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Judging a Book by Its Cover: The Differential Impact of Attractiveness on Predicting One's Acceptance to High- or Low-Status Social Groups

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Emerging research suggests that the cues we glean from first impressions depend on our goals. This research uses sorority recruitment to examine whether groups that vary in social status rely on disparate cues to form first impressions of potential new group members. Current sorority members were given 500 ms to view pictures of women who wanted to join their sororities, and were then asked how likely it was that each prospective member would receive a bid from their sorority (bid expectancy). Prospective members were also rated on their attractiveness. Data were analyzed separately for high- vs. low-status houses. Results revealed that attractiveness was more predictive of liking and bid expectancy for the high-status houses, as compared to the low-status houses.

Humans are fundamentally social beings. Collectively, we crave social interactions and actively seek them out whenever possible (Baumeister & Leary, 1995). Our social group and its perceived social status strongly influence our self-esteem (e.g., Ellemers, Van Knippenberg, de Vries, & Wilke, 1988; Ellemers, Wilke, & Van Knippenberg, 1993; Tajfel & Turner, 1986; Walsh & Banaji, 1997), mental well-being, and physical well-being (House, Landis, & Umberson, 1988; Rubin & Mills, 1988). Therefore, it is not surprising that we try to preserve the integrity of our social group and its status when selecting new group members. However, in dynamic social situations, many of our social interactions are brief and provide limited information. Thus, we often rely on our first impressions to select new group members. Surprisingly, it remains largely unexplored whether we rely on different cues when selecting new group members for social groups that differ in their perceived social status. The present study examines this question.

Although first impressions are formed quickly and are based on limited information (Bar, Neta, & Linz, 2006; Todorov, Mandisodza, Goren, &

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Hall, 2005; Willis & Todorov, 2006), they have a lasting impact on people's attitudes toward and evaluations of one another (Ambady & Rosenthal, 1993; Srull & Wyer, 1989; Taylor, Fiske, Etcoff, & Ruderman, 1978). One reason for this is that first impressions appear to be both accurate and resilient (Berthoz, Armony, Blair, & Dolan, 2002; Feingold, 1990; Funder, 1995; Todorov et al., 2005). For example, Ambady and Rosenthal found that perceptions of college professors based on a 30-s silent video clip accurately predicted their end-of-term student evaluations. And in a recent study, Rule and Ambady (2008a) demonstrated that male sexual orientation can be accurately identified from just a very brief exposure to a male's face.

How do perceivers form such accurate first impressions based on limited information (i.e., a photograph)? One possibility is that they focus on specific traits when forming an impression of a target (even when they have only a brief exposure to it), and those traits provide vital information that shapes perceivers' subsequent impressions of and attitudes toward that target. For instance, Todorov et al. (2005) found that people's competence ratings based on brief exposures to images of the winners and runners-up from three different U.S. Senate races and two Congressional races accurately predicted the majority of the winners of these races. Rule and Ambady (2008b) presented participants with pictures of chief executive officers (CEOs) of Fortune 500 companies. The participants were unaware that the pictures were of actual CEOs, and were then asked to rate how successful they thought each individual would be at running a company. Their ratings accurately predicted company profits, suggesting that participants gleaned specific trait information from their brief exposure to the pictures to facilitate their judgments.

Together, these findings suggest that perceivers may focus on distinct cues when forming impressions of others to facilitate their achieving the desired outcome from the impression-formation task. In other words, if perceivers in a laboratory setting are asked to determine election outcomes based solely on viewing briefly presented images of candidates, they may focus on competence cues from the images to help them accomplish this goal. Given this assertion, perceivers should rely on distinct cues—even during an impressionformation task with only subtle differences in desired outcome—assuming the stakes are sufficiently high, such as deciding whom to include in one's social group.

Specifically, we anticipate that when perceivers use first impressions to determine whom to include in their social groups, distinct criteria will be used to assign people to high versus low social status groups. We will explore this supposition in the current study by using a real-world first-impression task in which sorority recruitment serves as our model.

High-status groups are highly sought after by new group members. Social identity theory posits that people actively seek out affiliations with high-ranking social groups because such associations greatly enhance self-esteem (Tajfel & Turner, 1986). Indeed, people in low-status groups view their own groups less favorably than they view high-status groups (e.g., Brown & Wade, 1987; Sachdev & Bourhis, 1985). Perhaps as a result of their high desirability, high-status groups are more threatened by potential menaces to their status than are low-status groups (Scheepers & Ellemers, 2006). Thus, in order to maintain their social status, people who belong to high-status groups may be more selective about who they include in their group. If this is the case, then we would expect that more desirable sororities will be more selective in the criteria they use to choose new group members (e.g., Brown & Wade, 1987; Sachdev & Bourhis, 1985).

The sorority rush process provides a unique opportunity to study social groups, for several reasons. First, potential group members are selected based on their social interactions at crowded gatherings, so first impressions play a vital role in their selection. Second, sorority members are motivated to make good selections because the women they select will affect the sorority's overall reputation. Finally, sororities vary in their respective desirability. The variable desirability of sororities will allow us to determine whether desirable sororities use different criteria than do less desirable sororities to select group members.

On what cues might high- and low-status sororities rely when selecting group members? One possibility is that people use existing schemas that they have about social groups: Athletes have high social status, but members of the chess club probably do not. Thus, when high-status groups seek to identify people to include in their social group, they may actively seek out football players because they will likely enhance their status, whereas a member of the chess team will not.

Another possibility is that people detect specific traits that are associated with high status (e.g., family income, attractiveness) when they have social interactions and use those cues to help them select new group members. Indeed, Atlas and Morier (1994) found that family income was the best predictor of whether individuals were actually invited to join a sorority. However, this information is not readily available to sorority members during the rush process. On the other hand, physical attractiveness is both immediately available and has been shown to predict higher status in sororities (Anderson, John, Keltner, & Kring, 2001). As a consequence, we predict that attractiveness will play a significant role in sorority selection.

Previous research has shown that many positively perceived and desirable personality characteristics are inextricably linked to physically attractive people (Zebrowitz-McArthur, 1986). Attractive people are better liked (Feingold, 1990), more socially desirable (Dion, Berscheid, & Walster, 1972), and are perceived as being more intelligent (Clifford & Walster, 1973). In a meta-analysis, Eagly and colleagues (Eagly, Ashmore, Makhijani, & Longo, 1991) found that physically attractive people are consistently perceived as being highly socially competent. Thus, attractiveness is associated with a wide range of highly socially desirable traits and is commonly a mark of status (Anderson et al., 2001).

The present study examines how first impressions affect selection of new group members to high- and low-status sororities during the sorority rush process. We predict that attractiveness will affect the likelihood of obtaining a bid (i.e., an invitation to join) from both high-status and low-status sororities. However, since high-status sororities will likely seek out the most desirable group members, we anticipate that they will rely on attractiveness when selecting new group members, even more so than low-status groups. Furthermore, we predict that attractive prospective group members will be more liked by members of the target sororities, and their perceived likability will mediate their likelihood of receiving an invitation to join the sororities. These hypotheses are tested using structural equation modeling.

Method

Participants and Recruitment

All rising sophomore women enrolled at a small, private northeastern college (N = 544) were contacted via e-mail in the summer of 2005. In the e-mail, they were asked two questions: (a) whether they planned to participate in sorority recruitment that fall (which was the first time they would be eligible to do so); and (b) how much they would like to be in each of the school's six sorority houses. The latter item was rated on a 5-point scale ranging from 1 (*I would very much like to be in this house*) to 5 (*I would definitely not like to be in this house*).

The women (termed *prospective members*) were told that responding to the e-mail would in no way affect their outcomes in the sorority rush process that fall. If they responded to this e-mail, they were then sent a second e-mail asking permission to use their student identification photographs in a rating experiment. In total, 174 (32%) of the prospective sorority members gave their permission for us to use their photographs and provided information about whether or not they planned to rush in the fall.

Prior to sorority rush, current members of the six sororities on campus were recruited to evaluate the pictures of the prospective sorority members. Remuneration was provided in the form of a group gift certificate to a local

store of the sorority's choosing. The gift certificate increased in value by \$5 for each sorority member who participated in the study. As an additional incentive, the sorority was offered a bonus of \$50 if 25 or more of their members participated. In total, 91 current sorority members agreed to participate (M number of participants from each house = 15.2, SD = 7.7).

Procedure

Photographs of prospective sorority members who had explicitly given permission for their pictures to be used in this experiment were obtained from the Registrar's office. The student identification photographs are all standardized, head-only shots taken by the college when the students first matriculated. We standardized the size of these photographs in Adobe Photoshop v. 8.0 to be 322×360 pixels with a resolution of 72 pixels per inch.

Current sorority members came to the laboratory individually and were placed alone in a room with a computer. Photographs of prospective sorority members were presented pseudorandomly using Psyscope software (Cohen, MacWhinney, Flatt, & Provost, 1993). Each photograph was presented on a black background for 500 ms, followed by a blank screen prompting the current sorority members to rate how likely they thought it would be that each prospective member would received a bid from their particular sorority house. This item was rated on a 4-point scale ranging from 1 (*not at all likely*) to 4 (*very likely*). They then rated each prospective member on how much they thought they would like her. this item was rated on a 4-point scale ranging from 1 (*very unlikable*) to 4 (*very likable*).

Upon completing this task, the current sorority members were given a survey in which they were asked to rate the six sororities on campus on three measures. Those measures are (a) how much they personally would like to be in it; (b) how much they thought other women on campus would like to be in it; and (c) how desirable they believe men on campus find women in each sorority to be.

Sorority Recruitment Process

The sorority recruitment process contains four steps. All women who are interested in joining a sorority are required to register with the College Panhellenic Council prior to the start of rush. Throughout the recruitment process, the Council processes recruitment rankings made by the houses and by the rushees. These rankings are used to determine which women are invited back to which houses. The recruitment process itself is divided into three evaluation events: Round 1, Round 2, and Preference Night. In Round 1, all women who are interested in rushing attend gatherings at each of the six sororities. Each gathering lasts approximately 45 min. Based on these limited interactions, sorority members then vote on the women they would like to invite back to the second night. Rushing women can thus receive anywhere from zero to six invitations to Round 2, but they may only accept up to four invitations.

Round 2 consists of a second set of gatherings at each sorority, but this time with fewer attendees. Again, current sorority members vote on who is invited back for the third night. Potential members may thus receive anywhere from zero to four invitations back. If they receive more than two invitations, they must pick only two to return to on the third night. After the third night, potential members submit their ranking of their first and second choice of house. At the same time, current members submit their preferences as well. The Panhellenic Council then matches up the potential new members with the sororities.

The Panhellenic Council provided us with data signifying which women received invitations to which houses after Rounds 1, 2, and Preference Night. These data were used in subsequent analyses to assess how far each prospective member made it in the rush process. All data were coded and de-identified in accordance with the guidelines set forth by the College's Institutional Review Board.

Attractiveness Ratings

After the rush process was complete, the prospective members' photographs were rated for attractiveness by a group of graduate students (N = 18; 8 women, 10 men). Each photograph was presented for 1000 ms, following a prompt to rate the individual on a 10-point scale ranging from 1 (*highly unattractive*) to 10 (*highly attractive*).

Results

Data Reduction

Data from the Panhellenic Council were first coded according to how far the women made it in the rush process for each house. Women received a score of 0 if they were not invited back to a given house after Round 1. They received a score of 1 if they were invited back to Round 2 and nothing further; a score of 2 if they were invited back to Preference Night, but were not invited to join; and a score of 3 if they were invited to join a given house at the end of the rush process.

In order to determine general consensus on house desirability, we asked current members and prospective members to rank which houses they thought were the most desirable. The rankings were the same for both current members and prospective members. We then conducted a median split on desirability among the six houses. The three most desirable were labeled *high status*, and the three bottom ranked houses were labeled *low status*. Attractiveness ratings were *z*-scored for subsequent analyses.

Current Members' Ratings as Predictors of Prospective Member Outcomes

Each current member provided two ratings per prospective sorority member: whether they thought prospective sorority members would get a bid, and how much they thought they would like the women. We analyzed these data using structural equation modeling (correlation matrix, means, and standard deviations appear in Table 1).

An initial model was specified in which attractiveness was treated as an exogenous variable with direct effects on liking and expectancy for both highand low-status sororities. The likelihood of a high-status sorority making a bid for a candidate was specified to be a direct function of ratings of liking and expectancy by high-status sororities. Likewise, the likelihood of a lowstatus sorority making a bid was specified to be a direct function of ratings of liking and expectancy by low-status sororities. All effects of attractiveness on likelihood to make bids were mediated by respective ratings of liking and desirability. Finally, given shared method variance, the unique variances of

Table 1

Variable	М	SD	1	2	3	4	5	6
	101	50	1	-	5		5	
1. Attractiveness	0.17	0.67	_					
2. Liking: DS	0.61	0.21	.68					
3. Expectancy: DS	0.54	0.25	.78	.90				
4. Bid: DS	1.55	0.82	.35	.48	.46			
5. Liking: UDS	0.66	0.19	.50	.79	.64	.44		
6. Expectancy: UDS	0.60	0.20	.65	.78	.78	.44	.77	
7. Bid: UDS	1.44	0.56	12	.03	09	11	.21	.17

Study Correlations and Means

Note. N = 104. DS = desirable sorority; UDS = undesirable sorority.

liking ratings were allowed to covary, as were the unique variances of expectancy ratings, and the unique variances of bids.

This initial model was associated with a poor fit of the data, $\chi^2(10, N = 104) = 174.28, p < .001$ (comparative fit index [CFI] = .70; standardized root mean square residual [SRMR] = .16; root mean square error of approximation [RMSEA] = .40). Based on Lagrange multiplier tests, a second model was specified in which liking was postulated to have a direct effect on expectancy for both high- and low-status sororities. This modified model provided a substantial improvement over the initial model, $\chi^2_{\text{difference}}(2, N = 104) = 143.60, p < .001$; and provided a reasonable fit according to some criteria, $\chi^2(8, N = 104) = 30.68, p < .001$ (CFI = .96; SRMR = .08; RMSEA = .17).

Nonetheless, inspection of fit statistics, as well as the original correlations, indicates that the model did not adequately capture a negative association between the high-status sororities' expectancy to make a bid, and the probability that a low-status sorority would bother to make a bid. Inclusion of this direct path in a final model provided an improvement over the previous, modified model, $\chi^2_{difference}(1, N = 104) = 18.03, p < .001$; and a reasonable fit to the data, $\chi^2(7, N = 104) = 12.65, ns$ (CFI = .99; SRMR = .03; RMSEA = .09). This model is depicted in Figure 1.

In addition to providing a reasonable overall fit, nearly all of the initially hypothesized paths were associated with statistically significant parameters. Among these, it is interesting to note that attractiveness was more predictive of liking by high-status sororities (g = .68, z = 9.41, p < .001) than by low-status sororities (g = .50, z = 5.79, p < .001). Constraining these parameters to be equal results in a significant degradation of the fit of the model, $\chi^2_{difference}(1, N = 104) = 12.85$, p < .001. Similarly, liking is more predictive of making a bid for high-status sororities (b = .38, z = 2.05, p < .05) than it is for low-status sororities (b = .26, z = 1.79, p < .10). Conversely, expectancy is more predictive of making a bid for low-status sororities (b = .47, z = 2.92, p < .01) than it is for high-status sororities (b = .11, z = .60, ns).

Although these parameters are different in the sense that some are significant and others are not, it should be noted that constraining them to be equal does not significantly degrade the fit of the model. Nonetheless, they suggest that high-status sororities recruit those they like, whereas low-status sororities recruit those who they expect to be able to get.

Somewhat surprisingly (although logical in retrospect), the strongest predictor of recruiting by low-status sororities is low expectancies by high-status sororities that they will try to recruit a candidate (b = -.62, z = -4.43, p < .001). It is as if high-status sororities recruit those they like, and this is to



Figure 1. Final structural equation model. Attractiveness is more predictive of liking and making a bid by high-status sororities than by low-status sororities. Conversely, expectancy is more predictive of making a bid for low-status sororities than it is for high-status sororities. $^{+}p < .10$. $^{*}p < .05$. $^{*}p < .01$. $^{**}p < .001$.

a large extent based on the candidate's physical attractiveness. On the other hand, low-status sororities recruit those they think they can get among those individuals who are left (i.e., those whom high-status sororities expect not to try to recruit).²

²In order to examine whether our effects were influenced by other facial cues known to impact social perceptions (e.g., baby-facedness, perceived facial expressiveness), we asked a separate group of undergraduates to rate the target faces on both their perceived baby-facedness and how genuine their facial expressions appeared to be. We then created a partial correlation matrix of the original variables after controlling for these ratings of baby-facedness and genuine smiling. We applied the specifications for the final model to this corrected matrix. The results were essentially unchanged. Estimates of model fit yielded precisely the same value for CFI (.99), SRMR (.03), and RMSEA (.09). The χ^2 test increased from 12.65 to 13.49 and remained nonsignificant, indicating good fit. All of the individual parameter estimates that were significant in the analysis of the non-corrected data remained significant, and none of the estimates that were not significant became significant. Further, all the differences between desirable and undesirable sorvities actually increased slightly in size. These analyses provide evidence that the observed effects were not spurious consequences of aspects of the appearance other than attractiveness.

Discussion

The results from this study indicate that sororities that are higher or lower in social status rely on different strategies to recruit new group members. Specifically, we observed that attractiveness was more predictive of liking and bid expectancy for the high-status houses, as compared to the low-status houses. Interestingly, low-status sororities were more likely to recruit women who were given low bid expectancy ratings by high-status sororities. This finding suggests that low-status sororities may target women who they expected would not be recruited by the high-status sororities. Further, the women who were selected in the low-status houses were, as a whole, less attractive than women who were selected by the high-status houses.

Group selection among the high- and low-status houses, therefore, seemed to be largely driven by attractiveness: High-status houses were more likely to give bids to the more attractive prospective members than were the low-status houses. Why might this be the case? Given the brief period of time to which participants were exposed to the images, attractiveness likely influenced their judgments because it was the most salient cue directly related to perceivers' evaluative goals provided by the photographs. For the high-status houses, attractiveness may have been a particularly important cue because it is a highly desirable trait (Dion et al., 1972; Zebrowitz-McArthur, 1986) and is commonly a mark of status (Anderson et al., 2001). Thus, it is unsurprising that the high-status sororities placed a high premium on attractiveness in selecting group members.

Of additional interest in our findings is that the high-status sororities were more selective in the recruitment process than were low-status sororities. One of the biggest predictors of whether women would be accepted into lowstatus sororities was if they were given low bid expectancy ratings by highstatus sororities. In other words, low-status sororities expected only to recruit the women whom the high-status sororities did not want.

It is important to note that our model also includes unexplained variance, which may have included factors that emerged during the rush process and were not readily available in the photographs that we used. For instance, previous research has suggested that family income may play a role in sorority rush success (Atlas & Morier, 1994). In our study, current sorority members were not provided with explicit information about family income during the rush process. However, they may have extrapolated the information during the rush process from implicit cues (e.g., clothing, accessories).

Further, the pictures did not provide clear information about body weight, which has been shown to decrease likability (Maddox, Back, & Liederman, 1968). In addition, the pictures do not necessarily reflect how the prospective members presented themselves at the rush functions. Indeed,

factors such as grooming have been shown to play an important role in impression formation because well groomed individuals receive many benefits, including likelihood of being hired (Mack & Rainey, 1990) and receiving more attentive care from physicians (Hooper, Comstock, Goodwin, & Goodwin, 1982). Thus, grooming may have influenced the high-status houses' bid expectancy ratings, and may not necessarily have been accurately reflected in the static photographs.

Nevertheless, the results of the present study show that information gleaned from brief exposures (half a second) to a photograph of a stranger was sufficient to predict whether or not the target would be included in one's social group. It is interesting to note that different information seemed to be extracted from that brief exposure, depending on the social status of the perceiver's group. These results are consistent with existing person-perception models in the social cognition literature. For instance, there may have been an underlying evolutionary or pragmatic advantage to the high-and low-status sororities' reliance on disparate cues when forming impressions of others (e.g., Fiske, 1993; Funder, 1995; Zebrowitz & Montepare, 2006).

Our findings illuminate the importance of social status in forming impressions of prospective group members. In addition, they suggest that cues relevant to social status are processed very early in impression formation and are predictive of how high- and low-status social groups select group members. The results contribute to the growing literature on impression formation and social status.

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