The Nonverbal Expression of Pride: Evidence for Cross-Cultural Recognition

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The present research tests whether recognition for the nonverbal expression of pride generalizes across cultures. Study 1 provided the first evidence for cross-cultural recognition of pride, demonstrating that the expression generalizes across Italy and the United States. Study 2 found that the pride expression generalizes beyond Western cultures; individuals from a preliterate, highly isolated tribe in Burkina Faso, West Africa, reliably recognized pride, regardless of whether it was displayed by African or American targets. These Burkinabe participants were unlikely to have learned the pride expression through cross-cultural transmission, so their recognition suggests that pride may be a human universal. Studies 3 and 4 used drawn figures to systematically manipulate the ethnicity and gender of targets showing the expression, and demonstrated that pride recognition generalizes across male and female targets of African, Asian, and Caucasian descent. Discussion focuses on the implications of the findings for the universality of the pride expression.

Keywords: pride, self-conscious emotion, cross-cultural, universal, emotion recognition

Of all the complex emotions \dots pride, perhaps, is the most plainly expressed.

-Darwin, The Expression of the Emotions in Man and Animals

One of the major findings in the behavioral and social sciences is the discovery that a small set of basic emotions—anger, disgust, fear, happiness, sadness, and surprise—have distinct, universally recognized nonverbal expressions (Ekman & Friesen, 1971; Ekman, Sorenson, & Friesen, 1969; Izard, 1971). This finding, which emerged from Ekman and colleagues' (Ekman et al., 1969; Ekman & Friesen, 1971) seminal research on highly isolated preliterate tribal groups in Papua New Guinea, led many researchers to accept Darwin's (1872) view that emotions and their expressions are a universal, evolved part of human nature.

Over the past few decades, several attempts have been made to identify additional universally recognized emotion expressions, but, with a few possible exceptions (contempt, embarrassment, and

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shame; Ekman & Friesen, 1986; Haidt & Keltner, 1999; Izard, 1971; Russell, 1991), these attempts have failed. As a result, the six basic emotions have a special status in the emotion literature. In contrast, emotions assumed to lack universal expressions have received considerably less attention within the field of affective science. In particular, researchers have largely neglected the self-conscious (or social) emotions, such as embarrassment, pride, and shame. These emotions involve complex self-evaluative processes (Tangney & Dearing, 2002; Tracy & Robins, 2004a), emerge later in development than do basic emotions (M. Lewis, Alessandri, & Sullivan, 1992), are thought to be unique to humans and possibly the great apes (Hart & Karmel, 1996), and play a central role in status seeking, dominance, and other fundamental social behaviors (Keltner & Buswell, 1997; Tracy & Robins, 2007c).

However, recent research suggests that the self-conscious emotion of pride may have a recognizable nonverbal expression. The pride expression, shown in Figure 1, includes the body (i.e., expanded posture, head tilted back) as well as the face (i.e., low intensity, non-Duchenne smile); it has been shown to be reliably recognized and distinguished from similar emotions (e.g., happiness) using forced-choice and open-ended response methods; and it is reliably recognized by American adults and children as young as 4 years old (Tracy & Robins, 2004b; Tracy, Robins, & Lagattuta, 2005). Pride recognition rates are comparable with recognition rates for the basic emotions, and, like the basic emotions, pride can be recognized from a single snapshot image very quickly and efficiently (Tracy & Robins, in press). Moreover, similar displays have been documented in spontaneous nonverbal behaviors shown in response to a pride-eliciting event, such as successful completion of a task (Belsky & Domitrovich, 1997; M. Lewis et al., 1992; Stipek, Recchia, & McClintic, 1992; Weisfeld & Beresford, 1982) and victory at the Olympic Games (Tracy & Matsumoto, 2007).

Together, these findings suggest that pride may merit inclusion in the class of emotions thought to be universal and to have



Figure 1. The prototypical pride expression. The expression includes a small smile, head tilted slightly (approximately 20°) back, expanded posture, and arms akimbo with hands on hips. The individual pictured in the photo gave consent for his likeness to be published in this article.

evolved to serve specific adaptive functions, such as signaling survival-relevant messages to one's kin. Pride, in particular, is likely to play a functional role in the maintenance and enhancement of social status, an essential component of a social animal's fitness. Individuals experience pride after a socially valued achievement, and these feelings may alert them that their behavior (or self) is valued by others and that they are thus unlikely to be rejected by the group and may deserve increased status (Leary, Tambor, Terdal, & Downs, 1995). These feelings may also reinforce the socially valued behaviors that generated the emotion (Hart & Matsuba, 2007; Herrald & Tomaka, 2002; Weiner, 1985). At the same time, the interpersonal nonverbal expression of pride may serve a complementary adaptive function by alerting others that the proud individual merits increased acceptance and status.

Despite theoretical reasons for expecting pride and its associated expression to be an adaptive part of human nature, however, studies have not yet addressed the critical question that lies at the heart of this issue: Does the pride expression generalize across cultures? In contrast, four lines of research have been used to support the claim of universality in the basic emotions. First, Ekman and colleagues (1969; Ekman & Friesen, 1971) demonstrated that expressions documented in the United States were reliably recognized by highly isolated, preliterate tribal individuals from Papua New Guinea. This finding is considered by many to be one of strongest pieces of evidence supporting the case for universality and the concept of innate human nature, because Ekman's preliterate, culturally isolated participants could not have learned the emotion expressions through cross-cultural transmission (e.g., films, television, magazines; D. E. Brown, 1991; D. E. Buss, 1992; Pinker, 2002; but see Russell, 1994). Second, at the same time Ekman's groundbreaking work was being conducted in Papua New Guinea, other studies were being conducted in nations all over the world demonstrating that individuals speaking a range of languages and steeped in a wide variety of cultural traditions reliably recognized the basic emotion expressions (Ekman et al., 1969, 1987; Izard, 1971). Third, more recent studies have demonstrated that emotion recognition generalizes across targets of different cultures and ethnicities (e.g., Beaupre & Hess, 2005; Biehl et al., 1997). These studies manipulated the ethnicity of targets showing the expression and found reliable recognition of the basic emotion expressions across all ethnicities examined (African, Caucasian, Chinese, Japanese); these findings also held across several perceiver cultures (e.g., Canada, Hungary, Japan, Poland, Sumatra, United States, Vietnam; Beaupre & Hess, 2005; Biehl et al., 1997; Matsumoto & Ekman, 1989). Fourth, a growing number of studies have examined the spontaneous production of emotion expressions across cultures and found that individuals from a diverse range of cultures (e.g., North American, East Asian, South and Central American, Western European, Eastern European) tend to show similar emotion expressions in similar situations, such as watching a stressful video or winning or losing a judo match in the Olympic games (e.g., Ekman, 1971; Matsumoto & Willingham, 2006). These studies suggest that emotion expressions are recognized across cultures because they are experienced and displayed across cultures.

However, with the exception of production studies examining the spontaneous display of pride, researchers have yet to conduct similar cross-cultural or cross-ethnicity studies on recognition of the pride expression. In fact, in a comprehensive meta-analysis of emotion recognition studies, Elfenbein and Ambady (2002) identified cross-cultural studies examining over 36 different emotion expressions, but none searching for a pride expression. Thus, we do not know whether pride is recognized outside of the United States, let alone by nonliterate, highly isolated individuals who have not been exposed to Western culture. We also do not know whether pride is recognized across targets of different ethnic or racial groups; all previous studies on the pride expression have used only Caucasian American targets. If the pride expression evolved to communicate fitness-promoting messages about an individual's status, then we would expect to see cross-cultural evidence for recognition. In fact, if the pride expression is an evolved part of human nature, then it should be recognized across cultures that have had no contact with each other. If individuals in such disparate cultures can recognize pride, that would provide strong support for the claim that the pride expression is a human universal, because, in the absence of cross-cultural contact, the most likely reason these cultures would share the ability to recognize pride is that this ability is part of human nature.

It is also possible, however, that the pride expression is universal but its specific components show minor variations across cultures and that these variations produce lower recognition rates when the expression is transplanted, in an etic fashion, from one culture to another. Some authors have argued that even the basic emotion expressions are influenced to some degree by culture-specific processes, which are said to produce dialects in expressions that are otherwise universal. According to this perspective, which has received mixed support, these dialects seem to influence cross-cultural recognition levels of basic emotion expressions, such that expressions are recognized at higher rates when shown to individuals who belong to the culture from which the expression emerged (Elfenbein & Ambady, 2002; but see Matsumoto, 2002).

A third possibility is that pride will not be recognized in certain cultures because the experience and expression of pride vary across cultures in fundamental ways. As a self-conscious emotion, pride is a highly social emotion elicited by complex self-evaluative processes and thus may show greater cross-cultural variability than emotions like fear and happiness, which are intrinsically less social in nature. Research suggests that at least some self-evaluative processes vary across cultures; for example, there is evidence that cultures with a collectivistic orientation place less value on explicit self-enhancement than do more individualistic cultures (Heine, Kitayama, & Hamamura, 2007; but see Sedikides, Gaertner, & Vevea, 2005). In fact, studies have found that pride is viewed less positively in collectivistic than in individualistic cultures (Eid & Diener, 2001) and is less typically experienced in response to successes of the personal self than the collective self (Stipek, 1998). Consequently, in collectivistic cultures, the pride expression may be infrequently displayed in everyday social contexts and more highly regulated when it is displayed. Thus, it is unclear whether the pride expression documented in the United States would generalize to more collectivistic cultures.

Finally, a fourth possibility is that the pride expression documented thus far is actually a culture-specific gesture, much like the "thumbs up" sign, which serves a learned communicative function within the United States but is not a universal part of the human behavioral repertoire. If this is the case, then the pride expression may generalize to cultures that have some exposure to American culture but not to highly isolated cultures that have little contact with American culture or media.

The present research tests these competing possibilities. If we find evidence that pride can be recognized across cultures, it would strengthen the case that pride should be placed within a functionalist framework, given the longstanding assumption that emotions evolved, in part, to serve communicative functions through their associated, ritualized nonverbal signals (Ekman, 1992). This finding would also challenge two extant assumptions in the emotion literature: (a) All positive emotions share a single nonverbal expression (Ekman, 1992; Fredrickson & Branigan, 2001; Izard & Haynes, 1988), and (b) cognitively complex, phylogenetically recent emotions, such as the self-conscious emotions, are not associated with distinct nonverbal expressions.

In Study 1, we tested whether individuals born and raised outside the United States could recognize the pride expression. Specifically, we examined recognition among a sample of Italians who neither spoke nor understood English. In Study 2, we examined pride recognition among a sample of preliterate West Africans living in rural villages in Burkina Faso who had no known exposure to Western culture. In this study, we also tested whether shame, another fundamental self-conscious emotion previously found to have a nonverbal expression that is recognized within the United States (Izard, 1971; Keltner, 1995), is recognized in an isolated, preliterate culture. In Studies 3 and 4, we turned our attention to the cross-ethnic generalizability of individuals who display the pride expression (i.e., targets). These two studies tested whether pride is recognized in male and female targets from three ethnic groups (African, Asian, and European) and whether the level of pride recognition varies by target and perceiver gender and ethnicity.

The present research extends previous findings in several ways. First, this is the first set of studies to test whether the pride expression is reliably recognized outside the United States. Second, this is the first research to test whether shame is recognized by preliterate individuals from a highly isolated tribal culture. All previous research on the shame expression has examined recognition among participants who are at least somewhat exposed to Western culture (e.g., have a high school education, live in or a near a populous city, etc.). Third, this is the first research to examine recognition of the basic emotion expressions in a preliterate, highly isolated non-Western culture using a modified forcedchoice format that includes response options such as none of these is correct, which addresses several concerns associated with the more traditional strict forced-choice response format (Frank & Stennett, 2001). Furthermore, our preliterate participants were also given the option of identifying expressions in an open-ended manner rather than choosing any of the responses provided; the open-ended format further addresses concerns associated with the forced-choice method (Russell, 1994). Fourth, this is the first research to test whether pride is reliably recognized when shown by male and female targets of varying ethnicities and to examine whether target gender and ethnicity affect the level of pride recognition found.

Study 1

Method

Participants. Twenty-eight individuals (50% women) ranging in age from 22 to 38 years (M=27 years) living in several community locations in Bologna, Italy, were recruited through an advertisement at a research institution in Bologna. Interested individuals were told that they must have been born and raised in Italy, and must not be able to speak or understand English. The study was conducted at the research institution by an Italian psychologist.

Stimuli. Four targets, a male and female Asian-American and a male and female Caucasian American (age range = 22–32 years) posed the pride expression shown in Figure 1 as well as expressions of contempt, happiness, and surprise. All photos were taken from the waist up. Targets wore identical white shirts and posed in front of a plain blue background. Posing instructions were based on the Directed Facial Action task (DFA; Ekman, Levenson, & Friesen, 1983) for all emotions other than pride. Posing instructions for pride were based on previous research on the pride expression (Tracy & Robins, 2004b).

Procedure. Participants were seated in front of a laptop computer and were shown each photo on the 14-inch (35.56-cm) monitor for 30 s. For each photo, participants were asked to choose the emotion that "best matches the emotion expressed by the person in the photo" from the following options: contempt (disprezzo), boredom (noia), excitement (eccitazione), happiness (gioia and felicità), pride (fierezza and orgoglio), surprise (sorpresa), none of these is correct (nessuna di queste emozioni descrive correttamenta la fotografia), and other: ___ (altro: si prega di specificare ___). Boredom and excitement were included because these words are rarely but occasionally applied to the

¹ One example of a learned gesture that communicates a distinct emotion within a particular culture but has failed to pass the universality test is the "tongue bite" display of shame in India (Haidt & Keltner, 1999).

pride expression in open-ended recognition studies of pride (Tracy & Robins, 2004b). The *none of these is correct* option was included because it has been shown to address concerns associated with the standard forced-choice format (Frank & Stennett, 2001). Specifically, participants will use this option to label nonsense expressions that have no known emotion word label and to label known expressions when the correct emotion word is not provided. The *other* option was included to allow participants to respond in an open-ended manner, to further address concerns associated with the forced-choice format (Matsumoto et al., 2002; Russell, 1994).

The rating form was translated into Italian by a bilingual Italian psychologist and was independently confirmed by back-translating the response options using an Italian–English dictionary (Dizionari Garzanti, 1997). Pride has two translations in the Italian language, *fierezza* and *orgoglio*, and both were included as options.² To avoid drawing attention to pride, two translations for happiness, *felicità* and *gioia*, were also included.

Results and Discussion

All four pride photos included were identified as pride (either fierezza or orgoglio) at greater-than-chance frequencies (M =78%, range = 61%–89%; p < .05), based on binomial tests with chance set at 33%.³ Judges were slightly more likely to label pride photos as fierezza (56%) than orgoglio (23%; p < .05), but they tended to use the two words interchangeably across photos. Figure 2 shows mean recognition rates for pride, happiness, surprise, and contempt. Mean pride recognition did not differ from mean recognition rates for happiness or surprise, t(27) = 0.97 and t(27) =0.83, ns, respectively, but was significantly greater than mean recognition for contempt, t(27) = 5.24, p < .05. For a crosscultural comparison, Figure 2 also presents recognition rates from an American sample of 75 undergraduate research participants (69% women) who responded to the same stimuli following the same procedures. As can be seen, the pride recognition rate did not differ between the two groups, t(48) = 0.86, ns.

We found no effect of target gender or ethnicity on level of pride recognition, t(27) = 1.49 for ethnicity and t(27) = 0.30 for gender, both ns, but we cannot draw any conclusions about target effects

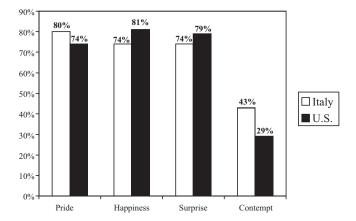


Figure 2. Mean recognition rates for pride, happiness, surprise, and contempt expressions in Italian (N=28) and American (N=75) samples for Study 1.

from this null finding, given the small number of targets included. When pride was not correctly recognized, it was identified as happiness (22% of errors, 4% of overall responses), contempt (9% of errors, 2% overall), excitement (4% of errors, 0.90% overall), none of these (4% of errors, 0.90% overall), and other (60% of errors, 12% overall). When participants chose other for the pride expression, they were most likely to label it as "satisfied" (4%), "carefree" (3%), "challenging" (2%), and "determined" (2%); several other labels were applied a single time by a single observer (e.g., "superior," "self-certain," "wisdom," etc.). Participants rarely labeled other emotion expressions as pride; false-alarm rates were 5% (happiness), 5% (contempt), and 0.90% (surprise).

Study 2

The findings from Study 1 demonstrate that the pride expression generalizes outside American culture. Italian participants recognized pride at rates similar to those found in the United States. Combined with previous findings from U.S. samples, this study suggests that there is a reliably recognized pride expression within Western culture. However, it remains possible that the pride expression documented in these studies is not a universal aspect of human nature, but rather is a learned gesture specific to Western cultures, similar to the "thumbs up" sign. To test this possibility, we must examine whether pride is recognized by individuals who have not been exposed to Western culture. Given the global ubiquity of Western culture and Western media, it is important to examine pride recognition among individuals who have little or no access to Western media, to ensure that they could not have learned the expression through cross-cultural transmission (i.e., television, films, magazines, newspapers). Study 2 provides the first such test by examining whether pride is recognized by nonliterate individuals from rural and remote tribal villages in Burkina Faso, West Africa.

Burkina Faso is an ideal location to examine questions of universality because it is one of the poorest and most isolated countries in the world. It has the world's second highest illiteracy rate (75%) and was recently ranked by a United Nations Human Development Report (2005) as the third least-developed country in the world, based on life expectancy, educational attainment, and income. At the time the research was conducted, there was only one television station in the country and no electricity (and thus no

² Italian-English dictionaries translate both terms as "pride." According to the Italian psychologist who conducted the research, the two terms have overlapping meanings in many contexts, but in some contexts *fierezza* includes a sense of dignity and honor whereas *orgoglio* implies excessive pride. It is thus possible that the terms reflect the distinct meanings of authentic versus hubristic pride (Tracy & Robins, 2007b), or beta versus alpha pride (Tangney, Wagner, & Gramzow, 1989), but further research is needed to support this speculation.

³ This chance rate is more stringent than that typically accepted within the emotion literature, which is based on the number of options presented (e.g., 17% in the present study; Hertenstein, Keltner, App, Bulleit, & Jaskolka, 2006). It is also more stringent than the rate proposed by critics of forced-choice emotion recognition studies; these critics have argued that participants in such studies do not guess randomly among the options presented but rather choose from four true emotion options defined by the two orthogonal dimensions of arousal and valence (Russell, 1994), suggesting a "true" chance guessing rate of 25%.

televisions) in the research participants' villages, which are not located near tourist destinations. All of these factors contribute to participants' isolation from Western culture, allowing for an effective test of the universality question. If these individuals recognize the pride expression, then it is unlikely to be because they learned it through cross-cultural transmission.

Burkina Faso is also an ideal culture to test the generalizability of the pride expression because African countries tend to have highly collectivistic cultural values (Hoftstede, 1984), which contrast sharply with the more individualistic values of most Western cultures. Perceptions of emotions and self-processes relevant to pride (e.g., self-enhancement) differ across these two types of cultures (Heine et al., 2007; Markus & Kitayama, 1991). In particular, collectivistic cultures tend to promote the group over the individual, such that individuals in these cultures are more prone to accept status differences rather than try to change them and assert the self (Hoftstede, 2001; Rossier, Dahourou, & McCrae, 2005). These values may be inconsistent with pride, an emotion typically geared toward enhancing and affirming the self; this may be one reason why individuals from these cultures tend to place less value on pride (Eid & Diener, 2001). Thus, evidence for pride recognition in Burkina Faso would suggest that the emotion transcends a fundamental cultural difference.

We also tested whether Burkinabe participants could recognize the nonverbal expression of a second self-conscious emotion, shame. Previous studies suggest that individuals from the United States, England, France, Germany, Greece, Japan, Sweden, and Switzerland can recognize a shame expression (Izard, 1971; Keltner, 1995), but there have been no studies examining this issue among nonliterate, highly isolated non-Western individuals. Moreover, in one of the few studies conducted in a non-Western, less industrialized culture (India), Haidt and Keltner (1999) failed to find better-than-chance recognition for the most commonly studied version of the shame expression, despite the fact that their participants had some formal education and over half were university educated.4 Thus, it remains unclear whether the expression of shame, an emotion considered to be the antithesis of pride (Darwin, 1872), generalizes to preindustrialized (and therefore generally less Westernized) cultures.

Method

Participants. Thirty-nine individuals (68% women) ranging in age from 20 to 75 years (*Mdn* = 46 years) were recruited by word of mouth. All participants lived in small rural settlements approximately 5 miles (8 km) from the village of Toussianna, where the research took place. The majority of participants were subsistence farmers, and all participants inhabited mud huts with no electricity or plumbing. None of the participants had ever attended school, none could read or write in any language, and none could speak or understand any language other than the language of their tribe, Dioula, which has no formal written form. Each participant was paid 5 kilograms of rice and the monetary equivalent of \$2.00 USD.

Interview procedure. Participants were interviewed individually by one of four interviewers, always of the participant's gender. All interviewers were born in Toussianna but had left the village to attend school in a larger town or city in Burkina Faso. Interviewers were literate in French (the language taught in Burkinabe schools)

and were trained on the research procedures in French before the study was conducted. The interview protocol was translated from English to French by a bilingual (French–English) researcher from Burkina Faso, who ensured that all phrasing matched Burkinabe linguistic customs, and was back-translated by a bilingual (English–French) psychologist. During the interview, the interviewers read the instructions in French and translated each question aloud into Dioula. Interviewers recorded participants' verbal responses on a written form.

Prior to conducting the research, all four interviewers and our Burkinabe collaborator, a California-university-educated political leader who led the research team, discussed and reached consensus on the correct Dioula translations for each emotion term and for the general instructions. Interviewers were trained to remember the particular wording of these translations, given that Dioula lacks a written form. We observed this training session with a translator and were satisfied that complete agreement was reached.

Test of familiarity with Western culture. To test participants' familiarity with Western culture, we showed them five 4-inch imes6-inch (10.16-cm × 15.24-cm) laminated photographs of wellknown Western individuals (David Beckham, Tony Blair, George W. Bush, Tom Cruise, Michael Jordan) who represent different cultural and national backgrounds and ethnicities and who acquired their fame in diverse ways (i.e., sports, politics, and film). We also included laminated 4-inch \times 6-inch (10.16-cm \times 15.24cm) photographs of two well-known individuals from Burkina Faso (President Blaise Campore and former revolutionary leader Thomas Sankara) to test participants' familiarity with their own culture (pictures of these two individuals are displayed in villages throughout the country) and to ensure that they understood the recognition task. For each photograph, participants were asked, "Who is the person in this photograph?" Responses were scored as correct if participants named the person or their title (e.g., "Blaise Campore" or "President of Burkina Faso").

Test of emotion recognition. Four targets—a male and female West African and a male and female Caucasian American—were photographed from the waist up posing the pride expression shown in Figure 1. This expression was found in previous research to be the best recognized, or most prototypical, version of pride (Tracy & Robins, 2007a). Two of these targets (the male Caucasian American and the female West African) were also photographed posing anger, disgust, fear, happiness, sadness, shame, and surprise. Posing instructions were based on the DFA (Ekman et al., 1983) for the basic emotions and on previous research (Heerey,

⁴ Haidt and Keltner (1999) did find reliable recognition for an alternate version of the shame expression, the "face cover." In the present study, limited access to participants reduced the number of stimuli we could include, so we assessed shame recognition with the more frequently studied variant of the expression (described in the *Method* section of Study 2), found to be reliably recognized in several cultures.

⁵ Limited access to participants reduced the number of stimuli we could include, so we opted to include only two exemplars of each nonpride emotion.

Keltner, & Capps, 2003) for shame. A leading expert in the Facial Action Coding System (FACS), Erika Rosenberg, assisted in the posing session (which occurred in the United States) and verified that all expressions included the correct facial muscle movements according to the Emotion Facial Action Coding System (EMFACS; Rosenberg & Ekman, 1995) and no other movements.

To address the main research question, we showed participants each photo and asked, "Which of the emotions listed below best matches the emotion expressed by the person in the photo?" They then were read the following list of options: anger, disgust, fear, happiness, pride, sadness, shame, and surprise, as well as the options I don't know and another emotion. The last two options were modifications of the procedure used in Study 1 to address concerns about participants' lack of familiarity with research protocol. Choosing the none of these are correct option requires participants to understand that experimenters may not provide the correct answer or that there is no correct answer, and our Burkinabe English–French translator suggested that these participants would feel more comfortable choosing I don't know in cases where they had no answer.

Results

Familiarity with Western culture. None of the participants accurately identified any of the five well-known Western individuals, but 74% of participants recognized at least one of the two well-known Burkinabes: President Campore (69%) and Thomas Sankara (51%). Thus, participants' failure to recognize the Westerners was likely due to their lack of familiarity with Western culture rather than to a failure to understand the task. Combined with other unique features of this sample (i.e., their illiteracy, lack of formal education, inability to speak or understand French), participants' lack of familiarity with famous Western figures makes it very unlikely that they had any familiarity with the pride expression as shown by Western figures in the media. The only remaining possibility of Western exposure is through tourism, but Toussianna is not a tourist destination (in fact, the only bus that goes near the village has no official stop there), and participants lived in villages located at least several miles outside of Toussianna that were not accessible by public transportation (participants arrived at the research site by foot).

Emotion recognition. Figure 3 shows mean recognition rates for all emotion expressions. Participants recognized every selfconscious and basic emotion expression at greater-than-chance frequencies (p < .05), based on binomial tests with chance set at 12.5% (based on the number of emotion response options provided). In this study, we followed the protocol set out by Ekman et al. (1969) for studying preliterate cultures: We based chance on the number of options provided, such that a better-than-chance response indicates that participants were not guessing randomly among the options. Several unique features of this study, and of Ekman et al.'s study, support this decision: participants' complete lack of familiarity with research procedures, the potential for inaccuracies when translating to a spoken dialect, the difficulty of the task for individuals who have no formal education and are not accustomed to viewing photographs of strangers, and, in the present study, the fact that we included response options that directly address several of the limitations of the standard forcedchoice response format. However, we also conducted binomial

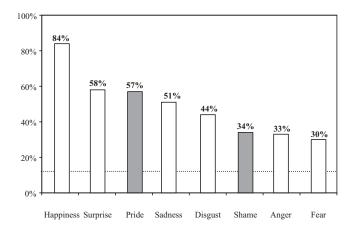


Figure 3. Mean recognition rates for self-conscious (gray bars) and basic emotion expressions in Burkina Faso, Africa (Study 2; N=39). The dashed line represents the recognition rate that would occur by chance, if participants guessed randomly among the emotion label response options presented (12.5%). Recognition rates for all emotions were significantly greater than chance, p < .05.

tests using the more stringent rate of 33%, which was used in Study 1. Using this more stringent chance rate, the recognition rates for disgust, happiness, pride, sadness, and surprise remained significantly greater than chance (p < .05).

The pride and shame recognition levels did not differ significantly from recognition levels for any of the basic emotions except happiness (84%), which, consistent with previous cross-cultural research (Elfenbein & Ambady, 2002), was better recognized than every other emotion (all ps < .05). The mean recognition rate averaged across the two self-conscious emotions (46%) was comparable with the mean recognition rate averaged across the six basic emotions (50%).

Recognition levels did not differ significantly for male (48%) versus female (52%) participants, t(36) = 1.45, ns, or for male (55%) versus female (49%) targets, t(38) = 1.96, ns. However, expressions posed by Caucasian American targets (54%) were better recognized than expressions posed by West African targets (45%), t(38) = 3.78, p < .05. Given the limited number of targets used, this finding is likely due to differences in the facial physiognomy or posing skills of these particular individuals, especially because there is no evidence for an out-group bias in emotion recognition when the perceivers are not members of a minority group (Beaupre & Hess, 2005; Elfenbein & Ambady, 2002). There were no target gender or ethnicity effects for the self-conscious emotions, t(38) = 0.68 and t(38) = 0.56, ns, respectively, and no interactions between participant gender and target gender or target ethnicity, F(1, 36) = 0.60 and F(1, 36) = 1.24, ns, respectively.

When pride was not correctly recognized, it was identified as happiness (52% of errors, 22% of overall responses), sadness (15% of errors, 6% overall), surprise (13% of errors, 6% overall), fear (4% of errors, 2% overall), anger (3% of errors, 1% overall), shame (3% of errors, 1% overall), disgust (1% of errors, 0.64%

⁶ The shame expression that was posed for Study 2 showed a head tilt downward and eye-gaze downward; this expression has previously been associated with shame (Keltner, 1995).

overall), other (4% of errors, 2% overall), and I don't know (3% of errors, 1% overall). When shame was not correctly recognized, it was identified as sadness (64% of errors, 42% of overall responses), disgust (8% of errors, 5% overall), anger (6% of errors, 4% overall), fear (6% of errors, 4% overall), surprise (4% of errors, 2% overall), and other (10% of errors, 6% overall).

The false-alarm rates for both pride and shame were fairly low. Participants occasionally labeled other emotions as pride: happiness (13% of responses to happy expressions), fear (11%), sadness (5%), disgust (4%), surprise (2%), and anger (1%). False alarms for shame were lower: 3% of responses to disgust, 3% to anger, and 1% to pride. Figure 4 shows the hit rate (number of times an expression was correctly identified) divided by the base rate (overall number of times that response option was used) for each emotion. Both pride and shame hit rate/base rate proportions were among the three highest. Thus, when individuals used the *pride* and *shame* response options, they tended to use them correctly.⁷

Discussion

The findings of Study 2 suggest that pride is reliably recognized and distinguished from related emotions, including happiness, by nonliterate, culturally isolated, non-Western individuals. Furthermore, these findings suggest that shame, too, is reliably recognized by these individuals. This study thus provides the strongest evidence to date that the self-conscious emotions of pride and shame meet the primary criterion for universality that exists within the emotion literature (Ekman, 1992).

Nonetheless, it is noteworthy that recognition rates for all emotions were lower than rates typically found in educated Western samples (Elfenbein & Ambady, 2002). This difference, which also holds for the seminal studies of Ekman et al. (1969) and for other recognition studies conducted on individuals from Africa (e.g., Beaupre & Hess, 2005), may be due to complexities associated with implementing the research procedure in a preliterate culture, such as translating an interview protocol into a spoken dialect, the fact that preliterate participants must remember response options rather than read them, and the overall novelty of the task.

However, lower recognition rates may also reflect important cultural differences. Recent research suggests that there may be cultural dialects, or subtle variations, in otherwise universal emo-

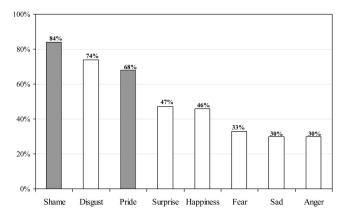


Figure 4. Mean hit (accuracy) rates divided by base rates for each emotion in Burkina Faso, Africa (Study 2; N = 39).

tion expressions, and these dialects may facilitate recognition in the culture from which the particular expression emerged but hinder it elsewhere (Elfenbein & Ambady, 2002; but see Matsumoto, 2002). Supporting this interpretation, other studies have found particularly low recognition of the Western-derived fear expression in non-Western cultures; for example, fear recognition rates in educated Japanese samples are similar to those found in our isolated Burkinabe sample (Matsumoto et al., 2002), and similar rates have been found among educated Africans living in Canada (Beaupre & Hess, 2005). Dialect theory would suggest that cultural factors have influenced the way fear is expressed, such that prototypical versions of fear differ across cultures. Future studies should explore this possibility by complementing our etic approach (i.e., transporting research procedures and stimuli from one culture to another) with an emic approach that tests whether pride and shame expressions derived in Burkina Faso are better recognized than the Western-derived stimuli used here; such studies must fully cross target and perceiver ethnicity to directly test dialect theory (Matsumoto, 2002).

Such an approach is particularly important for the case of shame, given its lower level of recognition in the present study and the previous finding that it is more reliably identified in at least one culture as a "face cover" than in its typical form in Western culture (Haidt & Keltner, 1999). Together, these findings suggest that the shame expression critically requires hiding of the face—either turning it down or covering it with the hands—which fits with longstanding theoretical views that shame promotes a desire to hide or escape (H. B. Lewis, 1971; Tangney & Dearing, 2002). Future research should examine whether distinct variants of the expression are associated with meaningfully distinct aspects of the emotion (e.g., shame vs. embarrassment) or whether cultural dialects emerge from the unique social rules and prescriptions for displaying shame in each culture.

The findings of Study 2 also provide further support for the universality of the basic emotion expressions. No previous study in a preliterate, highly isolated non-Western culture has found recognition for the basic emotions using any assessment method other than the traditional strict forced-choice format. Our use of the modified forced-choice format addresses several major limitations

⁷ We also calculated unbiased hit rates, which take into account both error and base rates (Wagner, 1993). Unbiased hit rates were 0.45 (pride), 0.45 (happiness), 0.29 (disgust), 0.29 (shame), 0.29 (surprise), 0.16 (sadness), and 0.10 (fear).

⁸ It is interesting to note that the self-conscious emotion expressions, which all seem to require gross body or head movements, are generally more "crude" than the basic emotion expressions, which require fine-grained facial musculature movements. This distinction appears to be somewhat paradoxical, given that self-conscious emotions are assumed to have emerged more recently in evolutionary history than the basic emotions and require more complex cognitive processes, a higher level of self-complexity, and so on. The explanation may lie in the relative communicative range of the two types of expressions. Gross body-based expressions are visible from a farther distance than face-only expressions, and self-conscious emotion expressions may have evolved for the direct purpose of communication (e.g., signaling status), whereas basic emotion expressions are typically assumed to have evolved for other original functions but to have become ritualized for the purpose of communication (Eibl-Eibesfeldt, 1989; Tracy & Robins, 2007a).

of the traditional format, including the possibility that the strict forced-choice format inflates agreement because participants must choose one of the options provided. Study 2 demonstrated that highly isolated individuals will agree on labels for the basic emotion expressions even when given the option to say "I don't know" or to say that the expression conveys some "other" emotion. In other words, these participants' agreement on the correct emotion labels for anger, disgust, fear, happiness, sadness, and surprise, as well as pride and shame, is unlikely to be inflated by an artificial restriction of choices.

Study 3

Studies 1 and 2 demonstrated that pride recognition generalizes across perceivers of vastly different cultures and, as was shown in Study 2, this effect is unlikely to result from cross-cultural transmission. Furthermore, other research has found that the recognizable pride expression is spontaneously displayed by individuals across highly divergent cultures in response to success (Tracy & Matsumoto, 2007). In this study, individuals from 36 nations, representing three distinct culture groups, were shown to display the pride expression in response to the same pride-eliciting event—winning a judo match in the Olympic Games; this finding held within all three cultures. As a result, the primary remaining question regarding the cross-cultural generalizability of the pride expression is whether recognition generalizes across targets of different cultures or, given that culture is not readily perceived by simply observing targets, different ethnicities. Can observers identify the pride expression in others, regardless of those others' ethnicity and gender? Does target ethnicity or gender influence the level of pride recognition? Study 3 addresses these questions.

We had several hypotheses for this study. First, according to the universality hypothesis, if the pride expression is a universal part of human nature that functions to send an adaptive signal, then it should be recognized when shown by all humans of both genders and all ethnicities. In fact, this seems to be the case for the basic emotions: Studies that have systematically varied target gender and ethnicity have typically found few, if any, effects on recognition (Boucher & Carlson, 1980; Keltner, 1995; Massaro & Ellison, 1996; Matsumoto & Ekman, 1989).

Second, it is possible that pride recognition will be significantly greater than chance for all targets, supporting the universality hypothesis, but mean recognition levels will vary by target characteristics. Specifically, according to the perceived status hypothesis, there should be meaningful differences in recognition levels for emotions that signal status when shown by targets perceived to differ in status (Keltner, 1995). If pride functions to convey high status, then it is likely to be displayed more frequently by highstatus individuals. Thus, familiarity between high-status targets and pride may lead observers to have an elevated expectancy, or bias, to infer pride in individuals who are members of high-status ethnic or gender groups, regardless of the expression they are actually displaying. If this is the case, then we should find higher pride recognition rates and higher pride base rates (rates of using the pride label across expressions) for targets belonging to higher status groups (e.g., Caucasians and men) than for targets belonging to lower status groups (e.g., African Americans and women). Supporting this account, Keltner (1995) found higher recognition rates for embarrassment in African American than Caucasian targets and interpreted this finding as a result of embarrassment signaling low status combined with observers' bias toward perceiving African Americans as low status. Other studies support the more general idea that target ethnicity and gender can influence the way observers perceive targets' emotions, especially when emotion expressions are ambiguous or when observers have race-based biases (Hess, Adams, & Kleck, 2004; Hess, Blairy, & Kleck, 1997; Hugenberg & Bodenhausen, 2004). As Macrae and Bodenhausen (2000) explained, "Activated categorical representations . . . provide the perceiver with expectancies that can guide the processing of subsequently encountered information . . . [These expectancies can] lead the perceiver to emphasize stereotype-consistent information" (p. 103).

According to the cultural value hypothesis, pride should be more readily identified in targets belonging to ethnic groups that are stereotypically associated with pride or thought to value pride. For example, in the 1960s, African Americans strove to reinforce "Black pride," and elements of the pride expression were incorporated into calls for ethnic solidarity, exemplified by the "Black Power" stance. In contrast, Asian Americans are typically associated with the cultural value of modesty and, in fact, have been shown to have negative views of self-esteem, self-enhancement, and pride (Eid & Diener, 2001; Heine et al., 1999). These divergent cultural values may lead to divergent associations between each of these ethnic groups and pride, such that African Americans may be assumed to frequently experience and display pride, whereas Asian Americans may be assumed to do so only infrequently. If observers are aware of these presumed (or actual) cultural differences, then this may influence pride recognition rates and base rates of pride identification (i.e., false alarms) in these targets. Thus, the cultural value hypothesis suggests a prediction that directly competes with the perceived status hypothesis: higher pride recognition and base rates of pride identification in African American versus Asian American targets.

A potential confound to any study examining the effects of target gender or ethnicity on emotion recognition is the possibility that effects found are the result of other characteristics that vary across targets (e.g., attractiveness, facial physiognomy, etc.). Several studies have addressed this issue by including a large number of targets of each ethnicity and gender, thereby decreasing the likelihood that, on average, the targets of one ethnic–gender group will differ from the targets of another ethnic–gender group on any characteristic of relevance other than ethnicity and gender (e.g., Biehl et al., 1997). However, the only way to completely rule out this potential confound is to find targets that vary only in ethnicity and gender.

For this reason, we developed a set of drawn figure targets that are identical (all are modifications of the same drawing) except for features stereotypically associated with gender and ethnicity. In Study 3, we first established that each drawn figure is reliably

⁹ One interesting exception to this general rule emerged in Elfenbein and Ambady's (2002) meta-analysis of cross-cultural emotion recognition studies. They found that, within cultures, minority group members show higher recognition for emotion expressions displayed by majority out-group members than majority group members do for the expressions of minority out-group members.

associated with the intended ethnic group and then tested whether pride recognition is influenced by target gender or ethnicity.

Method

Participants. Eighty-three undergraduate students (65% women) from the University of California, Davis participated in exchange for course credit. Participants self-identified their race as Asian (50%), Caucasian (31%), Latino (10%), African American (3%), and Other or Mixed (6%).

Stimuli. A professional artist who specializes in drawn figures was recruited to draw human characters from the waist up showing anger, contempt, disgust, fear, happiness, pride, sadness, and surprise. Nonpride emotion expressions were based on the DFA (Ekman et al., 1983), and the pride expression was based on previous research on pride (Tracy & Robins, 2007a). The artist drew a single human character eight times, once portraying each emotion expression. Expressions were evaluated by a leading expert in FACS, Erika Rosenberg, and two rounds of modifications were made on the basis of her suggestions, until a final set of eight expressions were verified to include each of the movements relevant to each expression (according to EM-FACS) and no other movements. The artist next scanned these images to produce three copies of each target and then modified each to produce six drawn targets showing all eight expressions: three men and three women (age 20-25 years) of African, Asian, and European-Caucasian ethnic descent. Target gender was manipulated by changing hairstyle, hair length, and shape of chest. Target ethnicity was manipulated by changing the targets' skin tone (with shading; all figures were drawn in black and white), hairstyle, hair thickness, hair color, and shape and size of nose, mouth, and eyes (Blair, Judd, Sadler, & Jenkins, 2002; Hugenberg & Bodenhausen, 2004; Livingston & Brewer, 2002).

Other than ethnic and gender characteristics, the drawn targets were identical. All were drawn wearing the same clothing (a white t-shirt), were the same size, and had the same basic facial physiognomy. Figure 5 shows three of these targets (one from each ethnic group) displaying the pride expression. By varying ethnicity and gender using these drawn figure targets, we ensured that any target effects found can be attributed to differences in target gender or ethnicity. Previous judgment studies using drawn figure targets have demonstrated the effectiveness of this method for comparing judgments of traits from body movements (e.g., Schwartz, Tesser, & Powell, 1982; Spiegel & Machotka, 1974). 10

Procedure. Participants viewed each of the six drawn figure targets showing each emotion expression, projected onto a large

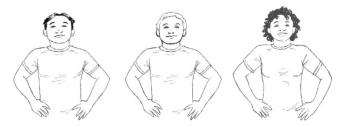


Figure 5. The prototypical pride expression shown by drawn figure targets of Asian (male), Caucasian (male), and African (female) descent and used in Studies 3 and 4.

 $4\text{-ft} \times 6\text{-ft}$ (1.2-m \times 1.8-m) screen, for 30 s each. To verify that targets represented the intended ethnic groups, we asked participants to, for each image, rate the "extent to which the person in this slide appears to be African-American" on a 7-point scale ranging from 0 (not at all) to 6 (extremely). Participants were then asked to provide the same rating for Caucasian American and Asian American images. Thus, each target was rated for the extent to which he/she was representative of each ethnic group.

After rating targets' ethnicity, participants were asked to "choose the emotion that best matches the emotion expressed by the person in the slide" from the following list of options: anger, contempt, disgust, fear, happiness, pride, sadness, surprise, and none of these are correct. Participants then rated the intensity of the emotion expressed on a 7-point scale ranging from 0 (not at all intense) to 6 (extremely intense). We assessed perceptions of intensity as a second gauge of how target gender or ethnicity might influence perceptions of emotions across targets that are, in actuality, showing the same emotions at the same level of intensity.

Results

Target ethnicity. We conducted a series of repeated-measures analyses of variance (ANOVAs) predicting ratings for each ethnic group from the intended target ethnic group. Results showed that African targets showing pride were more likely to be identified as African American (M = 5.40) than as Asian American (M = 0.42) or Caucasian American (M = 0.30), F(2, 78) = 725.32, p < .05. Similarly, Asian targets showing pride were more likely to be identified as Asian American (M = 4.84) than as African American (M = 0.20) or Caucasian American (M = 0.76), F(2, 80) =600.98, p < .05. Finally, Caucasian targets showing pride were more likely to be identified as Caucasian American (M = 5.25) than as African American (M = 0.35) or Asian American (M =1.29), F(2, 80) = 612.45, p < .05. These effects held across all other emotions: F(2, 77) = 2,298.38 for African targets (Ms = 5.26, 0.37, and 0.14 for African, Asian, and Caucasian, respectively); F(2, 77) = 766.16 for Asian targets (Ms = 5.06, 0.43, and 0.61 for Asian, African, and Caucasian, respectively); and F(2,68) = 1,312.70 for Caucasian targets (Ms = 5.38, 0.41, and 0.83 for Caucasian, African, and Asian, respectively; all ps < .05). Given the magnitude of these effects, we felt confident that our drawn figure targets manipulated ethnicity as intended.

Pride recognition. On the basis of binomial tests, recognition rates for all six pride expressions (M=74%, range = 52%-86%) were significantly greater than chance (p<.05), with chance set conservatively at 33%. When pride was not accurately recognized, it was labeled as contempt (49% of errors, 13% overall), happiness (11% of errors, 3% overall), disgust (4% of errors, 1% overall), anger (0.82% of errors, 0.10% overall), and none of these (34% of errors, 8% overall).

We next ran a Target Gender \times Ethnicity ANOVA predicting pride recognition and found main effects for ethnicity, F(2,81) = 9.83, and gender, F(1,82) = 19.60 (both ps < .05). Pride recognition was higher for female (M = 82%) than for male (M = 70%) targets and for Caucasian and Asian (Ms = 80% and 78%, respectively) than for African (M = 65%) targets. We also found a Target

¹⁰ Researchers who wish to use the drawn figures stimulus set for research purposes should contact the first author.

Gender \times Target Ethnicity interaction, F(2, 81) = 4.41, p < .05, suggesting that the gender difference was largest for African targets (Ms = 78% for the female vs. 52% for the male).

We next replicated these analyses predicting emotion intensity ratings for participants who correctly identified the pride expression (to ensure that we were predicting pride intensity ratings, specifically). We found an effect of target ethnicity, F(2, 46) = 3.44, p < .05, on pride intensity, suggesting that Caucasian targets were perceived as displaying pride most intensely (M = 3.75), followed by African (M = 3.50) and Asian (M = 3.46) targets; only the difference between Caucasian and African targets was significant, F(1, 81) = 5.37, p < .05 (other Fs were 0.16 and 3.59, ns). We also found an effect of target gender; pride was perceived as slightly more intense when shown by women (M = 3.63) than by men (M = 3.51), F(1, 47) = 3.01, p < .05, one-tailed (prediction based on the finding of higher pride recognition for female than male targets).

There was no effect of perceiver gender, F(1, 76) = 0.00, or perceiver ethnicity (Caucasian vs. Asian), F(1, 61) = 0.31, on pride recognition, nor were there any Perceiver Gender \times Perceiver Ethnicity interactions, F(1, 59) = 0.02. There were also no Perceiver \times Target interactions; the interactions between perceiver gender and target gender, F(1,76) = 0.34, perceiver gender and target ethnicity, F(2, 75) = 2.30, perceiver ethnicity and target ethnicity, F(2, 60) = 0.61, and perceiver ethnicity and target gender, F(1, 61) = 0.00, were all nonsignificant. There also were no three- or four-way interactions.

Next, we examined whether these findings applied to pride false-alarm rates—that is, the tendency to use the pride label for nonpride emotion expressions—in addition to recognition rates (the tendency to use the pride label for the pride expression). The pride label was rarely but occasionally applied to other expressions: disgust (2% of responses to disgust expressions), contempt (1%), surprise (1.3%), fear (0.80%), anger (0.60%), sad (0.60%), and happiness (0.40%). We ran ANOVAs predicting the tendency to label all other emotions as pride from target gender and ethnicity. We found no overall (across emotions) effects of target ethnicity or gender, nor any effects within any particular emotion. Thus, the effects of target gender and ethnicity on pride recognition applied only to participants' accuracy for pride and not to participants' general tendency to use the pride label across emotions.

Discussion

These findings provided mixed support for our three hypotheses. First, we found clear support for the universality hypothesis; pride was recognized well above chance in targets of both genders and all three ethnic groups. Second, the ethnicity effect that emerged supports the perceived status hypothesis and disconfirms the cultural value hypothesis. Pride was most readily recognized in Caucasian and Asian targets, the two groups of highest status. Furthermore, Asian targets, who are not typically associated with pride-related values, were more easily identified as showing pride than were African targets, who are more likely to be stereotypically associated with pride.

In contrast, the gender effect that emerged is contrary to what we would expect from the perceived status hypothesis (and, to the extent that it is relevant, the cultural value hypothesis). Pride was better recognized in women than in men, and this effect was particularly strong among African targets—the group that may be perceived as lowest status. There may, however, be a somewhat straightforward explanation for this finding. If pride is not expected in women because of the perceived higher status of men, then it may be all the more noticeable when female targets display pride—leading to paradoxically higher pride recognition in these targets. In contrast, when stereotypically high-status male targets show pride, the expression may be perceived as part of the target's gender characteristics (e.g., men have broader chests than women, so expanded chest may be perceived simply as "male"). Macrae and Bodenhausen (2000) explained this possible outcome of stereotype categorization: "Expectancies also sensitize the perceiver to unexpected data, leading to a greater emphasis on stereotypeinconsistent information following category activation" (p. 103). This explanation suggests that the present findings may also support the cultural value hypothesis. If African American men are associated with the cultural value of pride, then perceivers may view these targets' pride expressions as another feature of their ethnicity and thus show lower recognition for pride displayed by the African male target.

This interpretation of the target gender effect is supported by the fact that we did not find higher base rates of pride identification (i.e., pride false alarms) in female targets—we only found higher accuracy rates for pride recognition. This suggests that these effects were not due to participants making associations between women and pride, regardless of the emotion displayed; rather, the effects may have been driven by an assumption that women do not typically display pride, so, when they do, it must, in fact, be pride.

These findings also may be driven by participants making direct comparisons among targets on the basis of ethnicity and gender. Such a response style may, in fact, have been encouraged by the experimental design, given that participants were shown many targets who clearly differed in ethnic and gender characteristics, and were asked to identify targets' emotions immediately after identifying their ethnicity. Thus, it is important to test whether the present findings hold when participants are less likely to make direct comparisons among groups. In real-life settings, individuals do not typically determine that a target feels pride only after comparing his/her expression with another target from a different gender or ethnic group. For this reason, we conducted a replication study in which each participant viewed only a single target.

Study 4

In Study 4, we used a between-subjects design to test the effects of target gender and ethnicity on pride recognition.

Method

Participants. Participants were 211 undergraduate students (60% women) from the University of California, Davis, who participated in exchange for course credit. Participants self-identified their race as Asian (47%), Caucasian (31%), Latino (9%), African American (2%), and other or mixed (11%).

Stimuli. The set of drawn figure targets that was developed for Study 3 was used.

Procedure. Participants (N = 211) were randomly assigned to one of six ethnic–gender conditions. Participants in each condition

viewed only a single target (African man, African woman, Asian man, Asian woman, Caucasian man, or Caucasian woman) showing all eight emotion expressions. Participants viewed each of the eight images, projected onto a large 4-ft × 6-ft (1.2-m × 1.8-m) screen, for 30 s. The order of the images was randomized. As in Study 3, participants were asked, for each image, to "choose the emotion that best matches the emotion expressed by the person in the slide" from the following list of options: *anger*, *contempt*, *disgust*, *fear*, *happiness*, *pride*, *sadness*, *surprise*, and *none of these are correct*. Participants were also again asked to rate the intensity of the emotion expressed on a 7-point scale ranging from 0 (*not at all intense*) to 6 (*extremely intense*).

Results

On the basis of binomial tests, recognition rates for all six pride expressions (M=78%, range = 70%–87%) were significantly greater than chance (p<.05), with chance set at 33% (see Figure 6 for recognition rates by target). When the pride expression was not accurately recognized, it was labeled as contempt (59% of errors, 13% overall), happiness (15% of errors, 3% overall), disgust (2% of errors, 0.37% overall), surprise (2% of errors, 0.37% overall), and none of these (22% of errors, 5% overall).

We next ran a Target Gender \times Target Ethnicity ANOVA predicting pride recognition and found a main effect of gender, F(1, 205) = 3.47, p < .05 (one-tailed; effect was predicted on the basis of the findings of Study 3), but no effect of ethnicity, F(2, 205) = 0.13, ns, and no Gender \times Ethnicity interaction, F(2, 205) = 0.17, ns. Pride recognition was higher for female (M = 83%) than for male (M = 73%) targets. We next replicated these analyses predicting pride intensity ratings only for participants who accurately recognized pride. There was an effect of target gender, F(1, 159) = 16.10, p < .05, on intensity, suggesting that pride in female targets (M = 3.99) was viewed as more intense than pride in male targets (M = 3.25). There was no effect of target ethnicity on intensity, F(2, 159) = 0.02, nor was there any Ethnicity \times Gender effect on intensity, F(2, 159) = 1.60, both ns.

As in Study 3, we did not find perceiver effects. There was no effect of perceiver gender, F(1, 192) = 0.00, or perceiver ethnicity (Caucasian vs. Asian American) on pride recognition (t = 0.11; both ns), nor did perceiver gender interact with either target

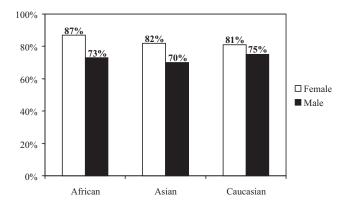


Figure 6. Recognition rates for the pride expression by target gender and ethnicity in Study 4 (N = 211).

gender, F(1, 192) = 0.06, or target ethnicity, F(2. 192) = 1.44, both ns.

Next, we examined target effects on pride false-alarm rates. There were only four pride false alarms (i.e., occasions in which other emotion expressions were labeled as pride): three for contempt and one for happiness.¹¹ Not surprisingly, these numbers were too low to produce any general trends; there was no target gender or target ethnicity effect on pride base rate, F(2, 204) = 2.45 and F(4, 410) = 1.12, respectively; both *ns*. Thus, target gender influenced participants' accuracy in recognizing pride but did not influence their general tendency to use the pride label across emotions.

Discussion

Study 4 replicated the finding of Study 3 that pride recognition is higher for female than for male targets, suggesting that this effect was not due to participants making direct comparisons between male and female targets prior to judging targets' emotions. Alternatively, gender may be such a ubiquitous construct in social judgments that these comparisons are made automatically, regardless of the presence of stimuli of the opposite gender. In contrast, these automatic comparisons may be less likely, or less clear cut, for a multicategory construct like ethnicity. Regardless, the findings from both studies suggest that, although pride is reliably recognized across targets of both genders and all three ethnicities examined, it is recognized with greater accuracy when shown by female as opposed to male targets.

The absence of an effect of target ethnicity on pride recognition suggests that the ethnicity effect that emerged in Study 3 may have resulted from participants making direct comparisons among targets of different ethnic groups. Given that participants in Study 3 spent the majority of their time responding to questions about targets' ethnicity, they may well have assumed that the goal of the experiment was to study the effects of ethnicity on emotion identification and thus varied their responses accordingly. Differential levels of power in Study 3 (which was within-subjects) versus Study 4 (between-subjects) may also have contributed to the different findings, but this seems unlikely given that there was not even a trend toward greater pride recognition in Caucasian or Asian targets, compared to African Americans, in Study 4 (see Figure 6).

General Discussion

The present research addressed what may be the most critical question for our understanding of the nonverbal expression of pride: Is the pride expression likely to be universally recognized, or is it more likely to be a culture-specific gesture, similar to the

¹¹ The confusion between contempt and pride, seen in error rates and false alarm rates in Studies 1, 3, and 4, may be due to the semantic overlap between the two emotions. Contempt involves moral superiority, which may overlap with the superiority associated with pride—particularly hubristic pride, which is reliably conveyed by the same nonverbal expression as authentic pride (Tracy & Robins, 2007a). The confusion may also result from the fact that one of the components of the pride expression—head tilt back—has also been associated with contempt (Rosenberg & Ekman, 1995).

Western "thumbs up" sign or the Indian tongue-bite display of shame? Study 1 showed that the expression is not unique to American culture; perceivers outside the United States in a non-English-speaking culture with divergent cultural values were able to recognize it. Study 2 provided considerably more compelling evidence for the expression's cross-cultural generalizability. Pride was reliably recognized by nonliterate perceivers who are almost entirely isolated from Western culture. This finding, which parallels Ekman et al.'s (1969; Ekman & Friesen, 1971) finding that the basic emotions are recognized by preliterate members of the Fore tribe in Papua New Guinea, suggests that the pride expression should be added to the small pantheon of emotions thought to be universal. In fact, with the sole exception of happiness, recognition rates for both self-conscious emotions included in Study 2—pride and shame—did not differ from recognition rates for the basic emotions in this sample, and these rates were highly similar to those that have been found previously in nonliterate, preindustrialized non-Western cultures using the forced-choice method (e.g., Ekman et al., 1969). It is important to note that the findings from Study 2 are not simply evidence of another culture recognizing pride. Rather, we specifically chose the Burkina Faso sample because these participants are extremely unlikely to have learned the pride expression from exposure to Western media or Western individuals (i.e., cross-cultural transmission). Our evidence that Burkinabe participants recognize pride is thus not simply evidence that individuals from another culture (outside the United States) recognize the expression, but rather suggests that the expression may be universal. That is, if the Burkinabe did not learn the pride expression through Western media, then they most likely know it because it is part of human nature.¹²

Finally, Studies 3 and 4 demonstrated that the pride expression generalizes across the gender and ethnicity of targets as well as perceivers. Although we did not examine all possible target ethnicities, we examined the three ethnic groups that represent the majority of people in the world. Using an experimental design that controlled for potentially confounding factors, such as target attractiveness or other differences in facial physiognomy, we found that pride is reliably recognized in male and female targets of African, Asian, and European (Caucasian) descent. We also found that the level of pride recognition is affected by these target characteristics; recognition is higher for female than for male targets and, when participants are encouraged to directly compare targets of varying ethnicities, for Caucasian and Asian than for African targets.

Implications

It has previously been assumed that self-conscious emotions differ from basic emotions because they lack universally recognized expressions (Ekman, 1992). The present research challenges this assumption. Our findings suggest that even highly social, cognitively complex self-evaluative emotions can be universal. This finding may require a change in our notion of what a universal basic emotion is.

If pride and shame are universal, then humans may have evolved to communicate social messages about dominance and submission through transitory emotions. In other animals, the communication of status seems to occur through similar kinds of expressions (e.g., a chimpanzee's "cocky" gait; de Waal, 1989), but these displays

may be associated more with stable traits than momentary feelings. An alpha chimpanzee is typically the dominant individual across most interactions and over long periods of time (de Waal, 1989). In humans these displays can be stable over time (there are reliable individual differences in pride-proneness; Tracy & Robins, 2007b), but they may also shift in response to particular situations. Humans repeatedly negotiate and renegotiate status during new interactions, in part because nontransitive status hierarchies, whereby an individual may be higher status than others in some contexts but not others, are the norm in human societies. Pride and shame may be the emotions that fuel these status exchanges. By displaying the pride expression after a success, an individual may inform his/her social group of his/her achievement and convey the message that he/she deserves respect and higher status. In our evolutionary history, this kind of interpersonal message was likely critical for the promotion and maintenance of social alliances, which were (and are) essential to human survival.

If pride functions to convey status, then it makes sense that target characteristics relevant to status, such as gender and ethnicity, influence the level of pride recognition. Observers in Studies 3 and 4 were better able to recognize pride when it was shown by women, a paradoxical effect that may have emerged because female pride is somewhat incongruous. In Western (and many non-Western) societies, men typically have higher status than women, and women across the globe have lower self-esteem than men (Robins, Trzesniewski, Tracy, Gosling, & Potter, 2002). Thus, women may experience pride less frequently and intensely than men, leading to an association between maleness and pride. The absence of a gender difference in pride false-alarm rates (i.e., labeling targets as showing pride when they were displaying other emotion expressions) supports this interpretation, but it should be further probed in future research. Studies are needed to manipulate status more directly (e.g., comparing recognition for pride displayed by a boss vs. an employee) and test whether similar effects emerge. If pride recognition is higher in targets that are more clearly defined as high status, then it would raise questions about our interpretation of the present findings. If, however, pride is more readily recognized when shown by explicitly low-status targets, then it would support our account.

The present findings may have implications for the function of the pride experience, as well as its expression. Evidence consistent with a universal pride expression indirectly suggests that the experience of pride may also be universal. If pride were not cross-culturally experienced and displayed, then how could individuals across such diverse cultures agree on its expression? The pride experience thus may have evolved to serve an adaptive function as well. Researchers have suggested that self-esteem functions as a social barometer, or sociometer, to inform individuals of their social status and ensure that they behave in ways that

¹² A third alternative exists as well: some features common to Western and Burkinabe culture could have allowed the pride expression to emerge separately in both cultures as a social construction. We view this explanation as highly unlikely, given both the large disparity between Western and Burkinabe culture and anecdotal evidence for similarities between the pride expression and dominance displays seen in nonhuman primates (de Waal, 1989). However, future research should address this issue by conducting additional pride recognition studies in a range of cultures.

will maintain their status and the acceptance of others (Leary et al., 1995). Given that pride is the emotion most strongly related to self-esteem (J. D. Brown & Marshall, 2001), it may be the affective motivator behind the maintenance and enhancement of selfesteem. Specifically, when individuals experience a success, they feel pride in response, and these feelings promote positive thoughts and feelings about the entire self—leading to the high self-esteem that informs individuals of their increased social value. Interestingly, recent research suggesting that there are two distinct facets of pride—authentic and hubristic—implies that pride may boost self-worth through two distinct personality processes, depending on which facet is experienced. Although "authentic" pride is positively correlated with genuine self-esteem, the more selfaggrandizing, "hubristic" facet is negatively related to self-esteem, but positively related to narcissism, especially when shared variance with self-esteem is statistically removed (Tracy & Robins, 2007b). Thus, a hubristic pride response to success may promote narcissism, rather than genuine self-esteem, which in turn may boost status, but by increasing others' admiration for the proud individual, rather than their liking of him or her (Robins, Tracy, & Shaver, 2001). Both facets of pride are reliably associated with the same nonverbal expression, at least within Western cultures (Tracy & Robins, 2007b), suggesting that they serve the same interpersonal function of signaling increased status to others.

Unanswered Questions

Additional questions regarding the pride expression, some of which were generated by this research, remain unanswered. First, although individuals in Burkina Faso were able to accurately recognize pride, it remains unclear whether they imbue the Dioula word for pride with the same meaning that we associate with the word pride. In fact, even in Western cultures, the word "pride" does not have a single, consistent meaning, as can be seen from the two different Italian translations for pride and the two semantically distinct facets of pride in English (i.e., authentic and hubristic; Tracy & Robins, 2007b). Of importance, the finding that the pride expression generalizes across cultures does not imply that the ways in which individuals value, experience, and respond to the emotion are similar across cultures. An important direction for future research is to examine cultural differences in beliefs about pride and the situations in which it is expressed versus regulated. Future studies should examine, for example, whether the two-facet structure of pride generalizes across cultures, or whether it is an outcome of the way that pride has been elaborated in Western cultures, where considerable emphasis is placed on understanding and enhancing the self. Anecdotal evidence, based on informal conversations with our Burkinabe collaborators, suggests that if only one facet of pride exists in Burkinabe culture, the hubristic facet is the more likely candidate.

Second, although the prototypical pride expression was developed from previous research on preverbal children's behavioral responses to success (Belsky & Domitrovich, 1997; M. Lewis et al., 1992; Stipek et al., 1992; Weisfeld & Beresford, 1982) and new findings suggest that this expression is spontaneously displayed by Olympic athletes from a wide range of cultures in response to victory (Tracy & Matsumoto, 2007), we do not know whether the pride expression typically co-occurs with actual pride experiences in everyday life. An important future study will ma-

nipulate pride and test whether the expression and subjective feeling co-occur. Such research should also examine whether pride has distinct physiological or neural correlates, as has been found for several basic emotions (e.g., Ekman et al., 1983; LeDoux, 1996; Panksepp, 1998). Recent studies have found preliminary evidence for distinct neural patterns associated with self-processes (see Beer, 2007, for a review); these patterns may be relevant to the display and experience of pride. Furthermore, given recent evidence of distinct physiological correlates of shame (Dickerson, Gruenewald, & Kemeny, 2004), it is plausible that pride also has a unique biological substrate.

Third, although pride may have evolved to communicate status-related messages, this presumed adaptive function has not been empirically tested. In future research, we hope to examine whether the pride expression does in fact promote the status of those who show it. In addition, although there is no evidence that any non-human animals show pride in response to success, it would be worth empirically exploring this possibility among other primates that are genetically similar to humans, such as chimpanzees or bonobos. Recent research provides a nonverbal coding scheme for assessing the pride expression (Tracy & Robins, 2007a), which comparative psychologists could use to code for the presence of this expression in other animals as they respond to status-enhancing achievements (e.g., overcoming an attacker).

In summary, we view the present findings as the first evidence in support of Darwin's (1872) claim about pride. Pride is uniquely different, in many ways, from the basic emotions, and even its expression is somewhat different, requiring the body as well as the face. However, these findings suggest that, at least from a behavioral perspective, pride may be as much a part of human nature as any other emotion.

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