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Pride Displays Communicate Self-Interest and Support for Meritocracy

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The present studies examined how observers infer moral attributes and beliefs from nonverbal pride displays. Pride is a self-focused positive emotion triggered by appraisals of the self's success, status, and competence. We hypothesized that when a target emits nonverbal cues of pride, he or she will be viewed by observers as higher in self-interest and therefore more likely to endorse ideologies that would benefit the self—specifically, merit-based resource distributions (meritocracy) as opposed to equality-based resource distributions (egalitarianism). Across studies, experimentally manipulated pride displays (Studies 1 and 3) and naturally occurring expressions of pride (Study 4) led observers to infer heightened support for meritocracy as opposed to egalitarianism. Analyses also revealed that people intuitively associate higher self-interest with enhanced support for meritocracy as opposed to egalitarianism (Study 2), and this association mediates the pathway from pride displays to inferences of heightened support for meritocracy and reduced support for egalitarianism (Studies 3 and 4). Across studies, we compare pride to expressions of joy or no emotion and demonstrate these effects using thin slices as well as static images.

Keywords: pride, nonverbal emotion expression, moral inference, meritocracy, egalitarianism

Emotions are at the heart of social living. They imbue relationships with meaning, inform interpersonal behavior, and shape core values (e.g., DeSteno, Petty, Rucker, Wegener, & Braverman, 2004; Horberg, Oveis, & Keltner, 2011; Keltner & Haidt, 1999; Lazarus, 1991). The nonverbal displays that accompany specific emotions guide interpersonal interactions by communicating social information to others. People rely on nonverbal emotion cues in the face, voice, and body to infer not only an expresser's emotional state but also her appraisals, social roles, status, beliefs, and moral attributes like altruism (Brown, Palameta, & Moore, 2003; Frijda & Mesquita, 1994; Hareli & Hess, 2010; Tiedens, Ellsworth, & Mesquita, 2000; Tracy, 2010; Zebrowitz & Montepare, 2008).

Moral psychology has witnessed a pronounced shift toward understanding the emotional roots of human morality in recent years. Increasingly, research finds that personal experiences of distinct emotions like disgust, anger, compassion and pride give rise to specific beliefs about right and wrong, connection to others, and appropriate conduct within relationships (e.g., Frank, 1988; Greene & Haidt, 2002; Haidt, 2001; Horberg, Oveis, Keltner, & Cohen, 2009; Oveis, Horberg, & Keltner,

2010; Rozin, Lowery, Imada, & Haidt, 1999; Schnall, Haidt, Clore, & Jordan, 2008). The present research advances this literature by investigating how the perception of a distinct emotion in another shapes inferences about his or her moral beliefs (e.g., Frijda & Mesquita, 1994; Zebrowitz & Montepare, 2008). More specifically, we are interested in the inferences drawn from nonverbal displays of pride. In light of research illustrating the self-promoting nature of pride (e.g., Fiske, 2011; Tracy & Robins, 2004a, 2007a), we propose that pride displays will reliably evoke inferences that the expresser endorses meritocracy over egalitarianism, mediated by perceptions of the target's heightened self-interest.

Nonverbal Displays of Emotion Shape Social and Moral Inferences

In the act of forming first impressions, observers treat nonverbal cues of emotion as powerful sources of social and moral information (Ambady & Rosenthal, 1992; Feinberg, Willer, & Keltner, 2012; Szczurek, Monin, & Gross, 2012; Zebrowitz & Montepare, 2008). Studies of courtroom behavior, for example, find that defendants are more likely to be convicted if they appear cold and uncaring or if they display inappropriate emotional reactions like joy (e.g., Porter & ten Brinke, 2009; Salekin, Ogloff, McFarland, & Rogers, 1995). Dovetailing with these findings, the thin-slicing and zero-acquaintance literatures demonstrate that exposure to a few minutes of nonverbal behavior, or even just a picture of the face, leads observers to form reliable impressions of a stranger's personality traits, socioeconomic status, and moral attributes like trustworthiness and altruism (Ambady & Rosenthal, 1992; Brown et al., 2003; Kaul & Schmidt, 1971; Kraus & Keltner, 2009; Verplaetse, Van-

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nete, & Braeckman, 2007). Moreover, it is the appraisals associated with the expressed emotion that determine how the expression will sway person perception. Observers infer a target's mental state by "reverse-engineering" the appraisals and perceptions that give rise to the emotion display (Frijda & Mesquita, 1994; Hareli & Hess, 2010; Hess, Adams, & Kleck, 2008; Secord, 1958). For instance, embarrassment is triggered by appraisals that one has unintentionally violated group norms. In perceiving embarrassment, observers deduce that the expresser recognizes and regrets the violation, and therefore is a faithful, trustworthy group member. In support of this account, studies find that third-party observers judge individuals who appear embarrassed to be highly prosocial and trustworthy (Feinberg et al., 2012; Keltner & Buswell, 1997; Miller, 1996).

In the present research, we extend this work to the emotion of pride. Until recently, pride was largely neglected in the study of emotion (e.g., Tangney & Tracy, 2012). Recent studies have documented the nonverbal display associated with pride, and the extent to which it is recognized by observers, but little is known about the role of pride displays in social communication and inferences about the expresser's attitudes or beliefs. To address this gap in the literature, we present one of the first investigations of how perceiving pride in others influences judgments of moral character and beliefs.

Nonverbal Displays of Pride and Their Effect on Social and Moral Inferences

Like others, we argue that pride is an emotion of self-focus and self-promotion (e.g., Fiske, 2011; Kitayama, Mesquita, & Karasawa, 2006; Tracy & Robins, 2004a). Pride is the pleasurable feeling triggered by the achievement of a valued goal or ideal (Lazarus, 1991; Tangney, 1999; Tracy & Robins, 2004a; Williams & DeSteno, 2008). More specifically, pride follows from appraisals of the self as successful or superior, and often occurs in situations involving a favorable social comparison—winning an important competition, for instance, or demonstrating a rare but desirable skill. Moreover, people are particularly likely to feel proud when they attribute their success to personal ability or effort (Lazarus, 1991; Tracy & Robins, 2004a; Weiner, 1985).

Pride is communicated through a configuration of several nonverbal behaviors. Prototypical pride behaviors include an expanded posture, slight backward head tilt, a smile of low intensity, and fists planted on the hips or raised over the head in a "V." Research shows that, across cultures, observers recognize and label this display as pride (e.g., Tracy & Robins 2004b; Tracy & Robins, 2008; Tracy, Shariff, Zhao, & Henrich, *in press*). From an evolutionary perspective, pride's self-promoting nature and associated nonverbal behaviors facilitate the establishment, regulation, and reinforcement of social hierarchies (Cheng, Tracy, & Henrich, 2010; Clark, 1990; Tracy, Shariff, & Cheng, 2010). By signaling that one is successful, valuable, and worthy of high status, overt displays of pride make it possible for group members to negotiate social rank through status cues instead of through costly conflicts.

Consistent with this evolutionary argument, recent studies demonstrate that a display of pride implicitly communicates high social status. Across several studies, Shariff and Tracy (2009) found that participants were quicker to pair high-status

words (e.g., "prestigious") with a target individual when the target posed pride, compared to shame, embarrassment, happiness, disgust, or anger (see also Shariff, Tracy, & Markusoff, 2012). Taking a slightly different approach, Tiedens and colleagues (Tiedens et al., 2000) have shown that participants were more likely to believe that a target individual occupied a higher-status role—company boss rather than employee—when the target was described as reacting to a positive event with pride as opposed to gratitude.

Beyond shaping judgments of status, however, little is known about the inferences observers draw from displays of pride. Given that pride involves an enhanced self-focus, and evaluations of the self as good, status-worthy, competent or superior, we hypothesize that perceiving pride in another individual will prompt impressions of the target as self-interested and therefore as likely to favor ideologies that benefit the self. Although research has not directly tested these claims, relevant studies imply that pride displays are likely to evoke inferences of heightened self-interest. Namely, people who are perceived as competitive or competent—the very conditions that foster pride—are consistently ascribed traits indicative of self-interest, such as diminished trustworthiness and low warmth (Caprariello, Cuddy, & Fiske, 2009; Judd, James-Hawkins, Yzerbyt, & Kashima, 2005). For example, social groups historically stereotyped as competitive, like Jewish people or the wealthy, are also stereotyped as less trustworthy, less well-intentioned, and lacking in warmth (e.g., Fiske, Cuddy, Glick, & Xu, 2002). Similar findings emerge in studies that experimentally manipulate perceptions of a group's competitiveness (Caprariello et al., 2009). As a final illustration of the assumed relationship between displays of pride and inferences of self-interest, hypothetical individuals portrayed as highly competent and successful (e.g., "X won the yearly award for the employee who contributes most to the company's profit") were presumed to have colder personalities—captured by ratings of traits like "insensitive" and "caring"—relative to targets portrayed as incompetent and unsuccessful (e.g., "When called upon by the professor, X was confused and unable to answer the question in a coherent way"; Judd et al., 2005, Study 3). Although none of these studies manipulated emotion expression, the findings bear on the question of how pride displays will shape moral inferences. Just as successful, competitive individuals are viewed as self-interested in their traits and motives, so too should individuals who display pride.

Effects of Pride Displays on Inferences of Distributive Justice Beliefs

A central aim of this research is to investigate whether observers rely on emotional displays to infer moral character and ideology. We specifically examine whether people who display pride are viewed as more likely to advocate distributive justice ideologies that benefit the self. Distributive justice refers to beliefs about the fairest way to allocate resources, such as money, goods or power. Broadly speaking, most distribution systems can be characterized as meritocratic or egalitarian (Deutsch, 1975, 1985; Diekmann, Samuels, Ross, & Bazerman, 1997; Rasinski, 1987). Within meritocratic systems, people receive resources according to criteria of merit like performance, contribution, or ability. Group members

are thus organized hierarchically, with the highest achieving members earning the most material and social resources. By contrast, egalitarian systems de-emphasize individual achievement and competition, eliminate hierarchy, and aim to equalize resources across group members. Depending on the circumstances, resources are equalized either by distributing resources evenly across group members or preferentially to those in need (Messick & McClintock, 1968; Rasinski, 1987; Van Lange, 1999; Wagstaff, 1994).

Studies of distributive justice have traditionally focused on personal ideological systems and documented different conditions that give rise to personal support for meritocracy versus egalitarianism. To name a few, meritocratic systems are favored when people assume that anyone can succeed through hard work and when people believe that productivity is enhanced by rewarding high achievement (Davey, Bobocel, Son Hing, & Zanna, 1999; Wagstaff, 1994; Walster, Berscheid, & Walster, 1973). Egalitarian systems are favored when people feel that the group or society fails to offer equal opportunity for success, or when the group's primary goal is to maintain cooperative, congenial intra-group relations (e.g., Cook & Hegtvædt, 1983; Deutsch, 1975).

By definition, one form of distributive justice is not intrinsically fairer than the other; rather, they produce justice through different means and in different situations. Nevertheless, meritocracy and egalitarianism can be deployed strategically to advance individual or group interests (see Son Hing et al., 2011). Critical to our purposes, prior studies have found that high-performing members of a group are more likely to advocate a meritocratic division of resources, precisely because it guarantees them a greater share of resources (e.g., Messick & Sentis, 1979). Similarly, people with higher status are happier when they believe that their current system is meritocratic (Napier & Jost, 2008; O'Brien & Major, 2005). Because pride displays are viewed as signals of success, status, and competence, it stands to reason that meritocracy will be perceived as satisfying the self-interests of people who express pride. Our central hypothesis states that people who nonverbally express pride will be perceived as likely to advocate meritocracy over egalitarianism and that these perceptions will be mediated by attributions of higher self-interest to those who display pride.

The Present Research

Across four studies, we tested the predictions that nonverbal expressions of pride imply heightened self-interest, and as a result, heightened support for meritocracy as opposed to egalitarianism. To pin our anticipated effects on the expression of pride, we contrast nonverbal pride expressions against conditions in which targets express either joy or neutrality. The comparison to joy is crucial because it accounts for the possibility that observer inferences are due to differences in the valence of the expressed emotions. Comparing pride to neutral expressions enables us to determine how much pride (versus joy) influences observer inferences of self-interest and meritocracy. Finally, given previous research linking pride displays to judgments of status (Shariff & Tracy, 2009; Tiedens et al., 2000), we also tested in Study 3 whether the effects of perceiving pride on inferences of self-interest operate independently of status judgments.

Study 1: Pride Displays Lead to Higher Inferences of Support for Meritocracy as Opposed to Egalitarianism Than Joy Displays

Based on as little information as that contained within a single photograph, people interpret others' emotional expressions and use them to make snap judgments about traits like warmth, competence, dominance, submissiveness, and cooperative intent (Knutson, 1996; Reis et al., 1990; Verplaatse et al., 2007). Study 1 examined first impressions of unfamiliar target individuals who displayed either the prototypical pride or prototypical joy expression in a photograph. Joy served as the comparison condition in this study. First of all, we wanted to hold constant the valence of the nonverbal display. Second, it is normative in the United States to express happiness—that is, smiling—in photographs, making joyful targets a standard against which we compare reactions to pride displays.

Finally, we eliminated the social context of the expression and removed or controlled all other visible cues (e.g., physical environment), to ensure that the hypothesized effects are driven by emotion expression rather than other behaviors or contextual cues. We hypothesized that that observers would attribute stronger support for meritocracy (as opposed to egalitarianism) to targets when the targets expressed pride, relative to expressions of joy.

Method

Participants. Two hundred and forty U.S. undergraduates (62% women, 5% unreported) participated in exchange for Psychology course credit. Mean age was 21 years and the most common ethnicities were East or South Asian (53%) and Caucasian (30%).

Procedure. Participants completed a web-based survey as part of a mass testing session held at the start of the academic semester. As a cover story, participants were told that the study investigated the accuracy of first impressions. They then viewed one of eight randomly assigned images. The image depicted a Caucasian woman or man expressing either pride or joy. Participants estimated the target's level of support for meritocracy and egalitarianism, then rated the target's emotions. Demographic data (age, gender, and ethnicity) were collected afterward.

Materials.

Target images. Four unfamiliar targets (2 women, 2 men) were used in this research.¹ Every target posed the pride and joy display, for a total of eight images. Targets were photographed standing in front of a blank wall, and targets wore plain tops with no words, patterns or images. In all images, targets' faces and torsos were visible, and they gazed directly into the camera. For pride, targets were instructed to pose with their hands on their hips, their heads tilted slightly backward, and a low intensity smile (see Tracy & Robins, 2004b; Tracy, Robins, & Schriber, 2009). For joy, targets posed with their arms at their sides and showed intense Duchenne smiles, which involve the contraction of muscles that lift the lip corners and of muscles surrounding the eyes (e.g., Harker & Keltner, 1999).

¹ One male target used in Studies 1 and 3 came from the University of California Davis Set of Emotion Expressions (Tracy et al., 2009). The other images are available from E. J. Horberg.

Perceived support for meritocracy and egalitarianism. We created two scales to assess perceptions of targets' general beliefs about the value of meritocracy and egalitarianism in society. Specifically, we created two 4-item scales that drew from past theoretical and empirical work (Rasinski, 1987). The meritocracy scale items were (1) "It is okay for some people to have better lives if they earned it," (2) "Scholarships should be based more on merit than on need," (3) "It is to everyone's benefit—not just some people's benefit—that highly capable people have more power and influence than less capable people," and (4) "Society should be structured so that people who are successful, competent or accomplished gain social status and power." The egalitarianism scale items were (1) "Society should provide resources and services free-of-charge to people who cannot afford them," (2) "People who earn larger incomes should pay higher taxes than people with smaller incomes," (3) "There is never a time when it's okay for some people to get more than others, no matter what they have accomplished," and (4) "It is important to treat all individuals as equals, no matter who they are."

Data from an independent pilot sample of adults recruited from Amazon Mechanical Turk ($N = 26$) confirmed that meritocracy items were viewed as representing an ideology of meritocracy whereas the egalitarian items were viewed as representing an ideology of egalitarianism. Specifically, these participants rated the extent to which each statement reflected the view "that society should distribute resources and power according to merit, so people's outcomes are determined by what they have earned" (meritocracy score) and the view "that society should distribute resources and power to create equality, so all people have equal outcomes" (egalitarianism score) on scales ranging from 1 (*Not at all*) to 7 (*Extremely*). All four meritocracy items received significantly higher meritocracy scores ($M = 5.87$) than egalitarianism scores ($M = 2.57$). All four egalitarian values statements received higher egalitarianism scores ($M = 5.45$) than meritocracy scores ($M = 3.22$), and the differences of three out of four of these items reached statistical significance.

In the main study, participants rated the extent to which targets would likely agree or disagree with each of the four meritocracy statements ($\alpha = .70$) and each of the four egalitarianism statements ($\alpha = .70$) on a 7-point scale (1 = *Strongly disagree*, 7 = *Strongly agree*). The two scales were significantly negatively correlated, $r = -.56, p < .001$.

Perceived emotions. On a 7-point scale (1 = *Not at all*, 7 = *Extremely*), participants estimated the extent to which the target tends to experience "pride" and "joy." The two ratings were uncorrelated, $r = -.04, ns$.

Study 1 Results and Discussion

Preliminary statistics. Confirming the effectiveness of the expression manipulation, participants rated targets as significantly more likely to experience pride if exposed to the pride version of the target ($M = 4.44$), relative to the joy version ($M = 3.47$), $F(1, 232) = 80.93, p < .001$. They rated targets as significantly more likely to experience joy when exposed to the joy version ($M = 4.26$), relative to the pride version ($M = 3.77$), $F(1, 233) = 25.69, p < .001$. Entering target gender as a covariate during central analyses did not change the statistical significance or interpreta-

tions of the results. We therefore report analyses that collapse across target gender.²

Does emotion expression influence perceived ideology? To test our central hypothesis that participants would perceive proud (versus joyful) targets as more likely to endorse meritocratic (versus egalitarian) ideology, we conducted a 2 (Expression: Pride, Joy) \times 2 (Ideology: Meritocratic, Egalitarian) mixed analysis of variance (ANOVA). There was no main effect of target expression ($F < 1$). A main effect of ideology emerged: All targets were judged as more likely to support meritocracy ($M = 3.47$) than egalitarianism ($M = 3.32$), $F(1, 234) = 4.29, p = .04$. More importantly, this was qualified by the predicted Expression \times Ideology interaction, $F(1, 233) = 26.82, p < .001$. Figure 1 illustrates these results. To interpret the interaction, we conducted one-way ANOVAs to test the effect of expression condition on perceived support for meritocracy, and separately, perceived support for egalitarianism. As predicted, targets were perceived as more likely to support meritocracy when they expressed pride compared to joy, $F(1, 236) = 21.305, p < .001$. Conversely, targets were perceived as more likely to support egalitarianism when they expressed joy compared to pride, $F(1, 236) = 19.68, p < .001$.

Study 1 yields evidence that nonverbal pride displays lead to stronger inferences of meritocratic ideology, as opposed to egalitarian ideology. However, we do not know whether self-interest accounts for these inferences. As a preliminary test of the role of self-interest in judgments of ideology, Study 2 examined whether targets described as higher in self-interest would be judged as more likely to support meritocracy over egalitarianism.

Study 2: Perceived Self-Interest Increases Inferences of Support for Meritocracy as Opposed to Egalitarianism

As an initial step in demonstrating the mediating role of self-interest in the effect of pride displays on ideology, Study 2 experimentally tested whether people intuitively link self-interest to enhanced support for meritocracy and decreased support for egalitarianism. Specifically, we hypothesized that targets described through words as high in self-interest would be judged as particularly likely to endorse meritocratic but not egalitarian values, whereas targets described as low in self-interest would be judged as particularly likely to endorse egalitarian but not meritocratic values. High and low self-interest targets were compared to a control target in which level of self-interest was not specified.

Method

Participants. One hundred and fifty-four adults (60% female) living in the United States were recruited online through Mechanical Turk. Participants were paid \$.30 cents in exchange for taking a brief online survey. Mean age was 33 years and the most common ethnicities were Caucasian (71%), African American (7%), and Latino (6%).

² Across studies, we also conducted central analyses while controlling for observer gender, age, and ethnicity (White versus Non-White). Including covariates did not change the statistical significance or interpretations of any results.

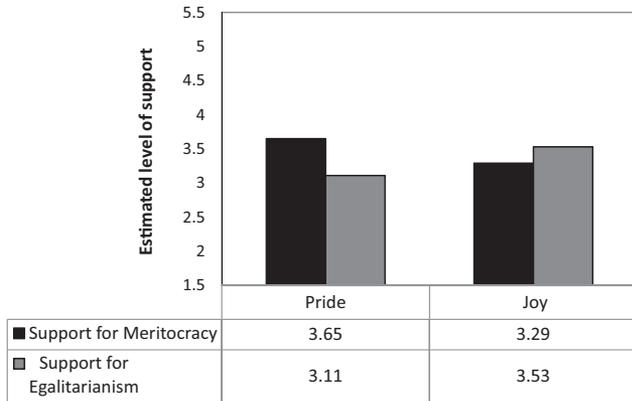


Figure 1. Estimates of targets' level of support for meritocracy and egalitarianism as a function of emotion expression (Study 1).

Procedure. At the start of the survey, participants read that the research investigated “the kinds of impressions that are associated with different types of personalities and attributes.” They were further informed that they would read a very short description of an individual and would be asked to estimate how such an individual would likely stand on other traits. Specifically, participants estimated the target's level of support for meritocracy and egalitarianism, embedded among filler traits (e.g., dependable). All participants began by rating a control target followed by a rating of a high self-interest target and a low self-interest target. Order of the latter two targets was counterbalanced across participants. Demographic data (age, gender, and ethnicity) were collected afterward.

Materials.

Target descriptions. For the control target, participants were instructed to rate “the average adult in the U.S.” For the high self-interest target, participants made ratings about “a person who is MORE selfish or self-interested than the average adult in the U.S.” For the low self-interest target, participants rated “a person who is LESS selfish or self-interested than the average adult in the U.S.” No other information about the targets was provided.

Perceived support for meritocracy and egalitarianism. Participants rated the extent to which the target likely “has *meritocratic beliefs*—believes that resources and power should be distributed according to merit and performance, so that people get what they have earned” (1 = *Not at all*, 7 = *A whole lot*). They also rated the extent to which the target likely “has *egalitarian beliefs*—believes that resources and power should be distributed equally, so that everyone gets the same thing regardless of what they do” (1 = *Not at all*, 7 = *A whole lot*). Items were presented in random order. Meritocracy and egalitarianism ratings of each target were negatively correlated, although the correlation reached statistical significance for the high self-interest target ($r = -.39$, $p < .001$) and low self-interest target ($r = -.17$, $p = .03$) but not the control target ($r = -.13$, $p = .12$).

Study 2: Results and Discussion

Preliminary statistics. The order in which participants rated the high and low self-interest targets did not influence ratings of perceived support for meritocracy and egalitarianism with one

exception: Low self-interest targets were seen as more likely to support egalitarianism if participants had rated the high self-interest target beforehand ($M_s = 5.40$ and 4.92 , respectively), $F(1, 153) = 4.09$, $p = .05$. However, controlling for target order during central analyses did not influence the statistical significance or interpretation of results, so we report central analyses that collapse across target order.

Does level of self-interest influence perceived ideology? To test our hypothesis that participants would perceive high self-interest targets (versus low self-interest or control targets) as more likely to endorse a meritocratic versus egalitarian ideology, we conducted a 3 (Self-Interest: Control, High, Low) \times 2 (Ideology: Meritocratic, Egalitarian) repeated-measures ANOVA. A main effect of ideology emerged: Across targets, perceived support for meritocracy scores ($M = 4.53$) were significantly higher than perceived support for egalitarianism scores ($M = 3.72$), $F(1, 150) = 71.49$, $p < .001$. There was also a main effect of target: Low self-interest targets received the highest ratings ($M = 4.52$), followed by control targets ($M = 4.05$) and high self-interest targets ($M = 3.83$), $F(2, 300) = 22.75$, $p < .001$. Most importantly, these main effects were qualified by the predicted Self-interest \times Ideology interaction, $F(2, 300) = 84.08$, $p < .001$. Figure 2 depicts the average ideology scores as a function of target. We next tested and found a significant linear contrast effect for meritocratic ideology scores, $F(1, 152) = 67.77$, $p < .001$, such that perceived support for meritocracy was highest for high self-interest targets and lowest for low self-interest targets, while control targets fell in the middle. The linear contrast was also significant for egalitarian ideology scores, $F(1, 151) = 124.65$, $p < .001$, such that perceived support for egalitarianism was lowest for high self-interest targets and highest for low self-interest targets, while control targets fell in the middle.

Study 2 illustrated that people associate high self-interest with increased support for meritocracy as opposed to egalitarianism. We therefore return in Study 3 to the question of nonverbal emotion expressions and examine whether perceived self-interest mediates the effects of pride displays on inferences of support for meritocracy and egalitarianism.

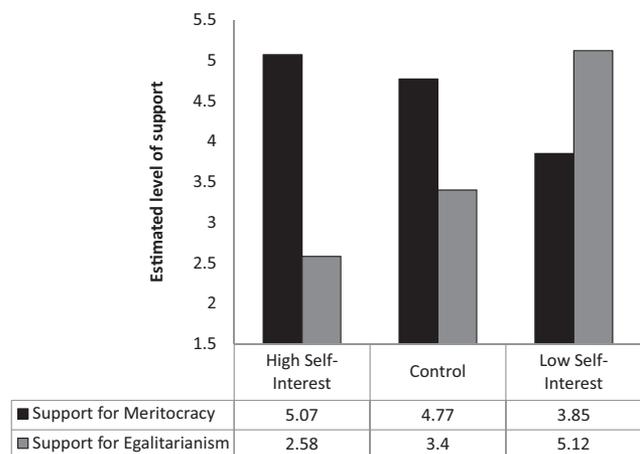


Figure 2. Estimates of targets' level of support for meritocracy and egalitarianism as a function of target self-interest (Study 2).

Study 3: Perceived Self-Interest Mediates the Effect of Pride Displays on Inferences of Support for Meritocracy and Egalitarianism

Study 3 tested whether targets who display pride would be viewed as more self-interested and, as a result, more likely to support meritocracy as opposed to egalitarianism. If mediation is detected, it suggests that pride leads to inferences of support for meritocracy (but not egalitarianism) because meritocracy is perceived as a self-benefitting ideology. We also sought to rule out an alternative explanation for the results of Study 1. Since we had not included a neutral control condition in Study 1, it is conceivable that the effects of expression on perceived ideology were entirely driven by the joy displays. Therefore, Study 3 contrasted expressions of pride against both joyful and neutral (i.e., non-emotional) expressions.

Finally, we explored whether pride displays impact perceived self-interest and ideology independently of status judgments. From our theoretical perspective, status is not a necessary component of the proposed inference process. However, recent studies illustrate that pride automatically signals high status (Shariff & Tracy, 2009). It is possible that proud targets are assumed to be self-interested and meritocratic because they are perceived as high status. We therefore measured judgments of target status in Study 3 to determine whether status accounted for the effect of pride displays on perceived self-interest, and in turn, perceived ideology.

Method

Participants. Three hundred and seventeen adults (60% female) living in the United States were recruited online through Mechanical Turk. Participants were paid \$.25 in exchange for taking a short online survey. Mean age was 31 years old, and the most commonly reported ethnicities were Caucasian (74%), East or South Asian (11%), and African American (10%).

Procedure. Participants completed a web-based survey described as an investigation of the accuracy of first impressions. They were randomly assigned to view one of 12 randomly assigned images depicting a Caucasian woman or man who expressed either pride, joy or no emotion (i.e., neutral display). Participants estimated the target's level of support for meritocracy and egalitarianism, estimated the target's level of self-interest and status, and then rated the target's emotions. For this study, we added an attention check, in which participants were instructed to select a specific button on a 7-point Likert scale. Finally, participants provided demographic data (e.g., age, gender, and ethnicity).

Materials.

Target images. We created a new set of pride, joy, and neutral images using four Caucasian individuals (two women, two men). Each target individual was photographed posing the pride, joy, and neutral displays, for a total of 12 images. Targets were photographed from the waist up in front of blank, neutral colored walls. They wore white short-sleeved t-shirts with no words or images. Procedures for creating the pride and joy images were identical to Study 1. In the neutral images, targets posed with arms by their sides and showed no discernible contractions of the facial muscles.

Perceived support for meritocracy and egalitarianism. Participants completed the same scales used in Study 1. The two scales were negatively correlated, $r = -.29, p < .001$.

Perceived self-interest and perceived status. On a 7-point scale (1 = *Not at all*, 7 = *Extremely*), participants estimated the extent to which the target is likely to be "selfish or self-interested" and to have "status and power in his [her] everyday life." Self-interest judgments were positively correlated with status judgments, $r = .27, p < .001$.

Perceived emotions. On a 7-point scale (1 = *Not at all*, 7 = *Extremely*), participants estimated the extent to which the target tends to experience "pride," "joy," and "no emotion." Pride ratings correlated positively with joy ratings ($r = .32, p < .001$) and did not correlate with ratings of "no emotion" ratings, $r = -.09, p = .13$. Joy ratings correlated negatively with ratings of "no emotion," $r = -.41, p < .001$.

Study 3 Results and Discussion

Fifteen participants failed the attention check. Their responses were omitted from analyses.

Preliminary statistics. First we examined the effectiveness of the expression manipulation. As expected, participants rated targets as significantly more likely to experience pride if exposed to the pride version of the target ($M = 4.18$), relative to the neutral condition ($M = 3.40$), $F(1, 198) = 36.14, p < .001$, and relative to the joy version ($M = 3.58$), $F(1, 204) = 22.17, p < .001$. Participants rated targets as significantly more likely to experience "no emotion" if exposed to the neutral version of the target ($M = 2.26$), relative to the pride condition ($M = 1.87$), $F(1, 197) = 6.95, p < .01$, and relative to the joy version ($M = 1.70$), $F(1, 197) = 14.42, p < .001$. Finally, participants rated targets as more likely to experience joy when exposed to the joy version ($M = 4.07$) relative to the neutral version ($M = 3.54$), $F(1, 195) = 18.12, p < .001$. Unexpectedly, ratings of joy were not significantly higher for participants exposed to the pride version ($M = 3.99$), $F(1, 202) = .47, p = .49$.³

Like Study 1, entering target gender as a covariate during central analyses did not change the statistical significance or interpretation of central analyses. We report analyses that collapse across target gender.

Does emotion expression influence perceived self-interest?

First, we examined the influence of expression condition on perceptions of target self-interest. A one-way ANOVA showed significant condition differences in perceived self-interest across the expression conditions, $F(2, 300) = 9.55, p < .001$. Table 1 presents the mean self-interest rating for each condition. First, we checked for differences in self-interest ratings between the two control conditions (i.e., joy and neutral displays). Self-interest ratings did not significantly differ between the neutral and joy conditions, $F(1, 196) = 2.14, p = .15$. Given this, we next conducted planned comparisons to test our hypothesis that pride expressions lead to increased inferences of self-interest, relative to the control conditions. Two orthogonal contrasts were used: The first contrast ("pride contrast") compares the pride condition to the neutral and joy conditions (coded as pride = +2, neutral = -1, joy = -1) and most closely tests our hypothesis that displays of pride give rise to judgments of enhanced self-interest. The second contrast ("control contrast") tested the residual difference between

³ Including joy ratings as a control variable during analyses did not change the significance or interpretation of any result.

Table 1
Means and Standard Deviations of Observer Inferences of Target Self-Interest and Ideology as a Function of Expression Condition (Study 3)

Condition	Observer estimates		
	Self-interest	Meritocratic values	Egalitarian values
Pride condition	3.94 (1.80)	4.72 (1.01)	4.33 (1.15)
Neutral condition	3.29 (1.47)	4.44 (1.05)	4.60 (.96)
Joy condition	2.98 (1.52)	4.48 (1.00)	4.64 (.91)

Note. The standard deviations are in parentheses.

the neutral and the joy conditions (coded as pride = 0, neutral = +1, joy = -1). As expected, the pride contrast was significant, $F(1, 298) = 17.03, p < .001$, but the control contrast was not, $F(1, 298) = 1.86, p > .15$. These results suggest that pride displays lead to judgments of enhanced self-interest relative to joy and neutral displays.

Does emotion expression influence perceived ideology?

Second, we examined the influence of expression condition on perceptions of target support for meritocracy and egalitarianism. First, we conducted a 3 (Expression: Pride, Neutral, Joy) \times 2 (Ideology: Meritocracy, Egalitarian) mixed ANOVA. Table 1 presents the mean estimates of target ideology across expression conditions. There were no main effects of target expression or ideology, but as expected, there was a significant Expression \times Ideology interaction, $F(2, 298) = 3.83, p = .02$.

We followed this analysis by testing condition differences in perceived support for meritocracy followed by perceived support for egalitarianism. First, we determined that perceived support for meritocracy did not significantly differ between the joy and neutral conditions, $F < 1$. Therefore, we used the orthogonal contrast codes described above to test whether participants who rated the pride target inferred greater support for meritocracy, relative to participants who rated the joy and neutral targets. As expected, the pride contrast was significant, $F(2, 298) = 4.64, p = .03$, but the control contrast was not ($F < 1$). Turning to perceived support for egalitarianism, we determined that perceived support for egalitarianism did not differ between the neutral and the joy conditions, $F < 1$. Finally, planned comparisons using the orthogonal contrast codes revealed that the pride contrast was significant, $F(2, 298) = 5.66, p = .02$, whereas the control contrast was not ($F < 1$). Altogether, findings illustrate that pride displays increase support for meritocracy and decrease support for egalitarianism, relative to neutral and joy displays.

Mediation analyses. Next, we performed mediation analyses testing whether proud targets are perceived as supportive of a meritocratic but not egalitarian ideology because they are judged to be self-interested. Figure 3 illustrates the mediational models and provides path coefficients. As shown in the top panel, the positive association between expressions of pride (in contrast to joy and neutral displays) and support for meritocracy dropped to nonsignificant when perceived self-interest was included in the model. We tested the proposed mediating effect using a bootstrapping procedure for mediator models recommended by Preacher and Hayes (2004, 2008). Analyses were conducted with the PROCESS macro for SPSS (Hayes, 2012) using 5,000 bootstrap

samples. This technique yielded a 95% bias-corrected confidence interval that did not include zero (.02 to .08), suggesting that perceived self-interest mediated the effect of target expression on inferences of perceived support for meritocracy.

As shown in the bottom panel of Figure 3, the negative association between expressions of pride and support for egalitarianism dropped to nonsignificant when perceived self-interest was included in the model. The bootstrap confidence interval, (-.11 to -.03), indicated that the indirect effect of pride displays on support for egalitarian values was significant.⁴

Are the effects of emotion expression driven by status judgments? A final analysis examined whether status judgments accounted for pride-based judgments of self-interest and ideology. First we explored whether status ratings in the pride condition ($M = 4.44$) differed from those in the neutral and joy conditions ($M_s = 3.86$ and 3.91 , respectively). Status judgments did not differ across the joy and neutral conditions, $F < 1$. In a set of planned comparisons using the orthogonal contrasts described above, we found that the pride contrast was significant, $F(1, 298) = 12.14, p < .01$, whereas the control contrast was not, $F(1, 298) = .07, p = .80$. These findings show that status judgments were higher in the pride condition, consistent with past research (Shariff & Tracy, 2009; Shariff et al., 2012).

We then tested the effects of pride displays on self-interest when controlling for status. A one-way analysis of covariance comparing self-interest judgments across expression conditions while controlling status was significant, $F(2, 297) = 9.99, p < .001$. Follow-up planned comparisons showed that the pride contrast remained significant when controlling status, $F(1, 297) = 11.05, p < .01$, whereas the control contrast remained nonsignificant, $F < 1$. Thus, the effects of pride displays on perceived self-interest do not depend on judgments of status.

Lastly, we tested whether self-interest continued to significantly mediate the effect of pride displays on perceived ideology even when status judgments were entered as a covariate. Bootstrapping analyses showed that the indirect effect of pride displays on perceptions of heightened support for meritocracy remained significant when status judgments were controlled (CI: .01 to .06). Likewise, the indirect effect of pride displays on perceptions of reduced support for egalitarianism remained significant when status judgments were controlled (CI: -.09 to -.02).

To conclude, Study 3 replicated Study 1's finding that pride expressions lead to inferences of increased support for meritocracy as opposed to egalitarianism. Importantly, we further found that ideology inferences were due to assumptions that the proud-looking individuals were more self-interested. Finally, we showed that these effects are not driven by status judgments. Pride displays increased status judgments, as expected, but controlling for status did not alter the effects of pride displays on perceived self-interest

⁴ We also tested the reverse mediation, that is, whether perceived ideology acted as a mediator between pride displays and self-interest judgments. The pride contrast remained significantly associated with self-interest after controlling for perceived meritocratic values, $F(1, 297) = 13.58, p < .001$, and after controlling for perceived egalitarian values, $F(1, 297) = 11.79, p < .01$. However, a bootstrapping analysis testing the indirect effect of nonverbal display on self-interest judgments via perceived meritocratic beliefs was significant (CI: .01 to .09). The indirect effect was also significant for perceived egalitarian beliefs as the mediator (CI: .01 to .12).

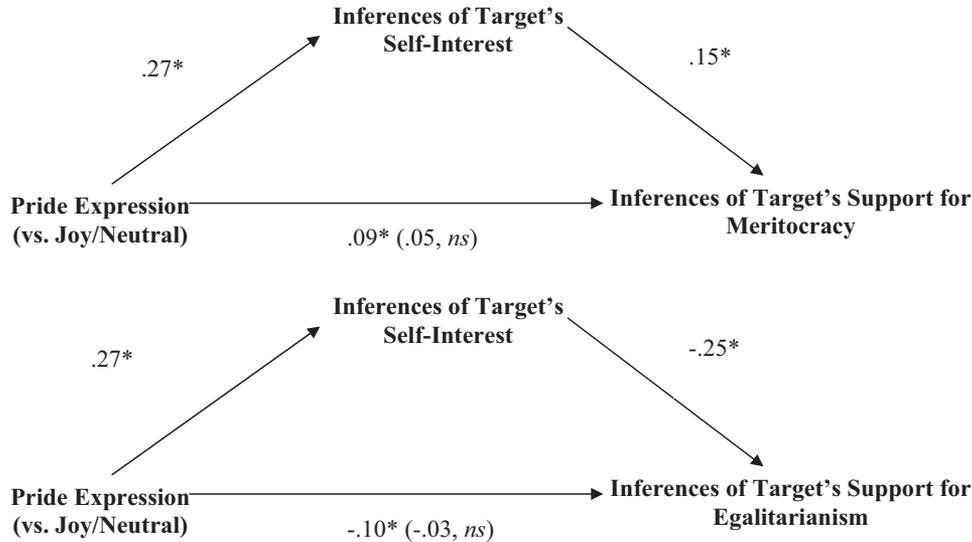


Figure 3. Mediation model for Study 4. The predictor variable is coded to contrast pride against the joy and neutral displays (pride = +2, neutral = -1, joy = -1). Analyses control for the orthogonal control contrast (pride = 0, neutral = +1, joy = -1). * $p < .05$.

and, in turn, perceived ideology. Altogether, Studies 1–3 illustrate that pride communicates a fundamental moral motive (self-interest), which can then shape inferences about more complex ideologies that may be driven by self-interest—in this case, asserting that resources should be earned, rather than distributed evenly or according to need.

Studies 1–3 demonstrated our proposed effects using static images. In a final study, we explore whether similar patterns would emerge for dynamic and genuine emotion expressions.

Study 4: Thin Slices of Nonverbal Pride Displays Predict Perceived Support for Meritocracy as Opposed to Egalitarianism

Study 4 employs a thin slicing paradigm (Ambady & Rosenthal, 1992) in which naïve observers viewed brief segments of real nonverbal behavior emitted by targets during a potentially pride-eliciting event—discussing one’s greatest strengths. One advantage of this approach is that it enabled us to use a larger and more ethnically diverse set of targets than in the prior studies. Additionally, this approach improves ecological validity because emotion expressions in this interactive context are more spontaneous, varied, natural, and dynamic. Instead of manipulating expressions, we measured observers’ perceptions of target pride and joy and used these to predict observer inferences of support for meritocracy and egalitarianism. We used two different measures of inferred support for meritocracy and egalitarianism: estimates of how targets would allocate a specific resource between self and other as well as estimates of targets’ justice-related beliefs using the same 4-item scales as Studies 1 and 3. We hypothesized that observers would attribute greater support for meritocracy over egalitarianism to targets perceived as more strongly expressing pride through nonverbal channels. Again, we predicted that these associations would be mediated by perceptions of target self-interest.

Method

Target participants. Targets came from a prior study in which 106 (55% women) undergraduates participated in a videotaped social interaction study in exchange for psychology course credit (Kraus & Keltner, 2009; Stellar, Manzo, Kraus, & Keltner, 2012). They had completed the study in pairs created through random assignment with the condition that partners not know one another. The sample contained a diversity of ethnic backgrounds: 45% Asian American, 43% Caucasian, 7% Latino, 3% African American, and 2% multicultural (one individual did not report ethnicity).

Procedure and materials. The study was conducted in a 10- × 14-ft. laboratory room outfitted with partially concealed video cameras. Targets were aware of the cameras and gave consent both before and after the study session. During the study, partners sat next to each other and cameras were positioned to film the full length of both participants. Targets appeared in clothing and accessories of their choice (i.e., whatever they had worn to school that day), and nonverbal cues were not altered or interfered with. The experimenter sat several feet in front of the targets and explained that they would complete a mock job interview for a lab manager position. As part of this interview, targets took turns describing their greatest strengths.

Video clips of targets describing their strengths were shown to 22 undergraduate students (five men, 17 women) who participated in exchange for research credits. Observers rated every target on scales assessing perceived support for meritocracy and egalitarianism, perceived self-interest, and perceived pride and joy. Clips were muted so that only nonverbal cues could be used as a basis for making judgments.

Perceived pride and joy. Observers rated the extent to which targets expressed feeling “proud” ($\alpha = .76$) and feeling “joy” ($\alpha = .90$) on 7-point scales (1 = None, 7 = A whole lot).

Means and standard deviations of the proud score and joy score were 3.13 (.50) and 2.84 (.74), respectively. The scores were positively correlated ($r = .34, p < .001$).

Perceived self-interest. Observers estimated “how selfish is this person?” ($\alpha = .73$) on 7-point scales (1 = *Extremely Unselfish*, 7 = *Extremely Selfish*). The mean and standard deviation of the self-interest score were 3.20 (.47).

Perceived support for meritocracy and egalitarianism. We used two different types of measures of support for meritocracy and egalitarianism. The first type of measure assessed general meritocratic and egalitarian beliefs. For this we used the same two 4-item scales as Studies 1 and 3 (meritocracy $\alpha = .90$, egalitarianism $\alpha = .89$). Means and standard deviations of the perceived meritocratic and egalitarian belief scales were 4.58 (.28) and 4.42 (.36), respectively. Scale scores were negatively correlated, $r = -.70, p < .001$.

The second type of measure focused on inferences specific to the interview situation. Observers were asked to imagine that after the job interview the target had been asked to divide a pool of “signing bonus” money as fairly as possible between himself/herself and his/her partner in the mock job interview. Observers then rated the likelihood with which the target participant would advocate dividing the money according to merit, that is, performance in the interview (i.e., a merit-focused allocation). Observers also rated the likelihood that the participant would advocate dividing the money equally, regardless of performance or any other factor (i.e., an equality-focused allocation). Both ratings were made on a 7-point scale (1 = *Highly Unlikely*, 7 = *Highly Likely*; merit-focused allocation $\alpha = .60$, equality-focused allocation $\alpha = .54$). Means and standard deviations of the merit-focused and equality-focused allocation items were 4.34 (.44) and 4.98 (.34), respectively. The items were negatively correlated, $r = -.58, p < .001$.

Study 4 Results and Discussion

One target did not describe his greatest strengths. His data and his partner’s data were omitted from analyses.

Preliminary analyses. Two target gender effects emerged: Women were viewed as significantly less proud, less self-interested, and less meritocratic than men (all $ps < .05$) but more joyful and egalitarian ($ps < .05$). Target ethnicity (1 = White, 0 = Non-White) was not significantly related to perceived emotion, self-interest, or ideology. Entering gender and ethnicity as predictors during central analyses did not change the statistical significance or interpretations of any of the results. We therefore report analyses that collapse across target gender and ethnicity.

Intraclass correlations examining the relationship between actor and partner expressions of emotion revealed a significant association between perceptions of actor joy displays and partner joy displays (intraclass correlation = .34, $p < .001$). No significant association emerged between actor and partner pride displays. Since assumptions of independence of observations are violated in this study, data were analyzed using the actor-partner interdependence model (APIM; Kenny, Kashy, & Cook, 2007).

Does emotion expression predict perceived self-interest and ideology? APIM analyses were conducted using the MIXED command in SPSS 20. Table 2 presents results of these analyses. The first set of APIM analyses tested the hypothesis that participants who are rated as displaying more pride (but not joy) displays are perceived as more self-interested. Predictors in the APIM were estimates of actor and partner pride and joy. Ratings of the target’s nonverbal pride were positively associated with inferences of higher self-interest, whereas ratings of joy were associated with inferences of lower self-interest. Partner pride and joy were not significantly related to inferences of targets’ self-interest.

Table 2
Relationship of Nonverbal Expressions to Observer Inferences of Self-Interest, Allocation Strategies, and Meritocracy and Egalitarian Beliefs (Study 4)

Parameter	Observer inferences				
	Self-interest	General beliefs		Allocations	
		Meritocracy	Egalitarianism	Merit-focused	Equality-focused
Actor pride					
Estimate	.48*	.24*	-.29*	.55*	-.30*
SE	.08	.05	.06	.07	.06
t	6.21	4.90	5.17	7.62	4.94
Actor joy					
Estimate	-.40*	-.21*	.37*	-.33*	.26*
SE	.06	.03	.04	.05	.04
t	7.09	6.28	9.27	6.45	6.09
Partner pride					
Estimate	.04	-.04	-.03	.03	-.03
SE	.08	.05	.06	.07	.06
t	0.53	0.78	0.53	0.48	0.54
Partner joy					
Estimate	.10	.09*	-.08	.08	-.01
SE	.06	.04	.04	.05	.04
t	1.70	2.76	1.96	1.67	0.29

Note. Parameter estimates are unstandardized mixed-model coefficients. SE = standard error.

* $p < .05$.

We next assessed whether participants who are rated as displaying more pride (but not joy) are perceived as more likely to endorse meritocratic but not egalitarian beliefs. Four separate APIM analyses tested this hypothesis with respect to scores on the general meritocracy and egalitarianism beliefs items, followed by the merit-focused and equality-focused allocation scores. Predictors in each model were estimates of actor and partner pride and joy.

Perceptions of nonverbal pride displays were positively associated with scores on the items assessing general meritocracy beliefs and with the merit-focused allocation scores. By contrast, perceptions of nonverbal pride displays were negatively associated with scores on the items assessing general egalitarian beliefs and with the equality-focused allocation scores. For perceived nonverbal displays of joy, perceived joy was associated positively associated with general egalitarian beliefs and with the equality-focused allocation scores and negatively associated with meritocracy beliefs and merit-focused allocation scores. Partner expressions of pride were unrelated to scores on the general egalitarian beliefs items, the merit-focused and equality-focused allocation scores. Unexpectedly, ratings of partner joy were positively associated with scores on the general meritocracy beliefs items. One could speculate that joyful partners influenced targets' nonverbal cues in a fashion that led to higher ratings of general meritocracy beliefs. However, this association may be spurious and should be replicated first.

Mediation analyses. Finally, we test whether inferences of self-interest mediated the association of emotion expression and observer inferences of support for meritocracy and egalitarianism. We began by assessing mediation of the general meritocracy beliefs. Having already shown that perceived pride predicts both perceived self-interest and meritocracy beliefs, we tested a model in which perceived self-interest (the mediator) as well as actor and partner pride and joy were used as predictors of the meritocracy beliefs score. Results showed that perceived self-interest was a significant predictor of the meritocracy beliefs score ($b = .22, p < .001$). Moreover, the association between perceived pride and perceived meritocratic beliefs had dropped, although it remained significant ($b = .14, p = .01$). To test the statistical significance of the indirect effect of perceived pride on meritocracy beliefs via perceived self-interest, we implemented the Monte Carlo Method for Assessing Mediation using the interactive web utility created by Selig and Preacher (2008). This technique estimates the 95% confidence interval for the proposed indirect effect and has been used previously to test mediation in multilevel models (Bauer, Preacher, & Gil, 2006). The analysis yielded a 95% confidence interval for the indirect effect that did not include zero (.05 to .17), which supports the assertion that perceived self-interest partially explains the tendency to view pride-expressing targets as likely to advocate meritocracy. Next, identical procedures were conducted to test whether self-interest mediated the effects of perceived pride displays on lower scores on the general egalitarian beliefs scale. When perceived self-interest was included as a predictor, perceived pride was no longer significantly associated with egalitarian beliefs items ($\beta = -.07, p = .16$), and the 95% confidence interval did not include zero (-.31 to -.14). Similarly, we found that the association between perceived pride and merit-focused allocation scores dropped when perceived self-interest was included as a predictor, although it remained significant ($b = .43, p < .001$), and the confidence interval for the indirect effect did not include zero (.04 to .22). Finally, we found that the association

between perceived pride and equality-focused allocation scores dropped to nonsignificant ($b = -.09, p = .12$), and the confidence interval for the indirect effect did not include zero (-.30 to -.13). Overall, these results suggest at least partial mediation by perceived self-interest in all cases.⁵

To summarize, Study 4 built on the previous studies by exploring inferences drawn from genuine, subtler, dynamic and contextualized nonverbal emotion displays. Targets who were perceived as displaying stronger nonverbal signs of pride as they expounded on their personal strengths were viewed by observers as more likely to be self-interested and, as a result, more likely to support meritocracy rather than egalitarianism. By contrast, targets perceived as displaying stronger nonverbal signs of joy were judged as less self-interested and therefore more likely to support egalitarianism rather than meritocracy. This pattern was significant for inferences made at the more specific level of dividing a monetary resource between the target and partner as well as at a broader level of how society generally ought to function.

General Discussion

Expressions of emotion shape human interaction by communicating feeling states, roles, and social attributes. Until recently, little was known about the way pride displays influence moral judgments. We address this topic in the present research by demonstrating that observers use pride as a nonverbal cue of enhanced support for meritocracy over egalitarianism, mediated by perceptions of self-interest. More specifically, observers in Study 1 judged an unfamiliar target who expressed pride as more likely to favor meritocracy as opposed to egalitarianism. Study 2 demonstrated that observers intuitively infer support for meritocracy over egalitarianism from the attribute of self-interest. Study 3 showed that judgments of self-interest account for the link between pride displays and inferences of support for meritocracy over egalitarianism. Finally, in Study 4, targets who were perceived as expressing greater pride while recounting their personal strengths were judged as more self-interested and consequently more likely to support meritocracy as opposed to egalitarianism. Importantly, these patterns emerged across targets of different genders (Studies 1–4) and ethnic backgrounds (Study 4), across stimuli that varied in level of contextual information (thin slices, impoverished static images), and across assessment methods, including general beliefs and specific allocations between the self and a partner.

In revealing these social patterns, the present research advances scholarship on emotions and moral impression formation (e.g., Wojciszke, 2005). Notably, the present research highlights just how profoundly expressions of emotion influence social inferences. Not surprisingly, distinct emotion expressions disclose a person's feelings. A growing literature further suggests that different emotion expressions can uniquely shape perceptions of social attributes like status, cooperative versus competitive moti-

⁵ Like Study 3, we tested a reverse mediation model in which ideology mediates the effect of expression condition on self-interest judgments. The indirect effect was significant when the mediator was general meritocracy beliefs (CI: .06 to .23), general egalitarian beliefs (CI: -.31 to -.12), merit-focused allocation scores (CI: .04 to .13) or equality-focused allocation scores (CI: -.27 to -.10). Thus, these results suggest that perceived self-interest can serve as a mediator as well as an outcome of the perceived pride-ideology association.

vations, dominance, and affiliation (e.g., Feinberg et al., 2012; Tiedens, 2001). We extend this work by demonstrating that distinct emotions can guide inferences about fairly complex ideologies.

Moreover, this research contributes to the growing body of research on the interplay of emotion and morality (for a review, see Horberg et al., 2011). Existing research on emotion and morality has predominantly examined how personal experiences of emotion shape one's own moral judgments. Fewer studies have looked at nonverbal emotion displays as cues to moral or ideological beliefs, as we have attempted to do.

Limitations and Future Directions

A lingering question from the present research concerns how joy displays may shape ideological inferences. Reactions to joy displays appeared less consistent across studies than reactions to pride displays. Specifically, in Study 2, judgments of the joy target did not differ significantly from judgments of the neutral target. One reason may be that smiling in photographs is normative and therefore less diagnostic of personality than are nonverbal cues of other emotions. On the other hand, perceptions of joy in Study 4 were associated with perceptions of greater egalitarian and reduced meritocratic beliefs. Furthermore, past research suggests that people judge joyful smiles as indicative of positive attributes including sincerity, sociability, and altruism, which would connect smiling to reduced self-interest and therefore heightened egalitarian beliefs (Brown et al., 2003; Reis et al., 1990). Given these results, additional studies should be conducted to better understand the effects of nonverbal joy displays on inferences of ideology.

Second, we have documented main effects of pride on social inference, but future research should also explore potential boundary conditions, such as variables that sever the link from pride to inferences of moral attributes and ideology. Importantly, relevant contextual information may, at times, modify these pride-based social judgments (see Shariff et al., 2012). We expect, for instance, that displays of pride would have less moral meaning when observers are aware that the social setting encourages overt displays of pride and dominance, such as during sports matches. Conversely, observers may view pride expressions as especially diagnostic of self-interest and moral beliefs when aware that norms discourage pride, such as in many cultures outside of the United States (Kitayama, Markus, & Kurokawa, 2000; Stipek, 1998).

Along similar lines, future research should consider whether perceiving different facets or sources of pride influences observers' moral inferences. Tracy and colleagues have distinguished between "authentic" and "hubristic" pride (Tracy & Robins, 2007b). Feelings of authentic pride occur when personal achievements are viewed as unstable, internal, and controllable (e.g., hard work), and this facet has been linked to positive outcomes like prosocial behavior. Hubristic pride occurs when personal achievements are construed as stable, internal, and controllable (e.g., innate superiority) and has been linked to narcissism (Tracy, Cheng, Robins, & Trzesniewski, 2009). We anticipate that receiving information that implies authentic pride—for instance, a woman is pleased that she worked hard to earn a high SAT score—would weaken expect-

tations of self-interest and, potentially, support for meritocracy. On the other hand, these expectations may be magnified if pride is construed as hubristic (e.g., a woman attributes her high SAT scores to naturally superior intelligence). Similarly, observers may be less likely to infer self-interest or meritocratic beliefs if a target's pride is deemed justified and appropriate, such as after a sports victory. However, perceiving pride displays as unwarranted (e.g., showing pride for no reason) would probably enhance trait attributions of self-interest and support for meritocracy.

In other future research, researchers would do well to determine the validity of pride cues in signaling self-interest and meritocratic beliefs. That is, do people who express pride more frequently or intensely also behave in a more self-interested manner and hold meritocratic beliefs? We hypothesize that, in many cases, this is likely to be so. Successful individuals—that is, those who are more likely to express pride—actually do prefer meritocratic resource divisions (e.g., Messick & Sentis, 1979; Napier & Jost, 2008; O'Brien & Major, 2005). Furthermore, nonverbal expressions often do lead to accurate perceptions of personality and moral motives (e.g., Ambady & Rosenthal, 1992). It is therefore important to consider the extent to which observers' pride-based inferences reflect an underlying reality.

Finally, the present studies have intriguing political implications. Pride displays may shape inferences related to current political issues. For instance, items in our studies inquired about the distribution of social services, provision of scholarship money, and taxes. Pride, which is frequently displayed by high-status U.S. politicians, may send implicit signals about their positions on topics like welfare reform, health care reform, taxes, and affirmative action. Downstream, these signals may even play a role in political outcomes, given the profound role of emotional behavior in shaping candidates' public images, voter approval, and election outcomes (e.g., Glaser & Salovey, 1998).

Concluding Remarks

The present research has portrayed how nonverbal pride displays can inform inferences of moral character and beliefs. In conjunction with related work, studies like these reveal the potentially far-reaching moral implications of perceiving emotions in others. These are areas of inquiry that have been highlighted in theory (e.g., Haidt & Bjorklund, 2008; Haidt & Kesebir, 2010) but are only just starting to receive empirical attention.

References

- Ambady, N., & Rosenthal, R. (1992). Thin slices of expressive behavior as predictors of interpersonal consequences: A meta-analysis. *Psychological Bulletin*, *111*, 256–274. doi:10.1037/0033-2909.111.2.256
- Bauer, D. J., Preacher, K. J., & Gil, K. M. (2006). Conceptualizing and testing random indirect effects and moderated mediation in multilevel models: New procedures and recommendations. *Psychological Methods*, *11*, 142–163. doi:10.1037/1082-989X.11.2.142
- Brown, W. M., Palameta, B., & Moore, C. (2003). Are there nonverbal cues to commitment? An exploratory study using the zero-acquaintance video presentation paradigm. *Evolutionary Psychology*, *1*, 42–69.
- Caprariello, P. A., Cuddy, A. J. C., & Fiske, S. T. (2009). Social structure shapes cultural stereotypes and emotion: A causal test of the stereotype

- content model. *Group Processes & Intergroup Relations*, 12, 147–155. doi:10.1177/1368430208101053
- Cheng, J. T., Tracy, J. L., & Henrich, J. (2010). Pride, personality, and the evolutionary foundations of human social status. *Evolution and Human Behavior*, 31, 334–347. doi:10.1016/j.evolhumbehav.2010.02.004
- Clark, C. (1990). Emotions and the micropolitics in everyday life: Some patterns and paradoxes of “place.” In T. D. Kemper (Ed.), *Research agendas in the sociology of emotions* (pp. 305–334). Albany: State University of New York Press.
- Cook, K. S., & Hegtvedt, K. A. (1983). Distributive justice, equity, and equality. *Annual Review of Sociology*, 9, 217–241. doi:10.1146/annurev.so.09.080183.001245
- Davey, L. M., Bobocel, R., Son Hing, L. S., & Zanna, M. P. (1999). Preference for the merit principle: An individual difference measure of distributive justice. *Social Justice Research*, 12, 223–240. doi:10.1023/A:1022148418210
- DeSteno, D., Petty, R. E., Rucker, D. D., Wegener, D. T., & Braverman, J. (2004). Discrete emotions and persuasion: The role of emotion-induced expectancies. *Journal of Personality and Social Psychology*, 86, 43–56. doi:10.1037/0022-3514.86.1.43
- Deutsch, M. (1975). Equity, equality, and need: What determines which value will be used as the basis of distributive justice? *Journal of Social Issues*, 31, 137–149. doi:10.1111/j.1540-4560.1975.tb01000.x
- Deutsch, M. (1985). *Distributive justice: A social psychological perspective*. New Haven, CT: Yale University Press.
- Diekmann, K. A., Samuels, S. M., Ross, L., & Bazerman, M. H. (1997). Self-interest and fairness in problems of resource allocation: Allocators versus recipients. *Journal of Personality and Social Psychology*, 72, 1061–1074. doi:10.1037/0022-3514.72.5.1061
- Feinberg, M., Willer, R., & Keltner, D. (2012). Flustered and faithful: Embarrassment as a signal of prosociality. *Journal of Personality and Social Psychology*, 102, 81–97. doi:10.1037/a0025403
- Fiske, S. T. (2011). *Envy up, scorn down: How status divides us*. New York, NY: Sage Foundation.
- Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82, 878–902. doi:10.1037/0022-3514.82.6.878
- Frank, R. H. (1988). *Passions within reason: The strategic role of the emotions*. New York, NY: Norton.
- Frijda, N. H., & Mesquita, B. (1994). The social roles and functions of emotions. In S. Kitayama & H. R. Markus (Eds.), *Emotion and culture: Empirical studies of mutual influence* (pp. 51–87). Washington, DC: American Psychological Association. doi:10.1037/10152-002
- Glaser, J., & Salovey, P. (1998). Affect in electoral politics. *Personality and Social Psychology Review*, 2, 156–172. doi:10.1207/s15327957pspr0203_1
- Greene, J., & Haidt, J. (2002). How (and where) does moral judgment work? *Trends in Cognitive Sciences*, 6, 517–523. doi:10.1016/S1364-6613(02)02011-9
- Haidt, J. (2001). The emotional dog and its rational tail: A social intuitionist approach to moral judgment. *Psychological Review*, 108, 814–834. doi:10.1037/0033-295X.108.4.814
- Haidt, J., & Bjorklund, F. (2008). Social intuitionists answer six questions about moral psychology. In W. Sinnott-Armstrong (Ed.), *Moral psychology: Vol. 2. The cognitive science of morality: Intuition and diversity* (pp. 181–217). Cambridge, MA: MIT Press.
- Haidt, J., & Kesebir, S. (2010). Morality. In S. Fiske, D. Gilbert, & G. Lindzey (Eds.), *Handbook of social psychology* (5th ed., pp. 797–832). Hoboken, NJ: Wiley.
- Hareli, S., & Hess, U. (2010). What emotional reactions can tell us about the nature of others: An appraisal perspective on person perception. *Cognition & Emotion*, 24, 128–140. doi:10.1080/02699930802613828
- Harker, L., & Keltner, D. (2001). Expressions of positive emotion in women’s college yearbook pictures and their relation to personality and life outcomes across adulthood. *Journal of Personality and Social Psychology*, 80, 112–124. doi:10.1037/0022-3514.80.1.112
- Hayes, A. F. (2012). *PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling*. Retrieved from <http://www.afhayes.com/public/process2012.pdf>
- Hess, U., Adams, R. B., Jr., & Kleck, R. E. (2008). The role of facial expression in person perception. In N. Ambady & J. J. Skowronski (Eds.), *First impressions* (pp. 234–254). New York, NY: Guilford Press.
- Horberg, E. J., Oveis, C., & Keltner, D. (2011). Emotions as moral amplifiers: An appraisal-tendency approach to the influences of distinct emotions upon moral judgment. *Emotion Review*, 5, 237–244. doi:10.1177/1754073911402384
- Horberg, E. J., Oveis, C., Keltner, D., & Cohen, A. B. (2009). Disgust and the moralization of purity. *Journal of Personality and Social Psychology*, 97, 963–976. doi:10.1037/a0017423
- Judd, C. M., James-Hawkins, L., Yzerbyt, V., & Kashima, Y. (2005). Fundamental dimensions of social judgment: Understanding the relations between judgments of competence and warmth. *Journal of Personality and Social Psychology*, 89, 899–913. doi:10.1037/0022-3514.89.6.899
- Kaul, T. J., & Schmidt, L. D. (1971). Dimensions of interviewer trustworthiness. *Journal of Counseling Psychology*, 18, 542–548. doi:10.1037/h0031748
- Keltner, D., & Buswell, B. N. (1997). Embarrassment: Its distinct form and appeasement functions. *Psychological Bulletin*, 122, 250–270. doi:10.1037/0033-2909.122.3.250
- Keltner, D., & Haidt, J. (1999). Social functions of emotions at four levels of analysis. *Cognition & Emotion*, 13, 505–521. doi:10.1080/026999399379168
- Kenny, D. A., Kashy, D. A., & Cook, W. L. (2007). *The analysis of dyadic data*. New York, NY: Guilford Press.
- Kitayama, S., Markus, H. R., & Kurokawa, M. (2000). Culture, emotion, and well-being: Good feelings in Japan and the United States. *Cognition & Emotion*, 14, 93–124. doi:10.1080/026999300379003
- Kitayama, S., Mesquita, B., & Karasawa, M. (2006). Cultural affordances and emotional experience: Socially engaging and disengaging emotions in Japan and the United States. *Journal of Personality and Social Psychology*, 91, 890–903.
- Knutson, B. (1996). Facial expressions of emotion influence interpersonal trait inferences. *Journal of Nonverbal Behavior*, 20, 165–182. doi:10.1007/BF02281954
- Kraus, M. W., & Keltner, D. (2009). Signs of socioeconomic status: A thin-slicing approach. *Psychological Science*, 20, 99–106. doi:10.1111/j.1467-9280.2008.02251.x
- Lazarus, R. (1991). *Emotion and adaptation*. New York, NY: Oxford University Press.
- Messick, D. M., & McClintock, C. G. (1968). Motivational bases of choice in experimental games. *Journal of Experimental Social Psychology*, 4, 1–25. doi:10.1016/0022-1031(68)90046-2
- Messick, D. M., & Sentis, K. P. (1979). Fairness and preferences. *Journal of Experimental Social Psychology*, 15, 418–434. doi:10.1016/0022-1031(79)90047-7
- Miller, R. S. (1996). *Embarrassment: Poise and peril in everyday life*. New York, NY: Guilford Press.
- Napier, J. L., & Jost, J. T. (2008). Why are conservatives happier than liberals? *Psychological Science*, 19, 565–572. doi:10.1111/j.1467-9280.2008.02124.x
- O’Brien, L. T., & Major, B. (2005). System-justifying beliefs and psychological well-being: The roles of group status and identity. *Personality and Social Psychology Bulletin*, 31, 1718–1729. doi:10.1177/0146167205278261

- Oveis, C., Horberg, E. J., & Keltner, D. (2010). Compassion, pride, and social intuitions of self–other similarity. *Journal of Personality and Social Psychology*, *98*, 618–630. doi:10.1037/a0017628
- Porter, S., & ten Brinke, L. (2009). Dangerous decisions: A theoretical framework for understanding how judges assess credibility in the courtroom. *Legal and Criminological Psychology*, *14*, 119–134. doi:10.1348/135532508X281520
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments & Computers*, *36*, 717–731. doi:10.3758/BF03206553
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, *40*, 879–891.
- Rasinski, K. A. (1987). What's fair is fair—Or is it? Values differences underlying public views about social justice. *Journal of Personality and Social Psychology*, *53*, 201–211. doi:10.1037/0022-3514.53.1.201
- Reis, H. T., Wilson, I. M., Monestere, C., Bernstein, S., Clark, K., Seidl, E., . . . Radoane, K. (1990). What is smiling is beautiful and good. *European Journal of Social Psychology*, *20*, 259–267. doi:10.1002/ejsp.2420200307
- Rozin, P., Lowery, L., Imada, S., & Haidt, J. (1999). The CAD triad hypothesis: A mapping between three moral emotions (contempt, anger, disgust) and three moral codes (community, autonomy, divinity). *Journal of Personality and Social Psychology*, *76*, 574–586. doi:10.1037/0022-3514.76.4.574
- Salekin, R. T., Ogloff, J. R. P., McFarland, C., & Rogers, R. (1995). Influencing jurors' perceptions of guilt: Expression of emotion during testimony. *Behavioral Sciences & the Law*, *13*, 293–305. doi:10.1002/bsl.2370130208
- Schnall, S., Haidt, J., Clore, G. L., & Jordan, A. H. (2008). Disgust as embodied moral judgment. *Personality and Social Psychology Bulletin*, *34*, 1096–1109. doi:10.1177/0146167208317771
- Secord, P. F. (1958). Facial features and inference processes in interpersonal perception. In R. Taguiri & L. Petrullo (Eds.), *Person perception and interpersonal behavior* (pp. 300–315). Stanford, CA: Stanford University Press.
- Selig, J. P., & Preacher, K. J. (2008, June). Monte Carlo method for assessing mediation: An interactive tool for creating confidence intervals for indirect effects. Retrieved from <http://www.quantpsy.org>
- Shariff, A. F., & Tracy, J. L. (2009). Knowing who's boss: Implicit perceptions of status from the nonverbal expression of pride. *Emotion*, *9*, 631–639. doi:10.1037/a0017089
- Shariff, A. F., Tracy, J. L., & Markusoff, J. (2012). (Implicitly) judging a book by its cover: The power of pride and shame expressions in shaping judgments of social status. *Personality and Social Psychology Bulletin*, *38*, 1178–1193. doi:10.1177/0146167212446834
- Son Hing, L. S., Bobocel, D. R., Zanna, M. P., Garcia, D. M., Gee, S. S., & Oraziotti, K. (2011). The merit of meritocracy. *Journal of Personality and Social Psychology*, *101*, 433–450. doi:10.1037/a0024618
- Stellar, J. E., Manzo, V. M., Kraus, M. W., & Keltner, D. (2012). Class and compassion: Socioeconomic factors predict responses to suffering. *Emotion*, *12*, 449–459. doi:10.1037/a0026508
- Stipek, D. (1998). Differences between Americans and Chinese in the circumstances evoking pride, shame, and guilt. *Journal of Cross-Cultural Psychology*, *29*, 616–629. doi:10.1177/0022022198295002
- Szczurek, L., Monin, B., & Gross, J. (2012). The stranger effect: the rejection of affective deviants. *Psychological Science*, *23*, 1105–1111. doi:10.1177/0956797612445314
- Tangney, J. P. (1999). The self-conscious emotions: Shame, guilt, embarrassment, and pride. In T. Dalglish & M. J. Power (Eds.), *Handbook of cognition and emotion* (pp. 541–568). New York, NY: Wiley.
- Tangney, J. P., Stuewig, J., & Mashek, D. J. (2007). Moral emotions and moral behavior. *Annual Review of Psychology*, *58*, 345–372. doi:10.1146/annurev.psych.56.091103.070145
- Tangney, J. P., & Tracy, J. L. (2012). Self-conscious emotions. In M. Leary & J. P. Tangney (Eds.), *Handbook of self and identity* (2nd ed., pp. 446–478). New York, NY: Guilford Press.
- Tiedens, L. Z. (2001). Anger and advancement versus sadness and subjugation: The effect of negative emotion expressions on social status conferral. *Journal of Personality and Social Psychology*, *80*, 86–94. doi:10.1037/0022-3514.80.1.86
- Tiedens, L. Z., Ellsworth, P. C., & Mesquita, B. (2000). Sentimental stereotypes: Emotional expectations for high- and low-status group members. *Personality and Social Psychology Bulletin*, *26*, 560–575. doi:10.1177/0146167200267004
- Tracy, J. L. (2007). The prototypical pride expression: Development of a nonverbal coding system. *Emotion*, *7*, 789–801. doi:10.1037/1528-3542.7.4.789
- Tracy, J. L. (2010). Pride. In I. Weiner & W. E. Craighead (Eds.), *Encyclopedia of psychology* (4th ed., pp. 1284–1286). New York, NY: Wiley.
- Tracy, J. L., Cheng, J. T., Robins, R. W., & Trzesniewski, K. H. (2009). Authentic and hubristic pride: The affective core of self-esteem and narcissism. *Self and Identity*, *8*, 196–213. doi:10.1080/15298860802505053
- Tracy, J. L., & Robins, R. W. (2004a). Putting the self into self-conscious emotions: A theoretical model. *Psychological Inquiry*, *15*, 103–125. doi:10.1207/s15327965pli1502_01
- Tracy, J. L., & Robins, R. W. (2004b). Show your pride: Evidence for a discrete emotion expression. *Psychological Science*, *15*, 194–197. doi:10.1111/j.0956-7976.2004.01503008.x
- Tracy, J. L., & Robins, R. W. (2007a). The nature of pride. In J. L. Tracy, R. W. Robins, & J. P. Tangney (Eds.), *The self-conscious emotions: Theory and research* (pp. 263–282). New York, NY: Guilford Press.
- Tracy, J. L., & Robins, R. W. (2007b). The psychological structure of pride: A tale of two facets. *Journal of Personality and Social Psychology*, *92*, 506–525. doi:10.1037/0022-3514.92.3.506
- Tracy, J. L., & Robins, R. W. (2008). The nonverbal expression of pride: Evidence for cross-cultural recognition. *Journal of Personality and Social Psychology*, *94*, 516–530. doi:10.1037/0022-3514.94.3.516
- Tracy, J. L., Robins, R. W., & Schriber, R. A. (2009). Development of a FACS-verified set of basic and self-conscious emotion expressions. *Emotion*, *9*, 554–559. doi:10.1037/a0015766
- Tracy, J. L., Shariff, A. F., & Cheng, J. T. (2010). A naturalist's view of pride. *Emotion Review*, *2*, 163–177. doi:10.1177/1754073909354627
- Tracy, J. L., Shariff, A. F., Zhao, W., & Henrich, J. (in press). Cross-cultural evidence that the nonverbal expression of pride is an automatic status signal. *Journal of Experimental Psychology: General*.
- Van Lange, P. A. M. (1999). The pursuit of joint outcomes and equality in outcomes: An integrative model of social value orientation. *Journal of Personality and Social Psychology*, *77*, 337–349. doi:10.1037/0022-3514.77.2.337
- Verbeke, W., Belschak, F., & Bagozzi, R. P. (2004). The adaptive consequences of pride in personal selling. *Journal of the Academy of Marketing Science*, *32*, 386–402. doi:10.1177/0092070304267105
- Verplaetse, J., Vanneste, S., & Braeckman, J. (2007). You can judge a book by its cover: The sequel: A kernel of truth in predictive cheating detection. *Evolution and Human Behavior*, *28*, 260–271. doi:10.1016/j.evolhumbehav.2007.04.006
- Wagstaff, G. F. (1994). Equity, equality, and need: Three principles of justice or one? An analysis of “equity as desert.” *Current Psychology*, *13*, 138–152. doi:10.1007/BF02686797
- Walster, E., Berscheid, E., & Walster, G. W. (1973). New directions in equity research. *Journal of Personality and Social Psychology*, *25*, 2, 151–176. doi:10.1037/h0033967

- Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, *92*, 548–573. doi:10.1037/0033-295X.92.4.548
- Williams, L. A., & DeSteno, D. (2008). Pride and perseverance: The motivational role of pride. *Journal of Personality and Social Psychology*, *94*, 1007–1017. doi:10.1037/0022-3514.94.6.1007
- Wojciszke, B. (2005). Morality and competence in person- and self-perception. *European Review of Social Psychology*, *16*, 155–188.
- Zebrowitz, Leslie, A., & Montepare, J. M. (2008). First impressions from facial appearance cues. In N. Ambady & J. Skowronski (Eds.), *First impressions* (pp. 171–204). New York, NY: Guilford Press.

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