Embarrassment in Consumer Purchase: The Roles of Social Presence and Purchase Familiarity

DARREN W. DAHL
RAJESH V. MANCHANDA
JENNIFER J. ARGO*

Two field studies investigate the importance of social presence (real and imagined) and familiarity with the purchase act in producing embarrassment in the context of an embarrassing product purchase. The results indicate that awareness of a social presence during purchase selection and commitment, whether real or imagined, is a motivating factor in creating embarrassment for the consumer. Further, our results show that the more familiar consumers are with an embarrassing product purchase, the less embarrassed they are likely to feel. Familiarity with an embarrassing product purchase is also shown to have implications for the effect of social presence. That is, familiarity with purchase acts as a moderator for the relationship of real social presence and embarrassment by reducing the influence of the social presence. In the context of an imagined social presence, purchase familiarity is shown to reduce the likelihood of imagining. These findings are integrated into a discussion of the theoretical implications and the potential avenues for future research in the area.

E mbarrassment is a familiar and widely occurring emotion that affects many facets of our social behavior. An individual can experience this emotion across a variety of situations, including a wide range of contexts involving consumer behavior. For example, embarrassment can occur during purchase (e.g., one might feel embarrassed while purchasing a product like condoms), in usage situations (e.g., one might feel embarrassed if one's credit card is denied while paying the bill at a fancy restaurant), and even during disposition (e.g., one could experience embarrassment when returning an adult video). Given the possibility that this emotion occurs across a variety of consumer behavior contexts, a better understanding of its antecedents could have several theoretical and practical ramifications for marketers.

Indeed, the negative consequences that often result from this emotion (Brown and Garland 1971; Semin and Manstead 1982) underscore the importance of understanding its nature. For example, one suggested negative consequence of embarrassment in a consumer purchasing context is shoplifting behavior (Hoyer and MacInnis 1998).

Surprisingly, the academic and trade press has paid only cursory attention to the existence and potential for embarrassment during consumption. Although embarrassment has been shown to occur in product purchase (e.g., Gannon 1998; Wilson and West 1981) and has been used as an item in scale batteries measuring emotion in marketing contexts (e.g., Holbrook and Batra 1987; Richins 1997), there has been little or no research that examines why embarrassment occurs in consumer behavior. We attempt to remedy this deficiency by examining the antecedents that might underlie its occurrence in a consumer context. Through our investigation we begin to establish empirical insights on consumer embarrassment as foundations for future theoretical developments.

In this research we use the context of an embarrassing product purchase to examine the potential for embarrassment in consumer behavior. We identify two factors that presumably contribute to the experience of embarrassment during a retail purchase. First, previous literature (e.g., Edelmann 1987; Miller and Leary 1992) suggests that it is con-

cern for what others are thinking about us that drives embarrassment. The presence of another person (either real or imagined) could, therefore, be a sufficient condition that could elicit thoughts that one is being evaluated. We conduct the first experimental investigation of the role that this variable plays in the experience of embarrassment.

Second, Miller (1996) proposed a negative relationship between embarrassment and previous experience with an event. This perspective indicates that a lack of experience with a situation leads to awkwardness and potentially creates feelings of embarrassment. Given the importance of familiarity with a purchase experience as an antecedent of the purchase process (Biswas 1992; Lynch, Marmorstein, and Weigold 1988), we test whether familiarity with the purchase act has an impact on the embarrassment that is felt in a purchasing context.

In our discussion, we identify relevant research on embarrassment in the marketing and psychology literature and propose a series of hypotheses. We test these hypotheses in two field studies and conclude with a discussion of the results and directions for future research.

BACKGROUND

What Is Embarrassment?

The study of embarrassment dates back to Goffman (1956, 1963), who argued that embarrassment is an emotion that results from a breakdown in everyday social encounters. According to Goffman, embarrassment occurs in social interactions when unwanted events intervene and result in a loss of composure and the ability to participate in an encounter. Building on Goffman's work, embarrassment has more recently been described as a short-lived negative psychological response (Metts and Cupach 1989; Schlenker 1980). Embarrassment involves a threat to an individual's presented self resulting from unwanted evaluations from real or imagined audiences (Edelmann 1987; Miller and Leary 1992), and it is considered to play a powerful role in regulating social behavior (Modigliani 1971).

Our research focuses on embarrassment that may result from consumer purchase, and in this context we expect that embarrassment can occur at all stages of the process: before, during, and after the purchase act. We focus here on the selection and commitment stage of the purchase (e.g., when a consumer chooses the product by removing it from the shelf with an intention to purchase) and thus investigate embarrassment during the purchase event. Drawing on previous conceptualizations of embarrassment (Schlenker 1980), we define embarrassment during purchase as an aversive and awkward emotional state following events that increase the threat of unwanted evaluation from a real or imagined social audience. To examine how purchase embarrassment, as defined above, is affected by social presence and purchase familiarity, we turn to the psychology literature to develop a conceptual framework in the following sections.

The Role of Social Presence

Embarrassment is a socially occurring phenomenon (Miller 1996; Modigliani 1971) driven by a concern for what others are thinking about us. Thus, embarrassment typically occurs when unwanted events communicate undesired information about oneself to others (Edelmann 1987; Schlenker 1980). Further, to be embarrassed, one must be aware of, and care about, the evaluating social audience (Schlenker and Leary 1982). Interestingly, theorists in psychology have posited that this social audience need not necessarily be physically present but can also be imagined—when individuals are alone and envision the prospect of others watching them and their actions (Edelmann 1981; Miller 1996). Given the potential for social evaluation during consumer purchase (Bearden and Etzel 1982; Childers and Rao 1992), we would expect that embarrassment would occur if the purchaser is aware of a social presence (either real or imagined) and if the purchase or the events surrounding the purchase communicate undesired information about oneself (Edelmann 1987; Keltner and Buswell 1997).

From this discussion, it is evident that the capacity for and actual realization of embarrassment is dependent on the existence of a social presence, be it real or imagined (Brown and Garland 1971; Edelmann 1981; Miller 1996). Thus, an absence of social presence would result in little to no embarrassment, whereas the awareness of a social presence would enable embarrassment to occur. In the purchasing context, it would be the presence or absence of other shoppers (either real or imagined) during purchase selection and commitment that would impact embarrassment. One would expect higher levels of embarrassment during an embarrassing product purchase when a social presence exists. Formally stated,

> **H1:** A consumer will experience a higher level of embarrassment during an embarrassing product purchase when a real or imagined social presence exists (vs. when a real or imagined social presence is absent).

As we will explain, however, the magnitude of the effect of social presence should be moderated by an effect for the familiarity with the product purchase. We study this potential interaction in two studies. In our first study we examine the effects of a real social presence and purchase familiarity in causing purchase embarrassment, and in our second study we determine if these results generalize to an imagined social audience.

The Importance of Familiarity

Theorists in psychology have found that the uncertainty following an unwanted event can produce feelings of embarrassment (Miller 1995; Parrott, Sabini, and Silver 1988; Silver, Sabini, and Parrott 1987). This perspective contends that when an unwanted predicament causes disruption, lack of familiarity in the situation creates awkwardness and in-

decisiveness about how to proceed and therefore results in feelings of embarrassment (Miller 1992; Parrott and Smith 1991). Thus, a lack of familiarity with a situation can be a driver of embarrassment.

This perspective is well suited to understanding embarrassment in the context of consumer retail purchase. The importance of familiarity as a construct in consumption is well established (e.g., Alba and Hutchinson 1987; Biswas 1992). Alba and Hutchinson (1987) define familiarity as "the number of product-related experiences that have been accumulated by the consumer" (p. 411) and note that product-related experiences such as purchasing the product repeatedly lead to familiarity. Clearly, familiarity with purchasing a product would reduce the amount of uncertainty in a future purchase situation and, thus, the amount of potential embarrassment realized. In contrast, a lack of familiarity with purchasing a product could lead the purchaser to feel awkward and embarrassed. More formally.

> **H2:** A consumer who is familiar with the purchase of an embarrassing product will experience a lower level of embarrassment than a consumer who is not familiar with making such a purchase.

Research in marketing has indicated that as purchase familiarity increases, consumers can purchase and consume with less time and effort (Alba and Hutchinson 1987; Park, Iyer, and Smith 1989). This is achieved because, as consumers become more familiar with the purchasing act, there is a reduction in cognitive effort and an increase in automaticity during purchase. Familiarity leads to the development of purchasing scripts, that is, heuristic rules that simplify purchase (Bozinoff 1981; Sujan, Bettman, and Sujan 1986), which enable customers to make decisions more easily (Park et al. 1989) and reduce the influence of external aspects of the purchase environment (Alba and Hutchinson 1987). Indeed, familiar consumers with developed purchasing scripts are likely to be relatively unaffected and unyielding to factors extraneous to the script. In the context of an embarrassing product purchase, salient external factors could include the presence of other shoppers (either real or imagined). Familiarity with the purchase act would therefore desensitize consumers to the influence of a social presence.

Further support for this expectation is found in the phenomenon of the spotlight effect (Gilovich, Medvec, and Savitsky 2000; Gilovich, Savitsky, and Medvec 1998). This effect refers to the tendency for people to assume that others evaluate and pay more attention to them than is actually the case. Gilovich et al. (2000) had subjects don an embarrassing item of clothing (i.e., a Barry Manilow t-shirt) and showed that subjects felt that more people paid attention to them than was actually the case. However, in a follow-up study, the researchers demonstrated that this effect is mitigated when subjects were habituated to wearing the t-shirt (i.e., when they were provided time to become familiar with wearing the t-shirt). The authors conclude that when subjects become familiar through the habituation process, they estimate less observation from a social audience.

Thus, we predict that the effect of social presence (real or imagined) on the likelihood that consumers experience embarrassment will be moderated by familiarity with the purchase. Although embarrassment is likely to occur when a social presence exists, the magnitude of this effect should be greater for those individuals with no purchase familiarity. It follows that.

> **H3a:** A consumer who is unfamiliar with the purchase of an embarrassing product will experience a higher level of embarrassment when there is a real or imagined social presence (vs. when there is no social presence).

> **H3b:** A consumer who is familiar with the purchase of an embarrassing product will experience little difference in the amount of embarrassment that is felt when there is a real or imagined social presence (vs. when there is no social presence).

STUDY 1

The first study used a 2 × 2 between-subjects experimental design to test the potential importance of real social presence (social presence vs. no social presence) and familiarity with the product purchase (no familiarity vs. familiarity) as factors influencing embarrassment in the context of an actual purchase experience.

Method

Product Category Selection. We conducted a focus group with representative subjects to select the stimuli for the study. Focus group responses were used to arrive at a pool of embarrassing products (e.g., adult diapers, laxatives, condoms), from which condoms were selected as the embarrassing product for our investigation. This product was chosen because it facilitated manipulation of the factors of interest in a field study context and because the focus group demonstrated that it was the most relevant to our subject population.

Independent Variables. Differences in purchase familiarity were operationalized through a blocking factor using subjects' self-reports. Blocking on purchase experience enabled a clean separation between individuals with no familiarity with the product purchase and those with purchase familiarity.

Social presence was manipulated during the selection and commitment stage of the purchase process through the use of a trained confederate. In the social-presence condition, the confederate was present in the pharmacy next to the condom aisle display, whereas in the no-social-presence condition, the confederate was not present. The confederate browsed in the designated aisle but did not make formal contact with study subjects. The confederate was a young adult male, who was unknown to study subjects. We chose a male confederate to counterbalance the gender of the sales

clerk, who was female. The study was conducted during time periods when store traffic was minimal (i.e., 10:00 A.M.–11:30 A.M.. and 2:30 P.M.–4:30 P.M.) to ensure an effective manipulation. These time periods were identified through discussion with store management and pretesting.

Study Subjects. In the study were 99 undergraduate students at a large North American university (one-third were males). Subjects were randomly assigned to the manipulated conditions. They received $10 compensation for their participation.

Procedure. Subjects were run individually at the university student center. When they arrived, they were told that the aim of the study was to collect data concerning the types of experiences that people had while shopping at university center retail outlets (i.e., bookstore, pharmacy, snackshop). Subjects were asked to select, at random, an envelope that contained the name of one of the student center stores and the name of a product under $3 that was found at that retailer. Subjects were instructed to visit the store, look around for a while to gain an impression of the store (approximately three to five minutes). and then make the assigned product purchase. In fact, each of the envelopes identified the pharmacy as the store to visit and a three-pack of condoms as the product to be purchased. Subjects were given $3 and were told that they could keep both the assigned product and any change remaining from the purchase. Subjects then visited the pharmacy and made their purchase. Within the pharmacy, the condoms were located on a shelf in a low-traffic aisle, and the store employees were told to treat subjects as typical customers.

After completing the purchase, subjects returned to the experimenter and were asked to complete a short questionnaire. The questionnaire first asked the subjects to indicate the level of embarrassment they experienced on a three-item, seven-point embarrassment scale drawn from previous research (Modigliani 1968; Parrott and Smith 1991). The items were anchored using the following labels: not embarrassed at all/very embarrassed, not uncomfortable at all/very uncomfortable, and not awkward at all/very awkward. An exploratory factor analysis indicated that these items were related to a single underlying dimension (80% of variance explained), and the scores were therefore averaged to form an overall embarrassment index ($\alpha = .88$). Subjects were then asked questions about the store to make the questionnaire consistent with the cover story.

To identify familiarity with product purchase, subjects were asked to indicate if they had ever purchased condoms (yes/no). As a manipulation check for the social presence factor, they then indicated their awareness of how many customers were present. Subjects then completed an openended question that asked them what they thought the study was about (suspicion probe). Finally, subjects were asked to indicate their gender, age, and student status. Responses to these items had no effect on the results and are not discussed further.

Given the sensitive nature of the study, subjects were informed at the outset that they could withdraw their participation without penalty. One participant declined to participate, and two further responses were eliminated because of their familiarity with the confederate. This resulted in 96 usable responses. After completing the questionnaire, subjects were debriefed and thanked for their participation.

Results

Preliminary Analyses. The manipulation of social presence was effective. An ANOVA with the measure of customer awareness as the dependent variable and social presence and purchase familiarity as the two independent factors showed only a main effect for social presence ($F(1, 88) = 18.56$, $p < .001$). Subjects in the social-presence condition indicated that they were significantly more aware of a social presence (M's = social presence = 1.28, no social presence = 0.60). Responses to the suspicion probe were also examined. No subjects were aware of the experimental hypotheses.

Test of Hypotheses. Hypotheses were tested in the context of the full model ANOVA based on the 2 (social presence: social presence vs. no social presence) × 2 (purchase familiarity: no familiarity vs. familiarity) between-subjects design. Providing some support for hypothesis 1. the ANOVA indicated a marginally significant main effect for social presence ($F(1, 92) = 2.81$, $p < .010$, $\omega^2 = 0.02$). The means were in the hypothesized direction, with subjects who were exposed to the social presence being more embarrassed ($M = 4.47$) than those who were not ($M = 3.97$).

Supporting hypothesis 2. the ANOVA indicated a significant main effect for purchase familiarity ($F(1, 92) = 16.45$, $p < .001$, $\omega^2 = 0.13$). Subjects who were familiar with condom purchase ($M = 3.61$) experienced significantly less embarrassment than those who were unfamiliar ($M = 4.81$).

As predicted. the analysis revealed a significant interaction between the purchase familiarity and social-presence factors ($F(1, 92) = 4.25$, $p < .05$, $\omega^2 = 0.04$). Supporting hypothesis 3a, individuals who were unfamiliar with the purchase reported a significantly higher level of embarrassment when there was a social presence ($M = 5.39$) than when there was none ($M = 4.27$, $t(94) = 2.64$, $p < .05$). In contrast, individuals who were familiar with the purchase did not experience significantly different levels of embarrassment when another person was present or absent ($M = 3.55$ and 3.67, respectively; $t(94) < 1$). Thus, hypothesis 3b was supported.

Discussion. The results indicate that both familiarity with purchase and a social presence influence consumers' embarrassment during an embarrassing product purchase. We show that the more familiar that consumers are with purchasing an embarrassing product, the less embarrassed they are likely to be. Further, we find that purchase familiarity acts as a moderator for the effect of social presence.

Interestingly, it is only when a consumer has little familiarity with the purchase act that an awareness of a social presence increases feelings of embarrassment. In contrast, consumers with purchase familiarity are shown to be unaffected by a social audience during purchase.

In our second study, we further our understanding of the relationship between purchase familiarity and social presence by considering the impact of an imagined social presence. We also expand the operationalization of purchase familiarity by measuring experience with the purchase act with three measures.

An Imagined Social Presence

As previously indicated, research has suggested that when an individual is alone, embarrassment can occur as a result of an imagined social interaction (Edelmann 1981; Miller 1996; Miller and Leary 1992). Indeed, in the context of being alone, embarrassing situations could include incidents involving inept performance (e.g., forgetting an appointment, locking keys in car), physical pratfalls (e.g., falling or tripping, breaking someone's property by accident), or consumption and purchase activities (e.g., purchasing an embarrassing product, exiting an adult-only retailer). Supporting these ideas, research has shown that when individuals are alone they can experience various types of affective responses (e.g., guilt, excitement) resulting from imagining others (Moreault and Follingstad 1978; Taylor and Schneider 1989). Thus, we expect that imagining a social audience during product purchase will have a direct effect in creating feelings of embarrassment (see hypothesis 1).

Further, given our findings in study 1, we again expect familiarity with product purchase to play an important role in influencing embarrassment. We expect purchase familiarity to mitigate embarrassment directly (hypothesis 2), and we also expect it to play a moderating role in influencing an imagined social audience (hypotheses 3a and 3b). Following study 1, those who are unfamiliar with a purchase act are likely to experience more embarrassment from imagining a social presence than those with purchase familiarity who imagine one. We also expect purchase familiarity to have a separate negative effect on the incidence of imagination. Indeed, individuals who are familiar with the purchase act will have better formed purchasing scripts (Sujan et al. 1986) and would therefore be less likely to invoke images of a social presence. Further, thoughts of a social audience are less likely to occur because familiarity results in greater automaticity with the purchase task and should reduce the cognitive activity at the selection and commitment stage (Alba and Hutchinson 1987). It follows that,

> **H4:** A consumer who is familiar with the purchase of an embarrassing product is less likely to imagine a social presence than a consumer who is not familiar with the purchase.

STUDY 2

Method

Operationalization. Condom purchase using a vending machine was selected as the context for this investigation. This operationalization created an environment in which an individual could make an embarrassing purchase in isolation (i.e., without a physical social presence). Two condom vending machines were situated in the male and female rest rooms on the fifth floor of the management building. Initial observation indicated that the fifth floor of the building was a low-traffic location. Pretesting provided appropriate times during the day when the least amount of public traffic used the facilities.

To manipulate the occurrence of an imagined social presence, we used two conditions that varied the openness of the rest room. In the closed rest room condition, subjects were informed when receiving the initial instructions that the experimenters had closed off the rest room for the purposes of the study. "Out of order" signs were placed on the rest room doors, and pylons were placed in front of the rest rooms to discourage entry by the general public. This was done to assure the subjects that they would be alone and that no one would be entering the rest room. In the open rest room condition, the rest rooms appeared normal, without any signs or pylons, and the subjects did not receive any instruction that the rest rooms were closed. Pretesting indicated that subjects in the open rest room condition were more likely to imagine a social presence.

Study Subjects. In the study were 141 (65 males and 76 females) undergraduate students at a large North American university. Subjects received $10 compensation for their participation. Subjects were informed at the outset that they could withdraw their participation at any time. No one declined to participate in the study. Subjects were screened on whether they were able to complete the task and whether they were able to do so without experiencing a real social presence during purchase. This resulted in 127 usable responses.

Procedure. Subjects were run individually. They were told that the experimenters were collecting feedback regarding vending machines in the management building for a consulting project. Similar to study 1, the experimenter explained that subjects were to select, at random, an envelope that contained the name of one of the vending machines located in the building and the name of a product under $1 in price that was found in the vending machine. They were told that they were to locate the machine and then make the assigned purchase. In fact, each of the envelopes identified a condom dispenser found in the fifth floor rest room and a single condom as the product to be purchased. All subjects were given $1 and were told that they could keep both the product and any money remaining after the purchase. Subjects then found the vending machine, which was located on a separate floor some distance from the experimenter, where they made their purchase.

TABLE 1

STUDY 2: REGRESSION RESULTS

Source	Standardized coefficient	SE	t-statistic
Imagined social presence regression:[a]			
Familiarity	−.36	.08	−4.27***
Social presence	.28	.13	3.48**
Social presence × familiarity	.08	.08	.97
Rest room manipulation regression:[b]			
Familiarity	−.45	.08	−5.47***
Rest room	.21	.12	2.61*
Rest room × familiarity	.11	.08	1.34

[a] $df = 126$; $R^2 = .24$.
[b] $df = 126$; $R^2 = .23$.
*$p < .05$.
**$p < .01$.
***$p < .001$.

On returning, subjects completed a short questionnaire. They were first asked to state thoughts and feelings that came to their minds when making the purchase. Two independent coders, blind to the purpose of the experiment, coded the cognitive responses according to the stated intensity level of embarrassment reported. Coders used the following five-point scale categorization: $0 =$ not embarrassed, $1 =$ slightly/mildly embarrassed, $2 =$ somewhat embarrassed, $3 =$ embarrassed, and $4 =$ very embarrassed. Initial agreement between the coders was 96.9%, and disagreements were resolved through discussions with one of the authors.

Subjects then indicated their feelings of embarrassment on a four-item, seven-point embarrassment scale (not embarrassed at all/very embarrassed, not uncomfortable at all/very uncomfortable, not awkward at all/very awkward, and not self-conscious at all/very self-conscious; $\alpha = .88$). They next responded to a second open-ended question that asked them to explain what caused the feelings they experienced when completing the experimental task. A research assistant coded these open-ended responses to identify whether an imagination of a social audience was identified. If the subjects mentioned that their feelings were a result of thoughts or images of a social audience, they received a coding of $+1$, and if no mention of a social audience was made the coding was -1. Representative comments included "If my classmates would see me purchasing it they would think I was a slut" and "I thought, what if the vending machine was in a room full of beautiful women." This measure was used as a check on the manipulation and also provided a precise measure of the occurrence of an imagined social presence.

Subjects' purchase familiarity with the product category was measured on seven-point scales that asked how often they purchase condoms (very rarely/very often), the last time they purchased condoms (never have purchased/purchased within the last month), and how familiar they were with purchasing condoms (not familiar/very familiar). An exploratory factor analysis indicated that these items were related to a single underlying dimension, and the scores were averaged to form a purchase familiarity index ($\alpha = .80$). Subjects then completed an open-ended question that asked them what they thought the study was about (suspicion probe). Finally, subjects were asked to indicate their age, gender, and student status. Responses to these items had no effect on the results and are not discussed further. After completing the questionnaire, subjects were debriefed, screened for task completion, and thanked for their participation.

Results

Preliminary Analyses. As expected, the manipulation of closing the rest room resulted in a significant reduction in the number of subjects who reported imagining a social presence ($\chi^2 = 4.86, p < .05$). Of those subjects in the open rest room condition, 75% reported imagining a social presence, whereas in the closed rest room condition, 56% of subjects reported thoughts of a social presence. Responses to the questions related to the perceived purpose of the study were examined. No subjects were aware of the hypotheses.

Test of Hypotheses. To test the influence of an imagined social presence on embarrassment, we used linear regression analysis, with the embarrassment index as the dependent variable, and the dummy variable coding for an imagined social presence, the purchase familiarity index, and their interaction term as predictor variables. The results of this regression analysis are shown in table 1. Supporting hypothesis 1, an imagined social presence was a significant predictor of embarrassment ($B = 0.28, t = 3.48, p < .01$). Subjects who reported thoughts of an evaluating social audience experienced more embarrassment. As expected, familiarity was also a significant predictor of embarrassment ($B = -0.36, t = -4.27, p < .001$), with higher purchase familiarity resulting in lower feelings of embarrassment. Thus, hypothesis 2 was supported. Reinforcing these findings, a regression analysis using a dummy variable for the rest room manipulation (-1 closed rest room/$+1$ open rest room), the familiarity index, and their interaction term as

predictors also showed two significant main effects for the rest room manipulation and purchase familiarity (see table 1).

Across both analyses, the regression models (see table 1) did not show the expected interaction effect (hypotheses 3a and 3b) between imagined social presence and familiarity. The lack of a significant interaction effect suggests that those who are familiar with the purchasing act and do imagine a social presence report similar levels of embarrassment to those who imagine a social presence and are unfamiliar with the purchasing act. This result differs from the moderation effect reported in study 1 and thus points to the possibility of differences in the effects produced by real and imagined social presences. Perhaps one reason for a lack of moderation in study 2 is that a real social presence is concrete and more typical of an actual purchase scenario, whereas an imagined social presence is created by an individual and may be more varied, drawing on unique thoughts of the individual. Cognitive responses support this idea by indicating a variety of unique imagined social audiences (e.g., strangers, best friends, professors, and attractive members of the opposite sex).

Purchase familiarity, however, was shown to have an effect on the likelihood of imagining a social audience. Supporting hypothesis 4, a logistic regression, with imagined social presence as the dependent variable and familiarity with the purchase act as the predictor, indicated a higher probability for unfamiliar subjects to imagine a social presence than for familiar subjects ($B = -0.36$, Wald $t(1) = 8.93$, $p < .01$).

Regression analysis using the cognitive response measure for embarrassment as the dependent variable showed consistent results with the embarrassment index findings. Supporting the outlined pattern of effects, familiarity ($B = -0.28$, $t = -3.20$, $p < .01$) and the imagining of an audience ($B = 0.26$, $t = 3.00$, $p < .01$) were again shown to be significant predictors. The interaction term was not significant ($t < 1$).

Discussion. In this study, the results replicate our previous finding that familiarity with the purchase act can reduce feelings of embarrassment in the context of an embarrassing product purchase. Further, this study makes a new contribution by showing that embarrassment can be experienced in situations where a social presence is physically absent. We find that simply imagining a social audience provides a sufficient social context to create feelings of embarrassment. Interestingly, purchase familiarity was not shown to moderate the effect of imagining a social audience on embarrassment; however, it was shown to reduce the likelihood of imagining an audience in the first place.

GENERAL DISCUSSION

This research represents the first empirical effort to identify embarrassment as a relevant and important emotional construct in consumer behavior. Using a retail purchase context, we show that a social presence during purchase selection and commitment is a motivating factor in creating em-

barrassment for the consumer. This validates previous research (e.g., Edelmann 1987; Miller 1996) that has linked social influence to embarrassment, and our findings empirically establish that the nature of this social influence can be either real or imagined. Our findings also indicate that the more familiar consumers are with an embarrassing product purchase, the less embarrassed they are likely to feel. Further, reinforcing the findings of Gilovich et al. (2000), in our first study we found that a familiarity with purchase reduced the influence of a real social presence. However, in our second study we found that this moderating effect does not hold across all contexts. In the case of an imagined social presence, familiarity with purchase did not seem to alter the influence of an imagined social presence, though it did reduce the likelihood of a consumer imagining an audience.

The importance of purchase familiarity in reducing embarrassment in the purchase context points to real opportunities for marketers to mitigate the impact of this negative emotion. Communication via advertising, promotions, and packaging should be creatively used to increase familiarity and normalize the purchase process for embarrassing products. Given that familiarity is shown to reduce the impact of social influence (both real and imagined), providing and encouraging purchase experience is critical. Greater efforts should also be made to reduce social influence in retail settings. For example, the current placement of embarrassing products (e.g., in open areas, next to the pharmacist, or with other sensitive products) only increases the likelihood of social influence.

There are several limitations of this research that provide direction for future investigation. Although our use of a field study approach provided assurance of external validity, the nature of these experiments resulted in potential threats to the internal validity of our findings. For example, in study 1, we could not prevent other shoppers from entering the store. We also note limitations in our experimental design. Across both studies, subjects were required to purchase condoms rather than choosing this product themselves. This may have lessened the level of embarrassment that subjects felt. Additionally, our social presence manipulation in study 1 did not vary across a range of audience sizes that was sufficient to investigate the possibility of a curvilinear relationship between embarrassment and social presence. It is possible that as the size of social presence increases, embarrassment may not increase at a linear rate.

We note that the generalizability of our findings is limited to one type of embarrassing product in only one aspect of embarrassing consumption. Investigating the potential differences in embarrassment in other consumption contexts is a suitable avenue for future research. For example, social interaction in a service situation (e.g., in a restaurant, during a health care visit) may provide a context where embarrassment could result from the antecedents we studied, as well as others not yet identified.

In order to refine and extend the knowledge contributions seeded in this research, a number of additional directions

can be pursued. Foremost is the need to explore further the differences inherent in a real versus imagined social presence. Our expectation of moderation in both studies was not met, indicating a difference in the effect of the nature of social presence. One possibility previously forwarded is that an imagined social presence may be more atypical and varied than a real social presence, thus mitigating the benefits of familiarity. Another possibility is that an imagined social presence does not have the same impact as a real social presence, so those who are unfamiliar with the purchase are not highly embarrassed since the social audience is imaginary and not concrete. Future research using an experimental design that includes both forms of social presence would build on our findings and address these possibilities.

We also note additional opportunities for extending our understanding of the importance of familiarity. Although we investigate a general familiarity with the purchase act, we acknowledge that familiarity within a particular social context or a specific retail setting could be more effective in reducing embarrassment in similar purchasing environments. Future research should investigate more specific forms of familiarity as an antecedent factor to embarrassment. Further, we also believe that a broader definition of familiarity could have implications for embarrassment. For example, familiarity with product usage and product advertising should also affect felt embarrassment. Additionally, we recognize the possibility of other situational factors that could potentially moderate our results, for example, the type of retail outlet and product characteristics (e.g., brand, quantity). Personality factors such as self-monitoring, self-esteem, neuroticism, and affect intensity should also affect the relationships we have observed.

Interestingly, we found no gender differences in felt embarrassment across both of our studies. In fact, in our first study, a gender difference did not appear even for those female subjects who were exposed to a male social presence during purchase. Previous research has shown mixed findings in this area, showing either no effect for gender (e.g., Cheek and Buss 1981; Sattler 1963), or a greater proclivity toward embarrassment for females (e.g., Miller and Leary 1992).

Embarrassment in the purchasing context could have a number of consequences. Coping strategies follow emotions, and given the negative nature of embarrassment, we expect consumers to adopt varying strategies to avoid or reduce embarrassment. These responses could include cognitive strategies such as pretending that no one is watching or thinking that one is relatively invisible to other shoppers. Comparatively, other coping strategies could be more explicit in nature. Behaviors such as hiding the embarrassing product, circling the aisle and waiting people out, or not shopping in one's own neighborhood represent more direct and effortful strategies to alleviate embarrassment. Feelings of embarrassment could also impact purchase experience outcomes like the satisfaction with the purchase, the proclivity toward repurchase, and subsequent word-of-mouth communications. These possibilities and the other questions

raised by our findings indicate a need for subsequent research and underscore the importance of furthering our understanding of embarrassment as a distinct emotion experienced by the consumer.

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