

## **The Influence of Friends on Consumer Spending: The Role of Agency-Communion Orientation and Self-Monitoring**

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**Abstract**

Four studies investigate the interactive influence of the presence of an accompanying friend and a consumer's agency-communion orientation on the consumer's spending behaviors. In general, the authors find that shopping with a friend can be expensive for agency-oriented consumers (e.g., males), but not for communion-oriented consumers (e.g., females). That is, consumers who are agency-oriented spend significantly more when they shop with a friend (versus when they shop alone), whereas this effect is attenuated for consumers who are communion-oriented. The results also show that this interactive effect is moderated by individual differences in self-monitoring such that friends are especially influential for consumers who are high in self-monitoring, but the effects occur in opposite directions for agency- and communion-oriented consumers (i.e., agentic consumers spend more with a friend, while communal consumers spend less when accompanied by a friend). Finally, the authors test the underlying process and document that the interaction among agency-communion orientation, the presence of a friend, and self-monitoring is reversed when the focal context is changed from "spending for the self" to "donating to a charity". Implications for research and practice are discussed.

*Keywords:* social influence, agency-communion theory, self-monitoring, impression management

Social influences play a pervasive role in shaping consumers' affect, cognitions and behaviors (e.g., Argo, Dahl, and Manchanda 2005; Dahl, Manchanda, and Argo 2001; Ratner and Kahn 2002). To date, behavioral researchers have studied the impact of several social characteristics to determine the likelihood and the extent to which the social context will be influential. For instance, while high levels of attractiveness and credibility of a salesperson have been shown to enhance the effectiveness of an influence attempt (e.g., Argo, Dahl, and Morales 2008), high levels of persuasion knowledge and cognitive capacity on the part of consumers have been shown to inoculate them from such an influence (e.g., Campbell and Kirmani 2000).

Since occurrences of social influence are not always readily apparent or intentional, it seems likely that consumers may not always be prepared to draw from their repertoire of protective strategies to shield themselves from the influence. An example of such an occurrence may be when the social influence arises from an unexpected source such as other shoppers present in the store. Indeed, Argo et al. (2005) find that the mere physical presence of another shopper in a store aisle is sufficient to elicit emotional and behavioral responses in consumers that benefit the retail establishment. In the present research, we aim to push the envelope even further to determine whether the presence of a friend can also create an unintentional cost to the consumer when in the marketplace. We use the term "friend" to refer to relationships ranging from the stage where the two parties like each other and seek out each other's company to the stage of friendly relations (Price and Arnould 1999). Research indicates that the behavioral implications of the interaction between two parties such as compliance to a request, tend to be similar across this range (e.g., Burger et al. 2001; Dolinski, Nawrat, and Rudak 2001).

In general, we predict and find that consumers' spending decisions are influenced by accompanying friends due to consumers' impression management concerns. Importantly, we find

that the direction of a friend's effect on consumer spending is moderated by the consumer's agency-communion orientation (i.e., the tendency to focus on the self or others; Bakan 1966).<sup>1</sup> That is, agentic consumers (i.e., males) spend more when they shop with a friend as compared to when they shop alone, whereas communal consumers (i.e., females) are more likely to control their shopping while in the presence of a friend. We also find that this interactive effect is moderated by individual differences in self-monitoring such that friends are especially influential for consumers who are high in self-monitoring, albeit the effects occur in opposite directions for agency- and communion-oriented consumers (i.e., agentic (communal) consumers spend more (less) when shopping with a friend). Finally, consistent with our impression management explanation, we find that the interactive effect of a friend's presence, agency-communion orientation, and self-monitoring is reversed when consumers make a donation to a charity. Communion-primed individuals with high self-monitoring donate more when accompanied by a friend than when they are alone, while this effect is not observed for agency-primed individuals.

Our research contributes to the social influence literature by extending our understanding of the impact of friends in consumption. Foremost, the limited research that has studied a friend's influence assessed respondents' perceptions of an imaginary shopper's likelihood of making unplanned purchases and spending more money in the context of hypothetical shopping situations (Luo 2005). The use of such an artificial methodology is questionable, especially in light of the fact that typical influence agents are salespeople and marketers (Friestad and Wright 1994); thus, consumers may not be cognizant of the extent to which their friends may influence their spending behaviors. Therefore, we study consumers' behavior both in actual shopping settings (i.e., mass merchandise stores, a bookstore, and a mall) and an experimental setting.

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<sup>1</sup> Agency/communion and agentic/communal are used to refer to the same concepts in the literature, so we use them interchangeably.

Second, we contribute to social influence research (e.g., Argo et al. 2005; Luo 2005; Ratner and Kahn 2002) by showing that the effect of the social environment (i.e., presence vs. absence of a friend) on consumer spending is qualified by individual differences in agency-communion orientations. We achieve this by (a) using gender as a proxy for agency-communion orientation in the pilot study and Study 1, (b) measuring the orientations directly via an individual difference scale in Study 2, and (c) priming the orientations in Study 3. Next, we present our conceptual development. We then define the models used to test our hypotheses and report the results from a pilot and three studies. We conclude with a discussion of the implications of our results and directions for future research.

### **CONCEPTUAL DEVELOPMENT**

Social influence has been described as one of the primary factors that affect consumers' decisions. In fact, Yang and Allenby (2003, p.291) suggest that: "...people live in a world in which they are interconnected, information is shared, recommendations are made and social acceptance is important." Based on this, it is not surprising that the research studying social influence has found that the social environment can shape and sometimes misconstrue consumers' opinions, preferences, and choice behaviors as they strive for social acceptance (e.g., Argo et al. 2005; Bearden and Etzel 1982; Dahl et al. 2001; Ratner and Kahn 2002). To illustrate, Ariely and Levav (2000) find that consumer choices made in group contexts differ systematically from those made in private consumption contexts, as the choices made in the former setting provide an opportunity for them to engage in impression management efforts. Netemeyer, Bearden, and Teel (1992, p.381) note that, "...in purchasing and using products, people are social actors whose behavior is open to observation of others...individuals use

products as a form of impression management to influence the ascriptions others might make about them (i.e., form favorable attributions).”

While the majority of research to date has studied the impact of social influence in a rather non-descript fashion (i.e., it has studied public versus private settings), the impact of the specific source of the influence is not as clear. This is an important void to address as it seems that impression management concerns may be very different if the shopper is standing in the store aisle with a friend versus a stranger (as studied in Argo et al. 2005). Consistent with this expectation, research has shown that the presence of friends (as compared to when the shopper is alone) can be highly influential, serving as not only sources of information related to the product (e.g., Urbany, Dickson, and Wilkie 1989), but also as activators of impression management concerns on the part of the consumers (e.g., Childers and Rao 1992). However, extending previous research, we argue that the influence of an accompanying friend on consumers’ shopping decisions and spending is moderated by consumers’ agency/communion orientation since agentic and communal individuals are socialized differently regarding the relative emphasis placed on self- and other-oriented goals (Bakan 1966; Eagly 1987), leading them to have different impression management concerns in the presence of their friends.<sup>2</sup>

Originally coined by Bakan (1966), the terms agency and communion capture the notion that people possess two fundamental modalities. In their most simplistic forms, agency refers to a tendency to reflect on one’s individuality and emphasizes the self and its separation from other organisms whereas communion refers to the merging of an individual in a larger organism and social relationships and connections with others (Helgeson 1994). Wiggins (1991) construes

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<sup>2</sup> Previous research (e.g., Funder and Colvin 1988; Stinson and Ickes 1992) points out that unlike strangers, our friends have a history of prior interaction with us and develop a store of knowledge regarding our personalities. Thus, the presence of friends provides people with both the opportunity and the motivation to conform to the expectations their friends have of them, which would bring about social rewards and help avoid social sanctions.

agency as one's strivings for status and power that facilitate and protect the differentiation of the individual from others, whereas communion arises from strivings for cooperation and harmony that protect the unity of the individual with a social entity. Accordingly, research has shown that agency involves such qualities as instrumentality, self-confidence, and competence, whereas communion involves such qualities as cooperativeness, concern for others, and kindness (e.g., Eagly 1987). Furthermore, due to differences in their socialization processes, agency-oriented individuals enjoy putting themselves, their pleasures, and their activities at center stage, whereas communion-oriented individuals refrain from doing so (Bakan 1966).

The usefulness of agency-communion orientations in understanding human behavior has been explored in different domains such as consumers' responses to persuasive information (Meyers-Levy 1988), financial risk-taking (He, Inman, and Mittal 2008), and donation behavior (Winterich, Mittal, and Ross 2009). To better understand why consumers' spending behavior in the presence of their friends should be influenced by their agency-communion orientation, we draw from the stereotype literature. This work has found that individuals are motivated to conform to the stereotypic expectations that other people hold about their behavior (e.g., Rosenthal and Rubin 1978). Such a motivation exists because while conforming to stereotypic expectations can produce rewards of social approval, violating these expectations risks social sanctions. For instance, in the gender domain, females who violate stereotypic expectations by engaging in behaviors typically regarded as masculine (i.e., self-promotion) are rated significantly lower in terms of their social attractiveness (Rudman 1998). Relatedly, research on the "feminine modesty effect" (e.g., Gould and Slone 1982) has shown that in response to normative pressures, females tend to be modest in public contexts. In contrast, society deems it normative and acceptable for males to engage in self-promotion (e.g., Miller et al. 1992).

Research by Eagly (1987) and Jost and Kay (2005) suggests that agentic stereotypes (e.g., ambitious, assertive, and competent) and communal stereotypes (e.g., warm, considerate, and modest) begin to emerge in childhood and are widely held and persistent. Thus, it seems reasonable to expect that these stereotypes would result in different objectives in a social situation and subsequently the use of different self-presentation strategies. There are two specific self-presentation strategies that seem applicable to the present context. The first strategy is acquisitive, which focuses on gaining valued outcomes and involves exerting effort to gain admiration, respect and attention of peers by presenting the self in the most favorable light (Arkin 1981). The second strategy is protective, which is adopted to avoid negative outcomes and is associated with “self-presentations that are cautious, modest, and designed to avoid attention” (Schelenker and Weigold 1992, p. 147; see also Wolfe, Lennox and Cutler’s (1986) distinction between self-presentations aimed at “getting ahead” of others versus “getting along” with others).

Based on our conceptual framework, we argue that to conform to the expectations that their friends have of them, agency-oriented consumers will adopt the acquisitive self-presentation style (i.e., “getting ahead”) while shopping with friends and engage in self-promotion through increased spending. However, spending more to impress a friend is not consistent with the modest nature of communion-oriented consumers. Thus, they are expected to adopt the protective self-presentation style (i.e., “getting along”) in the presence of a friend and will control their spending. While this suggests that communal consumers are not expected to spend more when shopping with a friend, it does not mean that they will decrease their spending. In particular, decreased spending in the presence of a friend represents self-neglect (i.e., focusing on others at the expense of the self) or “self-depreciation” and not all communal individuals have

the skills or tendency to perform such behavior (Buss 1990; Fritz and Helgeson 1998). Thus, we do not predict a systematic decline in the spending of communal consumers when they are accompanied by a friend. Rather, we argue that the positive impact of a friend's presence on agentic consumers' spending will not be observed in the case of communal consumers. Formally:

**H1:** Agency-oriented, but not communion-oriented, consumers will spend more when they shop with a friend than when they shop alone.

### PILOT STUDY

The Point of Purchase Advertising Institute (POPAI) periodically conducts field studies of consumers' purchasing behavior. POPAI fielded its most recent study in 1995 and provided the data for the present analysis. In-store intercept interviews were conducted at fourteen mass merchandise stores. Consumers were intercepted randomly as they entered the store and were asked several questions. After respondents finished shopping, they returned to the interviewer who collected their receipt and assessed demographics. The key dependent variable in the study was the amount of money spent by the participants. Data were collected from 1230 customers, 12 of which were excluded from the analysis due to missing responses. We also excluded 10 extreme observations identified based on studentized residuals, Cook's D, and hat diagonal.<sup>3</sup> Of the 1208 usable respondents, 555 shopped alone and 72 were accompanied by a friend.<sup>4</sup>

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<sup>3</sup> These observations were deemed outliers due to the extremeness of the magnitude of their dependent variable (i.e., very low or very high actual spending as compared to that predicted by the model). For instance, 6 participants spent less than \$1.50. Since such observations have undue impact on the estimated coefficients and their standard errors (as well as on the overall fit of the model), excluding them enables us to avoid reporting potentially misleading results driven by the presence of a few outliers in the dataset. Note that the pattern of results is similar when we run the analysis without excluding these outliers. We perform the same outlier diagnostics in other studies as well and add a note if we exclude any outliers.

<sup>4</sup> Accompaniers are categorized into eight groups: friend (72), spouse (138), parent (42), child (298), someone else's child (48), adult family member (48), someone else (19), unknown (156); 229 shoppers were accompanied by more than one person.

Based on previous research (e.g., He et al. 2008; Winterich et al. 2009), agency-communion orientation was operationalized as gender in this study (78% of respondents were female). Gender is a reasonable proxy for the orientation since Bakan (1966) suggests, and research has demonstrated (for review see Guimond et al. 2006), that agency orientation is more characteristic of males whereas communion orientation tends to pertain to females.

Data were analyzed using OLS regression where the dependent variable was the natural log of the dollar amount spent by the respondent.<sup>5</sup> Contrast coding was used for our two focal independent variables of gender (1 if male, -1 if female) and friend (1 if with friend, -1 if not accompanied by a friend). We controlled for a variety of factors that could potentially affect consumers' spending, such as the amount of money that they planned to spend, the amount of time they spent in the store, and the method they used to pay for their purchases (Inman, Winer, and Ferraro 2009). In addition, social variables were also included in the model to control for the impact of other types of relationships (e.g., spouse) and multiple accompaniers (Latané 1981; please refer to the Web Appendix for details of the model specification, summary statistics, and the complete regression results).

The overall regression model is significant ( $F(25, 1182) = 45.24, p < .01$ ) and the model  $R^2$  is 48.9%. We find a significant and positive main effect for friend ( $\beta_2 = 0.12, p < .05$ ). Importantly, this main effect is qualified by a positive and significant interaction between friend and gender ( $\beta_{18} = 0.15, p < .01$ ). That is, controlling for planned spending, male (i.e., agentic) consumers spend 56% more when they shop with a friend than when they shop alone, while female (i.e., communal) consumers spend 4% less when they shop with a friend than when they

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<sup>5</sup> In the model, we control for the amount of money that the shoppers planned to spend. Our results remain unchanged when we use the difference between actual and planned spending as the dependent variable.

shop alone, albeit this latter difference is not significant. This result provides initial support for our hypothesis. The interaction effect is visually depicted in Figure 1.

---Insert Figure 1 about here---

The results also reveal that the main effects for the other relationship categories are not significant ( $p$ 's > .17). More importantly, none of the interactions between gender and other social influence categories are significant ( $p$ 's > .16), implying that males (i.e., agentic) and females (i.e., communal) do not exhibit differential sensitivity to social influence stemming from sources other than their friends. One key limitation of the pilot study is that the classification of the "friend" was provided by participants and thus, it is a subjective perception. To address this limitation, in Study 1 we manipulate the friend's presence via a trained confederate assuming the role of a friend that is present during a shopping trip.

## STUDY 1

### Method

Study 1 uses a retail shopping setting to test a 2 (orientation: agency vs. communion) x 2 (social presence: alone vs. accompanying friend) between-subjects experimental design. The key dependent variable is amount spent. Orientation was again operationalized as participants' gender. Eighty-seven undergraduate students (43 males and 44 females) from a large North American university completed the study.

*Procedure.* Participants took part in what ostensibly were two unrelated studies. In the first study, participants were run in groups of two or three. In half of the groups, unknown to participants, a confederate assumed the role of one of the study participants.<sup>6</sup> The goal of the

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<sup>6</sup> To control for potential impact of gender match/mismatch between the confederate and participants, two confederates (one female, one male) were used in the study and participants were randomly assigned to each

confederate was to become acquainted with the actual participants. This was achieved by having the researcher leave the participants and the confederate alone for an extended period of time (i.e., she went to photocopy more surveys). The confederate followed a script to both initiate and maintain a conversation with the participants during the researcher's absence. Upon the researcher's return, the confederate responded to the same survey as the participants. Within the next couple of days, participants individually completed a second study that took place at the university student center. Upon arrival they were informed that the purpose of the study was to collect marketing research information for the university bookstore and that to do this they would be asked to go to the store, make a product purchase, and then return to the experimenter to complete a short survey. They were further told that to determine which product they would purchase, they would select an envelope that contained the name of a product under \$5.00.

Unknown to the participants, each of the envelopes identified a package of four AA batteries as the product to purchase. Participants were given \$5.00 and told that they could keep both the product and any remaining change from the purchase. Participants then went to the bookstore to locate and purchase the designated product. The battery display was comprised of five brands of AA batteries that varied in price and quality levels. Pretesting established the prices of the five brands to reflect differences in their perceived quality: Duracell/Energizer were rated the best (1;  $M_{\text{average}} = 5.92$ ) and were priced at \$4.29, Rayovac/Panasonic were rated average (2;  $M_{\text{average}} = 4.39$ ) and were priced at \$3.99, and Chateau was rated the worst (3;  $M_{\text{average}} = 2.85$ ) and was priced at \$3.69. Paired samples t-tests reveal that differences between group means are significant ( $p$ 's < .01). In the *friend* condition, when participants entered the store aisle, the confederate they had met previously was standing next to the battery display. In the

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confederate. As we discuss in the results section, neither the gender of the confederate nor the gender match/mismatch between the confederate and participants impacts our results.

*alone* condition, no one else was present in the store aisle. Participants selected and purchased their brand and then returned to the experimenter where they completed a short questionnaire. In the survey amidst questions related to the cover-story, participants were asked to indicate the brand of batteries they had purchased. Participants' responses to this question were compared to that recorded by an observer situated two aisles away from the battery display with a clear view of participants. In addition, participants indicated their gender, age, major, and completed an open-ended suspicion probe. Examination of the suspicion probe indicated that none of the participants were aware that the two studies were related or guessed the research's hypotheses.

While the confederate cannot be considered as a friend per se, previous research (e.g., Burger et al. 2001; Dolinski et al. 2001) shows that short conversations with strangers lead individuals to treat them as if they were friends. For instance, by using a similar manipulation to ours, Burger et al. (2001) find that participants in a conversation (versus a control) condition complied with a request from the confederate at a higher rate, as if they had been asked by a friend. Similarly, Dolinski et al. (2001, p. 1405) point out: "...people involved in a dialogue [but not in a monologue] with a stranger automatically treat him or her as a friend and, consequently comply with his or her request." Thus, our manipulation allows us not only to control for closeness of friendship and avoid potential problems arising from participant provided "friend" classifications but also to create an experimental setting in which we can observe participants' spending decisions as if they were made in the presence of a friend.

## **Results**

We conducted regression analysis with amount spent as the dependent variable and the independent variables of accompanying friend, participant's gender and their interaction term. Contrast coding was used for both gender (1 if male, -1 if female) and friend (1 if with friend, -1

if alone). The overall regression model is significant ( $F(3, 87) = 8.02, p < .01$ ) and the model  $R^2$  is 22.5%. We find significant main effects for friend ( $\beta = 0.08, p < .01$ ) and gender ( $\beta = 0.05, p < .05$ ). Importantly, the analysis reveals a positive and significant friend x gender interaction ( $\beta = 0.06, p < .01$ ). Consistent with H1, males spend significantly more in the presence of a friend as compared to the alone condition ( $M_{\text{friend}} = \$4.25$  vs.  $M_{\text{alone}} = \$3.96, p < .01$ ), whereas the average spending for females did not differ as a function of the social presence ( $M_{\text{friend}} = \$4.02$  vs.  $M_{\text{alone}} = \$3.98, p > .54$ ; see the Web appendix for the percentage of brands selected in each condition). Moreover, as shown in Table 1, the confederate's gender does not impact our results as males increase their spending in both the male and female friend conditions (vs. alone condition), whereas no significant change is observed in the spending of females across conditions.

---Insert Table 1 and Figure 2 about here---

Further, we re-estimated our model by including gender match (1 if the participant and the confederate's genders match, -1 otherwise) and gender mismatch (1 if the participant and the confederate's genders do not match, -1 otherwise) variables in lieu of the friend variable. Under this specification, both variables being -1 indicates that the participant is alone. Furthermore, we interact these variables with the gender of the participant. The results reveal positive and significant coefficients for gender match ( $\beta = 0.10, p < .01$ ) and gender mismatch ( $\beta = 0.07, p < .05$ ). The difference between the two coefficients is not significant ( $F(1, 81) = 0.82, p > .36$ ). In addition, the coefficients of the interaction terms are positive and significant ( $\beta_{\text{gender} \times \text{match}} = 0.05, p < .10$  and  $\beta_{\text{gender} \times \text{mismatch}} = 0.06, p < .05$ ). There is no significant difference between the two coefficients ( $F(1, 81) = 0.11, p > .73$ ), indicating that the friend's effect is not driven by gender match/mismatch.

## **Discussion**

Study 1 demonstrates that agentic consumers (i.e., males) spend significantly more money when they shop with a friend than when they shop alone, whereas communal consumers (i.e., females) tend to control their spending in the presence of a friend. The finding that males spend more while females are more modest in the presence of a friend is consistent with our impression management framework. Study 2 has two primary objectives. First, we directly measure individual differences in consumers' agency-communion orientation instead of using gender as a proxy. Second, because research has found that consumers differ in their responsiveness to social and interpersonal cues of situationally appropriate behavior (Gangestad and Snyder 2000), we explore the moderating role of self-monitoring.

## **STUDY 2**

### **Self-Monitoring as a Moderator**

Effective impression management efforts require that individuals accurately scan the social situation for cues to determine how to respond and adjust their behavior accordingly. The theory of self-monitoring (Lennox and Wolfe 1984; Snyder 1974, 1987) posits that people differ in terms of their ability and willingness to engage in expressive control and strategically manage their public appearances. More specifically, according to Gangestad and Snyder (2000), high (versus low) self-monitors are better at monitoring their behavior and regulating their self-presentation in order to convey desired public appearances.

However, previous research documents that self-monitoring has an asymmetric impact on the public behavior of agentic and communal individuals (e.g., Bozin and Yoder 2008; Flynn and Ames 2006). For instance, Flynn and Ames (2006) find that higher self-monitoring provides additional benefits to communal individuals (i.e., females), but not to agentic individuals (i.e., males), in the context of self-enhancement. In their first study, an analysis of peer evaluations of

the participants who completed a semester-long group project documents that high and low self-monitoring males are rated as equally valuable and influential contributors to the group by their peers. On the other hand, female group members with high (as compared to low) self-monitoring are considered more valuable and influential contributors. Moreover, in their second study, results of a dyadic negotiation exercise reveal that males high in self-monitoring do not perform better than those who are low in self-monitoring, whereas the negotiation outcome increases with high self-monitoring in the case of females. The authors attribute these findings to the notion that males tend to naturally exhibit the valued traits of competence and self-confidence; hence monitoring the situation and realizing the demand for self-confidence does not boost their performance. Females, on the other hand, increase their portrayal of competence and self-confidence when they are high self-monitors who realize that the situation demands this; hence, they perform better. The authors point out: “We do not predict (nor find evidence) that men and women exhibit different levels of self-monitoring. Instead, we propose that the impact of self-monitoring may be different for men and women because they experience different gender stereotypes” (p. 279).

In light of these findings and the results of our first study, we anticipate that regardless of the level of their self-monitoring, agency-oriented consumers will spend more when accompanied by a friend as compared to when they are alone. This is because higher self-monitoring is not expected to provide additional benefits to them in the process of self-enhancement. Specifically, in context of shopping for the self, increased spending is often associated with self-promotion (Griskevicius et al. 2007), which is a typical behavior exhibited by agentic individuals. Thus, agentic consumers will not obtain additional benefits from monitoring the situation and realizing that engaging in self-promotion through increased

spending would be a stereotype consistent self-presentation style. However, this should not be the case for communion-oriented consumers for whom the impact of high self-monitoring on public behavior should be stronger. In particular, communals with high (vs. low) self-monitoring have the ability and tendency to adopt the “protective” self-presentation strategy that the situation calls for and engage in stereotypic consistent behavior to convey a favorable impression. Hence, high self-monitors will exert even more control on their spending in the presence of a friend and exhibit heightened level of modesty (or “self-depreciation”), leading them to reduce their spending as compared to when they are alone.

In contrast, communals with low self-monitoring are not expected to decrease their spending in the presence of a friend. These consumers have difficulty in creating favorable impressions in the eyes of others (Bozin and Yoder 2008; Flynn and Ames 2006) due to a lack of skills in reading cues regarding socially appropriate behavior which results in them failing to alter their behavior accordingly. Our predictions can be summarized as follows:

**H2:** Self-monitoring will moderate the impact of a friend’s presence on spending for communion-oriented consumers, but not for agency-oriented consumers. Specifically, (a) agentic consumers with both high and low self-monitoring will spend more when they shop with a friend than when they shop alone, and (b) communal consumers with high, but not low, self-monitoring will spend less when they shop with a friend than when they shop alone.

## **Method**

One hundred thirty-six shoppers were intercepted randomly as they entered a large shopping mall located in Turkey. Respondents were compensated with two movie tickets (worth approximately \$10) in exchange for their participation in the study. Only customers shopping alone or accompanied by a single friend were invited to participate in this study.<sup>7</sup> Although 136

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<sup>7</sup> We did not invite shoppers accompanied by more than one friend to participate in the study as previous research (e.g., Argo et al. 2005; Latané 1981) shows that the strength of a social influence increases with the number of

customers participated in our study, 7 respondents were excluded from the sample due to missing responses. We also excluded 3 extreme observations, leaving 126 respondents, of which 53% were female and 45% were accompanied by a friend. Table 2 summarizes the sample statistics.

---Insert Table 2 about here---

Respondents were asked to complete two surveys. Following Erdem, Swait, and Valenzuela (2006), to ensure that the items included in the surveys were correctly translated and conveyed the same meaning in Turkish, the standard technique of back-translation (from English to Turkish and then back to English) was used.<sup>8</sup> The entry survey included questions such as “How often do you visit this shopping mall?” and “How much do you plan to spend in this shopping mall today?”, whereas the exit survey assessed the amount they spent, agency-communion orientations, self-monitoring, payment method and demographics. Buying impulsiveness (Rook and Fisher 1995) was also measured as an additional control variable.

## Measures

*Agency/Communion.* Sixteen five-point (1 = low, 5 = high) bipolar adjective scales from the Extended Version of Personal Attributes Questionnaire (EPAQ; Spence, Helmreich, and Holahan 1979) were used to measure agency and communion. The reliability and validity of these widely used scales have been well documented (e.g., Helgeson 1994). Examples of items that assess agency are “not at all independent—very independent” and “feels very inferior — feels very superior.” Examples of items that assess communion are “very cold in relations with others—very warm in relation with others” and “not at all aware of others’ feelings—very aware of others’ feelings”. The responses were averaged to create their respective orientations ( $\alpha_{\text{agency}} =$

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sources, which might have confounded our results. Limiting number of accompanying friends to one provides a more conservative test of our theory.

<sup>8</sup> The scales were translated by two Turkish doctoral students studying at a North American university and a translation agency operating in Turkey. Disagreements were resolved through discussion.

0.67 and  $\alpha_{\text{communion}} = 0.76$ ). As agency and communion dimensions are both embodied by an individual and a high score on agency or communion does not necessarily suggest a low score on the other dimension, a measure was needed to capture the difference between the two dimensions. Thus, after calculating agency and communion scores for each respondent, we created a new measure to assess relative agency orientation, “ACDIF”, by subtracting each respondent’s communion score from his/her agency score.<sup>9</sup> The ACDIF measure allows us to assess not only the direction but also the relative magnitude of each respondent’s agency-communion orientation.

*Self-monitoring.* We measured self-monitoring using Lennox and Wolfe’s (1984) revised self-monitoring scale, which consists of 13 items rated on seven-point scales (1= strongly disagree, 7 = strongly agree). The scale includes items such as “In social situations, I have the ability to alter my behavior if I feel that something else is called for” and “When I feel that the image I am portraying isn’t working, I can readily change it to something that does”. These items were combined and averaged together to create a self-monitoring index ( $\alpha = .75$ ).<sup>10</sup>

## Results

The regression model included a contrast-coded variable for being accompanied by a friend (1 if with friend, -1 if alone), while relative agency-communion (“ACDIF”) and self-monitoring were included in the model as continuous variables. The model also includes two-way interactions and three-way interaction of these variables. To reduce multicollinearity, the

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<sup>9</sup> Dindia (2006, p.11) rationalizes this measure: “Women and men differ in degree if both possess the same trait or display the same behavior but one possesses or displays more of it. Thus, if both women and men are agentic and communal, but women are more communal and men are more agentic, then with respect to agency and communion, they differ in degree, not kind.” Winterich et al. (2009, p.213) also point out: “individuals who are not distinctly categorized as either masculine or feminine may experience identity conflict.” In their study examining donation behavior, they find that the pattern of results for androgynous and undifferentiated participants is inconsistent with the pattern exhibited by either those with masculine gender identity or those with feminine gender identity.

<sup>10</sup> Consistent with Flynn and Ames (2006), we do not find a significant correlation between agency/communion orientation (i.e., ACDIF) and self-monitoring ( $\rho = -0.15, p > .10$ ).

continuous variables were mean-centered (Aiken and West 1991). Similar to the analysis in the pilot study, several control variables such as income and buying impulsiveness are also included in the model (please refer to the Web Appendix for details of the model specification and the measures).

The OLS regression results indicate that the overall model is significant ( $F(16, 109) = 12.89, p < .01$ ) and the model  $R^2$  is 66.9%. In addition, all VIFs are less than 1.7, suggesting that our results do not suffer from multicollinearity. The main effect for friend is both positive and significant ( $\delta_2 = 0.14, p < .05$ ). In addition, consistent with H1, the interaction between friend and ACDIF is positive and significant ( $\delta_{14} = 0.28, p < .05$ )<sup>11</sup>, indicating that the level of the difference between agency and communion orientation of an individual affects the degree to which s/he is influenced by the presence of a friend during a shopping trip. Furthermore, as predicted by H2, there is a significant three-way interaction between friend, ACDIF, and self-monitoring ( $\delta_{17} = 0.31, p < .05$ ; see Table 4).<sup>12</sup> In addition, the coefficients of all the main control variables have the expected signs, but only planned amount ( $\delta_1 = 0.71, p < .01$ ) and paying with a credit card ( $\delta_5 = 0.14, p < .05$ ) are statistically significant (see Table 3). Further, we conducted several re-estimations of the model (e.g., correcting for potential sample selection bias) to provide more insight into our findings. The results are substantively unchanged. These analyses are presented in the Web Appendix.

---Insert Tables 3 and 4 and Figure 3 about here---

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<sup>11</sup> Consistent with our results in previous studies, when we use gender as a proxy for agency-communion, there is again a positive and significant interaction between friend and gender ( $\beta = 0.14, p < .05$ ), as well as a significant main effect for friend ( $\beta = 0.12, p < .05$ ).

<sup>12</sup> We also estimated a modified version of our model where the dependent variable was the difference between actual and planned spending and  $\ln(\text{planned})$  was dropped from the right hand side of the model. The coefficients on the friend x ACDIF and friend x ACDIF x self-monitoring are still positive and significant at the 5% level, whereas the coefficient on friend is positive, but not significant.

To facilitate the interpretation of the three-way interaction, we follow the post-hoc probing procedure recommended by Aiken and West (1991). We first calculate high (low) values for ACDIF and self-monitoring by adding (subtracting) the standard deviation to (from) the mean. We then conduct simple slope analysis, which examines the interaction between ACDIF and presence of a friend during a shopping trip on amount spent at low and high levels of self-monitoring. This analysis enables us to assess whether the pattern of results is consistent with the specific predictions of the second hypothesis. The moderating effect of self-monitoring is visually depicted in Figure 3.

As predicted by H2a, we find that the slopes for high self-monitor/high-ACDIF ( $b = 0.378, t = 2.90, p < .01$ ) and low self-monitor/high-ACDIF ( $b = 0.243, t = 2.15, p < .05$ ) are both significantly different from zero, indicating that regardless of their level of self-monitoring, consumers with high ACDIF scores spend significantly more when they are with a friend than when they are alone. Although the slope for high self-monitors is greater than that of low self-monitors, the difference between the slopes is not significant ( $t = 0.82, p > .41$ ).

Furthermore, the slope for high self-monitor/low-ACDIF is negative and significant ( $b = -0.254, t = 1.84, p < .05$ , one tailed), implying that high self-monitors with low ACDIF spend less when they shop with a friend as compared to when they shop alone. Although the slope for low self-monitor/low-ACDIF is positive, it is not statistically significant ( $b = 0.203, t = 1.33, p > .18$ ). Finally, the difference between the two slopes is statistically significant ( $t = 2.06, p < .05$ ). These results support H2b.

## **Discussion**

The results support our thesis that self-monitoring qualifies the impact of the presence of a friend on spending for communion-oriented consumers, but not for agency-oriented consumers.

We find that agentics consistently spend more when they are accompanied by a friend as compared to when they are alone regardless of self-monitoring. However, higher self-monitoring moderates the impact of a friend's presence on the spending of the communion-oriented consumers. Communals with high self-monitoring spend less in the presence of a friend, whereas there is no difference in the amount spent by communals with low self-monitoring when they shop alone as compared to with a friend.

Thus far in our analysis, we either use gender as a proxy for the agentic or communal nature of participants (pilot study and Study 1) or measure agency-communion orientation (Study 2). Although both methods have been employed in the literature (e.g., He et al. 2008; Helgeson 1994; Winterich et al. 2009), priming agency-communion orientation will enable us to test our hypotheses in a more controlled setting. This is one of the objectives of Study 3.

Furthermore, a basic premise of our research is that communion-oriented consumers' impression management concerns lead them to control their spending in the presence of their friends. While the spending context utilized in the first three studies is self-focused (i.e., counter to a communion-oriented perspective) there are certain instances where increased spending is consistent with communal stereotypes. One such instance might involve donations to a charity, because the communal stereotypic beliefs mainly describe a concern with the welfare of other people and communion-oriented individuals embody such traits as caring, being helpful, and sympathetic (i.e., characteristics inherent in a charity; Eagly 1987). Conversely, agency-oriented individuals place emphasis on independence from others and embody such traits as being self-reliant (i.e., characteristics not inherent in donating to a charity). Thus, if differences in impression management concerns of agency- and communion-oriented consumers are the underlying reason for their differential sensitivity to a friend's influence, our findings should

reverse when we examine communion- and agency-primed individuals' donation behavior in the presence of their friends.<sup>13</sup> Specifically, agency-primed consumers with both high and low self-monitoring should adapt a “protective” self-presentation strategy (instead of “acquisitive” style as they do in the spending context); thus they should neither increase nor decrease their donation in the presence of their friends. It is important to note that although decreased donation is consistent with the self-reliant nature of agentic consumers, it will increase the risk of being seen as “greedy” and “cheap”, which is inconsistent with agentic's aspiration for status among their peers. As a result, we predict no effect (rather than a decline) of the presence of a friend on the amount donated by agentic consumers regardless of their self-monitoring. Communion-primed individuals with high self-monitoring are expected to donate more to a charity in the presence of a friend (vs. when they are alone), whereas communion-primed individuals with low self-monitoring should not change their donation when they are accompanied by a friend (vs. alone).

### STUDY 3

#### Method

A 2 (orientation: agency vs. communion) x 2 (social presence: alone vs. friend) x 2 (self-monitoring: high vs. low) between-subjects experimental design was employed. Orientation and social presence were manipulated, whereas self-monitoring was measured. One hundred ninety-two undergraduate students from a large North American University completed the study in exchange for course credit.

*Procedure.* Undergraduate students signed up for the study with a friend who was also a registered undergraduate student at the same university. Upon arrival, the pairs of friends were informed that three randomly selected participants would receive \$50 after the study. They were

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<sup>13</sup> We thank the review team for this suggestion.

then randomly assigned to agency/communion and friend/alone conditions. Participants in the alone condition were told that they would complete the study in separate rooms, whereas participants who were assigned to the friend condition remained in the same room until the end of the study. The experimenters (two males and two females) were also randomly assigned to the different conditions.

The first part of the survey included a priming task and manipulation check exercise. The experimenter then presented participants with a list of eight (fictitious) charities and verbally asked each participant whether s/he would like to donate to a charity if s/he won the \$50, and if so how much. In the friend condition, while the experimenter asked the donation question to both participants simultaneously, only the first participant's answer was included in the analysis as the other participant's response might be influenced by the first participant's response. Finally, participants in both the friend and alone conditions were given the second part of the survey, which contained the self-monitoring scale<sup>14</sup>, demographic questions, and an open-ended suspicion probe. None of the participants guessed the focal hypotheses of the research.

## Measures

*Agency-Communion Prime.* To manipulate agency-communion orientation we used a scrambled-sentence task. Participants were presented with 20 scrambled sentences of which 15 were related to agency or communion orientation depending on the prime. The remaining five sentences were not related to either prime and were categorized as neutral (see the appendix for the full list of sentences). Words and phrases used for each prime were taken from Eagly (1987), Myers-Levy (1988), and Winterich et al. (2009). For example, the agency prime included sentences such as “personal beliefs are important” and “I try to be assertive”, while the

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<sup>14</sup> Neither the agency-communion prime nor the presence of a friend has a significant impact on the self-monitoring scores ( $\rho_{AC-SM} = 0.14, p > .10$ ;  $\rho_{F-SM} = -0.06, p > .50$ )

communion prime included sentences such as “social norms are important” and “I try to be selfless”.

*Self-monitoring.* We again measured self-monitoring ( $\alpha = 0.74$ ; Lennox and Wolfe 1984).

*Manipulation Check.* To verify that the agency-communion prime was successful, we used Kuhn and McPartland’s (1954) task where participants completed ten “I am ...” statements. Two independent research assistants coded each response as either agentic or communal (95% agreement with any disagreements resolved through discussion). Agentic statements referred to a personal description, attitude or belief focusing on self (e.g., I am independent, I am tall). Communal statements referred to either relationships or sensitivity to others (e.g., I am helpful, I am a daughter) or a demographic group or category to which the participant belongs to (e.g., I am a marketing major, I am a Christian). Statements that did not relate to either category were classified as other (e.g., I am hungry) and were excluded from the analysis. Participants in the agency-priming condition wrote more agentic statements than those in the communion-priming condition ( $M_{\text{agency}} = 5.30$  vs.  $M_{\text{communion}} = 4.62$ ,  $t = 2.38$ ,  $p < .05$ ). Participants in the communion-priming condition wrote more communal statements relative to those in the agency-priming condition ( $M_{\text{agency}} = 3.42$  vs.  $M_{\text{communion}} = 4.55$ ,  $t = 4.00$ ,  $p < .01$ ). These results indicate that agency-communion orientation was successfully primed.<sup>15</sup>

## Results

Excluding accompanying friends and two outliers from the analysis resulted in a final sample size of 124 respondents (45% female; 52% with friend). The average donation was \$23.14 (SD = \$17.44). Table 5 reports the average donation across conditions.

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<sup>15</sup> Given that agency-communion orientation may be difficult to manipulate due to internalization of these characteristics through socialization at an early age (Eagly 1987, Winterich et al. 2009), an experimental design in which agency-communion orientation is primed provides a conservative test of our hypothesis.

We use regression to test our hypothesis, with self-monitoring mean-centered to minimize multicollinearity (all VIFs < 1.5). Contrast coding was used for agency-communion prime (1 if agency, -1 if communion), friend (1 if with friend, -1 if alone), and gender (1 if male, -1 if female). We regressed donation amount on the agency-communion prime, friend, self-monitoring, two-way interactions, three-way interaction of these variables, and gender. The results indicate that the overall model is significant ( $F(8, 115) = 2.17, p < .05$ ) and the model  $R^2$  is 13.14%. As predicted, there was a significant three-way interaction among agency-communion prime, friend, and self-monitoring ( $\beta = -6.67, p < .05$ ). The friend x self-monitoring interaction was also significant ( $\beta = 7.00, p < .01$ ). No other effects were significant. To facilitate the interpretation of the three-way interaction, we follow the post-hoc probing procedure recommended by Aiken and West (1991; see Figure 4).

---Insert Tables 5 and 6 and Figure 4 about here---

Consistent with our hypothesis, for both high and low self-monitors in the agency-priming condition there is no significant relation between presence of a friend and donation amount ( $b_{A-HSM} = -1.32, t = -0.42, p > .60$ );  $b_{A-LSM} = -1.73, t = -0.59, p > .55$ ). Conversely, for those with communion-prime and high-self monitoring, the presence of a friend has positive and significant impact on donation amount ( $b_{C-HSM} = 4.93, t = 1.65, p = .05$ , one-tailed test); the presence of a friend (vs. alone) leads to higher donations by communion-primed participants with high self-monitoring. This result is consistent with the argument that since communal individuals tend to be caring and nurturing, displaying a portrait that is consistent with these characteristics in front of a friend may bring about social rewards. Conversely, communion-primed participants with low self-monitoring donated less in the presence of a friend as compared to the alone condition ( $b_{C-LSM} = -11.85, t = -3.29, p < .01$ ). This result is unexpected

and we speculate on why it arose in the discussion section. However, overall our results provide support for the predicted reversal of the friend effect in the donation (vs. spending) context.

## **Discussion**

Study 3 demonstrates that the presence of a friend and self-monitoring interact to influence donation behavior of communion-oriented individuals, but not agency-oriented individuals. Stated differently, the direction of the interaction among presence of a friend, agency-communion orientation, and self-monitoring documented in Study 2 reversed when the consumer decision under examination changed from “spending for the self” to “donation to a charity”. Jointly, Studies 2 and 3 provide a test of the underlying role of impression management concerns. We document that individuals, with the exception of communals with low self-monitoring, shape their spending decisions in the presence of their peers to avoid counteracting the stereotypes associated with their orientation.

One puzzling finding obtained in this study is that communals with low self-monitoring decrease their donation to a charity in the presence of a friend (vs. alone). A possible explanation for this finding is that low self-monitors may simultaneously exert less effort and try to avoid being seen as making an effort to create a good impression, which may sometimes lead them to exhibit context inappropriate behavior (i.e., donating less to a charity in the presence of a friend since they were primed to think that others value nurturance). This is consistent with the items appearing in Snyder’s (1987) self-monitoring scale that describes low self-monitors (e.g., “At parties and social gatherings, I do not attempt to do or say things that others will like” and “I feel a bit awkward in company and do not show up quite so well as I should”). Noteworthy is that previous research has also documented unexpected findings regarding the public behavior of low self-monitors (e.g., Ratner and Kahn 2002; White and Gerstein 1987). Future research is needed

to reconcile theoretical arguments and empirical findings on the behavior of low self-monitors in different types of public contexts.

## **GENERAL DISCUSSION**

Across three field studies and a lab experiment, we demonstrate the expensive impact of a “friendly” social influence on consumers’ actual spending decisions. In general, our findings suggest that the effect has the greatest implications for agentic consumers (e.g., males) as a decision to shop with a friend (versus alone) tends to have negative ramifications for their pocketbook – they spend more with an accompanying friend. This caveat does not appear to hold for communal consumers (e.g., females). In fact, communal consumers with high self-monitoring spend significantly less money when they shop with a friend than when they shop alone. These findings appear to be spending context dependent as we also document that when the spending is for a good cause (i.e., donating to a charity), communals with high self-monitoring loosen their purse strings in the presence of a friend (versus alone), while donation behavior of agentics is not influenced by an accompanying friend.

Our investigation of the impact of an accompanying friend on consumer spending makes important contributions with implications for both consumers and managers. First, previous research on social influences has found that friends influence consumers’ purchase decisions in a positive way by providing information related to the product (Urbany et al. 1989). We extend this research by demonstrating that friends can also have deleterious implications for a shopper’s wallet, as agentic shoppers spend more when they are accompanied by a friend as opposed to when they shop alone. Furthermore, the variability in our empirical design allows us to control for any confounding social factors including “mere presence effect” (Argo et al. 2005). For

instance, our second study was conducted in a large shopping mall where both solo shoppers and those accompanied by a friend were subject to the mere presence effect of other shoppers in the stores, but we document a significant friend effect which is beyond any mere presence effect.

Our research also explores the underlying mechanism that drives our effects. We theorize that the presence of a friend impacts consumer spending because it motivates consumers to engage in impression management. To empirically explore this possibility, we identify and test the moderating roles of a consumer's agency-communion orientation and individual differences in self-monitoring, and test the impact of the spending context. First, we argue that support for an impression management mechanism would be provided if consumers engage in stereotypic consistent behaviors in the presence of their friends. According to the stereotype literature (e.g., Rosenthal and Rubin 1978) individuals are motivated to engage in behaviors that are consistent with existing stereotypes when they are in public settings. A stereotype of agency-oriented individuals is that they are self-oriented and thus, in the present context, a consistent behavior could be self-promotion manifesting through increased spending. Conversely, because a stereotype of communion-oriented individuals is that they are group-focused, a behavior that would be consistent with this stereotype in the current research would be one that would prevent the person from standing out (i.e., they would be modest and would limit their spending). We find support for such effects.

Second, the definition of self-monitoring revolves around the idea that those who are high in this individual difference are likely to adapt and change their behaviors (i.e., manage their impressions) when in the presence of others. However, previous research (e.g., Flynn and Ames 2006) also suggests that higher self-monitoring provides additional benefits to communal individuals, but not to agentic individuals, in the process of impression management. Thus,

Study 2's demonstration that our effects arise asymmetrically for communal and agentic consumers lends additional credence to the proposed underlying mechanism. The impact of an accompanying friend on the spending of agentic and communal consumers who are high in self-monitoring is positive and negative, respectively, whereas it is positive for both groups who are low in self-monitoring (though the impact is not significant for communal consumers with low self-monitoring). Finally, we provide evidence for the underlying role of impression management concerns by finding that the pattern of results is dependent on the spending context. In particular, agentic/communals with high self-monitoring spend more in the presence of a friend (versus alone) in contexts when impression management concerns are paramount (agentic = self-focused situations, communal = other-focused situations).

In addition to extending the current literature on social influence in the market place, our research contributes to the nascent literature examining how agency-communion orientation impacts consumers' monetary decisions. While previous studies demonstrate the role of agency and communion on consumers' financial risk-taking (He et al. 2008) and donation behavior (Winterich et al. 2009) in a private decision-making context, our study focuses on impression management related spending implications of the orientations.

Our findings have important implications for managers. Given that agentic consumers' spending appears to be highly susceptible to the presence of a friend, managers should focus on strategies that will help them attract a higher number of male consumers who shop with their friends. By creating shopping environments that prime an agentic orientation and encourage shopping with friends, retailers may be able to boost sales. For example, offering promotions such as "bring a friend and both get an extra X% off" targeted to male consumers can be effective in that increased spending by both consumers can cover expenses of the promotion and

generate additional revenue. In fact, such a promotion might also legitimize spending for females since both shoppers will be receiving a discount.

Future research is needed to explore whether there are conditions (other than donating to a charity) under which communion-oriented individuals will purchase *more* when in the presence of a friend. It seems likely that there are instances in which communion-oriented consumers may not want to convey an impression of being modest such as when they are purchasing a gift for someone else. In this instance, modesty concerns may go by the wayside in favor of creating other types of impressions (e.g., a generous friend). Research should also examine the conditions under which the type of store inhibits communion-oriented consumers from imposing mental constraints on their behavior (i.e., behaving modestly) or spurs them to spend more when in the presence of a friend. For instance it is possible that in environments that are more experiential in nature (e.g. salon or spa), the physical relaxation from receiving the treatment might simultaneously relax tendencies to engage in the stereotypic-consistent behavior of modesty and as a result communion-oriented individuals may be more likely to spend more when a friend is present (e.g., try additional services).

Few purchase decision are made in a social void. Thus, it is important to examine how others influence our purchase decisions and spending. In this research, we took a crucial step toward achieving this goal by presenting a comprehensive analysis of the impact of shopping with friends, a major source of social influence in the shopping context, on consumers' spending. However, more research is needed to better understand the nature of the relationship between a friend's presence and a consumer's spending.

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**TABLE 1**  
**SAMPLE STATISTICS AND AVERAGE ACTUAL SPENDING**  
**ACROSS CONDITIONS FOR STUDY 1**

|        | Alone<br>(1)       | w/ Friend<br>(2)   | w/ Male<br>Friend<br>(2a) | w/ Female<br>Friend<br>(2b) | Dif:<br>(2) – (1)   | Dif:<br>(2a) – (1)  | Dif:<br>(2b) – (1)  |
|--------|--------------------|--------------------|---------------------------|-----------------------------|---------------------|---------------------|---------------------|
| Male   | \$3.96<br>(n = 23) | \$4.25<br>(n = 20) | \$4.26<br>(n = 11)        | \$4.22<br>(n = 9)           | \$0.29<br>(p < .01) | \$0.30<br>(p < .01) | \$0.26<br>(p < .01) |
| Female | \$3.98<br>(n = 24) | \$4.02<br>(n = 20) | \$3.99<br>(n = 13)        | \$4.07<br>(n = 7)           | \$0.04<br>(p > .54) | \$0.01<br>(p > .88) | \$0.09<br>(p > .37) |

**TABLE 2**  
**SAMPLE STATISTICS FOR STUDY 2**

| <i>Gender</i>      | Frequency | Percent |
|--------------------|-----------|---------|
| Male (alone)       | 33        | 26.19   |
| Female (alone)     | 35        | 27.77   |
| Male (w/ Friend)   | 28        | 22.22   |
| Female (w/ Friend) | 30        | 25.00   |

| <i>Payment Method</i> | Frequency | Percent |
|-----------------------|-----------|---------|
| Cash                  | 55        | 43.65   |
| Credit                | 57        | 45.24   |
| Cash & Credit         | 14        | 11.11   |

**TABLE 3**  
**AVERAGE ACTUAL SPENDING ACROSS CONDITIONS FOR STUDY 2**

|                   | Alone           |                 | w/ Friend       |                  |
|-------------------|-----------------|-----------------|-----------------|------------------|
|                   | Low SM          | High SM         | Low SM          | High SM          |
| <b>High ACDIF</b> | 58.29<br>(n=19) | 68.31<br>(n=16) | 90.72<br>(n=17) | 177.61<br>(n=12) |
| <b>Low ACDIF</b>  | 75.48<br>(n=16) | 87.46<br>(n=17) | 82.07<br>(n=11) | 64.61<br>(n=18)  |

\*Median-splitting was used to assign the participants to high/low ACDIF and self-monitoring conditions.

\*Mean spending was reported in Turkish Lira (TL). At the time of the study, \$1 = 1.2 TL

**TABLE 4**  
**REGRESSION RESULTS FOR STUDY 2**

| Equation: ln(amount spent)    |                       |         |
|-------------------------------|-----------------------|---------|
|                               | Parameter Estimate    | t-value |
| Intercept                     | 3.99***               | 34.46   |
| ln(planned amount)            | 0.71**                | 9.90    |
| Friend                        | 0.14*                 | 2.16    |
| Time spent in the store       | 0.003                 | 1.61    |
| ln(income)                    | 0.02                  | 0.24    |
| Credit                        | 0.14*                 | 2.00    |
| Mixed Payment (Cash + Credit) | 0.15                  | 1.21    |
| In-store special              | 0.12                  | 1.82    |
| Buying Impulsiveness          | 0.01                  | 0.23    |
| Visit                         | -0.04                 | -0.99   |
| Self-monitoring (SM)          | -0.13                 | -1.40   |
| ACDIF                         | 0.08                  | 0.76    |
| Age                           | 0.001                 | 0.17    |
| Gender                        | -0.03                 | -0.50   |
| Friend x ACDIF                | 0.28*                 | 2.60    |
| Friend x SM                   | -0.10                 | -1.19   |
| SM x ACDIF                    | 0.10                  | 0.70    |
| Friend x ACDIF x SM           | 0.31*                 | 2.12    |
| *p < .05 ** p < .01           | R <sup>2</sup> =67.0% |         |

**TABLE 5**  
**AVERAGE ACTUAL DONATION ACROSS CONDITIONS FOR STUDY 3**

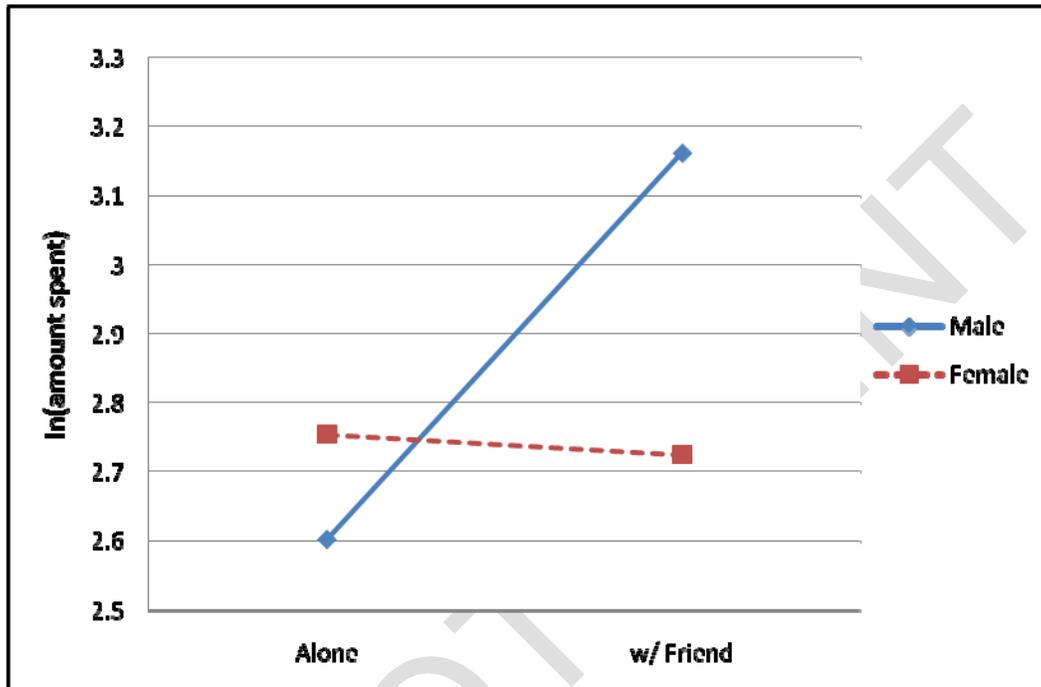
|                          | Alone             |                   | w/ Friend         |                   |
|--------------------------|-------------------|-------------------|-------------------|-------------------|
|                          | Low SM            | High SM           | Low SM            | High SM           |
| <b>Agency Priming</b>    | \$25.28<br>(n=18) | \$29.17<br>(n=12) | \$22.67<br>(n=15) | \$23.42<br>(n=19) |
| <b>Communion Priming</b> | \$28.13<br>(n=16) | \$17.50<br>(n=14) | \$12.69<br>(n=13) | \$24.71<br>(n=17) |

\*Median-splitting was used to assign the participants to high/low self-monitoring conditions.

**TABLE 6**  
**REGRESSION RESULTS FOR STUDY 3**

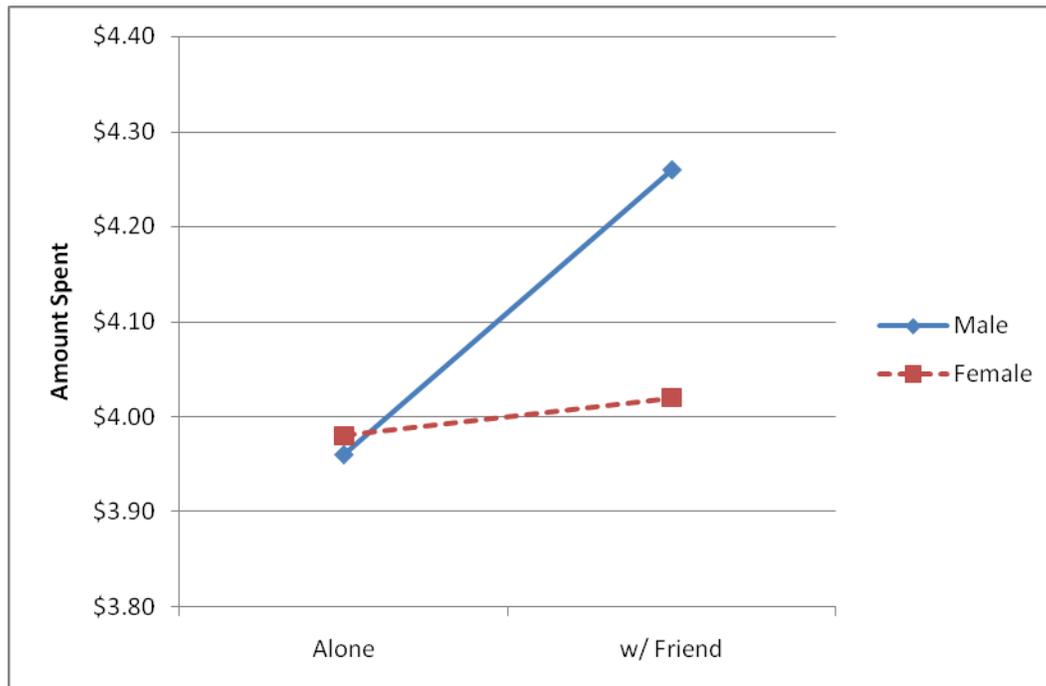
| Equation: Amount Donated |                       |         |
|--------------------------|-----------------------|---------|
|                          | Parameter Estimate    | t-value |
| Intercept                | 23.06**               | 14.86   |
| Friend                   | -2.49                 | -1.60   |
| Agency-Communion (AC)    | 2.38                  | 1.54    |
| Self-monitoring (SM)     | 3.54                  | 1.33    |
| Gender                   | -1.23                 | -0.80   |
| Friend x AC              | 0.97                  | 0.63    |
| Friend x SM              | -0.10                 | -1.19   |
| SM x AC                  | 7.00**                | 2.64    |
| Friend x AC x SM         | -6.67*                | -2.51   |
| *p < .05 ** p < .01      | R <sup>2</sup> =13.1% |         |

**FIGURE 1**  
**PILOT STUDY: MODERATING EFFECT OF GENDER ON THE RELATIONSHIP**  
**BETWEEN PRESENCE OF A FRIEND AND CONSUMERS' SPENDING**



Notes: Agentic consumers (i.e., males) spend more when they are accompanied by a friend as compared to when they are alone, whereas there is no difference in the spending of communal consumers (i.e., females) between the two conditions. The amount spent in each condition is calculated at sample means of  $\ln(\text{planned})$ , time spent, age, and  $\ln(\text{income})$  and assumes cash payment and no use of in-store specials.

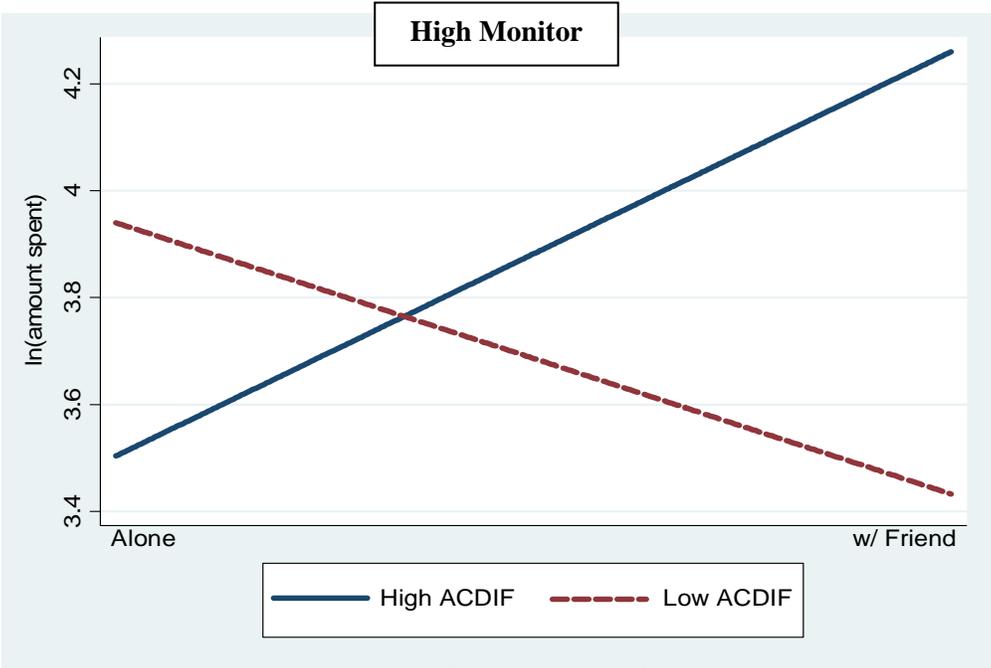
**FIGURE 2**  
**STUDY 1: MODERATING EFFECT OF GENDER ON THE RELATIONSHIP**  
**BETWEEN PRESENCE OF A FRIEND AND CONSUMERS' SPENDING**



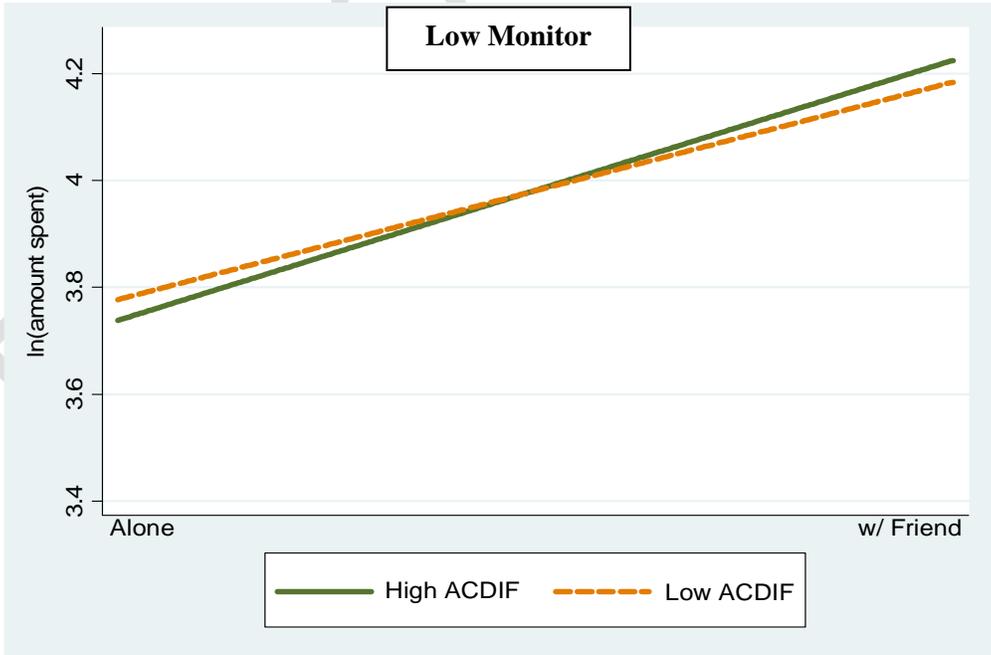
Notes: Agentic participants (i.e., males) spend more in the presence of a friend as compared to when they are alone, whereas there is no difference in the spending of communal participants (i.e., females) between the two conditions.

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**FIGURE 3**  
**STUDY 2: THREE-WAY INTERACTION BETWEEN PRESENCE OF A FRIEND,**  
**ACDIF (AGENCY-COMMUNION) SCORE AND SELF-MONITORING**

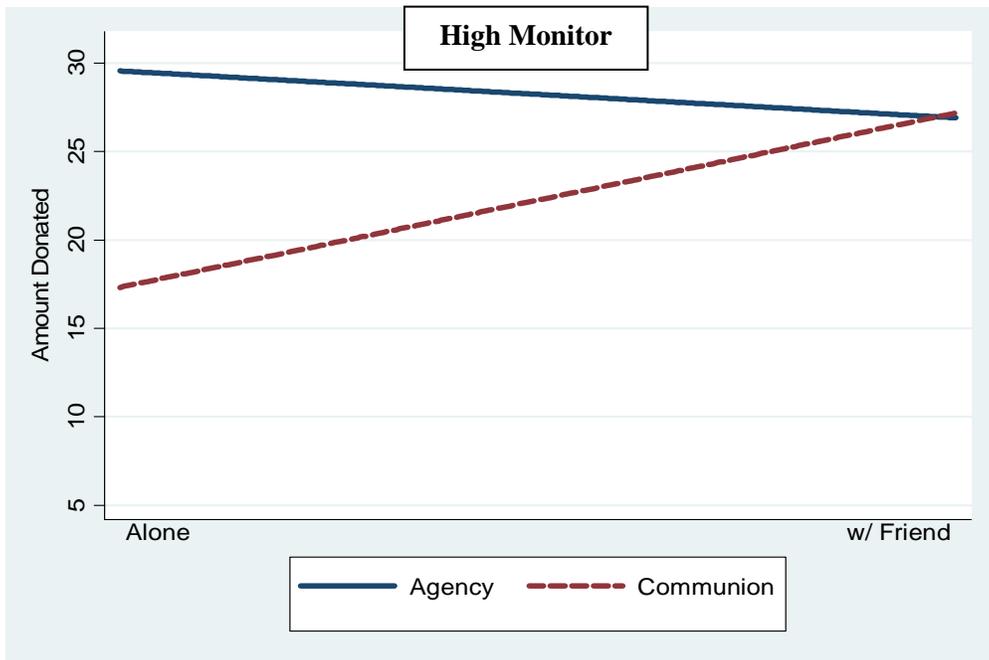


Notes: High (Low) ACDIF consumers spend more (less) when they are accompanied by a friend as compared to when they are alone.

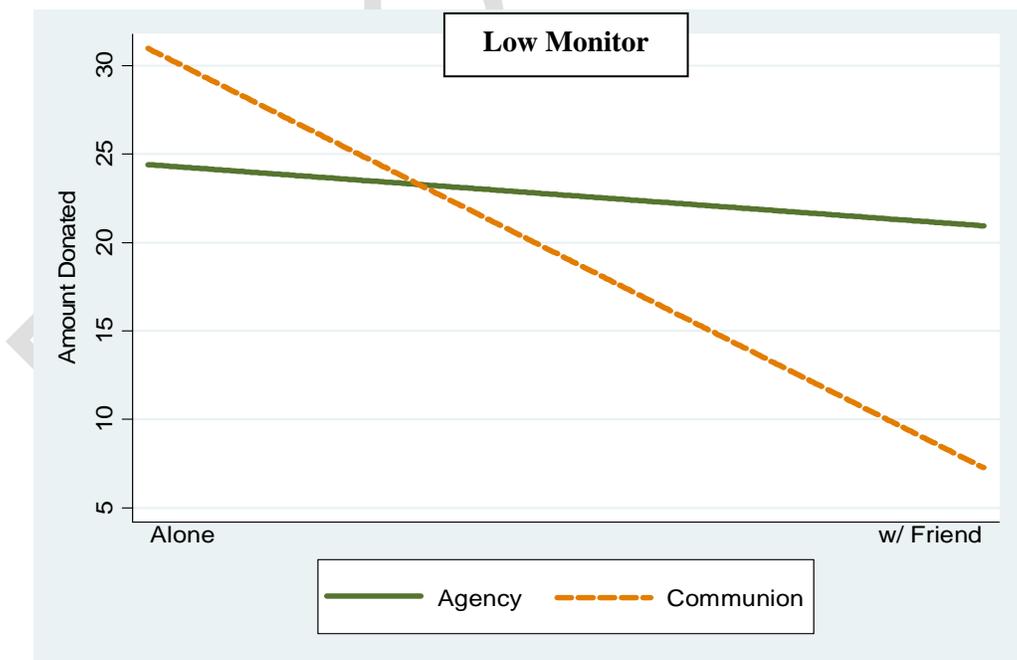


Notes: Both high and low ACDIF consumers spend more when they are accompanied by a friend as compared to when they are alone, though the increase in the spending of the latter group is not significant.

**FIGURE 4**  
**STUDY 3: THREE-WAY INTERACTION BETWEEN PRESENCE OF A FRIEND,**  
**AGENCY-COMMUNION ORIENTATION AND SELF-MONITORING**



Notes: Communion-primed participants with high self-monitoring donate more to a charity in the presence of a friend than when they are alone, whereas there is no difference in the amount donated by agency-primed participants between the two conditions.



Notes: Communion-primed participants with low self-monitoring donate less to a charity in the presence of a friend than when they are alone, whereas there is no difference in the amount donated by agency-primed participants between the two conditions.

## APPENDIX

### AGENCY-COMMUNION PRIMING FOR STUDY 3

We are interested in how people form meaningful English sentences. Please form meaningful, non-question sentences from the following scrambled words. To complete the exercise successfully, you need to use all of the words given for each sentence.

| <b>Agency</b>                                      | <b>Communion</b>                                   |
|--|--|
| Important personal are beliefs.                    | Important social are norms.                        |
| Being ambitious to success is key.                 | Assisting others to happiness is key.              |
| Control individuals seek to others.                | Conform with individuals seek to others.           |
| Usually I on myself focus.                         | Usually I on others focus.                         |
| Achieve aspiring individuals goals their.          | Make caring a difference people.                   |
| Virtuous is a quality displaying self-sufficiency. | Virtuous is a quality displaying nurturance.       |
| Convictions I my stand by own.                     | While decisions making thoughts others' consider I |
| Being important a leader is.                       | Being important a follower is.                     |
| Respect get people accomplished.                   | Respect get people modest.                         |
| Separate individuals are others from.              | Connected individuals are others to.               |
| Try assertive to be I.                             | Try selfless to be I.                              |
| Competition enjoyable makes life more.             | Cooperation enjoyable makes life more.             |
| Concern for I have well-being my own.              | Concern for I have of others the welfare           |
| Power people for strive.                           | Togetherness people for strive.                    |
| Bring happiness alone spending time may.           | Bring happiness with others spending time may.     |

| <b>Neutral</b>                          |
|---|
| Listening to music our minds clear can. |
| Exercise a good way to jogging is.      |
| Events I know college related.          |
| Daily life a part of technology is.     |
| Guided by life is knowledge.            |

## Web Appendix A

**TABLE A1**  
**Sample Statistics for the Pilot Study**

|                                      | Frequency | Percent |
|--------------------------------------|-----------|---------|
| <i>Relationship Type</i>             |           |         |
| Friend                               | 72        | 5.96    |
| Spouse                               | 138       | 11.42   |
| Parent                               | 42        | 3.48    |
| Child                                | 298       | 24.67   |
| Someone else's child                 | 48        | 3.97    |
| Adult family member                  | 48        | 3.97    |
| Someone else                         | 19        | 1.57    |
| Unknown relationship                 | 156       | 12.91   |
| <hr/>                                |           |         |
| Male and w/Friend                    | 16        | 1.32    |
| Female and w/Friend                  | 56        | 4.64    |
| <hr/>                                |           |         |
| Others                               | 653       | 54.06   |
| Alone                                | 555       | 45.94   |
| <hr/>                                |           |         |
| <i>Sex</i>                           |           |         |
| Male                                 | 265       | 21.94   |
| Female                               | 943       | 78.06   |
| <hr/>                                |           |         |
| <i>Payment Method</i>                |           |         |
| Cash                                 | 723       | 59.85   |
| Check                                | 267       | 22.10   |
| Credit                               | 218       | 18.05   |
| <hr/>                                |           |         |
| <i>Number of Accompanying People</i> |           |         |
| 1 person                             | 423       | 35.02   |
| 2 person                             | 165       | 13.66   |
| 3 person                             | 54        | 4.47    |
| 4 person                             | 10        | 0.83    |

**TABLE A2**  
**Mean Actual Spending by Condition for the Pilot Study**

|               | <b>Alone</b>       | <b>w/ Friend</b>  |
|---------------|--------------------|-------------------|
| <b>Male</b>   | \$32.04<br>(n=131) | \$47.84<br>(n=16) |
| <b>Female</b> | \$39.31<br>(n=424) | \$38.42<br>(n=56) |

**REGRESSION MODEL FOR THE PILOT STUDY**

$$\ln(\text{AMOUNTSPENT}) = \beta_0 + \beta_1 \cdot \ln(\text{PLANNED}) + \beta_2 \cdot \text{FRIEND} + \beta_{3-9} \cdot \text{OTHERS} + \beta_{10} \cdot \text{TIME} + \beta_{11} \cdot \ln(\text{INCOME}) + \beta_{12} \cdot \text{CREDIT} + \beta_{13} \cdot \text{CHECK} + \beta_{14} \cdot \text{INSPECIAL} + \beta_{15} \cdot \text{GENDER} + \beta_{16} \cdot \text{AGE} + \beta_{17} \cdot \text{NUMBER} + \beta_{18} \cdot \text{FRIEND} \times \text{GENDER} + \beta_{19-25} \cdot \text{OTHERS} \times \text{GENDER} + \varepsilon_1$$

where,

AMOUNTSPENT = dollar amount spent by the respondent in the store. (Because of the skewness of the data, logarithmic transformation is used.)

PLANNED = dollar amount that the respondent planned to spend on that shopping trip. (Because of the skewness of the data, logarithmic transformation is used.)

FRIEND = 1 if accompanied by a friend, -1 if not accompanied by a friend.

OTHERS = dummy variables for other social influence categories: spouse, child, someone else's child, parent, adult family member, someone else, and unknown (e.g., SPOUSE = 1 if accompanied by spouse, -1 if not accompanied by spouse).

TIME = minutes elapsed between the time respondent entered the store and completed paying.

INCOME = total annual income of respondent's family. Respondents answered this question by selecting one of the eight categories (< \$15,000; \$15,000 < \$25,000; \$25,000 < \$35,000; \$35,000 < \$45,000; \$45,000 < \$55,000; \$55,000 < \$75,000; \$75,000 < \$100,000; \$100,000+). We created a continuous income variable by taking the median income for each category.

CREDIT = 1 if paid with a credit card, -1 otherwise.

CHECK = 1 if paid with a check, -1 otherwise.

INSPECIAL = 1 if took advantage of an in-store special, -1 otherwise.

GENDER = 1 if male and -1 if female.

AGE = age of the shopper. Respondents were provided with seven categories (under 18; 18-24; 25-34; 35-44; 45-54; 55-64; 65+). A continuous age variable was created by taking the median age for each category.

NUMBER = number of companions.

**TABLE A3**  
**Regression Results for the Pilot Study**

| Equation: ln(amount spent)    |                       |         |
|-------------------------------|-----------------------|---------|
|                               | Parameter Estimate    | t-value |
| Intercept                     | 0.30                  | 0.62    |
| ln(planned amount)            | 0.73**                | 23.99   |
| Friend                        | 0.12*                 | 2.02    |
| Spouse                        | 0.06                  | 1.35    |
| Parent                        | -0.04                 | -0.36   |
| Child                         | 0.04                  | 0.85    |
| Someone else's child          | 0.01                  | 0.05    |
| Adult family member           | 0.08                  | 0.98    |
| Someone else                  | 0.03                  | 0.33    |
| Unknown relationship          | 0.09                  | 1.83    |
| Time spent in the store       | 0.01**                | 7.07    |
| ln(income)                    | 0.08**                | 2.70    |
| Credit                        | 0.20**                | 7.25    |
| Check                         | 0.20**                | 7.82    |
| In-store special              | 0.05*                 | 2.18    |
| Gender                        | 0.25                  | 1.41    |
| Age                           | -0.001                | -0.97   |
| Number                        | 0.02                  | 0.32    |
| Friend x Gender               | 0.15**                | 2.88    |
| Spouse x Gender               | 0.02                  | 0.52    |
| Parent x Gender               | -0.05                 | -0.45   |
| Child x Gender                | 0.02                  | 0.70    |
| Someone else's child x Gender | -0.05                 | -0.62   |
| Adult family member x Gender  | 0.07                  | 0.97    |
| Someone else x Gender         | 0.12                  | 1.38    |
| Unknown rel. x Gender         | 0.04                  | 1.12    |
| *p<.05 **p<.01                | R <sup>2</sup> =48.9% |         |

## Web Appendix B

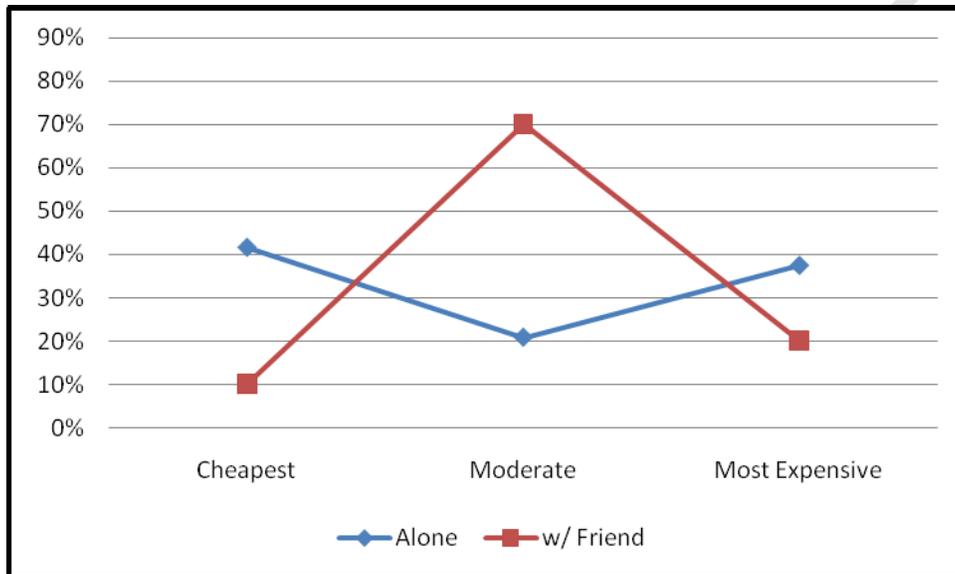
**TABLE B1**  
**Brand Selection Frequency in Study 1**

| Brand Selection * | Male Shoppers |                |                  | Female Shoppers |                |                  |
|-------------------|---------------|----------------|------------------|-----------------|----------------|------------------|
|                   | Alone         | w/ Male Friend | w/ Female Friend | Alone           | w/ Male Friend | w/ Female Friend |
| Expensive         | 26.09%        | 90.91%         | 77.78%           | 37.50%          | 15.38%         | 28.57%           |
| Moderate          | 39.13%        | 9.09%          | 22.22%           | 20.83%          | 69.23%         | 71.43%           |
| Cheap             | 34.78%        | 0%             | 0%               | 41.67%          | 15.38%         | 0%               |
| n                 | 23            | 11             | 9                | 24              | 13             | 7                |

\* Expensive = Energizer/Duracell; Moderate = Rayovac/Panasonic, Cheap = Chateau

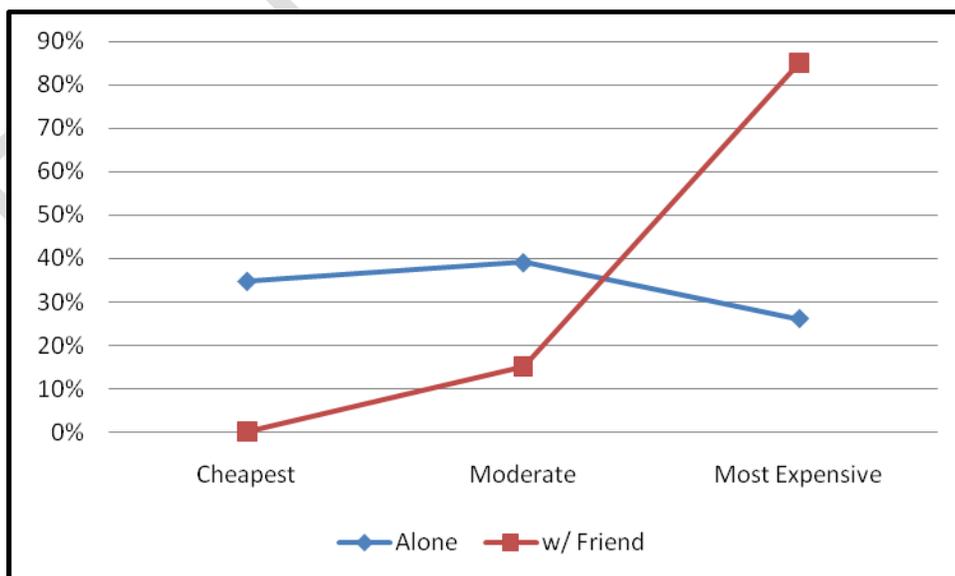
**FIGURE B1**  
**Percentage of Different Types of Brands Purchased in Study 1**

**Female**



\* Expensive = Energizer/Duracell; Moderate = Rayovac/Panasonic, Cheap = Chateau

**Male**



\* Expensive = Energizer/Duracell; Moderate = Rayovac/Panasonic, Cheap = Chateau

## Web Appendix C

### REGRESSION MODEL FOR STUDY 2

$$\ln(\text{AMOUNTSPENT}) = \delta_0 + \delta_1 \ln(\text{PLANNED}) + \delta_2 \text{FRIEND} + \delta_3 \text{TIME} + \delta_4 \ln(\text{INCOME}) \\ + \delta_5 \text{CREDIT} + \delta_6 \text{MIX} + \delta_7 \text{AGE} + \delta_8 \text{GENDER} + \delta_9 \text{INSPECIAL} + \delta_{10} \text{VISIT} \\ + \delta_{11} \text{ACDIF} + \delta_{12} \text{IMPULSE} + \delta_{13} \text{SM} + \delta_{14} \text{FRIEND} \times \text{ACDIF} + \delta_{15} \text{FRIEND} \times \text{SM} + \\ \delta_{16} \text{ACDIF} \times \text{SM} + \delta_{17} \text{FRIEND} \times \text{ACDIF} \times \text{SM} + \varepsilon_2$$

where,

AMOUNTSPENT = amount spent by the respondent in the mall. (Because of the skewness of the data, logarithmic transformation is used.)

PLANNED = amount that the respondent was planning to spend on that shopping trip as indicated by the respondent in the entrance interview.

FRIEND = 1 if accompanied by a friend, -1 otherwise.

ACDIF = difference between a respondent's agency and communion scores (ACDIF = Agency – Communion; positive values = a higher agency orientation, negative values = a higher communion orientation).

SM = respondent's self-monitoring score.

TIME = number of minutes spent between the time the respondent completed the first survey and purchased his or her last item in the mall (determined by looking at the time on the receipt of the consumer's last purchase).

INCOME = total annual income of the respondent's family. Respondents indicated their monthly incomes by selecting one of the nine categories (Less than 1,000 TL; 1000 TL - 1,999 TL; 2,000 TL – 2,999 TL; 3,000 TL – 3,999 TL; 4,000 TL – 4,999 TL; 5,000 TL – 5,999 TL; 6,000 YTL – 6,999 TL; 7,000 TL – 7,999; More than 8,000 TL ). \$1 was approximately 1.2 TL at the time of the study. We created a continuous annual income variable by taking the median income for each category and multiplying that number by 12.

CREDIT = 1 if paid with a credit card, -1 otherwise.

MIX = 1 if paid with a credit card and cash, -1 otherwise.

AGE = age of the respondent.

GENDER = 1 if male and -1 if female.

INSPECIAL = 1 if took advantage of an in-store special, -1 otherwise.

VISIT = respondent's frequency of visiting the mall rated on a seven-point scale (1= not at all often, 7= very often).

IMPULSE= respondent's buying impulsiveness score. Respondents completed Rook and Fisher's (1995) buying impulsiveness scale, which contains nine seven-point item scales (1 = strongly disagree, 7 = strongly agree). The scale includes items such as "I often buy things without thinking" and "Sometimes I am a bit of reckless about what I buy" ( $\alpha = .85$ ).

### **ADDITIONAL ANALYSES FOR STUDY 2**

Our central thesis is that agency and communion orientations result in consumers exhibiting differential sensitivity to a friend's influence during a shopping trip. Since we used gender as a proxy for this individual difference in the pilot study and Study 1, we again test whether the inclusion of gender (in the place of ACDIF) reveals the same pattern of effects in the sample used in Study 2. As expected, we find a significant main friend effect ( $\gamma_2 = 0.12, p < .05$ ) and friend x gender interaction ( $\gamma_{13} = 0.13, p < .05$ ). However, the coefficient on friend x gender x self-monitor interaction is neither positive nor significant ( $\gamma_{16} = -0.02, p > .70$ ). Interestingly, the results reveal a positive and significant gender x self-monitoring interaction ( $\gamma_{15} = 0.17, p < .05$ ).

Second, to correct for a potential sample selection bias arising due to the fact that participants were not randomly assigned to the social presence conditions (i.e., alone vs. friend), we used the propensity score weighting technique (Hirano and Imbens 2001). That is, when selection of participants for different experimental conditions are based on the observables rather than random assignment, it is important to adjust for different distributions of the observed characteristics in the treated (i.e., accompanied by a friend) and non-treated (i.e., alone) population. This adjustment can be done by weighting the non-treated population by the propensity score. Rosenbaum and Rubin (1983, p.41) define propensity score,  $p(x)$ , as "the conditional probability of assignment to a particular treatment given a vector of observed covariates". In our case, propensity score is the conditional probability of shopping with a friend given a set of covariates including such variables as age and income. Propensity score can be

estimated using either binary logit or probit model where the dependent variable is being accompanied by a friend. We calculated propensity scores for each individual in the sample following estimation of a logistic regression including age, ln(income), gender, ACDIF, buying impulsiveness score, and self-monitoring score as independent variables. The results of the logistic regression show that age is the only significant predictor ( $\beta = -0.09$ ,  $\chi^2 = 8.68$ ,  $p < .01$ ) of the probability of shopping with a friend for the individuals included in our sample. That is, the higher the age of the respondent, the lower the probability of being accompanied by a friend. Importantly, the estimated coefficient on ACDIF is insignificant ( $\beta_{\text{communion}} = -0.13$ ,  $\chi^2 = 0.15$ ,  $p > 0.69$ ), suggesting that agency-communion orientation is not related to the probability of shopping with a friend vs. alone. Similarly, when agency and communion scores are entered separately into the model, the coefficients on both communion and agency are insignificant ( $\beta_{\text{communion}} = -0.02$ ,  $\chi^2 = 0.00$ ,  $p > 0.96$ ;  $\beta_{\text{agency}} = -0.35$ ,  $\chi^2 = 0.65$ ,  $p > 0.41$ ).

The inverse probability weights for the respondents in each group, alone and with a friend, are calculated as  $1/p(x)$  and  $1/(1-p(x))$ , respectively. Finally, we re-estimated our model with OLS using estimated inverse probability weights. This estimation procedure yields a significant main effect for friend ( $\delta_2 = 0.14$ ,  $p < .05$ ), a positive and significant FRIEND x ACDIF interaction ( $\delta_{14} = 0.25$ ,  $p < .05$ ), and a positive and significant FRIEND x ACDIF x SM interaction ( $\delta_{17} = 0.32$ ,  $p < .01$ ). Overall, these results suggest that our findings do not suffer from sample selection bias.

Third, we test the possibility that agentic consumers may want to spend more and bring along their friends to the shopping trip to achieve that goal (i.e., licensing argument), whereas the opposite may be the case for communal consumers. In order to test this argument, we replace the dependent variable in our model with planned spending and reran the regression. However,

neither the main effect for FRIEND nor the interactions are significant. Another possibility is that high ACDIF consumers accompanied by a friend may underreport their planned spending as compared to solo high ACDIF consumers. Comparison of mean planned spending between two groups reveal no evidence of underreporting ( $M_{\text{Friend}} = 89.31$  YTL vs.  $M_{\text{Alone}} = 91.66$  YTL,  $p > .90$ ). Finally, we include product category dummies (i.e., apparel, electronics, personal care, other (e.g., home textile, books), and mix) to examine whether our results are driven by specific product categories. Our results remain unchanged once we control for the types of products purchased by consumers.

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