



CHICAGO JOURNALS

Journal of Consumer Research Inc.

---

Social Exclusion Causes People to Spend and Consume Strategically in the Service of Affiliation

Author(s): Nicole L. Mead, Roy F. Baumeister, Tyler F. Stillman, Catherine D. Rawn, Kathleen D. Vohs

Source: *The Journal of Consumer Research*, Vol. 37, No. 5 (February 2011), pp. 902-919

Published by: [The University of Chicago Press](http://www.jstor.org/stable/10.1086/656667)

Stable URL: <http://www.jstor.org/stable/10.1086/656667>

Accessed: 21/01/2011 10:59

---

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/action/showPublisher?publisherCode=ucpress>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).



*The University of Chicago Press* and *Journal of Consumer Research Inc.* are collaborating with JSTOR to digitize, preserve and extend access to *The Journal of Consumer Research*.

<http://www.jstor.org>

# Social Exclusion Causes People to Spend and Consume Strategically in the Service of Affiliation

NICOLE L. MEAD  
ROY F. BAUMEISTER  
TYLER F. STILLMAN  
CATHERINE D. RAWN  
KATHLEEN D. VOHS

When people's deeply ingrained need for social connection is thwarted by social exclusion, profound psychological consequences ensue. Despite the fact that social connections and consumption are central facets of daily life, little empirical attention has been devoted to understanding how belongingness threats affect consumer behavior. In four experiments, we tested the hypothesis that social exclusion causes people to spend and consume strategically in the service of affiliation. Relative to controls, excluded participants were more likely to buy a product symbolic of group membership (but not practical or self-gift items), tailor their spending preferences to the preferences of an interaction partner, spend money on an unappealing food item favored by a peer, and report being willing to try an illegal drug, but only when doing so boosted their chances of commencing social connections. Overall, results suggest that socially excluded people sacrifice personal and financial well-being for the sake of social well-being.

---

The desire for social relationships is one of the most fundamental and universal of all human needs (Baumeister and Leary 1995). Social exclusion, a painful yet common part of life, thwarts this ingrained motivation and has striking

---

Nicole L. Mead (n.l.mead@uvt.nl) is TIBER postdoctoral research fellow, Department of Marketing, Tilburg University, Tilburg 5000LE. Roy F. Baumeister (baumeister@psy.fsu.edu) is Eppes Eminent Professor of Psychology, Florida State University, Tallahassee, FL 32306. Tyler F. Stillman (tylerstillman@gmail.com) is visiting professor, School of Business, Southern Utah University, Cedar City, UT 84720. Catherine D. Rawn (cdrawn@psych.ubc.ca) is instructor, Department of Psychology, University of British Columbia, Vancouver, BC V6T 1Z4. Kathleen D. Vohs (kvohs@umn.edu) is McKnight Presidential Fellow and associate professor, Marketing Department, Carlson School of Management, University of Minnesota, Minneapolis, MN 55455. Address correspondence to Nicole Mead. This work benefited from the support of a doctoral fellowship from the Social Sciences and Humanities Research Council of Canada (SSHRC; NM), grants MH-65559 and 1RL1AA017541 from the National Institutes of Health (RB), and support from SSHRC, Canada Research Chair Council, and the McKnight Land-Grant Professorship and Presidential Funds (KV). The authors wish to thank Ron Faber, Tilburg University's Consumer Club,

consequences for people's psychological and physiological functioning (Buckley, Winkel, and Leary 2004; DeWall and Baumeister 2006; Maner et al. 2007; Twenge et al. 2001; Williams 2001). For example, threat of exclusion stimulates brain regions designed to detect and regulate pain (Eisenberger, Lieberman, and Williams 2003), impairs self-regulation (Baumeister et al. 2005), hampers logical reasoning (Baumeister, Twenge, and Nuss 2002), and distorts time perception (Twenge, Catanese, and Baumeister 2002). Because of its pervasiveness and substantial implications for physical and psychological well-being, social exclusion has garnered much attention from researchers across the social sciences. Yet,

---

and the *JCR* review team for their helpful input. The authors thank Destiny Bahl, Laura Husband, Katherine Lanzillo, Brooke Lerner, Elizabeth Mervis, Anthony Moore, and Joshua Warweg for their assistance with data collection.

*John Deighton served as editor and Rebecca Ratner served as associate editor for this article.*

*Electronically published September 9, 2010*

within the realm of consumer behavior, relatively little work has investigated the impact of social connection threats. Given the centrality of social relationships and consumption in daily life, this is an important imbalance to redress.

In the present investigation, we tested the hypothesis that socially excluded people spend and consume strategically in the service of affiliation. Theoretically, this means that excluded people will treat money and consumption as means to an end, namely, the goal of affiliation, rather than as ends themselves. Our hypothesis was derived from research suggesting that people's desire for social connection increases when their need to belong has been threatened by exclusion or rejection (Lakin, Chartrand, and Arkin 2008; Maner et al. 2007).

Of particular interest was the question of whether thwarted belongingness causes people to sacrifice money and personally favorable consumption for the sake of social inclusion. That is, socially excluded people might overspend, subvert personal tastes and desires, or engage in risky consumption (e.g., use illicit drugs) insofar as doing so is perceived as socially lucrative. We examine boundary conditions implied by the logic underlying our hypothesis to show that such consumption is strategically designed to facilitate social connection. The present investigation therefore sought not only to theoretically and empirically delineate how social exclusion affects consumption decisions but also to illuminate important factors that determine when people will make personally harmful consumption decisions.

## CONCEPTUAL FRAMEWORK

### Evidence That Social Exclusion Heightens the Desire to Affiliate

Humans have an innate drive to be a part of social relationships because a social group afforded survival and safety throughout evolutionary history (Baumeister and Leary 1995; Buss and Kenrick 1998). In support of the assertion that social connections are a need, not just a desire, Baumeister and Leary (1995) reviewed decades of research and concluded that people suffer psychologically and physically when they lack sufficient social ties.

Given the negative side effects associated with belongingness deficits, it is perhaps not surprising that people have psychological mechanisms in place that help ensure that their need to belong is being met. For example, people continually monitor their level of inclusion (Leary et al. 1995) and automatically allocate attention to social opportunities in the environment when inclusion drops below a desirable level (DeWall, Maner, and Rouby 2009; Gardner, Pickett, and Brewer 2000).

Accumulating research suggests that exclusion heightens people's desire to form new social connections. Excluded people are cautiously eager to work and play with others, and they tend to view new sources of social connection in a positive, optimistic light (Maner et al. 2007). Mimicry, a nonconscious behavioral pattern that enhances interpersonal rapport (Chartrand and Bargh 1999), automatically increases

toward an ingroup member after suffering rejection (Lakin et al. 2008). Ostracized individuals are more likely than nonostracized individuals to conform to the opinions of others (Williams, Cheung, and Choi 2000), although it is unclear whether this stems from increased passivity or desire for acceptance. Taken together, previous research suggests that the need to belong conforms to the broad pattern found among many motivations: when thwarted, people look for new ways to satisfy the need. Although previous research supports the theory that threats to belongingness heighten the motivation for social acceptance, it has relatively less to say about the strategies that excluded individuals use to foster affiliation. In the current work, we propose that consumption and spending are important tools that excluded people use to help them on their quest for new social relationships.

### Spending and Consumption as Affiliation Tools

Decades of research indicate that consumers use the symbolic nature of consumption as a way to communicate information about themselves to others (Ball and Tasaki 1992; Belk 1988; Berger and Heath 2007; Escalas and Bettman 2003, 2005; Levy 1959; Muniz and O'Guinn 2001; Ratner, Kahn, and Kahneman 1999; Richins 1994; Shavitt and Nelson 1999; for a review see Belk, Bahn, and Mayer [1982]). Such communication attempts are particularly prevalent when people want to make a good impression on others or facilitate social interaction (Argo, White, and Dahl 2006; Berger and Rand 2008; Griskevicius et al. 2007; Ratner and Kahn 2002; White and Dahl 2006, 2007). For example, men avoided choosing a "ladies' cut" steak when they made their steak selection in public, arguably because they wanted to present a manly self-image (White and Dahl 2006). Hence, self-presentational motives guide consumption decisions, and people sometimes use consumption as a way to communicate specific information about themselves to others.

Our hypothesis that excluded people strategically consume in the service of affiliation aligns with research focusing on the communicative value of consumption, yet the manner in which people will consume to foster affiliation is unclear. Previous research suggests two socially profitable routes. First, a sizable literature indicates that the motivation to make a good impression causes people to consume in the hopes of differentiating themselves from others, such as by signaling status or uniqueness (Ariely and Levav 2000; Berger and Heath 2007; Griskevicius et al. 2007; Ratner and Kahn 2002; Ratner et al. 1999; Snyder and Fromkin 1980). Hence, one prediction is that excluded people try to boost their social appeal by spending in ways that will make them seem different from others.

A second prediction is that the desire for assimilation overwhelms the desire for differentiation when level of inclusion drops below a desirable level. Divergence leads to increased social distance, thereby heightening the possibility of future exclusion, whereas similarity and conformity promote acceptance while reducing chance of rejection and ostracism (Brewer

1991; Byrne 1971; Byrne, Baskett, and Hodges 1971; Deutsch and Gerard 1955; Griskevicius et al. 2006; Levine 1989; Luo and Klohn 2005; Miller and Anderson 1979; Schachter 1951). Hence, the second, favored, prediction was that excluded people would try to gain acceptance by consuming so as to fit in with the immediate social environment.

### Incurring Costs for the Sake of Social Connection: Boundary Conditions

Social exclusion heightens people's desire to forge new social connections, but it also makes people especially concerned with protecting themselves against further rejections and perhaps other costs as well (Maner et al. 2007). We therefore surmised that socially excluded people would be judicious when making consumption decisions. Specifically, they may be willing to incur costs only when doing so promises both to enhance their chance of affiliation and reduce their chances of rejection. To test our conjecture that excluded people knowingly incur personal and financial costs to enhance their chances of inclusion, we examined boundary conditions at the individual and situational level. Specifically, the moderating variables of self-monitoring and opportunity for affiliation were used to elucidate the proposed underlying process.

*Individual Differences in Socially Strategic Behavior.* Although the need to belong is a fundamental human motive, willingness to change one's behavior to please others varies from person to person. If our hypothesis that excluded individuals use consumption as a means to achieve affiliation is tenable, then this pattern should be particularly pronounced among those who habitually tailor their behavior to the situational context because of a strong desire for social inclusion. In the current research, we measured individual differences in self-monitoring to test the hypothesis that desire for affiliation guides the consumption choices of excluded individuals.

High self-monitors are concerned with aligning their behavior and attitudes to the immediate social situation, whereas low self-monitors tend to behave in accordance with their inner attitudes (Gangestad and Snyder 1985, 2000; Snyder 1974, 1979, 1987; Snyder and DeBono 1985). It has been argued that high self-monitors mirror the prevailing social context because they have a strong desire to gain acceptance (Rose and DeJesus 2007). If socially excluded people alter their consumption for the purpose of gaining acceptance, and if high self-monitors self-present for the purpose of gaining acceptance, then excluded high self-monitors should be particularly likely to modify their consumption according to the situational environment.

*Opportunity for Affiliation.* The function of consumption as a communication tool is moot if one's consumption choices are not visible to others. Indeed, motives to communicate something about the self via consumption are stronger in public than private (Berger and Heath 2008; Ratner and Kahn 2002; White and Dahl 2006). Although

necessary, public visibility may not be sufficient to change the consumption preferences of recently excluded individuals. The hypothesis that excluded people use consumption as a tool to help them build new social bonds necessitates that an opportunity for social connection is available in addition to public visibility. This boundary condition is supported by work showing that, when excluded people do not anticipate meeting their partner, they act in a selfish rather than prosocial manner (Maner et al. 2007). Hence, we expected that socially excluded people would incur personal and financial costs only when their choices were visible to a partner with whom they expected to meet.

### Possible Alternative Predictions

Although the primary hypothesis of this research was that socially excluded people strategically consume to facilitate interpersonal inclusion, we tested possible alternatives to this main hypothesis. Specifically, social exclusion could lead to miserliness, self-gifting, a desire to bolster feelings of self-worth, or impulsive spending. We briefly discuss each in turn.

*Miserliness.* Money is an alternate route to accessing the social system (Lea and Webley 2006) and can buffer against unexpected life events (Johnson and Krueger 2006; Smith et al. 2005). It may therefore behoove people with limited social connections to be prudent spenders. Indeed, experimental work indicates that social exclusion heightens people's desire for money and leads them to hang on to it (Zhou, Vohs, and Baumeister 2009).

*Spending to Improve Mood.* Intuitively, one would expect a wave of emotional distress to wash over people in the wake of social exclusion. Given that negative mood can increase people's willingness to pay (Cryder et al. 2008; Lerner, Small, and Loewenstein 2004), social exclusion might increase spending because of increased negative mood. It is also possible that people who are excluded engage in self-gifting in order to mollify the sting of rejection (Mick and DeMoss 1990).

*Bolstering or Enhancing the Self-Concept.* The symbolic nature of consumption is often used to build, defend, and enhance the self-concept. For example, people self-enhance by identifying with brands that are favored by aspirational groups (Escalas and Bettman 2003), and they seek self-definition after a goal threat by publicly symbolizing important aspects of the self to others (Gollwitzer, Wicklund, and Hilton 1982; Wicklund and Gollwitzer 1981, 1982). Whereas this work would suggest that excluded people spend for the purpose of enhancing or defending the self (for the benefit of the self), our hypothesis was that excluded people spend for the interpersonal purpose of inclusion.

*Social Exclusion and Self-Control: Giving in to Temptations.* Extant work indicates that exclusion impairs self-regulation (Baumeister et al. 2005). For example, as compared to accepted participants, excluded participants

quit sooner on a frustrating task. Impaired self-regulation after social exclusion could increase impulse spending given that self-control is a key process in determining whether people give in to their spending desires (Vohs and Faber 2007).

### Present Investigation

Four experiments tested the central hypothesis that exclusion causes people to spend and consume strategically in the service of affiliation. We also sought to rule out alternative explanations that could account for the findings. In experiment 1, we predicted that excluded participants would be more likely than nonexcluded participants to spend money on a product that is symbolic of group membership but that they would not be more likely to self-gift or purchase practical items. In experiment 2, we manipulated the spending preferences of participants' interaction partners to test the favored hypothesis that excluded people tailor their preferences to those of a potential source of affiliation. To determine whether tailored spending was aimed at interpersonal inclusion, we examined whether this pattern was predominant among high self-monitors. In experiments 3 and 4, we tested whether excluded individuals make unfavorable consumption decisions to enhance their chances of acceptance. Experiment 3 measured willingness to spend on an expressly unappealing food item that was liked by participants' interaction partner; experiment 4 assessed willingness to consume an illicit drug. In both experiments, we varied participants' ability to use consumption as a social connection tool, predicting that excluded individuals would only incur personal and financial costs when doing so could enhance their odds of interpersonal acceptance.

The contribution of the present work is threefold. First, we theoretically and empirically explain how belongingness threats affect personal spending and consumption decisions. Second, we show that excluded people who are motivated to connect with others use consumption as a way to fit in rather than stand out. Thus, we demonstrate that people are hesitant to deviate from spending norms for fear of exclusion. Third, we show that excluded people are willing to spend money and engage in risky consumption behavior for the sake of inclusion, thereby shedding light on important factors that cause people to engage in personally unfavorable consumption. In doing so, we show that social exclusion has pertinent implications for consumer behavior.

### EXPERIMENT 1: SCHOOL SPIRIT

Experiment 1 served as an initial test of the hypothesis that socially excluded people strategically spend money to enhance their chances of affiliation. We manipulated whether participants thought their upcoming interaction partner had rejected them. Then we gave them \$10 to go shopping in a mock store. The store included three different types of products, chosen on the basis of pretesting (see methods

section): practical products, self-gift items, and a symbolic group membership product. In this experiment, type of product purchased and total amount of money spent as a function of exclusion were used to elucidate spending motives.

We predicted that excluded participants would be more likely than nonexcluded participants to buy a product symbolic of university membership, as this would be a good vehicle for expressing solidarity with an interaction partner who goes to the same school. In contrast, if socially excluded people spend money to mollify the sting of exclusion, then social exclusion should lead to self-gifting, that is, self-soothing by treating the self to something nice (Mick and DeMoss 1990). Alternatively, if social exclusion leads to increased miserliness or impulse spending, then it should have a main effect on the total amount of money spent.

### Design and Procedure

Thirty undergraduate students (21 female) participated in exchange for partial course credit. Participants arrived individually and were told they would complete two unrelated experiments. To bolster this cover story, the exclusion manipulation and the consumption task were completed in separate rooms. In all reported experiments, these tactics were used to reduce suspicion that the exclusion manipulation was related to the spending or consumption task.

Our social rejection manipulation was a procedure developed by DeWall, Baumeister, and Vohs (2008), which is an adaptation of a procedure used by Bushman et al. (2003; see also Maner et al. 2007). Participants were told they would be sending video messages back and forth with their partner before completing the face-to-face interaction. They were asked to view their partner's video first, purportedly because their partner had arrived before they had and therefore had already completed the first video. The video message, which lasted 3 minutes, consisted of a confederate (matched for gender) discussing his or her personal career goals and hobbies. After viewing the confederate's video, participants recorded a reply in which they answered the same questions the confederate had been asked.

When participants finished recording their message, the experimenter collected the videocassette. After the partner ostensibly had viewed the participant's video, participants were told that their partner had left the experiment so they would be unable to complete the face-to-face interaction task. The reason for the partner's departure constituted the exclusion manipulation: participants randomly assigned to the personal rejection condition were told that their partner was unwilling to meet them after watching the video they had made. Participants in the irrelevant departure condition (nonrejected) were told that their partner had to leave early because of a forgotten appointment. The implication in the personal rejection condition is that the partner did not like the participant, causing the partner to leave the experiment. This feedback should affect participants' perception of belongingness because the negative reaction suggests that there is something wrong with them, which may portend future exclusion. In the irrelevant departure condition, par-

ticipants were also left without a partner. However, the partner did not leave because of the participant, so the feedback should not affect participants' perception of belongingness.

Mood was measured using the Brief Mood Introspection Scale (BMIS; Mayer and Gaschke 1988). To measure impulse spending, participants completed the Buying Impulsiveness Scale (BIS; Rook and Fisher 1995; see Vohs and Faber [2007] for the state version). The modified version of the BIS required participants to imagine that they were in a buying situation and to answer the nine items according to how they felt at the present moment using a 5-point scale (1 = strongly disagree; 5 = strongly agree). Sample items include, "I would be a bit reckless about what I would buy" and "I would feel like buying things on the spur of the moment."

To provide participants with a new source of social connection after the rejection manipulation, the experimenter informed participants (in both conditions) that she had found a new partner with whom they would complete the face-to-face interaction (Maner et al. 2007). Ostensibly, the new partner had just arrived to the experiment and therefore had to complete several tasks before the commencement of the dyadic interaction. The experimenter therefore suggested that the participant complete the other, unrelated, task in the interim.

Participants were brought to a mock store in a different laboratory. The mock store contained 10 products that were available for purchase, each with its own price tag. To classify these products, a separate group of students from the same university rated the extent they would buy the product for the following three reasons: (a) to communicate information about the self to others, (b) for practical purposes, and (c) as a gift for the self (all using 7-point scales; 1 = not at all; 7 = very much so). Products were placed in the category for which they received the highest rating. Additionally, we ensured that the selected category mean was higher than nonelected category means. The package of spirit-bands was classified as a symbolic product; people would buy the spirit-bands for communicative purposes more so than as a gift for the self or for practical reasons (all  $t > 6.01$ , all  $p < .001$ ). A notepad, a notebook, a package of pens, and a coffee mug would be purchased for practical purposes more so than as a gift for the self (all  $t > 6.64$ , all  $p < .001$ ) or to communicate information about the self (all  $t > 7.30$ , all  $p < .001$ ). A magazine, a package of Oreo cookies, bath/shower gel, and a granola bar were classified as self-gift items; people would buy them as a gift for the self more so than for practical reasons (all  $t > 3.91$ , all  $p < .01$ ) or to communicate information about the self (all  $t > 4.28$ , all  $p < .001$ ).

The cover story was that the university bookstore was interested in obtaining students' perceptions of some items they were considering stocking (Vohs and Faber 2007). Participants were given \$10 in cash, which they could use to purchase products in the mock store (ranging from \$0.59 to \$4.39) and/or take home with them. To minimize demand

characteristics, we used Vohs and Faber's (2007) instructions, which stated: "The bookstore very much wants to know what students would actually buy, so please only buy products that you really want." We wanted participants to believe that their purchases would be visible to their new interaction partner, so participants were told that any products they purchased would be handed over to them before they met their interaction partner.

The experimenter then left participants with a product selection sheet. Afterward a questionnaire assessed participants' temptation to spend all the money they were given in the store (1 = not at all; 7 = very much so). Participants were then probed for suspicion, debriefed, and thanked.

## Results

*Type of Product.* For each product category, we coded buying a product in that category as a one and not buying a product in that category as a zero. A 2 (exclusion condition: personal rejection vs. irrelevant departure)  $\times$  3 (type of product: practical, self-gift, symbolic) mixed-measures analysis of variance (ANOVA) was conducted to test the effect of rejection on likelihood of buying the three types of products, with exclusion as the between-subjects factor and type of product as the within-subjects factor. Results indicated a main effect for type of product ( $F(1, 28) = 3.76$ ,  $p = .001$ ,  $h_p^2 = 0.32$ ) and the predicted two-way interaction between exclusion condition and type of product ( $F(1, 28) = 4.62$ ,  $p = .01$ ,  $h_p^2 = 0.14$ ). Follow-up tests were conducted to determine which type of product rejected participants were more likely to buy than nonrejected participants.

We first examined whether likelihood of purchasing the symbolic group membership product—the university wristbands—differed as a function of the exclusion manipulation. Whereas 53% of the rejected participants purchased the package of wristbands, only 13% of the nonrejected participant purchased it ( $\chi^2(N = 30) = 3.75$ ,  $p = .05$ ,  $\Phi_c = .42$ ). Rejected participants were thus more likely than nonrejected participants to purchase a product that symbolized group membership and loyalty, suggesting that rejected people spent money to increase their chances of affiliation.

Results indicated that rejected participants did not differ from nonrejected participants in likelihood of purchasing practical products ( $\chi^2(N = 30) < 1$ ) or self-gift items ( $\chi^2(N = 30) < 1$ ). Looking at the data a different way, number of practical products purchased ( $M_{\text{rejected}} = .93$  vs.  $M_{\text{nonrejected}} = .80$ ) and number of self-gift items purchased ( $M_{\text{rejected}} = 1.47$  vs.  $M_{\text{nonrejected}} = 1.40$ ) did not differ as a function of exclusion condition (all  $t < 1$ ). Thus, for practical and self-gift items, both the likelihood of buying and the number of items bought did not differ as a function of rejection. These results suggest that rejected participants were probably not using spending as a way to mollify the sting of rejection.

*Impulsive Spending.* The behavioral measure of impulsive spending—amount spent in the store—did not

differ as a function of exclusion condition ( $M_{\text{rejected}} = \$5.69$  vs.  $M_{\text{nonrejected}} = \$4.39$ ;  $t < 1.10$ ). Temptation to spend also was not affected by the rejection manipulation (all  $t < 1$ ). Thus, both self-report and objective behavioral measures suggest that exclusion did not increase impulse spending.

*Affective Responses.* Mood has been found to affect spending (Cryder et al. 2008; Lerner et al. 2004), so we tested whether obtained effects were mediated by changes in affect as a function of the exclusion manipulation. First, we examined whether the exclusion manipulation affected individual items of the BMIS. Rejected participants were less content ( $M_{\text{rejected}} = 4.53$  vs.  $M_{\text{nonrejected}} = 5.80$ ;  $t(28) = 2.59$ ,  $p = .02$ ) and marginally more nervous ( $M_{\text{rejected}} = 2.93$  vs.  $M_{\text{nonrejected}} = 2.00$ ;  $t(28) = 1.83$ ,  $p = .08$ ) than nonrejected participants. None of the other items differed significantly as a function of the exclusion manipulation. Consistent with previous work, the valence and arousal subscales also did not differ as a function of condition (see Baumeister, DeWall, and Vohs 2009). Second, we examined whether contentment and nervousness were significant predictors of spending, which they were not (content:  $F(1, 25) = 1.99$ ,  $p = .17$ ; nervous:  $F(1, 25) = 1.77$ ,  $p = .20$ ). Third, we examined whether including these items in our models changed our results. Instead of reducing the effect of exclusion on spending, which one would expect if our results were driven by changes in affect, their inclusion in the model descriptively increased the effect of exclusion on likelihood of buying the wristbands ( $F(1, 25) = 10.79$ ,  $p = .003$ ). Including these items in models predicting the effect of exclusion on likelihood of purchasing practical products and self-gift products did not change previously reported results (all  $F < 1$ ). Finally, total amount of money spent in the store did not correlate with individual items of the BMIS. Consistent with previous work, these analyses indicate that observed effects of exclusion on spending were not driven by mood (Buckley et al. 2004; Williams et al. 2000).

## Discussion

In experiment 1, social exclusion caused people to spend money strategically in the service of affiliation. Compared to nonrejected participants, rejected participants were more likely to buy school spirit wristbands, which symbolize group membership and solidarity. Given that participants' interaction partner was a member of the same group (i.e., a student at the same university), showing ingroup loyalty would seem to be a promising way for participants to form a friendship with their partner. Alternative hypotheses that social exclusion would influence spending because of mood, increased impulsiveness, miserliness, or self-soothing were not supported. Instead, the findings point to the hypothesis that socially excluded persons spent money in strategically targeted ways to increase their chances of forging a new social bond.

## EXPERIMENT 2: FITTING IN VERSUS STANDING OUT

The main goal of experiment 2 was to test whether socially excluded people try to foster affiliation by spending to enhance similarity or differentiation. People have concomitant desires to stand out and fit in (Brewer 1991; Snyder and Fromkin 1980), and both are perceived to be socially profitable strategies (Ariely and Levav 2000; Berger and Heath 2007; Byrne 1971; Byrne et al. 1971; Griskevicius et al. 2006, 2007; Ratner and Kahn 2002). When level of inclusion is low, people may have an especially strong drive to assimilate, perhaps because differentiation risks increasing rather than decreasing social distance (Brewer 1991), an effect that would be counter to the desired outcome. Hence, the favored prediction was that excluded individuals would desire products that make them seem similar to a source of affiliation.

Participants were led to believe that they would be completing a product evaluation task with a frugal spender or a lavish spender, or they were given no information about their partner. Participants were then asked to share their opinion about three different types of products (luxury, frugal, and neutral) with their partner. If socially excluded participants attempt to foster affiliation through similarity, then they should tailor their product preferences to the spending preferences of the affiliation source (the situational spending norm). In contrast, if socially excluded people try to gain acceptance by differentiating themselves from others, then they may adopt product preferences that are opposite from those of the affiliation source, or they may show heightened desire for a high-status product regardless of the situational spending norm.

Additionally, we included a design feature that would elucidate our hypothesized mechanism—desire for inclusion—and rule out the possibility that excluded people bought a group membership product in experiment 1 for self-enhancement purposes (Escalas and Bettman 2003, 2005). To achieve this goal, we examined whether individual differences in self-monitoring moderate the effect of social exclusion on product preferences. High self-monitors change their behavior according to the prevailing social environment because of a strong desire to gain acceptance (Rose and DeJesus 2007). If excluded individuals mirror the spending preferences of others to foster affiliation, then mirrored spending should be particularly apparent among excluded high self-monitors. Hence, our hypothesis that excluded people spend in the service of affiliation predicted a four-way interaction: participants' desire for products should depend on (1) social exclusion, (2) the spending preferences of the interaction partner (lavish, frugal, or no information), (3) individual differences in self-monitoring, and (4) the type of product (luxury, frugal, or neutral).

## Development of Materials

*Selection of Products.* An independent group of 20 students viewed and rated 15 products: five each of neutral,

lavish, and frugal products. Participants were asked to rate how lavish a spender a person would seem if he or she bought the product (1 = not at all lavish; 7 = very lavish). Based on these ratings, the following products were chosen: luxury watch (Tiffany & Co. watch for women; Rolex for men); Sam's Club membership (frugal); ING Direct high-interest savings account (frugal); Netflix membership (neutral).

Pretesting showed that the women's Tiffany & Co. watch ( $M = 6.15$ ) and the men's Rolex ( $M = 6.35$ ) were considered to be lavish purchases (both ratings were significantly higher than the midpoint of the scale: Tiffany & Co.:  $t(19) = 13.54, p < .0001$ ; Rolex:  $t(19) = 15.68, p < .0001$ ; they were considered equally lavish,  $t < 1$ ). The Sam's Club membership ( $M = 2.60$ ) and the ING Direct high-interest savings account ( $M = 2.85$ ) were considered to be indicative of a frugal spender (their means were significantly lower than the midpoint of the lavishness scale, all  $t > 2.66$ , all  $p < .05$ ). Netflix, the neutral product, was rated at the midpoint of the scale ( $M = 3.55; t < 1$ ).

**Partner Manipulation.** We conducted a pretest with an independent group of students at the same university to determine the social spending norm of students at the university. Results indicated that the social spending norm was one of lavishness rather than frugality (measured on a 7-point scale: 1 = not at all; 7 = very much so;  $M_{\text{lavishness}} = 5.79$  vs.  $M_{\text{frugality}} = 3.05; t(18) = 8.43, p < .0001$ ). Based on this pretest, we created three different situational spending norms: participants were led to believe that their partner was either a lavish spender (consistent with the social norm) or a frugal spender (opposite of the social norm) or they were given no information about their partner.

A new group of 20 participants rated the "personality background sheets" that were used to manipulate the spending style of participants' interaction partner. Ten students rated the frugal sheet; another 10 rated the lavish sheet. Using 7-point scales (1 = not at all; 7 = very much so), participants confirmed that the frugal participant appeared more frugal than the lavish participant ( $M_{\text{frugal}} = 5.00$  vs.  $M_{\text{lavish}} = 1.56; t(19) = 6.56, p < .001$ ) and that the lavish participant appeared more lavish than the frugal participant ( $M_{\text{lavish}} = 6.33$  vs.  $M_{\text{frugal}} = 3.00; t(19) = 5.29, p < .001$ ). To disguise the purpose of the sheets, we included information that people share when they get to know one another (e.g., hobbies, major, hometown). Frugal and lavish spenders were seen as equally likable and desirable as friends (all  $t < 1$ ).

## Design and Procedure

The overall design of the experiment was a 2 (belongingness: social exclusion vs. social acceptance)  $\times$  3 (type of partner: frugal vs. lavish vs. no information)  $\times$  3 (product: frugal vs. luxury vs. neutral)  $\times$  2 (self-monitoring: high self-monitor vs. low self-monitor) mixed design. Self-monitoring, social exclusion, and type of partner were between-participants factors, while type of product was a within-participants factor, meaning that all participants indicated

their desire for all products. One hundred and forty-nine undergraduate psychology students (82 female) participated in exchange for partial course credit.

Participants arrived individually to participate in two ostensibly unrelated studies: the first investigating personality, the second a consumer discussion task. Participants then completed the revised Self-Monitoring Scale (Snyder and Gangestad 1986). Sample items are "I have trouble changing my behavior to suit different people and different situations" (reverse-scored) and "In different situations and with different people, I often act like very different persons." For each item of the scale, participants responded by indicating "true" or "false."

To manipulate social exclusion, we used Twenge et al.'s (2001) procedure. Participants completed the *Eysenck Personality Questionnaire* (EPQ; Eysenck and Eysenck 1975) and then received feedback regarding the implication of their score for their social relationships. To boost the credibility of the method, all participants were given correct feedback about their extraversion level. After this, participants were given bogus feedback about the implication of their extraversion score for their personality. Participants randomly assigned to the social exclusion condition were told: "You may have friends and relationships now, but by your mid-20s most of these will have drifted away. You may even marry or have several marriages, but these are likely to be short-lived and not continue into your 30s. Your relationships won't last, and when you're past the age where people are constantly forming new relationships, the odds are you'll end up being alone more and more." Participants randomly assigned to the social acceptance condition were told: "You're the type who has rewarding relationships throughout life. You're likely to have a long and stable marriage and have friendships that will last into your later years. The odds are that you'll always have friends and people who care about you." Immediately after the feedback, participants completed the BMIS, our measure of mood.

After this, participants were brought to a different laboratory room to complete the ostensibly unrelated consumer preferences experiment. Participants were told that, similar to consumer focus groups, they would discuss their opinions of various products with a peer. In preparation for the task, participants were asked to exchange information with their partner about their spending habits. Participants were given a spending styles sheet, which purportedly had been completed by their partner (partner's gender was matched to the participant's gender). The handwritten responses to the questionnaire were designed to depict the partner as either a lavish spender or a frugal spender. In the frugal condition, the partner was framed as a student who was more concerned with saving money than spending money. In the lavish condition, the partner was framed as a student who liked to indulge on vacations and material goods and who was currently not concerned with saving money. In a third condition, we did not give participants information about their inter-



action partner’s spending preferences; the experimenter pretended she could not find the partner’s form.

After the spending style manipulation, participants were presented with screen shots of four products under the pretext that they would be discussing their liking of those products with their partner. Participants were asked to indicate how desirable (1 = not at all; 7 = very much so) they found each of the products. The four products were a luxury watch (Rolex for men; Tiffany and Co. for women), a Sam’s Club membership, a membership to Netflix, and an ING Direct high-interest savings account. Product order was randomly determined for each participant. After viewing and rating the products, participants were debriefed and thanked.

**Results**

A median split was conducted on self-monitoring scores to categorize participants as high or low self-monitors (Snyder 1987; see also Ratner and Kahn 2002). Participants who scored 12 or greater were categorized as high self-monitors; those who scored 11 or lower were categorized as low self-monitors. Given that there has been some debate in the literature as to whether the self-monitoring construct should be treated as dichotomous (Gangestad and Snyder 1985, 2000) or continuous (Miller and Thayer 1989), we report analyses treating self-monitoring as a dichotomous variable as well as analyses treating self-monitoring as a continuous variable.

We tested our favored prediction, that excluded high self-monitors would match their product preferences to their partner’s spending style, using a mixed-measures ANOVA, with type of product as the within-subjects factor and personality feedback, partner preferences, and self-monitoring as between-subjects factors. The model revealed the predicted four-way interaction between exclusion, partner’s spending style, type of product, and self-monitoring ( $F(2, 134) = 4.40, p = .01, h_p^2 = 0.06$ ; consult table 1 for all means). This interaction result was essentially the same when self-monitoring was treated as a continuous rather than a dichotomous variable ( $F(2, 134) = 1.81, p = .02, h_p^2 = 0.16$ ).

Our hypothesis was that excluded participants were using product preferences as a way to foster affiliation. Hence, we expected that excluded, but not accepted, participants’ desire would be dependent on product type, spending style of their partner, and the personality trait self-monitoring. Consistent with this theorizing, the three-way interaction between partner’s spending style, type of product, and self-monitoring was significant for excluded participants ( $F(2, 65) = 3.92, p = .05, h_p^2 = 0.11$ ) but not for accepted participants ( $F < 1.33$ ). Results were essentially the same when self-monitoring was treated as a continuous variable (excluded:  $F(2, 65) = 1.57, p = .05, h_p^2 = 0.39$ ; accepted:  $F < 1.05$ ).

*Contrast Analysis Strategy.* High self-monitors shift their attitudes, preferences, and behaviors in an attempt to please others (Snyder 1987). Therefore, a rigorous test of the hypothesis that excluded people tailor their preferences

**TABLE 1**

MEAN DESIRE FOR PRODUCTS AS A FUNCTION OF SOCIAL EXCLUSION, TYPE OF PARTNER, AND INDIVIDUAL DIFFERENCES IN SELF-MONITORING: EXPERIMENT 2

	High self-monitors		Low self-monitors	
	Accepted	Excluded	Accepted	Excluded
<b>Frugal partner:</b>				
ING savings	3.07 (1.86)	4.50* (1.57)	4.11 (1.62)	4.46 (1.66)
Sam’s Club	2.43 (1.45)	4.75* (1.71)	3.22 (1.72)	3.69 (1.93)
Luxury watch	3.42 (2.10)	2.92 (2.10)	2.00 (1.32)	4.15* (1.86)
Netflix	4.43 (1.79)	3.50 (2.24)	3.22 (2.11)	3.39 (2.26)
<b>Lavish partner:</b>				
ING savings	4.57 (2.03)	4.00 (2.00)	4.30 (2.16)	4.00 (1.58)
Sam’s Club	4.21 (2.15)	3.57* (1.79)	4.10 (2.08)	2.89 (1.36)
Luxury watch	4.00 (2.45)	5.57* (1.70)	3.80 (2.53)	3.33 (1.87)
Netflix	4.57 (1.91)	4.07 (2.12)	2.50 (1.65)	3.22 (1.86)
<b>No information:</b>				
ING savings	4.44 (1.50)	4.50 (1.79)	4.75 (.87)	3.44 (1.33)
Sam’s Club	4.19 (1.47)	4.64 (1.65)	4.58 (.90)	3.33 (1.22)
Luxury watch	4.10 (1.59)	5.57* (1.60)	4.83 (1.11)	4.33 (2.24)
Netflix	4.63 (1.54)	4.00 (1.62)	3.33 (1.61)	5.00 (1.22)

NOTE.—Standard deviations are in parentheses.  
\* $p < .05$ .

to those of their partner to gain acceptance would be to compare excluded high self-monitors against accepted high self-monitors. Therefore, for each interaction partner condition (lavish, frugal, and no information), we compared excluded high self-monitors’ willingness to pay for each type of product against the willingness to pay of their socially accepted counterparts. To demonstrate that excluded participants tailor their spending for the purpose of affiliation, we conducted the same analyses for low self-monitors, expecting that tailored spending would not be found among low self-monitors. Additionally, we tested whether excluded high self-monitors try to distance themselves from products that potentially could signal an undesirable attribute (Berger and Heath 2008).

*Lavish Partner.* Among participants expecting to meet a lavish spender, we hypothesized that social exclusion would increase desire for the luxury watch. Moreover, this pattern was expected to emerge only among high self-monitors. Results supported our predictions. Excluded high self-monitors expecting to interact with a lavish partner expressed a greater desire for the luxury watch ( $F(1, 78) = 4.70, p = .03, h_p^2 = 0.06$ ; see table 1) relative to their accepted counterparts; as expected, this effect was not found among low self-monitors (all  $F < 1$ ). A regression analysis, which treated self-

monitoring as a continuous variable, revealed conceptually the same results: social exclusion (vs. social acceptance) increased desire for the luxury watch ( $\beta = .28, p = .04$ , partial  $r = .31$ ) among high self-monitors expecting to meet a lavish spender; again, this effect was not found among low self-monitors ( $\beta < -.06$ , NS).

Not only did exclusion increase high self-monitors' desire for a product that could help their chances of being liked by their partner but exclusion also decreased their desire for a product that could potentially harm their chances of being liked (i.e., the frugal product: Sam's Club membership). Among those expecting to interact with a lavish spender, excluded high self-monitors desired the frugal product less than accepted high self-monitors ( $F(1, 78) = 4.30, p = .04, h_p^2 = 0.05$ ; regression analysis:  $\beta = -.46, p = .04$ , partial  $r = -.31$ ). Again, this effect was not found among low self-monitors. Thus, when the interaction partner was a lavish spender, social exclusion increased high self-monitors' desire for the product that fit the situational norm, but it decreased their desire for the frugal product that was opposite of the situational norm.

As expected, social exclusion did not affect participants' desire for the neutral product (Netflix membership; all  $F < 1$ ; all  $\beta < .03$ , NS). Thus, social exclusion increased participants' desire for a product that would facilitate acceptance (i.e., luxury watch), and it decreased desire for a product that could have engendered rejection (i.e., Sam's Club membership).

**Frugal Partner.** Among participants expecting to interact with a frugal spender, we expected that social exclusion would increase desire for the frugal products, but only among high self-monitors. As predicted, excluded high self-monitors reported a greater desire to invest in the savings account ( $F(1, 78) = 4.07, p = .05, h_p^2 = 0.05$ ; regression analysis:  $\beta = .38, p = .08$ , partial  $r = .26$ ) and a stronger desire to buy a Sam's Club membership ( $F(1, 78) = 6.03, p = .02, h_p^2 = 0.07$ ; regression analysis:  $\beta = .60, p = .006$ , partial  $r = .40$ ) relative to their accepted counterparts. Meanwhile, consistent with the well-established finding that low self-monitors tend not to shift their preferences to please others, rejected and accepted low self-monitors did not differ in their desire for the frugal products (all  $F < 1$ ; regression: all  $\beta < .20$ , NS). Thus, socially excluded high, but not low, self-monitors matched their spending preferences to the situational norm of frugality. This finding supports our hypothesis that socially excluded people tailor their spending preferences to those of an immediate social target to gain acceptance. It also rules out the alternative explanation that socially excluded people spend in the service of status and/or social desirability.

When expecting to interact with a pragmatic spender, excluded and accepted high self-monitors did not differ in their desire for the luxury watch. However, excluded high self-monitors desired the watch less than excluded high self-monitors in the no information condition ( $t(24) = 3.56, p = .002$ ; regression:  $\beta = -.77, p < .0001$ , partial  $r = -.41$ ). This result suggests that, among (some) excluded individuals,

desire for a luxury product decreases when the situational norm calls for frugality. In contrast, exclusion caused low self-monitors expecting to interact with a pragmatic spender to desire the luxury watch even more ( $F(1, 56) = 7.09, p = .01, h_p^2 = 0.11$ ; regression:  $\beta = .43, p = .04$ , partial  $r = .31$ ). Thus, their preferences did shift as a result of exclusion but not in a way that would please their interaction partner. Hence, low self-monitors did not mold their preferences around those of their partner. Instead, they preferred products reflecting the default social norm at the university: lavishness. In support of our argument that socially excluded people's consumption decisions are guided by the desire for affiliation, we found that the social exclusion manipulation had no effect on high and low self-monitors' desire for a neutral product that would not impact affiliation or rejection (Netflix membership).

**No Information.** When lacking information about their partners' preferences, we expected that social exclusion would enhance individuals' desire for the luxury product. As mentioned, the spending norm at the university was that of lavishness, so signaling lavishness would be the safest route to acceptance. Consistent with this hypothesis, excluded high self-monitors desired the luxury watch more than accepted high self-monitors ( $F(1, 78) = 5.01, p = .03, h_p^2 = 0.06$ ; regression:  $\beta = .80, p = .003$ , partial  $r = .41$ ). Excluded high self-monitors did not differ from accepted high self-monitors in their desire for the Sam's Club membership, the Netflix membership, and for investing in the ING savings account (all  $F < 1$ ).

**Mood.** Analysis of the individual items of the BMIS indicated that, relative to socially accepted participants, socially excluded participants were less happy ( $M_{\text{excluded}} = 4.85$  vs.  $M_{\text{accepted}} = 5.41$ ;  $t(138) = 2.74, p = .007$ ) and content ( $M_{\text{excluded}} = 5.03$  vs.  $M_{\text{accepted}} = 5.45$ ;  $t(138) = 1.88, p = .06$ ), and they were more sad ( $M_{\text{excluded}} = 2.38$  vs.  $M_{\text{accepted}} = 1.70$ ;  $t(138) = 3.26, p = .001$ ) and gloomy ( $M_{\text{excluded}} = 2.49$  vs.  $M_{\text{accepted}} = 1.84$ ;  $t(138) = 3.02, p = .003$ ). However, these items did not correlate with our dependent measures (happiness: all  $r < .10$ , all  $p > .25$ ; contentment:  $-.13 > \text{all } r < .04$ , all  $p > .14$ ; sadness: all  $r < .10$ , all  $p > .28$ ; gloominess: all  $r < .10$ , all  $p > .36$ ). There were no observed interactions between mood and exclusion when predicting desire for the products (all  $F < 1$ ). Furthermore, when we added the four mood items on which socially accepted and excluded participants varied, our four-way prediction essentially did not change ( $F(2, 124) = 3.41, p = .02, h_p^2 = 0.07$ ). These findings conflict with the alternative explanation that the effects of social rejection on spending are simply a reflection of a negative mood state.

## Discussion

Experiment 2 showed that excluded individuals try to foster affiliation by spending to fit in rather than stand out. High self-monitors, those individuals who change their behavior to please others, mirrored their partners' spending

preferences, but only when they were socially excluded. When excluded high self-monitors anticipated interacting with a frugal spender, they communicated a preference for saving and investing, even though such frugality was diametrically opposed to the university spending norm of lavishness. In contrast, when expecting to meet a lavish spender, excluded high self-monitors expressed an even greater desire for the luxury watch than did accepted participants. Hence, people are hesitant to break the situational spending norm for fear of exclusion.

That the spending patterns of excluded high self-monitors, but not low self-monitors, were dependent on the preferences of the affiliation source suggests that shifts in spending were targeted at facilitating social inclusion rather than bolstering the self-concept. Low self-monitors, those individuals who lack the inclination to change their behavior to gain acceptance, generally failed to change their preferences toward those of their interaction partner, and in one case they even went in the opposite direction. Hence, the results of experiment 2 suggest that excluded individuals use products as a means to the end goal of affiliation rather than as ends in and of themselves.

### EXPERIMENT 3: CHICKEN FEET

Experiment 3 tested whether excluded individuals are willing to sacrifice money for social gain. We assessed participants' willingness to pay for an unappealing food product (chicken feet) that ostensibly was liked by participants' partners. To ensure that excluded participants' willingness to pay for the chicken feet was driven by their desire to enhance their chance of social acceptance, we varied whether participants believed they would eat the food item with their partner and whether their willingness to pay was visible to their partner (i.e., a public vs. private manipulation). Only when both conditions were met—public willingness to pay and face-to-face interaction—could spending plausibly be used as an affiliation tool. Hence, if socially excluded people sacrifice money to enhance their chances of commencing a new social relationship, then willingness to pay should only increase among excluded participants in the public/interaction condition. In this way, we directly tested whether socially excluded people are willing to give up money to boost social inclusion.

We measured willingness to spend on chicken feet in experiment 3 because it is not a popular product among non-Asian people, indeed so much so that researchers have used the idea of eating chicken feet in the presence of an Asian person to operationalize an awkward social dilemma (von Hippel and Gonsalkorale 2005). Our prior experiments used products that were generally appealing to college students (the reference group to our participant samples), so one might still argue that social exclusion increases passive conformity in spending. However, we predicted that exclusion would increase willingness to spend on an unpopular product that was liked by a specific someone who offered the chance of social connection.

Additionally, we measured self-esteem, power-striving, and status-striving after the exclusion manipulation to ensure

that none of these were mediating the effect of social exclusion on spending. We also included a different measure of mood, the positive and negative affect schedule (PANAS; Watson, Clark, and Tellegen 1988).

### Design and Procedure

The design of the experiment was a 2 (belongingness: social exclusion vs. social acceptance)  $\times$  3 (affiliation opportunity: public/interaction; private/interaction; public/no interaction)  $\times$  2 (food favored by partner: yes vs. no) mixed design. The first two were between-participants factors, whereas type of food was a within-participants factor, meaning that participants viewed all products. One hundred and fifty-one non-Asian undergraduates (107 female) participated in exchange for course credit. Because of the nature of the dependent measure (i.e., chicken feet), vegetarians did not participate in the experiment.

When participants arrived at the laboratory, they were told they would be completing two unrelated experiments, the first examining personality processes, the second assessing food preferences. As in experiment 2, we manipulated social exclusion using Twenge et al.'s (2001) personality feedback procedure. Participants were randomly assigned to receive bogus feedback that they would have stable and strong social connections in the future (social acceptance condition) or few and weak social connections in the future (social exclusion condition).

Next, participants were given a fictitious debriefing and were asked to complete a few questionnaires before they started the second experiment, ostensibly because the new experimental room was still occupied. In reality, the questionnaires completed by participants were four scales that measured mood, self-esteem, desire for power, and desire for status. We included these to ensure that none were mediating the effect of social exclusion on spending. The first was the PANAS (Watson et al. 1988), a mood measure different from that used in experiments 1 and 2. The second was the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965). The third and fourth were the power-striving and status-striving subscales of the Achievement Motivation Scale (AMS; Cassidy and Lynn 1989).

To complete the second experiment, participants were led to a different laboratory unit where they were greeted by a new experimenter. The cover story was that the study was investigating food preferences. Hence, they would be discussing and sampling a variety of foods later in the experiment. To bolster this cover story, participants passed a refrigerator and a microwave on their way to the experimental room.

In preparation for the food-tasting task, participants were asked to exchange information about their food preferences with their partner. Participants completed a food preferences questionnaire and then viewed one ostensibly completed by their partner (matched for gender). On this sheet, two key pieces of information were given to participants: the partner was Chinese, and his or her favorite food was chicken feet,

a national delicacy of his or her home country, China (von Hippel and Gonsalkorale 2005).

The experimenter returned after several minutes and told participants that the person in charge of choosing the food item to be sampled would be randomly determined. Participants drew a letter out of a container; we fixed the draw so that participants always drew the role of chooser. As chooser, participants were responsible for viewing and rating the products available: borscht, chicken feet, herring, and black pudding. Participants were led to believe that their ratings would determine which food item they would eat later in the experiment. The key dependent measure was the amount participants were willing to spend on the food item liked by their partner (assessed on a 9-point scale that was anchored with \$1 increments; 1 = \$0-\$1; 2 = \$2; 3 = \$3 . . . 9 = \$9).

Before participants completed this task, we manipulated whether participants believed that (a) their spending intentions were visible to their partner and (b) they would be meeting their partner. Participants randomly assigned to the public/interaction condition were told that their partner would see their spending intentions and that they would eat the chosen food item with their partner. Participants in the public/no interaction condition were told that their partner would be able to see their spending intentions but that they would not be interacting with their partner. In the private/interaction condition, participants were told that they would meet their partner to try the food item but that their partner would not see their spending intentions (i.e., their desire to spend would be anonymous).

Manipulation of (a) visibility of spending and (b) opportunity for affiliation was used to elucidate the effect of social exclusion on spending. If socially excluded people use spending as a tool to help them affiliate with their partner, then spending as a function of exclusion should only increase in the public/interaction condition. After viewing and rating the products, participants were probed for suspicion, debriefed, and thanked.

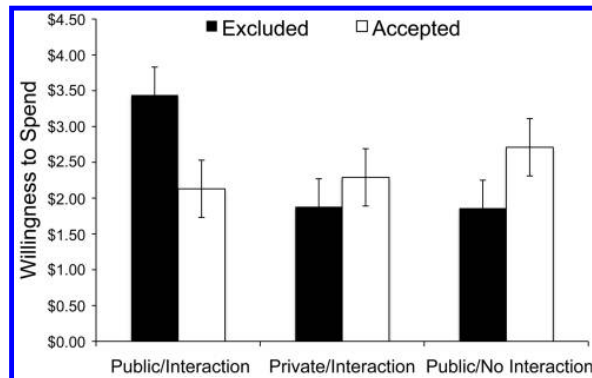
## Results

We tested the prediction that participants' spending would depend on whether they were excluded, whether spending could be used to increase their chances of affiliation, and the type of food item, using a mixed-measures ANOVA, with type of food as the within-subjects factor and social exclusion and affiliation opportunity as between-subjects factors. The model revealed the expected three-way interaction between social exclusion, affiliation opportunity, and food item:  $F(3, 142) = 3.28, p = .02, h_p^2 = 0.07$ ; see fig. 1). We dissected the interaction using a series of contrasts that tested our main hypotheses.

**Spending.** We hypothesized that willingness to spend on chicken feet would vary as a function of affiliation opportunity among excluded participants but not among accepted participants. An ANOVA revealed the predicted two-way interaction between affiliation condition and exclusion

FIGURE 1

WILLINGNESS TO PAY FOR CHICKEN FEET (A PRODUCT EXPRESSLY LIKED BY PARTICIPANT'S PARTNER) AS A FUNCTION OF EXCLUSION AND OPPORTUNITY TO USE THE PRODUCT AS AN AFFILIATION TOOL: EXPERIMENT 3



condition on willingness to pay for chicken feet ( $F(2, 143) = 4.08, p = .02, h_p^2 = 0.05$ ). No other significant effects were observed (all  $F < 1.61$ , all  $p > .20$ ). Follow-up analyses revealed that, as expected, spending varied as a function of affiliation opportunity among socially excluded participants ( $F(2, 77) = 5.62, p = .005$ ) but not among socially accepted participants ( $F < 1$ ). In other words, socially excluded participants' willingness to spend on the chicken feet did not change across conditions, but the spending intentions of socially excluded persons did change in response to contingencies relevant to potential social acceptance.

Our main hypothesis was that socially excluded people would use chicken feet in the service of affiliation. Accordingly, willingness to spend on the chicken feet should only increase when spending on chicken feet could enhance participants' chances of being liked by the social target. In the current experiment, willingness to pay for the chicken feet should only increase in the public/interaction condition because both the opportunity for affiliation existed and the source of affiliation would see participants' spending intentions. In support of this hypothesis, socially excluded participants were willing to spend more on the chicken feet than socially accepted participants in the public/interaction condition ( $F(1, 143) = 5.24, p = .02, h_p^2 = 0.04$ ) but not in the private/interaction condition ( $F < 1$ ). In the public/no interaction condition, there was a slight trend for socially excluded participants to spend less on the chicken feet than socially accepted participants ( $F(1, 143) = 2.34, p = .13, h_p^2 = 0.02$ ). Social exclusion therefore was not causing people to conform to the preferences of the affiliation source. Rather it seems that socially excluded people were willing to give up money in order to enhance their chances of being liked and accepted by their partner.

Also in support of the affiliation account of spending, a contrast analysis showed that, among socially excluded par-

ticipants, willingness to spend on the chicken feet was higher in the public/interaction condition ( $M = 3.44$ ) than in the private/interaction condition ( $M = 1.88$ ) and in the public/no interaction condition ( $M = 1.86$ ;  $t(75) = 3.35$ ,  $p = .001$ ). The two latter conditions did not differ from one another ( $t < 1$ ).

Spending intentions for the other food products did not vary as a function of the exclusion manipulation or affiliation manipulation (all  $F < 1$ ). Thus, the results were specific to the product reportedly liked by a potential affiliation source.

*Affect.* Additional analyses (using the PANAS) assessed whether the observed effects may have been mediated by affect. As in experiments 1 and 2, we did not find evidence to indicate any such mediating process. Examination of the individual items of the PANAS revealed that the social exclusion manipulation significantly affected five of the 20 items. Relative to accepted participants, excluded participants were more scared ( $M_{\text{excluded}} = 1.44$  vs.  $M_{\text{accepted}} = 1.18$ ;  $t(147) = 2.12$ ,  $p = .04$ ), more hostile ( $M_{\text{excluded}} = 1.15$  vs.  $M_{\text{accepted}} = 1.03$ ;  $t(147) = 2.18$ ,  $p = .03$ ), more ashamed ( $M_{\text{excluded}} = 1.29$  vs.  $M_{\text{accepted}} = 1.07$ ;  $t(147) = 2.37$ ,  $p = .02$ ), less enthusiastic ( $M_{\text{excluded}} = 2.64$  vs.  $M_{\text{accepted}} = 3.09$ ;  $t(147) = 1.99$ ,  $p = .05$ ), and less proud ( $M_{\text{excluded}} = 2.56$  vs.  $M_{\text{accepted}} = 3.01$ ;  $t(147) = 2.48$ ,  $p = .01$ ). However, as in experiments 1 and 2, none of these individual items correlated significantly with our dependent measure, in this case willingness to pay for the chicken feet ( $-.09 < \text{all } r < .16$ , all  $p > .08$ ). Furthermore, the effect of social exclusion on willingness to pay for the chicken feet in the public/interaction condition remained significant when controlling for these items ( $F(1, 41) = 4.80$ ,  $p = .03$ ,  $h_p^2 = 0.11$ ). Thus, as in experiments 1 and 2, differences in spending as a function of social exclusion cannot be attributed to mood.

*Self-Esteem, Power, and Status.* Self-esteem scores did not differ as a function of the exclusion manipulation ( $t < 1$ ; for a review of similar findings see Blackhart et al. [2009]). Excluded and accepted participants did not differ in power-striving ( $t(147) = 1.31$ ,  $p > .10$ ) or status-striving ( $t(147) = 1.62$ ,  $p > .11$ ), and these items did not correlate with willingness to spend on the chicken feet (all  $r < .09$ , all  $p > .28$ ). Moreover, the effect of exclusion on spending intentions held when these variables were included in the model ( $F(1, 43) = 3.77$ ,  $p = .06$ ,  $h_p^2 = 0.08$ ). Thus, power-striving and status-striving cannot account for the effect of social exclusion on personal spending.

## Discussion

Experiment 3 found that socially excluded people were willing to spend money on an unappealing food item that could enhance their chance of commencing a new social relationship. When excluded participants believed that they would interact with a person who had a particular fondness for chicken feet and that their willingness to pay for chicken feet would be seen by this person, they were willing to give up more money than others to acquire the item.

As in experiment 2, results of experiment 3 did not support the possibility that socially excluded participants used personal spending for the purpose of self-definition or self-enhancement. We found that social exclusion only increased willingness to spend on the chicken feet when willingness to pay was public and they had an opportunity to interact with the partner, supporting the hypothesis that socially excluded people use spending as an interpersonal strategy. Likewise, the results cannot be explained by an increase in conformity among socially excluded participants (Williams et al. 2000). In contrast to previous work (Ratner and Kahn 2002), publicizing participants' willingness to pay did not by itself increase spending among socially excluded participants; an opportunity for affiliation also needed to be available.

## EXPERIMENT 4: ILLICIT DRUG

Experiment 3 showed that socially excluded people were willing to sacrifice money for the sake of social acceptance. Experiment 4 tested whether socially excluded people would be willing to engage in personally risky consumption to boost their chances of social inclusion. Specifically, we predicted that excluded participants would be more willing to use an illegal drug when doing so seemed a likely route to social acceptance, relative to control participants.

In this experiment, we used a different exclusion manipulation than those used in experiments 1–3. Participants were asked to recall an experience of social inclusion or exclusion. Prior research has shown that visualizing personal memories of social exclusion evokes responses similar to those elicited by methods used in experiments 1–3 (Gardner et al. 2000; Maner et al. 2007). We also included a negative nonsocial condition. In this condition, participants were asked to visualize a personal negative event (physical illness or injury). This new control condition makes equivalent the reminder of a bad personal event for all participants while retaining a difference in whether the notion of interpersonal exclusion was activated. Our hypothesis was that the effect of social exclusion on spending is caused by thwarted belongingness, not just a negative experience. Hence, we hypothesized that consumption choices in the negative nonsocial condition would be different than consumption choices in the social exclusion condition.

The dependent measure was willingness to consume the drug cocaine. We used a public versus private manipulation to vary whether using cocaine could facilitate immediate acceptance. In the public condition, participants imagined that they were at a party with a new group of friends who were using the drug. In the private condition, participants imagined that they came across the drug because the new group of friends left it in their house. Thus, in both cases the act of using the drug fit with the social norm because it was known that the protagonist's peers were using the drug. However, only in the public condition could the act of using the drug potentially increase participants' chances of cementing social connections at that time. Prudence might dictate that people would be more likely to experiment with a drug in privacy than at a party, but our

prediction was that excluded persons would show the opposite pattern of consuming the drug more in the public (party) setting because their consumption of the drug would be done mainly to serve the goal of making friends.

### Design and Procedure

The overall design of the experiment was a 3 (belongingness: social exclusion; social inclusion; negative non-social control)  $\times$  2 (visibility of behavior: public; private) between-subjects design. One hundred and twenty undergraduate students (78 female) participated in exchange for partial course credit. Four participants were excluded from analyses because they did not follow experimental instructions. The final sample comprised 116 students (76 female).

As in experiments 1–3, participants believed that they were completing two separate experiments that had been combined for convenience. Participants first completed an essay-writing task, which served as our belongingness manipulation. Participants were randomly assigned to write an essay about a time in which they felt socially excluded, socially included, or physically ill (Maner et al. 2007). Social exclusion participants were asked to write “an essay about a time when you experienced rejection or exclusion by others. Think of a time when you felt that others did not want to be in your company and when you did not feel a strong sense of belongingness with another person or group.” Inclusion participants were asked to write about an instance in which they “experienced social acceptance from others.” Participants in the physical illness condition were asked to write about a time when they “felt so physically ill that they were not able to leave the house for several days.” Like the social exclusion manipulation, the physical illness manipulation required participants to recall an unpleasant experience—indeed, one in which they were not actively, happily around others. Thus, the physical illness condition enabled us to ensure that the effect of social exclusion on consumption stemmed from the specific experience of social exclusion, not a negative experience in general. All participants were instructed to relive the event in their mind to ensure that the event could be vividly recalled. After the essay-writing task, participants completed the mood measure (BMIS).

The key dependent measure came next. Participants in the private condition were asked to imagine that they had had some friends over but now were home alone and had found a small bag containing the drug cocaine, which had been accidentally left behind by one of their friends. Participants in the public condition were asked to imagine that they were out at a party with a group of friends who were using the drug cocaine. Participants in both conditions were asked to indicate the likelihood of using the drug using a 10-point scale (1 = completely unlikely; 5 = possibly; 10 = completely likely). Our prediction was that participants who had recalled an instance of exclusion would be more likely than those who recalled an instance of inclusion or physical illness to try the drug cocaine, but only when doing so would enhance their chance of affiliation (i.e., in the party

condition). We therefore did not predict a difference in willingness to use cocaine as a function of the social exclusion manipulation when the act was private.

### Results

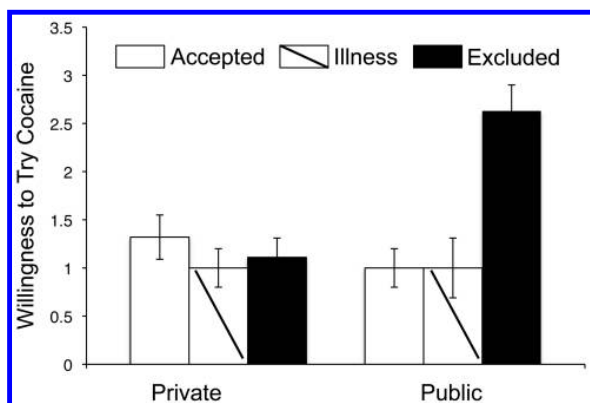
A 3 (social exclusion; social inclusion; physical illness)  $\times$  2 (private; public) ANOVA revealed significant main effects of the social exclusion manipulation ( $F(2, 110) = 6.42, p = .002, h_p^2 = 0.11$ ) and the public (vs. private) manipulation ( $F(1, 110) = 3.81, p = .05, h_p^2 = 0.03$ ). As predicted, these main effects were qualified by the predicted interaction between the social exclusion manipulation and the public (vs. private) manipulation ( $F(2, 110) = 7.90, p = .001, h_p^2 = 0.13$ ; see fig. 2).

We hypothesized that social exclusion would increase willingness to snort cocaine but only when doing so seemed a likely route to social acceptance. Hence, we expected that exclusion would only increase willingness to use the illicit drug in the public but not the private condition. To test this hypothesis, we performed two planned contrasts: we compared willingness to try the drug among socially excluded participants (weighted as  $-2$ ) to socially included participants (weighted as 1) and physically ill participants (weighted as 1) in the public condition and the private condition separately.

As predicted, when the consumption act was public, socially excluded participants were more willing to try the drug than socially included and physically ill participants ( $t(53) = 4.48, p < .001$ ). In contrast, when snorting cocaine could not facilitate social connection, willingness to use the drug did not differ as a function of the social exclusion manipulation ( $t < 1$ ). Thus, as predicted, willingness to try cocaine after recalling an experience of social exclusion only increased when one’s friends were also doing the drug at that time. Confirming this hypothesis, a comparison of so-

FIGURE 2

WILLINGNESS TO USE COCAINE AS A FUNCTION OF EXCLUSION AND OPPORTUNITY TO USE THE DRUG AS AN AFFILIATION TOOL: EXPERIMENT 4



cially excluded participants in the public versus private condition found the former more willing to try the drug than the latter ( $t(32) = 2.83, p = .008, d = 1.00$ ). Willingness to try cocaine did not differ between socially included participants and physically ill participants in the private ( $t < 1$ ) and public conditions ( $t < 1$ ).

*Mood.* As in experiments 1–3, we conducted a series of analyses to test whether any of the observed effects were mediated by affect. Excluded participants reported feeling sadder ( $M = 2.50$ ) than included participants ( $M = 1.84$ ;  $t(80) = 2.68, p = .009$ ) and physically ill participants ( $M = 1.82$ ;  $t(64) = 3.02, p = .004$ ). However, self-reported sadness did not correlate with willingness to try cocaine ( $r(116) = .10, p = .92$ ). As in previous experiments, controlling for sadness did not change reported results.

## Discussion

As hypothesized, experiment 4 found that participants' willingness to try a potentially risky drug, cocaine, was a function of whether they had been reminded of being socially excluded and whether drug use might offer the possibility of securing or deepening friendships. That social exclusion did not increase willingness to use the drug when the act was private (even though the act of using the drug presumably was condoned by participants' friends) suggests that social exclusion did not increase willingness to try drugs because of increased impulsivity, self-destructive behavior, or a desire to escape self-awareness. In addition to supporting our hypothesis, this study also supports a new theory linking risk-seeking behaviors to the desire to be interpersonally accepted (Rawn and Vohs, forthcoming).

## GENERAL DISCUSSION

Four experiments demonstrated that belongingness threats have very specific consequences for people's spending and consumption decisions. Taken together, the experiments reported in this article provide robust support for our thesis that social exclusion causes people to spend and consume strategically in the service of affiliation. Alternative accounts, such as miserliness, impulse spending, negative mood, powerlessness, and spending to defend or build the self-concept, were not supported by the results.

In our experiments, money was a readily available resource that participants could use to achieve social goals. Our findings suggest that, when people feel excluded from social groups, they become crafty at using their money to achieve what they want, namely, to feel included and accepted. That they do it by spending more (experiments 1–3), spending less (experiment 2), or through risky and illicit consumption (experiment 4) illustrates the flexibility and sensitivity of spending and consumption to interpersonal contexts.

Whereas extant research makes the straightforward prediction that socially excluded consumers should amass luxury goods to enhance their social desirability (Belk et al. 1982) or use consumption and spending to signal uniqueness (Ariely

and Levav 2000; Ratner and Kahn 2002; Ratner et al. 1999), our work indicates that consumers try to affiliate with others by using spending to blend in rather than stand out. For example, when a peer preferred frugality to luxury, socially excluded participants favored products that signaled to their peer that they too were pragmatic, restrained spenders (experiment 2). Moreover, in that experiment, socially excluded participants distanced themselves from a luxury product, even though purchasing such a product would have been consistent with the free-spending norms of the broader community. This sensitivity to situational spending norms dovetails nicely with recent work suggesting that consumer spending is highly dependent on the prevailing social environment (Argo, Dahl, and Manchanda 2005; Argo et al. 2006; Rook and Fisher 1995; Tanner et al. 2008). Taken together, previous work and the current work suggest that people may be hesitant to be too restrained or too lavish because they do not want to break the situational norm for fear of exclusion.

In our last experiment, illicit drug consumption, rather than spending money, was the means with which excluded participants could ingratiate themselves with peers. We found that they were more willing to try cocaine but not because being excluded rendered them more risk seeking or likely to engage in self-defeating behavior. Instead, desire for the drug increased only among excluded participants whose usage of the drug would be seen by people who were also consuming the drug. A potential implication is that excluded people are focused on the immediate benefits of the act—social affiliation—rather than the abstract and delayed costs.

At first blush our findings may seem to contradict recent research showing that social exclusion heightens desire for money, thereby making people reluctant to part with it (Zhou et al. 2009). At closer inspection, however, the current findings complement rather than conflict with the Zhou et al. (2009) findings. Whereas Zhou and colleagues focused on the psychological benefits of money, inducing the feeling that one can cope with problems, the current experiments focused on the pragmatic benefits of money, specifically the use of money as a tool to fulfill the need for social inclusion. Indeed, the present findings might suggest a new interpretation of the desire for money found among rejected participants in the Zhou et al. (2009) studies: rejected and socially excluded persons may desire money in part so they can spend it on future occasions to enhance their interpersonal appeal.

The current work documents active, strategic spending in an interpersonal context, rather than nonconscious, passive shifts in spending preferences (Tanner et al. 2008). For example, excluded high self-monitors aligned their spending preferences with situational norms, whereas excluded low self-monitors did not (experiment 2). Thus, strategic adoption of situational spending norms after social exclusion was most pronounced among participants for whom social acceptance was paramount (Rose and DeJesus 2007), supporting our hypothesis that changes in spending preferences were aimed at facilitating inclusion. Definitive evidence that excluded in-

dividuals were not merely mimicking or conforming to the tastes of social targets came from experiment 3, wherein interaction with a partner was not sufficient to increase excluded participants' desire for a food item favored by that person. They only showed heightened willingness to eat the chicken feet if the interaction partner would know this (and therefore presumably like them better). Together, these findings lend credibility to our conclusion that spending and consumption are tools that excluded people strategically use as a way to forge social bonds.

### Limitations and Future Directions

Despite the consistency of our results, limitations warrant mention and suggest opportunities for future research. One limitation is that the current studies primarily examined how exclusion influences personal purchases. It has been argued that people erroneously believe that money spent on the self will make them happier than money spent on others when in actuality prosocial spending is a far better boost to happiness than is personal spending (Dunn, Aknin, and Norton 2008). Future research could therefore test whether socially excluded people, when given the choice, are (even) more willing to spend money on others rather than the self. Such spending could not only increase the chance of successful reconnection but may also promote long-term happiness. Additionally, although the current work examined how belongingness threats influence spending in the service of commencing new social relationships, future research could benefit from determining whether socially excluded people are willing to trade off financial well-being in order to cement existing social ties.

Research has found that situational social exclusion and ongoing feelings of loneliness are similarly distressing (Stillman et al. 2009). This suggests that our findings for the effects of situational deficits in belongingness could generalize to those who experience chronic deficits. For example, lonely individuals might be vulnerable to scams from people of ill repute if offering access to one's bank account is perceived to be the path to a relationship. It is estimated that between 56% and 80% of fraudulent telemarketing calls are targeted at the elderly (Federal Trade Commission 2007). It is possible that because older adults tend not to have as many close ties as younger ones, they are particularly vulnerable to scams. Indeed, one man was so desperate for social communication that he gave his banking information to fraudulent callers, who ending up stealing more than \$100,000 from his bank account (Duhigg 2007). It would be fruitful for future work to determine whether and how chronic versus situational threats to the need for social connection differentially affect people's spending and consumption and how to ensure that people do not fall prey to insincere tactics.

Much research has documented a negative relationship between materialism and interpersonal relationships (Burroughs and Rindfleisch 2002; for an overview see Kasser [2002]). Although correlational, it is often argued that a strong focus on material goods strains social relationships (see Kasser 2002). The current research suggests the opposite: among

excluded individuals, material goods were the means to the end goal of social acceptance, not the ends themselves. In experiment 2, when the situational and social norm promoted luxury, people with deficient social ties showed a heightened inclination to accumulate such goods for the interpersonal purpose of acceptance. This finding dovetails with a study conducted among elementary school children in the United Kingdom. Banerjee and Dittmar (2008) found that children who were not well liked by their peers felt a strong pressure to conform to cultural norms, which in turn was positively related to materialism. The upside is that materialism may be tempered when the norm is that of restraint rather than materialism, as found in experiment 2. Determining factors that reduce versus increase materialism has immense implications for both public policy and marketing practice.

Future work could examine whether social deficits increase susceptibility to persuasion tactics. For example, advertisers often use "top seller" tag lines because people respond to social proof: if others are buying it, it must be good (Cialdini and Goldstein 2004). Socially excluded consumers may be particularly susceptible to such advertisements given that they are on the lookout for ways to blend in. In contrast, marketing campaigns aimed at reducing risky behaviors may backfire if the risky behavior is portrayed as normative (Blanton and Christie 2003). Anti-drinking-and-driving campaigns and safe sex campaigns framed in a manner suggesting that the default is to engage in these risky behaviors may have the unintended effect of increasing the likelihood that the undesired behavior is enacted (cf. Cialdini 2003). Our findings corroborate this argument, showing that excluded consumers are particularly vulnerable to illicit and therefore risky consumption behaviors that are personally dangerous but socially beneficial. Hence, marketing campaigns framing undesirable behavior as normative may be particularly likely to amplify risky and dangerous behaviors among individuals who crave acceptance.

### Concluding Remarks

The current article adds to a growing body of literature examining how social motivations guide consumption decisions (Griskevicius et al. 2007; Ramanathan and McGill 2007; Rucker and Galinsky 2008). Our work details how people compensate for deficiencies in interpersonal inclusion with changes to spending and consumption. Audiences can decipher many things about a person from minimal information, including clothing, style of talking, product preferences, or the contents of a shopping basket (Baran et al. 1989; Belk et al. 1982; Shavitt and Nelson 1999). Both the actor and the audience realize this, and the present work indicated that excluded individuals capitalize on the symbolic, expressive nature of consumption to help them build social connections. We found that this can take many forms, ranging from the positive and innocuous (affirming pride in one's university) to the dangerous and illegal (snorting cocaine).

The idea that people spend money not just as a pragmatic way of obtaining needed goods but also to make symbolic



points is not entirely new, of course. Many commentators have remarked that the sort of wealth needed for conspicuous consumption is today obtained by working long hours, with the result that time for family and socializing is often preempted by the requirements of making money (Frank 1999). In that sense, the pursuit of wealth may detract from social connection. The present results suggest, however, that materialistic pursuits are not entirely inimical to social connection insofar as many people—even including relatively impetuous students—treat money in part as a tool for connecting with others.

## REFERENCES

- Argo, Jennifer J., Darren W. Dahl, and Rajesh V. Manchanda (2005), "The Influence of a Mere Social Presence in a Retail Context," *Journal of Consumer Research*, 32 (September), 207–12.
- Argo, Jennifer, Kate White, and Darren W. Dahl (2006), "Social Comparison Theory and Deception in the Interpersonal Exchange of Consumption Information," *Journal of Consumer Research*, 33 (June), 99–108.
- Ariely, Dan and Jonathan Levav (2000), "Sequential Choice in Group Settings: Taking the Road Less Traveled and Less Enjoyed," *Journal of Consumer Research*, 27 (December), 279–90.
- Ball, Dwayne A. and Lori H. Tasaki (1992), "The Role and Measurement of Attachment in Consumer Behavior," *Journal of Consumer Psychology*, 1 (2), 155–72.
- Banerjee, Robin and Helga Dittmar (2008), "Individual Differences in Children's Materialism: The Role of Peer Relations," *Personality and Social Psychology Bulletin*, 34 (1), 17–31.
- Baran, Stanley J., Jin Ja Mok, Mitchell Land, and Tae Young Kang (1989), "You Are What You Buy: Mass-Mediated Judgments of People's Worth," *Journal of Communication*, 39 (2), 46–54.
- Baumeister, Roy F., C. Nathan DeWall, Natalie J. Ciarocco, and Jean M. Twenge (2005), "Social Exclusion Impairs Self-Regulation," *Journal of Personality and Social Psychology*, 88 (4), 589–604.
- Baumeister, Roy F., C. Nathan DeWall, and Kathleen D. Vohs (2009), "Social Rejection, Control, Numbness, and Emotion: How Not to Be Fooled by Gerber and Wheeler (2009)," *Perspectives on Psychological Science*, 4, 489–93.
- Baumeister, Roy F. and Mark R. Leary (1995), "The Need to Belong: Desire for Interpersonal Attachments as a Fundamental Human Motivation," *Psychological Bulletin*, 117 (3), 497–529.
- Baumeister, Roy F., Jean M. Twenge, and Christopher K. Nuss (2002), "Effects of Social Exclusion on Cognitive Processes: Anticipated Aloneness Reduces Intelligent Thought," *Journal of Personality and Social Psychology*, 83 (4), 817–27.
- Belk, Russell W. (1988), "Possessions and the Extended Self," *Journal of Consumer Research*, 15 (September), 139–67.
- Belk, Russell W., Kenneth D. Bahn, and Robert N. Mayer (1982), "Developmental Recognition of Consumption Symbolism," *Journal of Consumer Research*, 9 (1), 4–17.
- Berger, Jonah and Chip Heath (2007), "Where Consumers Diverge from Others: Identity-Signaling and Product Domains," *Journal of Consumer Research*, 34 (August), 121–34.
- (2008), "Who Drives Divergence? Identity Signaling, Out-group Dissimilarity, and the Abandonment of Cultural Tastes," *Journal of Personality and Social Psychology*, 95 (3), 593–607.
- Berger, Jonah and Lindsay Rand (2008), "Shifting Signals to Help Health: Using Identity Signaling to Reduce Risky Health Behaviors," *Journal of Consumer Research*, 35 (October), 509–18.
- Blackhart, Ginette C., Brian C. Nelson, Megan L. Knowles, and Roy F. Baumeister (2009), "Rejection Elicits Emotional Reactions but Neither Causes Immediate Distress Nor Lowers Self-Esteem: A Meta-analytic Review of 192 Studies on Social Exclusion," *Personality and Social Psychology Review*, 13 (4), 269–309.
- Blanton, Hart and Charlene Christie (2003), "Deviance Regulation: A Theory of Action and Identity," *Review of General Psychology*, 7 (2), 115–49.
- Brewer, Marilynn B. (1991), "The Social Self: On Being the Same and Different at the Same Time," *Personality and Social Psychology Bulletin*, 17 (5), 475–82.
- Buckley, Katherine E., Rachel E. Winkel, and Mark R. Leary (2004), "Reactions to Acceptance and Rejection: Effects of Level and Sequence of Relational Evaluation," *Journal of Experimental Social Psychology*, 40 (1), 14–28.
- Burroughs, James E. and Aric Rindfleisch (2002), "Materialism and Well-Being: A Conflicting Values Perspective," *Journal of Consumer Research*, 29 (3), 348–70.
- Bushman, Brad J., Angelica M. Bonacci, Mirjam van Dijk, and Roy F. Baumeister (2003), "Narcissism, Sexual Refusal, and Aggression: Testing a Narcissistic Reactance Model of Sexual Coercion," *Journal of Personality and Social Psychology*, 84 (5), 1027–40.
- Buss, David M. and Douglas T. Kenrick (1998), "Evolutionary Social Psychology," in *The Handbook of Social Psychology*, Vol. 2, 4th ed., ed. Daniel T. Gilbert, Susan T. Fiske, and Gardner Lindzey, Boston: McGraw-Hill, 982–1026.
- Byrne, Donn (1971), *The Attraction Paradigm*, New York: Academic Press.
- Byrne, Donn, Glen D. Baskett, and Louis Hodges (1971), "Behavioral Indicators of Interpersonal Attraction," *Journal of Applied Social Psychology*, 1 (2), 137–49.
- Cassidy, Tony and Richard Lynn (1989), "A Multifactorial Approach to Achievement Motivation: The Development of a Comprehensive Measure," *Journal of Occupational Psychology*, 62 (2), 301–12.
- Chartrand, Tanya L. and John A. Bargh (1999), "The Chameleon Effect: The Perception-Behavior Link and Social Interaction," *Journal of Personality and Social Psychology*, 76 (6), 893–910.
- Cialdini, Robert B. (2003), "Crafting Normative Messages to Protect the Environment," *Current Directions in Psychological Science*, 12 (4), 105–9.
- Cialdini, Robert B. and Noah J. Goldstein (2004), "Social Influence: Compliance and Conformity," in *Annual Review of Psychology*, Vol. 55, ed. Susan T. Fiske, Daniel L. Schacter, and Carolyn Zahn-Waxler, Palo Alto, CA: Annual Reviews, Inc., 591–621.
- Cryder, Cynthia E., Jennifer S. Lerner, James J. Gross, and Ronald E. Dahl (2008), "Misery Is Not Miserly: Sad and Self-Focused Individuals Spend More," *Psychological Science*, 19 (6), 525–30.
- Deutsch, Morton and Harold B. Gerard (1955), "A Study of Normative and Informational Social Influences upon Individual Judgment," *Journal of Abnormal and Social Psychology*, 51 (3), 629–36.
- DeWall, C. Nathan and Roy F. Baumeister (2006), "Alone but Feeling No Pain: Effects of Social Exclusion on Physical Pain Tolerance and Pain Threshold, Affective Forecasting, and In-

- terpersonal Empathy," *Journal of Personality and Social Psychology*, 91 (1), 1–15.
- DeWall, C. Nathan, Roy F. Baumeister, and Kathleen D. Vohs (2008), "Satiated with Belongingness? Effects of Acceptance, Rejection, and Task Framing on Self-Regulatory Performance," *Journal of Personality and Social Psychology*, 95 (6), 1367–82.
- DeWall, C. Nathan, Jon K. Maner, and Aaron D. Rouby (2009), "Social Exclusion and Early-Stage Interpersonal Perception: Selective Attention to Signs of Acceptance," *Journal of Personality and Social Psychology*, 96 (4), 729–41.
- Duhigg, Charles (2007), "Bilking the Elderly, with a Corporate Assist," *New York Times*, May 20.
- Dunn, Elizabeth W., Lara B. Aknin, and Michael I. Norton (2008), "Spending Money on Others Promotes Happiness," *Science*, 319 (5870), 1687–88.
- Eisenberger, Naomi I., Matthew D. Lieberman, and Kipling D. Williams (2003), "Does Rejection Hurt? An fMRI Study of Social Exclusion," *Science*, 302 (5643), 290–92.
- Escalas, Jennifer E. and James R. Bettman (2003), "You Are What They Eat: The Influence of Reference Groups on Consumer Connections to Brands," *Journal of Consumer Psychology*, 13 (3), 339–48.
- (2005), "Self-Constraint, Reference Groups, and Brand Meaning," *Journal of Consumer Research*, 32 (December), 378–89.
- Eysenck, Hans J. and Sybil B. G. Eysenck (1975), *Manual of the Eysenck Personality Questionnaire*, San Diego, CA: Educational and Industrial Testing Service.
- Federal Trade Commission (2007), "Consumer Fraud in the United States: The Second FTC Survey," staff report of the Bureau of Economics and Consumer Protection, Federal Trade Commission, Washington, DC.
- Frank, Robert H. (1999), *Luxury Fever: Why Money Fails to Satisfy in an Era of Excess*, New York: Free Press.
- Gangestad, Steven W. and Mark Snyder (1985), "To Carve Nature at Its Joints: On the Existence of Discrete Classes in Personality," *Psychological Review*, 92 (3), 317–49.
- (2000), "Self-Monitoring: Appraisal and Reappraisal," *Psychological Bulletin*, 126 (4), 530–55.
- Gardner, Wendi L., Cynthia L. Pickett, and Marilyn B. Brewer (2000), "Social Exclusion and Selective Memory: How the Need to Belong Influences Memory for Social Events," *Personality and Social Psychology Bulletin*, 26 (4), 486–96.
- Gollwitzer, Peter M., Robert A. Wicklund, and James L. Hilton (1982), "Admission of Failure and Symbolic Self-Completion: Extending Lewinian Theory," *Journal of Personality and Social Psychology*, 43 (2), 358–71.
- Griskevicius, Vladas, Noah J. Goldstein, Chad R. Mortensen, Robert B. Cialdini, and Douglas T. Kenrick (2006), "Going Along versus Going Alone: When Fundamental Motives Facilitate Strategic (Non)Conformity," *Journal of Personality and Social Psychology*, 91 (2), 281–94.
- Griskevicius, Vladas, Joshua M. Tybur, Jill M. Sundie, Robert B. Cialdini, Geoffrey F. Miller, and Douglas T. Kenrick (2007), "Blatant Benevolence and Conspicuous Consumption: When Romantic Motives Elicit Strategic Costly Signals," *Journal of Personality and Social Psychology*, 93 (1), 85–102.
- Johnson, Wendy and Robert F. Krueger (2006), "How Money Buys Happiness: Genetic and Environmental Processes Linking Finances and Life Satisfaction," *Journal of Personality and Social Psychology*, 90 (4), 680–91.
- Kasser, Tim (2002), *The High Price of Materialism*, Cambridge, MA: MIT Press.
- Lakin, Jessica L., Tanya L. Chartrand, and Robert A. Arkin (2008), "I Am Too Just Like You: Nonconscious Mimicry as an Automatic Behavioral Response to Social Exclusion," *Psychological Science*, 19 (8), 816–22.
- Lea, Stephen E. G. and Paul Webley (2006), "Money as Tool, Money as Drug: The Biological Psychology of a Strong Incentive," *Behavioral and Brain Sciences*, 29 (2), 161–209.
- Leary, Mark R., Ellen S. Tambor, Sonja K. Terdal, and Deborah L. Downs (1995), "Self-Esteem as an Interpersonal Monitor: The Sociometer Hypothesis," *Journal of Personality and Social Psychology*, 68 (3), 518–30.
- Lerner, Jennifer, Deborah A. Small, and George Loewenstein (2004), "Heart Strings and Purse Strings," *Psychological Science*, 15 (5), 337–41.
- Levine, John M. (1989), "Reaction to Opinion Deviance in Small Groups," in *Psychology of Group Influence*, 2nd ed., ed. Paul B. Paulus, Hillsdale, NJ: Erlbaum, 187–231.
- Levy, Sidney J. (1959), "Symbols for Sale," *Harvard Business Review*, 33 (March–April), 117–24.
- Luo, Shanhong and Eva C. Klohnen (2005), "Assortative Mating and Marital Quality in Newlyweds: A Couple-Centered Approach," *Journal of Personality and Social Psychology*, 88 (2), 306–26.
- Maner, Jon K., C. Nathan DeWall, Roy F. Baumeister, and Mark Schaller (2007), "Does Social Exclusion Motivate Interpersonal Reconnection? Resolving the 'Porcupine Problem,'" *Journal of Personality and Social Psychology*, 92 (1), 42–55.
- Mayer, John D. and Yvonne N. Gaschke (1988), "The Experience and Meta-experience of Mood," *Journal of Personality and Social Psychology*, 55 (1), 102–11.
- Mick, David G. and Michelle DeMoss (1990), "Self-Gifts: Phenomenological Insights from Four Contexts," *Journal of Consumer Research*, 17 (3), 322–32.
- Miller, Charles E. and Patricia D. Anderson (1979), "Group Decision Rules and the Rejection of Deviates," *Social Psychology Quarterly*, 42 (4), 354–63.
- Miller, Charles E. and Julian F. Thayer (1989), "On the Existence of Discrete Classes in Personality: Is Self-Monitoring the Correct Joint to Carve?" *Journal of Personality and Social Psychology*, 57 (1), 143–55.
- Muniz, Albert M. and Thomas C. O'Guinn (2001), "Brand Community," *Journal of Consumer Research*, 27 (March), 412–32.
- Ramanathan, Suresh and Ann L. McGill (2007), "Consuming with Others: Social Influences on Moment-to-Moment and Retrospective Evaluations of an Experience," *Journal of Consumer Research*, 34 (4), 506–24.
- Ratner, Rebecca K. and Barbara E. Kahn (2002), "The Impact of Private versus Public Consumption on Variety-Seeking Behavior," *Journal of Consumer Research*, 29 (September), 246–58.
- Ratner, Rebecca K., Barbara Kahn, and Daniel Kahneman (1999), "Choosing Less-Preferred Experiences for the Sake of Variety," *Journal of Consumer Research*, 26 (June), 1–14.
- Rawn, Catherine D. and Kathleen D. Vohs (forthcoming), "People Use Self-Control to Risk Personal Harm: An Intra-Interpersonal Dilemma," *Personality and Social Psychology Review*.
- Richins, Marsha L. (1994), "Valuing Things: The Public and Private Meanings of Possessions," *Journal of Consumer Research*, 21 (3), 504–21.
- Rook, Dennis W. and Robert J. Fisher (1995), "Normative Influences on Impulsive Buying Behavior," *Journal of Consumer Research*, 22 (3), 305–13.
- Rose, Paul and Stephanie P. DeJesus (2007), "A Model of Mo-

- tivated Cognition to Account for the Link between Self-Monitoring and Materialism," *Psychology and Marketing*, 24 (2), 95–115.
- Rosenberg, Morris (1965), *Society and the Adolescent Self-Image*, Princeton, NJ: Princeton University Press.
- Rucker, Derek D. and Adam D. Galinsky (2008), "Desire to Acquire: Powerlessness and Compensatory Consumption," *Journal of Consumer Research*, 35 (August), 257–67.
- Schachter, Stanley (1951), "Deviance, Rejection, and Communication," *Journal of Abnormal and Social Psychology*, 46 (2), 190–207.
- Shavitt, Sharon and Michelle R. Nelson (1999), "The Social Identity Function in Person Perception: Communicated Meanings of Product Preferences," in *Why We Evaluate: Function of Attitudes*, ed. Gregory R. Maio and James M. Olson, Mahwah, NJ: Erlbaum, 27–57.
- Smith, Dylan M., Kenneth M. Langa, Mohammed U. Kabeto, and Peter A. Ubel (2005), "Health, Wealth, and Happiness: Financial Resources Buffer Subjective Well-Being after the Onset of a Disability," *Psychological Science*, 16 (9), 663–66.
- Snyder, C. R. and Howard L. Fromkin (1980), *Uniqueness*, New York: Plenum.
- Snyder, Mark (1974), "Self-Monitoring of Expressive Behavior," *Journal of Personality and Social Psychology*, 30 (4), 526–37.
- (1979), "Self-Monitoring Processes," *Advances in Experimental Social Psychology* 12 (1), 85–128.
- (1987), *Public Appearances, Private Realities: The Psychology of Self-Monitoring*, New York: Freeman.
- Snyder, Mark and Kenneth G. DeBono (1985), "Appeals to Image and Claims about Quality: Understanding the Psychology of Advertising," *Journal of Personality and Social Psychology*, 49 (3), 586–97.
- Snyder, Mark and Steve Gangestad (1986), "On the Nature of Self-Monitoring: Matters of Assessment, Matters of Validity," *Journal of Personality and Social Psychology*, 51 (1), 121–39.
- Stillman, Tyler F., Roy Baumeister, Nathaniel Lambert, Will Crescioni, Nathan DeWall, and Frank Fincham (2009), "Alone and Without Purpose: Life Loses Meaning Following Social Exclusion," *Journal of Experimental Social Psychology*, 45 (4), 686–94.
- Tanner, Robin J., Rosellina Ferraro, Tanya L. Chartrand, James R. Bettman, and Rick van Baaren (2008), "Of Chameleons and Consumption: The Impact of Mimicry on Choice and Preferences," *Journal of Consumer Research*, 34 (6), 754–66.
- Twenge, J. M., Roy F. Baumeister, Dianne M. Tice, and Tanja S. Stucke (2001), "If You Can't Join Them, Beat Them: Effects of Social Exclusion on Aggressive Behavior," *Journal of Personality and Social Psychology*, 81 (6), 1058–69.
- Twenge, J. M., Kathleen R. Catanese, and Roy F. Baumeister (2002), "Social Exclusion Causes Self-Defeating Behavior," *Journal of Personality and Social Psychology*, 83 (3), 606–15.
- Vohs, Kathleen D. and Ronald J. Faber (2007), "Spent Resources: Self-Regulatory Resource Availability Affects Impulse Buying," *Journal of Consumer Research*, 33 (4), 537–47.
- von Hippel, William and Karen Gonsalkorale (2005), "'That Is Bloody Revolting!' Inhibitory Control of Thoughts Better Left Unsaid," *Psychological Science*, 16 (7), 497–500.
- Watson, David, Lee A. Clark, and Auke Tellegen (1988), "Development and Validation of Brief Measures of Positive and Negative Affect: The PANAS Scales," *Journal of Personality and Social Psychology*, 54 (6), 1063–70.
- White, Kate and Darren Dahl (2006), "To Be or Not Be? The Influence of Dissociative Reference Groups on Consumer Preferences," *Journal of Consumer Psychology*, 16 (4), 404–14.
- (2007), "Are All Outgroups Created Equal? Consumer Identity and Dissociative Influence," *Journal of Consumer Research*, 34 (4), 525–36.
- Wicklund, Robert A. and Peter M. Gollwitzer (1981), "Symbolic Self-Completion, Attempted Influence, and Self-Deprecation," *Basic and Applied Social Psychology*, 2 (2), 89–114.
- (1982), *Symbolic Self-Completion*, Hillsdale, NJ: Erlbaum.
- Williams, Kipling D. (2001), *Ostracism: The Power of Silence*, New York: Guilford.
- Williams, Kipling D., Christopher K. Cheung, and Wilma Choi (2000), "Cyberostracism: Effects of Being Ignored over the Internet," *Journal of Personality and Social Psychology*, 79 (5), 748–62.
- Zhou, Xinyue, Kathleen D. Vohs, and Roy F. Baumeister (2009), "The Symbolic Power of Money: Reminders of Money Alter Social Distress and Physical Pain," *Psychological Science*, 20 (6), 700–706.