

Happy People Don't Follow the Stereotype: The Impact of Mood on Stereotyping

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Research has revealed that positive mood contributes to both broadened (i.e., more inclusive) categorizations and to increased reliance on heuristics (e.g., stereotypes). Bodenhausen, Mussweiler, Gabriel, and Moreno (2001) explained this equivocal research in light of four stages at which stereotyping can occur. The current study tests the first two of these four stages: stereotype categorization and activation, in the context of racial stereotyping. The study did not replicate findings of previous research that positive mood influences reliance on heuristics and broadened categorization. However, a relationship between category and race emerged, indicating that across mood conditions, participants rated European-Americans higher than African-Americans for likelihood of being in the category politician. In addition, participants rated a higher proportion of European-American than African-American names as politicians and a higher proportion of African-American names than European-American names as criminals. Results are discussed in terms of the nature of the stimuli, the mood induction procedures, and how this study fits with the stages of stereotyping.

Stereotypes are one example of a heuristic, or cognitive shortcut, that people activate for a variety of reasons. Stereotyping can be defined as “beliefs about the characteristics, attributions, and behaviors of certain groups” (Hilton & von Hippel, 1996, p. 238). Engaging in stereotyping may have many negative outcomes, one of which is discrimination. Part of understanding the problem of stereotyping involves understanding the underlying factors that may increase an individual’s likelihood of engaging in stereotyping. One factor that may contribute to activation of stereotyping is mood.

Negative Emotion

Emotion researchers have found that negative emotion narrows an individual’s focus to a specific action (i.e., fight or flight; Bradley, Codispoti, Cuthbert, & Lang, 2001). This function of negative emotion allows individuals to adapt to problematic environments. In this sense, negative emotion alerts people to problems in the environment that are in need of a solution, and the narrowing effect of negative emotion allows them to focus and solve the problem (Fredrickson & Branigan, 2005).

Congruent with this function of negative emotion, research has suggested that individuals induced into negative moods demonstrate a local bias in visual processing, focusing on the details of visual stimuli (i.e., smaller shapes constituting larger ones; Derryberry & Tucker, 1994; Fredrickson & Branigan, 2005; Gasper & Clore, 2002). In other words, when individuals are in negative mood states they demonstrate a tendency to focus on the details and process information analytically. In some cases, this tendency may lead people to increased accuracy in judgment and decision-making.

Consistent with the functions of negative emotion, stereotype use may be affected by negative emotion in one of two ways. First, if individuals in negative moods process information about other people analytically (Derryberry & Tucker, 1994) they might demonstrate a decrease in stereotype use because they notice the individuating and detail-oriented characteristics that distinguish individuals, rather than labeling individuals using the characteristics attributed to the entire group of

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people. However, people in negative mood states might demonstrate an increase in stereotyping if they attribute their negative state to a problem in the environment (e.g., another person) and categorize that individual as part of the problem (Esses & Zanna, 1995).

Positive Emotion

Original models of emotion that conceptualized the function of mood as narrowing an individual's focus and eliciting specific actions did not easily apply to positive emotion. Fredrickson (1998, 2001) proposed the broaden-and-build model of positive emotions, which suggests that experiencing positive moods broadens an individual's thoughts about potential actions and increases engagement in the environment. During this time in which individuals are free from harm, they can build their reserve of skills and social relationships, which can be drawn upon in future times of need.

The broaden-and-build model has garnered much support in research literature. For example, positive emotions may influence several outcomes including increased creativity (Isen, Daubman & Nowicki, 1987) and a global bias on visual processing tasks. Such a bias has been linked to broadened cognition, which involves thoughts about potential actions as well as visual processing (Fredrickson & Branigan, 2005; Gasper & Clore, 2002). On one visual processing task, participants rated shapes based on their global (i.e., the larger shape presented) or local (i.e., smaller shapes comprising the larger figure) elements, which gave insight into the participants' global or local biases (Fredrickson & Branigan, 2005). In addition, research on the own-race bias in facial processing has suggested that people have a difficult time recognizing and processing other-race faces due to local (feature-by-feature) processing; however, experiencing positive emotion eliminates this bias via global processing of faces (Johnson & Fredrickson, 2005). In other words, when individuals are in positive moods, they process faces holistically, increasing recognition and distinction of other-race faces. Positive mood is also linked with long-term successful outcomes, such as higher salaries, better health, and more satisfying social relationships (Lyubomirsky, King, & Diener, 2005).

Although benefits of positive mood have been demonstrated, research conducted on the precise role of positive mood in stereotyping has been equivocal. Some research suggests that positive mood may contribute to the elimination of stereotyping (Dovidio, Gaertner, Isen, & Lowrance, 1995; Isen & Daubman, 1984; Isen, Niedenthal, & Cantor, 1992; Johnson & Fredrickson, 2005), while other research suggests that positive mood increases an individual's likelihood of stereotyping (Bless, et al., 1996; Bodenhausen, Kramer, & Susser,

1994; Park & Banaji, 2000). The equivocal nature of this research is described in greater detail below.

Positive affect and inclusiveness. Research suggesting that positive mood may eliminate stereotyping has primarily focused on the impact of mood on categorization (Dovidio et al., 1995; Isen & Daubman, 1984; Isen et al., 1992). These studies demonstrated that individuals induced into positive moods were more likely to use inclusive categorization in a word-rating task (Isen & Daubman, 1984), in the evaluation of individuals as members of the participant's in-group or out-group (Dovidio et al., 1995), and in social categorization (Isen et al., 1992).

Isen et al. (1992) demonstrated that individuals in positive moods use broadened categorizations for positive but not negative categories. In their study, participants were given strong and weak examples of positive (e.g., nurturant) and negative (e.g., emotionally unstable) person categories and were instructed to rate how well the exemplars fit those categories. Interestingly, participants induced into positive moods demonstrated more inclusive categorization only for the positive category and not the negative. This finding that individuals in positive moods demonstrated more inclusive categorization in some cases but not others demonstrates that more inclusive categorization is not simply a result of reliance on heuristics and careless thinking. If that were the case, then individuals in positive moods would demonstrate more inclusive categorizations across situations. The role that positive mood plays in increasing the inclusiveness of categorizations suggests that mood might reduce an individual's stereotyping, thereby shifting focus to mood-congruent characteristics. However, these studies did not look directly at racial stereotyping.

Positive affect and heuristic thinking. Evidence also exists suggesting that positive mood may increase an individual's likelihood of engaging in stereotyping (Bless et al., 1996; Bodenhausen et al., 1994; Park & Banaji, 2000). According to Bless et al.'s (1996) mood-and-general-knowledge model, individuals in positive mood states are more likely to rely on general knowledge structures, such as heuristics and stereotypes, when the environment is characterized as benign and unproblematic. The tendency to rely on heuristics in positive mood states has been linked with the use of an experiential or irrational system in information processing (e.g., increased superstitious beliefs; King, Burton, Hicks, & Drigotas, 2007), whereby individuals processed information broadly and heuristically and were more susceptible to sympathetic magic (i.e., superstitions) and more likely to hold paranormal beliefs. In addition, Bodenhausen et al. (1994) found that individuals induced into positive moods were more likely to engage

in stereotyping in social judgments (e.g., judging a “well-known” track-and-field athlete on campus as guilty of an honor violation).

Park and Banaji (2000) suggested that individuals in positive moods were more likely to use stereotypes in judging whether an individual was a criminal or a politician, demonstrating a bias in their judgments. This bias occurs when individuals think members of a particular group are more likely to hold certain positions (e.g., African-Americans as basketball players) based on racial stereotypes. Park and Banaji (2000) gave participants three lists of names (one for each category) containing a combination of stereotypical African-American and European-American names, and asked whether that person was a basketball player or not, a politician or not, or a criminal or not. In comparison to individuals induced into neutral moods, participants induced into positive moods rated a higher percentage of African-Americans than European-Americans as basketball players and criminals and also rated a higher percentage of European-Americans than African-Americans as politicians.

Explanations of Equivocal Literature

Researchers have provided many explanations for the relationship between mood and engagement in stereotyping including: the mood-and-general-knowledge model (Bless et al., 1996), accountability (Bodenhausen et al., 1994), and stages of stereotyping (Bodenhausen et al., 2001; Gilbert & Hixon, 1991). The mood-and-general knowledge model suggests that a positive mood signifies that all is well in the environment and there is no need to expend cognitive energy on evaluating details, making individuals in positive moods more likely to rely on heuristics. This theory does not explain the discrepancies that exist in the literature suggesting that positive affect leads to both more inclusive categorization for some stimuli, and increases in stereotyping for others. However, Bodenhausen et al. (1994) suggested that individuals in positive moods cease to rely on heuristics and stereotypes when they are held accountable for their judgments. Thus, Bodenhausen et al. suggest a possible explanation for why individuals in positive moods may engage in stereotyping in some instances and not others, namely that accountability overrides stereotyping. However, it does not explain why individuals in positive moods use more inclusive categorizations in a word-rating task when accountability is not a factor.

Finally, Bodenhausen et al. (2001) reviewed conflicting findings on mood and stereotyping in light of multiple stages at which stereotyping can occur. As such, they expanded on previous findings (Gilbert & Hixon, 1991) and identified four stages of stereotyping:

category identification, stereotype activation, stereotype application, and stereotype correction. These stages provide the framework for understanding the equivocal nature of the literature because mood has a differential impact at different levels of stereotyping.

The category identification stage is characterized by “assigning a stimulus person to a social category” (Bodenhausen et al., 2001, p. 4). The category-identification stage uses vertical and horizontal dimensions to assign persons to categories. Along the vertical dimension, categories are hierarchical and become increasingly inclusive (i.e., “Black Intellectual,” “African-American,” “American,” and “Human Being,” Bodenhausen et al., 2001, p. 4). Along the horizontal dimension, categories are distinct and have similar levels of inclusiveness (e.g., “Woman,” “Jew,” “Middle-Aged,” and “Professor,” Bodenhausen et al., 2001, p. 4). These researchers suggested that affect plays little role in influencing horizontal categorizations, but it may play a larger role in vertical categorization, leading individuals in positive moods to embrace broader categorizations. So at the category identification stage, this theory would suggest that positive mood seems to be beneficial in decreasing stereotyping.

According to Bodenhausen et al. (2001) mood plays a somewhat different role in the remaining stages of stereotype activation, application, and correction. These stages are characterized by the “mental activation of attributes typically ascribed to the activated category” (stereotype activation; p. 4), “use of activated stereotypic concepts in construing the stimulus person” (stereotype application; p. 4), and “attempts to ‘undo’ the effects of stereotype application” (stereotype correction; p. 4). This model predicts that in these stages, negative affect is more beneficial than positive affect in eliminating stereotyping.

Bodenhausen et al.’s (2001) model provided a plausible explanation for the equivocal literature regarding the impact of mood on stereotyping; however, many of the studies on mood and stereotyping used different materials from one another, and these materials were often not directly related to racial stereotypes (e.g., restaurants or objects; Bless et al., 1996; Isen & Daubman, 1984). Even studies that looked at social categorization did not directly study the categorization of race (Dovidio et al., 1995; Isen et al., 1992).

The current study focuses on the first two stages—identification and activation—and will use the same stimuli presented in two ways to test the Bodenhausen et al. (2001) model. Some participants will be presented with a race categorization task (modeled after Isen & Daubman, 1984) in which they will be asked to categorize names as those of criminals or politicians. Consistent with the previous literature on affect and

categorization, the researchers hypothesized that when positive mood is induced, individuals will demonstrate more inclusive categorization for positive categories (politician) but not negative categories (criminal).

A second group of participants will complete an activation task used in previous research (Park & Banaji, 2000). The goal of this task is to examine the activation of racial stereotypes by studying the labels that participants give to stereotypical African-American and European-American names. The researchers expected to replicate previous findings that individuals in a positive mood will demonstrate an increase in stereotype activation and rate a higher proportion of European-American than African-American names as politicians, and a higher proportion of African-American names than European-American names as criminals.

Method

Pilot Study

A pilot study was conducted to develop the materials for the categorization task of the main study. The pilot study adapted the stimuli used in the activation task into a categorization task in order to compare the effect of mood on both stereotyping in categorization and in activation tasks, while keeping the stimuli consistent. In this pilot study, participants rated names (adapted from Park & Banaji, 2000) in terms of how well they belonged in the categories criminal and politician, allowing us to identify strong and weak exemplars of those categories.

Participants. Twenty-one participants in an introductory psychology course at a small public liberal arts college in the mid-Atlantic region completed the study for partial course credit. The specific demographics of the sample are unavailable; however, we believe that the students in the sample were representative of the college as a whole, with the majority of the participants Caucasian (64%) and female (66%).

Materials and procedure. Participants completed a survey in which they rated stereotypical African-American and European-American names in terms of how well they belonged in the categories criminal or politician on a scale from 1 (*not at all*) to 10 (*very much*). The names, categories (Park & Banaji, 2000), and scale (Isen & Daubman, 1984) were drawn from previous research on stereotyping and categorization. This method was used in previous research on social categorization to identify strong and weak exemplars of person categories (Isen et al., 1992).

Descriptive statistics were computed for each name on the survey. Weak exemplars were identified as having an average rating of less than four, and strong exemplars were identified as having an average rating greater than six. Previous research has identified these cut-off

values appropriate for the identification of strong and weak exemplars of social categories (Isen et al., 1992). The results identified strong and weak exemplars of person names for each racial category.

Main Study

Participants

The main study consisted of 129 participants (69% women, 31% men) between the ages of 18 and 24 with a mean age of 19.2 ($SD = 1.18$). Approximately 81.4% identified themselves as Caucasian, 11.1% Asian American, 4.7% African-American, 3.1% Hispanic, and 2.3% classified themselves as "other." All participants were undergraduate students from a small, public, liberal arts college in the mid-Atlantic region.

Procedure

Participants completed the study in a classroom in groups (average group size of 15). Upon entry to the experiment, participants completed an informed consent form and short demographic questionnaire. Following these short questionnaires, participants were told that they would watch a film clip. Participants were not given any specific information regarding the purpose of the film clip. Following the film clip, participants immediately completed either the categorization or the activation task in the same classroom in which they had viewed the video. Detailed information about the mood induction procedure, as well as the stereotype categorization and activation tasks follows.

Materials

Mood induction. Participants in this study viewed a silent film clip intended to induce a positive, negative, or neutral mood state. To induce positive mood, participants viewed a segment from the film *When Harry Met Sally* (149 s) in which a man and a woman are talking about sex in a restaurant. No participants expressed any concerns regarding the sexual nature of the film clip. For the negative mood condition, participants viewed a brief clip from the film *The Champ* (171 s), in which a young boy witnesses his father's death after a boxing match. Participants assigned to the neutral mood condition viewed a clip from *Hannah and Her Sisters* (92 s), in which two girls go shopping. All clips were adapted from Hewig et al. (2005). Although Hewig and colleagues (2005) validated these clips without sound, other researchers also used these clips with sound to induce certain mood states (Fredrickson & Branigan, 2005; Gross & Levenson, 1995; Martin, 1999).

Categorization task. One group of participants ($n = 59$) completed a categorization task modeled after previous research on mood and categorization (Isen & Daubman, 1984; Isen et al., 1992). In this task, the

experimenter read the names of strong and weak exemplars (for example, the name Albert Allen received an average rating of 6.75 for the politician category in the pilot study) of the categories criminal and politician. Participants were instructed to rate 30 names on how well they fit the categories of criminal (12 names) and politician (18 names) on a scale from 1 (*not at all*) to 7 (*very much*) on a separate sheet of notebook paper. These names were a subset of the names that were used in the activation task.

Stereotype activation task. A second group of participants ($n = 70$) completed a stereotype activation task used in previous research (Park & Banaji, 2000). In this task, participants were instructed to judge whether or not stereotypical African-American or European-American names were those of criminals, or politicians. For example, given the name Dave Laden, participants could mark whether he was a “politician” or “not a politician.” The order of the categories presented was counterbalanced, and the African-American and European-American names were presented in random order to control for an order effect.

Mood manipulation check. After they completed the categorization or activation task, participants completed an Emotion Report Form (adapted from Fredrickson, Mancuso, Branigan & Tugade, 2000). This form consists of nine different emotions such as “happiness” and “sadness.” Participants rated their mood states in response to the film they watched on a 9-point scale ranging from 0 (*none*) to 8 (*a great deal*).

Results

Stereotype Categorization

Mood manipulation check. Analyses indicated that participants in each condition reported statistically

significant differences in emotions. The means, standard deviations, and significance levels can be found in Table 1. Participants in the positive mood condition reported higher levels of amusement, contentment, and happiness than both the neutral and negative affect conditions. Participants in the negative mood condition reported higher levels of sadness than both the neutral and positive affect conditions and higher levels of anxiety than the positive affect condition. Participants in the neutral mood condition did not report high levels of any mood state. A Bonferroni correction was conducted to control for multiple analyses. All mood manipulation analyses were conducted at the .006 significance level.

Categorization analyses. The original intention was to analyze the data using a 3 (mood) \times 2 (strong or weak exemplar) \times 2 (category) \times 2 (target race) ANOVA; however, the pilot study did not identify any African-American names that were strong exemplars of the politician category. Accordingly, the strength variable was dropped from the analysis, and the data were analyzed by a three-way mixed ANOVA with one between-subjects factor (positive, negative, and neutral mood), and two within-subjects factors (target race and category). The means and standard deviations of these categorization ratings can be found in Table 1.

A statistically significant interaction between target race and category was detected, $F(1, 56) = 45.91$, $p < .001$. See Figure 1 for a graph of this interaction. Follow up analyses indicated that for the politician category, European-American names ($M = 3.65$, $SD = 1.32$) were rated higher than African-American names ($M = 2.33$, $SD = 1.11$), $t(58) = 9.28$, $p < .001$. However, for the criminal category, no significant difference was detected between ratings of African-American

TABLE 1

Categorization Task: Means and Standard Deviations for Reported Emotions During Film Clips

Emotion	Mood Condition			Significance ($\alpha = .006$)
	Positive ($n = 24$)	Neutral ($n = 14$)	Negative ($n = 21$)	
Amusement	5.54 (1.88) _a	1.00 (1.03) _b	1.19 (1.40) _b	$p < .001^*$
Anger	0.50 (1.18)	0.07 (0.27)	1.33 (1.77)	$p = .017$
Anxiety	0.50 (1.18) _a	0.71 (1.64) _{ab}	2.22 (2.22) _b	$p = .002^*$
Contentment	3.83 (1.79) _a	1.86 (1.61) _b	1.38 (1.66) _c	$p < .001^*$
Disgust	1.04 (1.65)	0.14 (0.53)	1.45 (2.06)	$p = .079$
Fear	0.45 (1.10)	0.29 (0.83)	1.48 (2.04)	$p = .030$
Happiness	3.75 (1.70) _a	1.86 (1.92) _b	0.29 (0.90) _c	$p < .001^*$
Sadness	0.33 (1.01) _a	0.79 (1.63) _a	4.86 (2.73) _b	$p < .001^*$
Serenity	2.46 (2.06)	2.50 (1.88)	1.38 (1.47)	$p = .097$

^{abc} Different subscripts represent mood condition groups that differed significantly for each reported emotion.

($M = 3.02, SD = 1.41$) and European-American ($M = 2.65, SD = 1.13$) names, when controlling for multiple analyses with a Bonferroni correction (compared at .025 level), $t(58) = 2.11, p = .04$.

The main effect for target race was also statistically significant, $F(1, 56) = 24.48, p < .001$, although this main effect seemed to be due to the interaction indicating that European-Americans were rated higher for the politician category. The main effect for mood was not statistically significant. All remaining analyses for the categorization task were not significant.

Stereotype Activation

Mood manipulation check. Analyses indicated that the mood induction procedure elicited significantly different emotions among the three mood conditions. The means, standard deviations, and significance levels can be found in Table 2. In comparison to other conditions, participants in the positive mood condition reported high levels of amusement, contentment, and happiness. Participants in the negative mood condition reported high levels of sadness and anxiety, and participants in the neutral mood condition did not report high levels of any mood state.

Activation analyses. Prior to analyses, percentages of names rated as politicians and criminals were calculated for each participant. These percentages served as the primary dependent variable for all subsequent analyses. A four-way mixed ANOVA was conducted with two between-subjects factors (order and mood) and two within-subjects factors (target race and task) to test for order effects. The results did not reveal a statistically significant four-way interaction.

The order variable was dropped from the analysis and a three-way mixed ANOVA was conducted with

FIGURE 1

**Categorization task:
Interaction between target race and category.**

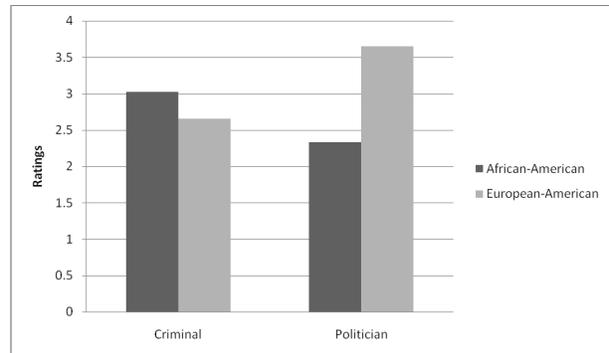


FIGURE 2

**Activation task: Interaction between
target race and politician/criminal category.**

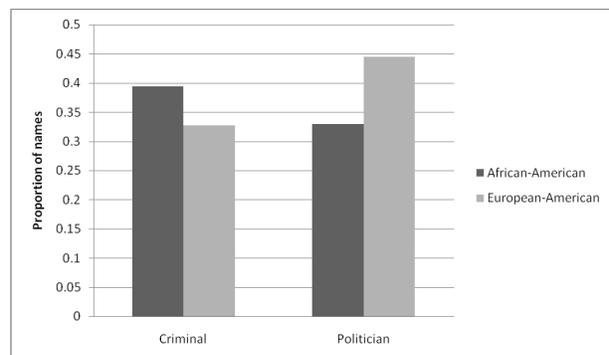


TABLE 2

Activation Task: Means, Standard Deviations, and Significance Values of Emotions Reported

Emotion	Mood Condition			Significance ($\alpha = .006$)
	Positive (n = 26)	Neutral (n = 23)	Negative (n = 19)	
Amusement	4.79 (1.84) _a	1.00 (1.48) _b	0.54 (0.76) _b	$p < .001^*$
Anger	0.42 (1.22) _a	0.17 (0.49) _b	1.27 (1.51) _b	$p = .004^*$
Anxiety	0.68 (1.11) _a	0.78 (1.31) _a	2.56 (1.91) _b	$p < .001^*$
Contentment	3.16 (1.95) _a	1.83 (1.99) _b	0.59 (1.19) _b	$p < .001^*$
Disgust	0.79 (1.62) _{ab}	0.43 (1.20) _b	1.81 (1.84) _{ab}	$p = .009^*$
Fear	0.05 (.23) _a	0.22 (1.04) _a	1.96 (2.10) _b	$p = .009^*$
Happiness	2.95 (2.57) _a	1.17 (1.85) _b	0.44 (1.09) _b	$p < .001^*$
Sadness	0.37 (1.12) _a	0.74 (1.57) _a	5.21 (2.47) _b	$p < .001^*$
Serenity	2.05 (1.87)	1.48 (2.06)	0.81 (1.90)	$p = .109$

^{abc}Different subscripts represent mood condition groups that differed significantly for each reported emotion.

one between-subjects factor (positive, negative, or neutral mood) and two within-subjects factors, target race (African-American, European-American) and task (criminal judgment, politician judgment).

A statistically significant interaction was detected between target race and task, $F(1, 67) = 20.36, p < .001$. Follow up analyses indicated that participants rated a higher percentage of African-Americans ($M = 39.4\%$, $SD = 28\%$) than European-Americans ($M = 32.7\%$, $SD = 21.3\%$) as criminals, but they rated a higher percentage of European-Americans ($M = 44.5\%$, $SD = 23.4\%$) than African-Americans ($M = 33\%$, $SD = 27\%$) as politicians. All remaining stereotype activation analyses were not significant.

Discussion

In the current study, two groups of participants underwent mood induction procedures then completed one of two tasks to examine the influence of mood on stereotype categorization and activation, the first two levels of stereotyping according to Bodenhausen et al. (2001). The results of this experiment did not support the original hypotheses that experiencing positive affect would lead to more inclusive categorization and increased stereotype activation; however, significant interactions emerged on both the stereotype categorization and activation tasks when collapsing across mood conditions.

Stereotype Categorization

On the stereotype categorization task, participants rated the extent to which several stereotypical European-American and African-American names belonged to the broader categories of politician or criminal. For the politician category, participants rated European-American names as more typical of politicians than African-American names, but there was no difference in name ratings for the criminal category. It seems that individuals were more likely to include European-Americans in a category with a positive valence (politician), but did not include either race significantly more often in a category with a negative valence (criminal).

The absence of differences among affect conditions differs from previous research that indicated individuals in positive moods are more inclusive in their categorizations of both objects (Isen & Daubman, 1984) and people (Isen et al., 1992). Each of these studies used objects or ambiguous categories of individuals (e.g., bartender), and not specific names. Perhaps the use of names as stimuli is not an adequate way to measure categorization of individuals. In fact, previous research suggests that positive mood influences the range of associations to ambiguous or neutral material (Isen, Johnson, Mertz, & Robinson, 1985). The names used

in the current study were stereotypical and common names, and therefore may not have been ambiguous or neutral. The lack of neutrality among these names could explain the absence of mood influences on categorization. If participants attach meaning to the names and believe that they apply to specific individuals, then they can no longer be considered ambiguous and neutral. As a result, mood would no longer influence the categorization of these names.

Consistent with this notion of neutrality, Urada and Miller (2000) examined the role that category importance plays in social categorizations. Building on the work of Isen and her colleagues, Urada and Miller studied broadened positive categorization among participants experiencing positive affect in situations when they made judgments about another person who was a member of two groups (i.e., two in-groups, two out-groups, or one of each) and these groups varied by degree of importance, which was operationalized in terms of significance to self-identity. These researchers suggest that some categories are naturally viewed as more important or salient to one's self-identity than others. For example, race is typically viewed as a more important social category than college major. In this study, participants completed an information form on which they were required to categorize themselves on a variety of social dimensions (e.g., race, religion) and then also rated how important that category was to their self-identity. After receiving this information, the researchers then told participants that they would be required to work with another person who was described in terms of the aforementioned categories and asked participants to rate their potential partner in terms of desirability and preference as a partner.

The results of this study indicated that when individuals were in a positive mood, they viewed cross-category memberships (i.e., one in-group, one out-group) more favorably. However, participants provided less favorable judgments of those who were members of an important out-group (e.g., another race). In addition, these researchers suggested that race might be a category of greater importance than other categories (Urada & Miller, 2000). The results of their study indicated that categories weighted with greater importance are resistant to the broadened categorization exhibited by individuals experiencing positive affect. These findings could provide an explanation for the failure to find broadened categorization in the current study. If race is weighted as an important category, then it would be resistant to the broadened categorization that has been found in previous research (Isen et al., 1992; Isen & Daubman, 1984).

The current study also revealed that individuals were more likely to choose European-American indi-

viduals as belonging to the category politician; however, neither European-American nor African-American names were more likely to be categorized as belonging to the criminal category. Previous research on affect and categorization suggested that when individuals experience positive moods, they will be more likely to nominate positive or neutral person exemplars more broadly into positive social categories, but they would not be more likely to categorize negative person exemplars into negative categories (Isen et al., 1992). The current study revealed that across mood conditions, individuals included names rated as strong exemplars (e.g., European-Americans as a politician) in a positive social category, but did not include either strong or weak exemplars in the negative social category.

The findings of the current study may be explained in terms of Bodenhausen et al.'s (2001) category identification stage of stereotyping by understanding the differences between horizontal and vertical categorization. Perhaps the categorization task used in the current study did not adequately measure a vertical categorization, which Bodenhausen et al. identified as being more susceptible to influences of mood. The categories of criminal and politician are relatively distinct categories and not necessarily part of a broader hierarchy, in which participants could rate the names as being more inclusive in the broader levels of the hierarchy.

Stereotype Activation

On the stereotype activation task, participants labeled stereotypical African-American and European-American names as criminals or not, or as politicians or not, whereas on the stereotype categorization task, participants rated the extent to which names belonged to the broader categories of politician or criminal. In previous research, individuals in positive moods were more likely to label European-American names as politicians, and African-American names as criminals (Park & Banaji, 2000). The current study failed to replicate these findings. Instead, we found that regardless of mood condition, participants rated a higher percentage of the African-American names as criminals, and European-Americans as politicians.

The inability to replicate the findings of Park and Banaji (2000) should be considered in light of several factors. First, characteristics of the sample should be considered. The sample used in the present study and the sample obtained by Park and Banaji were similar in size and demographics. Therefore, it is not likely that characteristics of the sample explain the differences between the present study and the original study, for those two characteristics, at least. In addition, characteristics of the mood induction procedure may play a role in the present findings. The current study used

short film clips (approximately 2 min), without sound to induce mood, whereas Park and Banaji used longer clips (approximately 10 min) in their mood induction procedure. It is also interesting to compare the proportions of names rated as criminals or politicians in the current study to those in found by Park and Banaji. Participants in the current study rated higher proportions of names as being politicians or criminals, regardless of mood or race of the name, than the Park and Banaji. It is unclear why these differences emerged; however, it is a factor to be considered in understanding the results of the current study.

Bodenhausen et al. (2001) suggested that mood might be a distracting or motivating factor in the stereotype activation stage. Individuals may be distracted by their mood states, and notice a decrease in stereotype activation, or they might be motivated to repair a negative mood or maintain a positive mood and therefore uphold stereotype activation. This does not explain the results of the current study that indicate more positive stereotypes for members of one race, but more negative stereotypes for members of another race. The underlying factors explaining the influence that mood may or may not have on stereotype activation should be explored further.

Stereotype Categorization Versus Activation

The findings on the activation task differ from those of the categorization task because effects were found for both the politician and the criminal categories, whereas on the categorization task there was only an effect detected for the politician category. The aim of the categorization task was to understand whether individuals in different mood states would include names typical of different races in specific categories, whereas the goal of the activation task was to understand how individuals apply these labels. Intuitively, it seems as though these two tasks would be comparable to one another; however, they resulted in differential outcomes. It seems as though people are less likely to include anyone in a negative social category (i.e., criminal) when asked how well that person fits in the category; however, when asked specifically if a name is a criminal or a noncriminal, people are more likely to rate African-Americans as criminals and European-Americans as politicians.

Another possible explanation for the different findings between the two tasks involves the measurement scale used for each task. The use of a scale for the categorization task allows for more variance to analyze. Comparatively, the dichotomous yes/no responses on the activation task, in which participants are forced to choose membership or non-membership in the category, resulted in less variance.

Limitations

The findings of the current study should be considered in light of a few limitations. First, the use of a homogeneous convenience sample should be considered. The majority of participants were Caucasian, and all participants were in their late teens or early twenties. Therefore, the ability to generalize the findings to the larger population is uncertain. Specifically, it is uncertain how members of other races might categorize names of different races. Research suggests that individuals view members of their in-group more favorably (Urada & Miller, 2000), so it is possible that individuals of other races might respond differently to the tasks used in the current study.

A second limitation involves the mood induction procedure used in this study. Although a manipulation check revealed that the mood induction was successful at inducing the intended mood states, it is important to examine the mood induction procedure as a potential factor influencing the inability to replicate previous findings. The moods induced in the lab may not have been comparable to moods experienced on a daily basis. The moods induced in the current study did not reach the level of intensity reported in previous research using the same film clips (Hewig et al., 2005). In addition, other research revealing influences of mood on various processes demonstrated more intense emotions than the emotions reported in the current study (Fredrickson & Branigan, 2005). Research supports the use of film clips as an effective method for mood induction (Hewig et al., 2005); however, the clips used in this study differed from those used by Park and Banaji (2000) in their original study using the politician and criminal tasks. The current study used short, silent clips to induce mood; whereas Park and Banaji used longer clips (10 min) including sound in their mood induction procedure. In addition, Isen et al. (1992) used a gift rather than film clips to induce positive mood in their study on positive affect and social categorization.

Across mood conditions, on both tasks, participants' responses were consistent with the hypothesis for the positive mood condition. On the categorization task, participants included strong exemplar persons in positive categories, but not negative categories, as expected by previous research (Isen et al., 1992). And on the activation task, participants demonstrated stereotype activation by reporting a higher percentage of European-Americans as politicians and African-Americans as criminals. Previous research suggests that people generally report mild positive affect (Diener & Diener, 1996). If the mood induction procedure did not induce the intended mood states, it is possible that all participants were experiencing mild positive affect,

and responded accordingly to the given tasks. However, our manipulation check indicated that participants did experience the intended mood states.

Additional limitations, relating specifically to the two tasks, should also be taken under thoughtful consideration. According to Bodenhausen et al.'s (2000) stages, categorization is assignment, whereas activation involves the "mental activation of attributes typically ascribed to the activated category." Attributes are typically considered to be labels (e.g., successful or unsuccessful). The use of the terms politician or criminal in the current study may have resulted in participants considering them to be categories rather than attributes, in which case there would be no attribute to rate on the activation task. Finally, it is possible that participants did not view politician as a positively-valenced category. A perception of politician as negative or neutral could influence the pattern of results as research has demonstrated that individuals in positive moods are more inclusive for positive categorizations (Isen et al., 1992).

Implications and Future Research

The findings of the current study have implications for the direction of research in several ways. First, this study adds to research on the influence of mood on categorization by studying more closely the categorization of names into social categories, rather than focusing on ambiguous stimuli (e.g., objects). In addition, the current study began to examine the differential impact that mood may have on engagement in stereotyping by empirically testing a proposed explanation (Bodenhausen et al., 2001) for the equivocal nature of the literature.

There are also many practical applications of this line of research as well. The current research has practical implications for how individuals make quick judgments with the dearth of information provided from the social world. Whether an individual is assigning someone to a category, or deciding whether or not to include that person in their in- or out-group, the information that is gained from the environment is vital in decision-making. The results of the current study also suggest that individuals may rely on stereotypes when making quick judgments and decisions about others—particularly when they are provided with little information about that person.

Future research should continue to examine the role of mood in stereotype categorization and activation. The inclusion of more races in a categorization task might provide insight into the issue of neutrality in the categorization of names. Future studies should also include more explicitly positive (e.g. philanthropist) categories to understand how individuals make positive

categorizations. In addition, a replication of the Park and Banaji (2000) findings that positive mood increases an individual's reliance on heuristics in a social judgment task is still needed. Alternative mood induction procedures should be used to verify the findings of Park and Banaji's study. Finally, future research should also test the final two stages (stereotype application and correction) of Bodenhausen et al.'s (2001) model using consistent materials. A test of the entire model using consistent materials would provide insight to the discrepant role that mood might play in engagement of stereotyping.

References

- Bless, H., Clore, G. L., Schwarz, N., Golisano, V., Rabe, C., & Wolk, M. (1996). Mood and the use of scripts: Does a happy mood really lead to mindlessness? *Journal of Personality and Social Psychology, 71*, 655-679.
- Bodenhausen, G. V., Kramer, G. P., & Susser, K. (1994). Happiness and stereotypic thinking in social judgment. *Journal of Personality and Social Psychology, 66*, 621-632.
- Bodenhausen, G. V., Mussweiler, T., Gabriel, S., & Moreno, K. N. (2001). Affective influences on stereotyping and intergroup relations. In J. P. Forgas (Ed.), *Handbook of affect and social cognition* (pp. 319-343). Hillsdale, NJ: Erlbaum.
- Bradley, M. M., Codispoti, M., Cuthbert, B. N., & Lang, P. J. (2001). Emotion and motivation I: Defensive and appetitive reactions in picture processing. *Emotion, 1*, 276-298.
- Derryberry, D., & Tucker, D. M. (1994). Motivating the focus of attention. In P. M. Niedenthal, & S. Kitayama (Eds.), *The heart's eye: Emotional influences in perception and attention*. (pp.167-196). San Diego, CA: Academic Press.
- Diener, E., & Diener, C. (1996). Most people are happy. *Psychological Science, 7*, 181-185.
- Dovidio, J. F., Gaertner, S. L., Isen, A. M., & Lowrance, R. (1995). Group representations and intergroup bias: Positive affect, similarity, and group size. *Personality and Social Psychology Bulletin, 21*, 856-865.
- Esses, V. M., & Zanna, M. P. (1995). Mood and the expression of ethnic stereotypes. *Journal of Personality and Social Psychology, 69*, 1052-1068.
- Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology, 2*, 300-319.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist, 56*, 218-226.
- Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition and Emotion, 19*, 313-332.
- Fredrickson, B. L., Mancuso, R. A., Branigan, C., & Tugade, M. M. (2000). The undoing effect of positive emotions. *Motivation and Emotion, 24*, 237-258.
- Gasper, K., & Clore, G. L. (2002). Attending to the big picture: Mood and global versus local processing of visual information. *Psychological Science, 13*, 34-40.
- Gilbert, D. T., & Hixon, J. G. (1991). The trouble of thinking: Activation and application of stereotypic beliefs. *Journal of Personality and Social Psychology, 60*, 509-517.
- Gross, J. J., & Levenson, R. W. (1995). Emotion elicitation using films. *Cognition and Emotion, 9*, 87-108.
- Hewig, J., Hagemann, D., Siefert, J., Gollwitzer, M., Naumann, E., & Bartussek, D. (2005). A revised film set for the induction of basic emotions. *Cognition and Emotion, 19*, 1095-1109.
- Hilton, J. L., & von Hippel, W. (1996). Stereotypes. *Annual Review of Psychology, 47*, 237-271.
- Isen, A. M., & Daubman, K. A. (1984). The influence of affect on categorization. *Journal of Personality and Social Psychology, 47*, 1206-1217.
- Isen, A. M., Daubman, K. A., & Nowicki, G. P. (1987). Positive affect facilitates creative problem solving. *Journal of Personality and Social Psychology, 52*, 1122-1131.
- Isen, A. M., Johnson, M. M. S., Mertz, E., & Robinson, G. F. (1985). The influence of positive affect on the unusualness of word associations. *Journal of Personality and Social Psychology, 55*, 710-717.
- Isen, A. M., Niedenthal, P. M., & Cantor, N. (1992). An influence of positive affect on social categorization. *Motivation and Emotion, 16*, 65-78.
- Johnson, K. J., & Fredrickson, B. L. (2005). "We all look the same to me": Positive emotions eliminate the own-race bias in face recognition. *Psychological Science, 16*, 875-881.
- King, L. A., Burton, C. M., Hicks, J. A., & Drigotas, S. M. (2007). Ghosts, UFOs, and magic: Positive affect and the experiential system. *Journal of Personality and Social Psychology, 92*, 905-919.
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin, 131*, 803-855.
- Park, J., & Banaji, M. R. (2000). Mood and heuristics: The influence of happy and sad states on sensitivity and bias in stereotyping. *Journal of Personality and Social Psychology, 78*, 1005-1023.
- Urada, D. I., & Miller, N. M. (2000). The impact of positive mood and category importance on crossed categorization effects. *Journal of Personality and Social Psychology, 78*, 417-433.