full factorial analysis of variance revealed that the power manipulation had a significant effect on perceived power with the means in the expected direction (Mlow-power = 5.18 > Mhigh-power = 2.78; F [1, 73] = 73.44, p < .001). None of the other manipulations or their interactions had a significant effect on this check (all ps > .08).

Hypothesis tests

We use the same decision satisfaction scale from the previous studies (M = 3.65, SD = 1.05, α = .90). Consistent with prior studies we performed a full factorial ANCOVA with process satisfaction as a key covariate (M = 3.64, SD = 1.23). We found a significant main effect of the process satisfaction (F [1, 73] = 5.45, p = .023), a significant two-way interaction between power and choice availability (F [1, 73] = 13.22, p < .001), and the hypothesized three-way interaction between power, decision orientation, and choice availability (F [1, 73] = 5.05, p = .03). None of the other main effects or interaction effects achieved significance (all ps > .40). The results of this analysis are presented graphically in Fig. 3.

We replicated the basic pattern found in studies 1 and 2 in the choice-available condition. Simple effect tests revealed that high-power participants were more satisfied than low-power participants when they had a competitive decision orientation (F [1, 19] = 18.45, p < .001; Mhigh_power = 4.33 > Mlow_power = 2.82), but they were equally satisfied when they had a cooperative decision orientation (F [1, 17] = .51, p = .48; Mhigh_power = 3.96 ≈ Mlow_power = 3.53). In the choice-unavailable condition however, we found the reverse pattern such that when there was a competitive orientation high-power participants were less satisfied than low-power participants (F [1, 19] = 8.53, p = .001; Mhigh_power = 3.08 < Mlow_power = 4.19). In the cooperative decision orientation condition the availability of the choice had no effect, with low- and high-power participants equally satisfied with the decision (F [1, 17] = .10, p = .75; Mhigh_power = 3.52 ≈ Mlow_power = 3.67). Taken together these results are supportive of H4a and H4b.

Discussion

In previous studies it was unclear whether the significant effect of power on satisfaction when participants had a competitive orientation was the result of the ability to make
the choice on behalf of another dyad member or the preference-choice consistency of the resulting outcome. We therefore independently manipulated the power to make a choice and whether the choice was subsequently available in study 3. We found that the power to choose increased satisfaction only for those who had a competitive orientation and only when the preferred choice was actually available. High-power participants with a competitive orientation were actually less satisfied than their low-power counterparts when their preferred choice was unavailable because of unforeseen circumstances. In contrast, we found no effect of power on satisfaction for those who had a cooperative orientation regardless of whether they obtained the outcome they wanted. Thus, the effects of power on satisfaction were conditional on both the decision orientation of participants and the extent to which the desired outcome was actually obtained.

**General discussion**

The freedom or power to choose has been found to enhance consumers’ satisfaction when they make individual decisions (Botti and McGill, 2006; Payne et al., 1993) with some caveats, such as cultural differences (Iyengar and Lepper, 1999) and the number of available choices (Iyengar and Lepper, 2000). The present research uses a unique methodology to manipulate theoretically-relevant factors that are typically highly correlated in field settings examining joint decision making—participants’ decision orientations, relative power, preference differences, and whether the choice is ultimately available. The approach enables us to assess the main and interactive effects of these factors on the satisfaction of both members of a dyad making a joint consumption decision. We find that the power to determine or influence the choices of another consumer is satisfying only in very limited circumstances defined by the degree to which they care about the outcomes that accrue to that person.

Across all three studies, participants who had a cooperative orientation or a strong relationship were satisfied even when they were unable to make the decision on behalf of the dyad and even when the resulting choice was inconsistent with their initial, stated preferences. The results were robust to various research designs (computer-mediated versus scenario-based experiment), the relationship between participants (friends, acquaintances, anonymous, and fictional others), the underlying source of power (legitimate, explicitly random and therefore arbitrary, and reward), and whether the choice was available or not. Our methodology ensured that a compromise solution was not possible so the final decision was always inconsistent with the initial preferences of one of the dyad members.

The findings related to the anonymous dyads used in study 2 are particularly compelling because participants could have no reasonable expectation of future interactions with their decision partners. The approach maximized the likelihood that power would be satisfying because the pursuit of an individually rather than mutually-satisfying outcome had no social consequences. The anonymous design also eliminated the benefits associated with cooperation because the received view is that humans cooperate for essentially selfish reasons. Kin-selection theory specifies that individuals cooperate with blood relatives in order to ensure the survival and prosperity of their offspring and others who share their genetic material (Hamilton 1964). Reciprocal altruism asserts that cooperation and other helping behaviors are motivated because they create a debt that will be repaid at a later date (Axelrod and Hamilton, 1981). These and related theories argue that we cooperate with family members, friends, teammates, or fellow employees because we ultimately benefit from doing so. Yet, our anonymous participants in study 2 engaged in cooperative behaviors and were satisfied whether the joint decision resulted in choice that was consistent or inconsistent with their stated preferences.

We found that the power to make a joint decision was satisfying only when dyads had a competitive orientation, a weak or anonymous relationship, and participants actually achieved their preferred outcome. Power did not enhance the decision satisfaction of participants with a competitive orientation when they interacted with their close friends (study 1) and it had a negative effect on satisfaction when their choice was revealed to be unavailable because of unforeseen circumstances (study 3). The results from study 3 imply that satisfaction was a function of the degree to which a preference-consistent outcome was achieved rather than the ability to choose on behalf of another—it was not the power to choose but the outcome that was important for participants with a competitive decision orientation. Power is satisfying in very limited circumstances given that consumers typically make joint decisions with others who care about them (i.e., spouses, family members, colleagues, and friends), and tend to cooperate even when it is not in their best interests to do so (Fehr and Schmidt, 1999; Orbell, van de Kragt and Dawes, 1988).

Our results indicate that consumers can increase the likelihood they will be satisfied with joint decisions by pursuing outcomes that are mutually rather than individually satisfying. A cooperative orientation avoids a zero-sum game in which there is a winner and a loser. In all three studies we found that low-power participants with a competitive orientation were dissatisfied with the outcomes they received when their dyadic relationship was weak or anonymous and the choice was subsequently available. Regardless of participants’ relative power or the outcome they received, we found that participants with a cooperative decision orientation were satisfied with the dyadic decision. We also found that a cooperative decision orientation led to significantly higher process satisfaction in studies 1 and 2. The greater satisfaction reported by participants who engaged in a cooperative decision process is congruent with previous research that has found that cooperation creates an atmosphere of mutual trust and support (Mohr, Fisher and Nevin, 1996), reduces dysfunctional conflict (Delbecq, 1974; Thomas, 1976), and stimulates constructive interactions (Alper et al., 1998).

Our finding that a strong interpersonal relationship led participants to be satisfied with a preference-inconsistent outcome when they had a competitive orientation also has
implications for consumer welfare. Although a strong relationship tends to lead the parties involved to perceive that they are interdependent and therefore to act more cooperatively, it is well-established that even those in close interpersonal relationships such as spouses and close friends can act competitively (e.g., Aida and Falbo, 1991; Su et al., 2003). We speculate that simply making the strength of a relationship salient before or during a joint decision process may be enough to establish a more cooperative orientation. Such an approach may also help to position a given decision within the context of the ongoing relationship between dyad members, leading those involved to place less importance on both their relative power and on the degree to which the resulting decision is preference consistent.

**Directions for future research**

Some have argued persuasively that joint decision making is the most relevant unit of analysis for studying choice behaviors (Davis, 1976). If joint decision making is so important and pervasive why has so little research investigated it? One explanation is simply that it is more difficult to study joint decision making than it is to examine decisions made by individuals. It is our hope that the introduction of our computer-mediated methodology will stimulate interest and research in this area. Our design enables study participants within each dyad to interact in an unstructured manner while researchers capture all interpersonal communications. It enables the manipulation of factors that are highly correlated and therefore confounded in field settings including decision orientation, power, and preference asymmetry. It also removes the potential for compromise solutions.

Research using technology-mediated communication methods also has several other advantages. The social aspects of online environments mimic those in face-to-face and other traditional forms of interaction. Williams, Cheung and Choi (2000) found that when participants were ostracized online by supposed strangers they would never meet it made them feel sad, depressed, and reduced their feelings of belonging. The psychological distress they reported increased directly with the level of ostracism, despite the absence of an offline relationship and minimal online interaction. Prior research has also found that consumers are willing to disclose intimate information about themselves in computer-mediated environments when the exchanges are congruent with interaction norms (Moon, 2000). More research is needed on interpersonal effects within online contexts given the growing importance of text messaging via cell phones, personal digital assistants, and online chats. In 2010, 47% of adult consumers in the U.S. visited Facebook on a daily basis (Miller and Washington, 2011).

Further research is warranted in high-involvement contexts such as family vacations (Bohlmann and Qualls, 2001), major appliances (Fisher and Grégoire, 2006), and home purchases (Park, 1982). We anticipate that there is a direct relationship between the importance of a joint decision, the closeness of the relationship, and the likelihood of a cooperative decision orientation. The most significant joint decisions are made with others whom we care about such as our spouse, fiancé, family members, and close friends. Although the satisfaction associated with the use of power to “get one’s way” might be proportional to the importance of the decision, the strength of the dyadic relationship should increase the propensity of the parties to seek mutually satisfying outcomes. Although it is not clear that our results would be different in high-involvement decision contexts it would be useful to replicate our findings across decisions that vary on factors such as economic value, social risk, and the preference intensity of the parties involved. It would also be important to examine the potential for different types of power (e.g., expertise, reward, and referent) to affect the degree to which power is satisfying, and to test the hypotheses in field settings.

Although cooperation and competition are generally considered opposite ends of the same continuum, it is apparent that most interpersonal interactions cannot be classified as purely competitive or cooperative. Deutsch (1949) illustrates this point by observing that the members of a basketball team can be cooperative with respect to winning a game, but competitive when it comes to being the star of the team. Similarly, in consumer behavior contexts there are many instances in which cooperative and competitive processes operate simultaneously—a husband and wife dyad are cooperative in their desire to purchase a new television, but competitive with respect to their preferences for various brands or features. Van de Vliert (1997) describes cooperative and competitive motives as “overlapping and interlocking drives” that enable us to achieve what is in our own best interests (p. 235). Future research is needed to reflect the potential for competitive and cooperative orientations to vary within consumer dyads, and within individual consumers, when they are involved in joint purchase decisions.

Finally, it would be helpful to explore situations in which cooperation might be undesirable. Although we found that a cooperative orientation had a positive effect on consumers’ satisfaction with their purchase decisions, it is possible that cooperative behaviors are inefficient or ineffective in some situations. For example, if one member of a dyad has a great deal of expertise in a product category, cooperation with a low expertise partner may lead to a sub-optimal decision. Even though the low expertise partner does not like the decision initially, satisfaction might be higher in the long run with a product or brand choice that is imposed by the high expertise partner. Further, time pressure might make cooperation less desirable because of the time and energy required to share and respond to preferences within the dyad. More research is needed on the effects of cooperative and competitive decision orientations on decision quality and other aspects of consumer welfare.

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Appendix A. Study 3 scenarios

Introduction
You and your best friend are trying to choose a nice restaurant for Saturday night to celebrate the end of the semester. It is clear that the two of you have different preferences. You want to go to NewTown, a trendy restaurant that has recently opened. Your friend doesn’t like that idea and wants to go to a popular local restaurant called Fusion.

Process Manipulation

Competition
You and your friend are very competitive about which restaurant to go to. You work very hard to get your friend to change his mind, and he does the same. Both of you have strong preferences, and neither of you wants to give in to the other.

Cooperation
You and your friend are very cooperative about which restaurant to go to. You work very hard to find a solution that suits you both. Both of you have strong preferences, but each wants the other to be happy with the final decision.

Power Manipulation

High Power
Your friend is broke. Since you’re paying, you have the last word and finally decide to go to NewTown.

Low Power
You’re broke. Since your friend is paying, your friend has the last word and finally decides to go to Fusion.

Availability Manipulation

Yes
You call to make a reservation. Fortunately, the restaurant has a table available.

No
You call to make a reservation. Unfortunately, the restaurant has no tables left.

References


