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The Evolved Nature of Pride

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Abstract

A large body of research suggests that the self-conscious emotion of pride is a universal and evolved part of human nature, which functions to help individuals navigate their social hierarchies, motivating them to engage in behaviors that allow them to attain and maintain social rank, and communicating to others which group members are deserving of rank attainment and should be targets of social learning. Studies also suggest that there are two distinct facets of pride: authentic and hubristic, associated with distinct forms of self-favorability—self-esteem and narcissism, respectively. Furthermore, each pride facet may function to facilitate the attainment of a distinct form of social rank—prestige or dominance—both of which are viable and likely evolved pathways to rank, power, and social influence.

Key words: pride, evolution, prestige, dominance, hierarchy

Pride is one of the most central emotions shaping human social behavior and group dynamics. It is *the* emotion that motivates people to do what it takes to get ahead and attain social rank. Higher rank promotes greater adaptive fitness than low rank, and a large body of evidence attests to a strong relation between social rank and fitness or well-being across species (e.g., Barkow, 1975; Hill & Hurtado, 1989; von Rueden, Gurven, & Kaplan, 2011). By facilitating the attainment of social rank, pride serves a critical adaptive function. A large body of evidence suggests that humans evolved to experience pride, and that pride is an adaptive part of our affective and behavioral repertoire (Tracy, 2016; Tracy, Shariff, & Cheng, 2010).

Yet pride is different from many other adaptive emotions, like anger, fear, and happiness. In contrast to these "basic" emotions, pride is a "self-conscious" emotion, meaning that its experience requires the activation of self-awareness, and using that self-awareness to focus on one's self-representations. To experience a self-conscious emotion – be it pride, shame, guilt, or embarrassment – a person must use their self-conscious "I"-self to focus on their self-concept or identity – the "me" self, according to James' (1890) distinction. They must then make a self-evaluation – an appraisal of whether their self-concept is currently meeting, exceeding, or failing to meet their goals for their identity, or the kind of person they want to be. For pride, the self-evaluation needs to be in the affirmative; pride occurs when people appraise themselves as meeting or exceeding identity goals.

Pride can thus be understood as an emotional tracking device—an internal mechanism that tells the self when its current behaviors, or external events, put the individual on track to becoming the kind of person they want to become. Correspondingly, an absence of pride tells the self that something is missing, and action must be taken to attain pride and restore self-esteem (Weidman, Tracy, & Elliott, 2016). The person we want to be – our identity – is in turn shaped

by cultural and societal rules and norms; we want to become the kind of person who is valued by our societies (Tracy, 2016; Tracy & Robins, 2004a; Robins, Tracy, & Trzesniewski, 2010). These people are the ones who hold social status, meaning that they are admired and receive deference, and have power and influence over others. Pride is therefore the emotion that tells us when our behaviors, actions, and our global self are as we most want them to be—on track to helping us attain status. A desire for pride, in turn, prompts us to engage in those behaviors that will earn us status. For this reason, pride is functional.

What is Pride?

The pride nonverbal expression. Traditionally, a prominent gold-standard criteria used to determine whether a particular emotion is likely to be evolved is whether it has a distinct, cross-culturally recognized nonverbal expression (e.g., Ekman, 1992b; Tracy & Randles, 2011). Studies conducted over the past 15 years provide strong evidence for a cross-cultural, reliably recognized pride expression (see Figure 1; Tracy & Robins, 2004b; 2007a; 2008a).

The prototypical pride expression involves the body (i.e., expanded posture, head tilted slightly back, arms akimbo with hands on hips or raised above the head with hands in fists) as well as the face (i.e., small smile; Tracy & Robins, 2004b; 2007a), and is reliably recognized and distinguished from similar emotions (e.g., happiness, excitement) by individuals across cultures, including highly isolated, largely preliterate traditional small-scale societies in Burkina Faso and Fiji, where participants had almost no exposure to Western cultural knowledge (Tracy & Robins, 2008a; Tracy, Shariff, Zhao, & Henrich, 2011). Pride-recognition rates in educated U.S. samples range around 80-90%, and pride can be recognized quickly and efficiently from a single snapshot image (Tracy & Robins, 2008b). High levels of recognition for the pride expression have been

documented by several different labs (Cordaro et al., 2019; Beck, Cañamero, & Bard, 2010; Brosi, Sporrle, Welpe, & Heilman, 2016; see Witkower & Tracy, 2019a, for a review).

The recognizable pride expression is also spontaneously *displayed* in pride-eliciting situations (i.e., success) by children as young as three years (Belsky & Domitrovich, 1997; Lewis, Alessandri, & Sullivan, 1992; Stipek, Recchia, & McClintic, 1992), high school students who have performed well on a class exam (Weisfeld & Beresford, 1982), and adult athletes from a wide range of cultures, as well as congenitally blind athletes who could not have learned to show pride through visual modeling (Tracy & Matsumoto, 2008). These findings suggest that the pride expression is a universal human response to success. It is unlikely that the expression would (a) be recognized so consistently, (b) generalize to individuals who could not have learned it through cross-cultural transmission (i.e., films, television, magazines), or (c) be reliably and spontaneously displayed in pride-eliciting situations by those who have never seen others display it, if it were not an innate human universal.

However, the pride expression differs from other highly recognizable and universal emotion expressions in that accurate recognition of pride requires bodily and head components, as well as facial muscle movements. Pride can be recognized at fairly high rates of accuracy from the face and head alone, but accurate recognition does require the presence of an upwards head tilt, which is not the case for other universally recognized expressions (Cordaro et al., 2019; Tracy & Robins, 2004b). This distinction, which also characterizes the shame expression (Izard, 1971; Keltner, 1995; Tracy, Robins, & Schriber, 2009), may be indicative of the unique early evolutionary origins of these two self-conscious emotion expressions; they may be homologous with non-human dominance and submission displays, which involve similar bodily and head movements and less facial behavior (see Tracy, 2016; Tracy & Randles, 2011).

The psychological structure of pride. Scholars have long noted that pride is also unusual in the way it is experienced and conceptualized: it appears to be *not just one thing*. While most contemporary psychological scientists have considered pride to be a positive and socially useful emotion that underlies self-esteem and achievement motivation, religious scholars and philosophers—from Aristotle and Lao Tzu to Thomas Aquinas and the Dalai Lama—have long cautioned against pride's dark or "sinful" side (see Tracy, 2016; Tracy, Shariff, & Cheng, 2010). Partly on the basis of these accounts, researchers have postulated distinct "authentic" and "hubristic" components of the emotion (Lewis, 2000; Tracy & Robins, 2004a; 2007b; Tangney, Wagner, & Gramzow, 1989), and several lines of research support this account.

First, when asked to think about and list words relevant to pride, research participants consistently generate two different categories of concepts, which, based on similarity ratings, empirically form two separate clusters of semantic meaning; see Figure 2. The first cluster (authentic pride) includes words like "accomplished" and "confident," and fits with a pro-social, achievement-oriented conceptualization of pride. The second cluster (hubristic pride) includes words like "arrogant" and "conceited," and fits with a self-aggrandizing, egotistical conceptualization (Tracy & Robins, 2007b). A similar two-cluster pattern also emerged in a study examining semantic conceptualizations of pride in mainland China, among university students who generated pride words indigenously in Chinese (Shi et al., 2015). This cross-cultural replication suggests that the tendency to make conceptual distinctions between authentic and hubristic pride is unlikely to be an artifact of Western culture, and may reflect pride's universal structure.

The second piece of evidence supporting the dual-faceted structure of pride comes from studies asking participants to rate their subjective feelings during a pride experience, or the

feelings that describe their dispositional tendency to feel pride (i.e., trait pride). Factor analyses of these ratings consistently reveal two relatively independent factors, which closely parallel the two semantic clusters. Subsequent analyses demonstrated that the two pride factors are not artifacts of a tendency to group together good vs. bad, activated vs. deactivated, or trait vs. state words (Tracy & Robins, 2007b). These factor analytic findings have been replicated in mainland China and South Korea, using both indigenously derived pride-related words (in Chinese and Korean) and translated versions of English words found to represent authentic and hubristic pride in the U.S. (Shi et al., 2015).

The distinction between these two facets of pride is further supported by studies examining the personality correlates of each facet, as findings suggest that they diverge in numerous ways (see Table 1). At both the trait and state level, authentic pride is positively related to the socially desirable and psychologically adaptive Big Five traits of Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Openness to Experience, whereas hubristic pride is consistently negatively related to the two pro-social traits of Agreeableness and Conscientiousness (Tracy & Robins, 2007b). These distinct personality profiles have been replicated in a Chinese sample (Shi et al., 2015). People high in authentic pride tend to have high explicit and implicit self-esteem, whereas those high in hubristic pride tend to have low implicit and explicit self-esteem, yet score high in narcissism and shame-proneness (Tracy, Cheng, Robins, & Trzesniewski, 2009), consistent with a theoretical distinction between the two prides as correspondent to the distinction between genuine self-esteem and narcissism (Tracy, Cheng, Martens, & Robins, 2011).

The facets also differ in their associations with a range of social behaviors and mental health outcomes; each facet of pride seems to underlie a different way of engaging with the

social world and approaching one's goals, and, perhaps as a result, is linked to divergent mental health outcomes. Individuals high in dispositional authentic pride tend to be low in depression, trait anxiety, social phobia, aggression, hostility, and rejection sensitivity; and high in life satisfaction, relationship satisfaction, dyadic adjustment, and social support; and they report being securely attached to their relationship partners. In addition, lab experiments manipulating authentic pride have found that such experiences increase delay of gratification (Ho, Tong, & Jia, 2016). In contrast, individuals high in dispositional hubristic pride are more likely to experience chronic anxiety; be hostile, aggressive, and un-empathic toward those who are different from them; exhibit a tendency toward interpersonal conflict as well as a range of other anti-social misbehaviors (e.g., drug use, petty crimes); and report lower dyadic adjustment and social support (Ashton-James & Tracy, 2012; Orth, Robins, & Soto, 2008; Tracy, Cheng, Robins, & Trzesniewski., 2009).

Given their divergent personality profiles, it is not surprising that the pride facets are located in different quadrants of the Interpersonal Circumplex (i.e., the independent dimensions of agency and communion; Kiesler, 1983). Although agency is positively linked to both facets, individuals high in communion are prone to authentic pride only; hubristic pride shows a negative relationship with communal traits (Cheng, Tracy, & Henrich, 2010). This distinction is revealed in goal striving as well; both facets are positively related to an approach orientation, but individuals high in dispositional authentic pride vigorously engage in their major life goals and put failures in perspective, whereas those high in dispositional hubristic pride set unrealistically high goals for fame and success, and interpret any positive event as indicative of their own greatness (Carver, Sinclair, & Johnson, 2010).

Consistent with these distinct approaches to interpreting one's achievements, studies suggest that the two pride facets are elicited by distinct cognitive appraisals. Pride occurs when individuals appraise a positive event as relevant to their identity and their goals, and as internally caused (i.e., due to the self; Ellsworth & Smith, 1988; Roseman, 1991; Tracy & Robins, 2004a; Weiner, 1985); the finding that success elicits self-reported pride experiences has been replicated in American and Japanese samples (Imada & Ellsworth, 2011; Tracy & Robins, 2007b). Yet authentic and hubristic pride are further distinguished by subsequent attributions; authentic pride may result from attributions to internal but unstable, specific, and controllable causes, such as effort (e.g., "I won because I practiced"), whereas hubristic pride is more likely to occur from attributions to internal but stable, global, and uncontrollable causes, such as ability (e.g., "I won because I'm great"; Tracy & Robins, 2007b). Studies in China produced findings that replicate these patterns. Based on content coding of Chinese participants' pride descriptions, those who experienced hubristic pride tended to attribute their successes to internal and stable abilities, but *not* to unstable behaviors. Nonetheless, although the effort/ability attribution distinction is one factor determining whether an individual experiences authentic or hubristic pride in response to a success, other factors such as personality and social comparisons are likely to play a role as well, and research is needed to address this issue—to disentangle the cognitive, emotional, and dispositional processes that determine which facet of pride an individual will experience in response to the same success event.

In more recent work, we found that the two facets of pride also show divergent relations with another supposedly deadly sin: greed. Individuals high in dispositional greed were found to experience elevated levels of both authentic and hubristic pride in response to new acquisitions, but shortly after making these purchases, their feelings of authentic pride faded while their

feelings of hubristic pride remained relatively stable (Mercadante & Tracy, in prep.). This pattern emerged across several studies, including longitudinal research that assessed participants' feelings about new acquisitions soon after they were purchased and then tracked changes in these feelings over subsequent weeks. The sharp rise and subsequent decline in pride observed among greedy individuals following acquisitions was largely specific to authentic pride, and held controlling for shared variance with generalized positive affect. Although one might expect the more anti-social, hubristic pride to underlie the constant acquisitiveness seen among those high in greed, these results suggest that greedy individuals use acquisitions as a way of regulating their often-low self-esteem. This pattern was pronounced among greedy individuals with low self-esteem, suggesting that these individuals are dependent on the bursts of authentic pride new acquisitions bring.

Why did Humans Evolve to Experience Pride?

Adaptive benefits of the pride experience. Pride may have evolved to serve the distal function of enhancing social rank—an outcome with clear adaptive benefits—through several distinct paths (see also Tracy et al., 2010). First, the pride experience motivates individuals to strive for achievements in socially valued domains. Pride feelings are pleasurable and thus reinforcing; there is no other emotion that not only makes individuals feel good, but good about *themselves*. Through socialization, children come to experience pride in response to praise for socially valued achievements, first by parents and later by teachers and peers. Eventually, individuals experience pride in response to these accomplishments even without others' evaluations (although positive feedback from others can enhance a pride experience, by making the social value of a given achievement more salient). The reinforcing properties of pride then motivate individuals to seek future achievements; so, without any need for external evaluations

or rewards, individuals strive to develop an identity that coheres with social norms. Those who are successful in this pursuit are rewarded with social approval, acceptance, and increased social status, all of which promote adaptive fitness.

Supporting this account, high levels of generalized pride (i.e., not specifically assessed as authentic or hubristic) cause individuals to demonstrate increased effort and persistence at challenging activities (Sigall & Gould, 1977), and the effects of pride on increased effort cannot be explained by positive mood (Williams & DeSteno, 2008). Similarly, pride experienced after successfully exercising self-control by avoiding temptation predicts viewing self-control goals as more important, and resisting future temptations (Hofmann & Fisher, 2012). There is also evidence that pride promotes prosocial behaviors toward others. In responding to social dilemmas, individuals who were asked to think about pride-eliciting events reported that cooperation was more important, and cooperated more, compared to those asked to think about enjoyment-eliciting events (Dorfman, Eyal, & Bereby-Meyer, 2014). Moreover, when people anticipate feeling proud after making fair decisions about resource allocation in an economic decision-making game, they become more likely to make fair decisions when subsequently interacting with a stranger (van der Schalk, Bruder, & Manstead, 2012). Pride thus motivates a range of behaviors important for becoming a valued group member who abides by social norms and is successful in their most important pursuits: self-regulation, hard work and persistence, cooperation, and an orientation toward fairness and generosity.

In addition to *motivating* socially valued achievements and behaviors, pride promotes high rank through its intrapsychic *informational* properties. According to the "affect as information" hypothesis (Schwarz & Clore, 1983), emotional feelings function, in part, to inform individuals of changes in their environment, and thereby allow them to respond flexibly to

significant events. Building on this account, pride may inform individuals that they merit increased status and group acceptance, thus allowing them to respond accordingly. Given that trait pride (along with shame) is the emotional disposition most strongly related to self-esteem (Brown & Marshall, 2001), pride may serve this informational function through its influence on self-esteem. Researchers have suggested that self-esteem functions as a social barometer, or "sociometer," informing individuals of their social status and thereby ensuring that they behave in ways that maintain their status and others' acceptance, and avoid rejection (Leary, Tambor, Terdal, & Downs, 1995). Pride may be the affective mechanism that leads to increases in self-esteem, which feed into the sociometer.

Supporting this account, long-distance runners who achieved greater training success over the course of a month, and undergraduate students who performed well on an exam, reported greater pride (in this case, authentic pride) in their performance compared to those who had achieved less success in both domains (Weidman et al., 2016). Furthermore, participants who felt less authentic pride regarding their progress reported stronger intentions to adjust their behavior over the subsequent month, presumably in an attempt to increase their likelihood of making progress toward their goals and increasing their pride feelings. Perhaps most important, among those students who felt low pride from a poor exam performance and were consequently motivated to study harder for the next exam, feelings of low pride predicted an improvement on the following exam. This effect held controlling for past exam performance, indicating that the informational effect of pride on achievement goes beyond the information provided by knowledge of one's prior performance.

Yet if pride evolved to serve the distal function of promoting high rank, and authentic pride appears to serve that function by encouraging hard work and persistence following

setbacks, one question that arises is what the function of hubristic pride might be. Why would humans have evolved to experience this antisocial, psychologically dysfunctional kind of pride? The answer to this question likely resides in the Dominance-Prestige account of rank attainment. According to this theory, humans evolved to seek and attain status through two distinct strategies, *dominance* and *prestige*, where dominance is a form of status attained through force, threat, and intimidation; and prestige is a form of status attained through the display of knowledge, valuable skills, and earned respect (Henrich & Gil-White, 2001). Dominant individuals wield power by controlling costs and benefits in many domains, including access to resources, mates, and well-being. They incite fear in subordinates by withholding resources, and subordinates submit by complying with demands or providing deference to avoid further bodily harm or loss of resources. Prestige, in contrast, likely arose in evolutionary history when humans acquired the ability to obtain cultural information from other group members, making it adaptive to selectively attend and defer to the most knowledgeable or skilled others. Prestigious individuals thus acquire power by virtue of their competence and knowledge, and by permitting followers to copy them. Lab studies support this account, showing that among groups of individuals working together, both strategies are spontaneously adopted, and both are strongly associated with emergent social influence in the group (Cheng, Tracy, Foulsham, Kingstone, & Henrich, 2011).

Building on this account, we have argued that the two facets of pride may have separately evolved as the affective mechanisms that, respectively, underpin the dominance and prestige systems (see Cheng et al., 2010; Tracy et al., 2010; Tracy et al., 2020). Specifically, hubristic pride may facilitate the attainment of dominance by motivating individuals to behave in an aggressive and intimidating manner; these behaviors are, in turn, associated with peer

perceptions of dominance (Cheng et al., 2010). Hubristic pride also provides a sense of grandiosity and entitlement that may allow individuals to do what is required to take power rather than earn it, and to feel little empathy for those who get in the way. When individuals experience hubristic pride, they evaluate themselves as better than others, and experience a subjective sense of dominance and superiority. Furthermore, individuals high in hubristic pride tend to be hostile, aggressive, un-empathic toward those who are different from them, and exhibit a tendency toward interpersonal conflict (Ashton-James & Tracy, 2012; Tracy et al., 2009). A recent series of studies provide direct behavioral evidence for this account: individuals high in hubristic pride become willing to lie to exaggerate their performance on task when doing so might help them attain higher status. These individuals did not simply lie anytime they had the opportunity to show off or impress others. Instead, they did so only when facing a direct threat to their status, in the form of collaborating on a task with a partner who had just outperformed them. In contrast, when they expected to work with a partner who had previously underperformed, or when they were unaware of their partner's prior performance (i.e., when their status was not threatened), hubristically proud participants were no more likely to lie about their own performance than were those low in hubristic pride (Mercadante & Tracy, under review). These findings suggest that hubristic pride may motivate anti-social and even immoral behavior, but not indiscriminately—only when such acts might allow for the acquisition of increased rank. These effects were specific to hubristic pride; the same pattern did not emerge for authentic pride, suggesting that only the former is related to engaging in dishonest behavior for the sake of status enhancement.

Authentic pride, in contrast, may facilitate the attainment of prestige by motivating and reinforcing achievements and other indicators of competence, and providing individuals with

feelings of genuine self-confidence that may allow them to comfortably demonstrate social attractiveness and generosity, both of which are associated with peer perceptions of prestige (Cheng et al., 2010). In order to retain subordinates' respect, prestigious individuals must avoid succumbing to feelings of power and superiority. Feelings of authentic pride may be part of what leads these individuals to focus on their achievements without demonstrating a sense of superiority; studies show that authentic pride is positively associated with a graceful form of humility based on appreciating others' value and contributions without feeling badly about oneself (Weidman, Cheng, & Tracy, 2018), and also with the inhibition of aggression and hostility (Cheng et al., 2010). The evidence that both state and trait authentic pride are associated with pro-social behavior, agreeableness, conscientiousness, and voluntary moral action (Hart & Matsuba, 2007; Tracy et al., 2009; Tracy & Robins, 2007b; Verbeke, Belschak, & Bagozzi, 2004) is consistent with this account.

Several studies provide direct support for these theorized associations between each facet of pride and each status strategy (e.g., Cheng et al., 2010). First, in a study assessing dispositional levels of the two pride facets and dominance and prestige, individuals prone to authentic pride were found to rate themselves as highly prestigious, whereas those prone to hubristic pride rated themselves as higher in dominance. In a second study this pattern was replicated using peer ratings of dominance and prestige; varsity athletes rated the extent to which team members used each strategy. Individuals high in self-reported authentic pride were viewed by their teammates as prestigious (but not dominant), whereas those high in self-reported hubristic pride were viewed as dominant (but not prestigious).

It also makes sense that an affective mechanism like pride would be a functional means for individuals to determine (unconsciously or consciously) which strategy to use. Although both

dominance and prestige are viable strategies for acquiring high rank, the effectiveness of each varies with individual attributes (e.g., physical size, skills) and the situation in which it is used. However, as is the case for many psychological processes, conscious, deliberate analysis about which strategy to pursue in a given situation is likely to be costly, as such mental computations are inefficient, error-prone, and potentially hampered by metacognitive awareness (e.g., doubts about one's competence at, or the social appropriateness of, performing the fitness-maximizing behavior). An automatic affective mechanism propelling the appropriate response in each context, occurring under the radar of any metacognition, would free up valuable mental resources (Plutchik, 1980). Affect programs guided by automatic analyses of the relative costs and benefits of potential responses to events are thought to have evolved to promote quick behavioral and cognitive responses to recurrent, evolutionarily significant events (Cosmides & Tooby, 2000). Pride thus may be the automatic affect program that allows individuals to cope most effectively with opportunities for rank attainment, and the two facets of pride may have separately evolved to guide behaviors oriented toward the attainment of dominance or prestige specifically (Cheng et al., 2010; Tracy et al., 2010).

Adaptive benefits of the pride nonverbal expression. Across species, a variety of adaptive benefits are accrued by those who effectively send and receive signals of high rank through readily identified nonverbal displays. Individuals who can successfully communicate their own deservedness of social rank are likely to receive increased social influence and attention (Cashdan, 1998; Cheng et al., 2013; Foulsham, Cheng, Tracy, Henrich, & Kingstone, 2010), a greater allocation of potentially scarce resources (Brown & Maurer, 1986), higher quality mates (e.g., Apicella, Feinberg, & Marlowe, 2007; von Rueden & Jaeggi, 2016), and deference (Sell, Cosmides, & Tooby, 2014). Conversely, an ability to recognize high rank in

others can help avoid potentially costly agonistic encounters (Ellyson & Dovidio, 1985; Stirrat, Stulp, & Pollet, 2012) as well as facilitate social learning opportunities (Birch, Akmal, & Frampton, 2010; Chudek, Heller, Birch, & Henrich, 2012; Martens, Tracy, & Shariff, 2012), the identification of desirable mates (Fink, Neave, & Seydel, 2007; Havlicek, Roberts, & Flegr, 2005), and power maneuvering (Muller & Mazur, 1997). It is therefore likely that humans evolved specific ways of communicating their deservedness of high rank to others, possibly through nonverbal signalling.

Given the evidence reviewed above suggesting that the pride experience functions to promote and facilitate increases in social rank, as well as evidence that the pride expression is spontaneously displayed after successes in valued domains, which are likely to promote rank (Tracy & Matsumoto, 2008; Witkower, Mercadante, & Tracy, in prep), the nonverbal expression of pride may have evolved, in part, to communicate information about an individual's increasing social rank to others (Fessler, 1999; Tracy & Robins, 2007a; Tracy et al., 2010; Witkower, Mercadante, & Tracy, 2020).

The pride expression is likely to have phylogenetic origins in more ancient non-human dominance displays, which often involve bodily and head movements that are similar to human displays of pride. For example, high-ranking chimpanzees have been observed to show "inflated" or "bluff" displays after defeating a rival and prior to an agonistic encounter; these include behaviors such as arms raised and body expanded (de Waal, 1989a; Martens, Tracy, Cheng, Parr, & Price, 2010). The chest-beating intimidation displays of mountain gorillas (Schaller, 1963) and the "strutting confident air" characteristic of dominant catarrhine monkeys (Maslow, 1936) also share behavioral similarities with the expansive components of the human pride expression. In addition to these mammals, expansive nonverbal behaviors are used to signal high rank in birds

(Ballentine, Searcy, & Nowicki, 2008), arachnids (deCarvalho, Watson, & Field, 2004), reptiles (Jara & Pincheira-Donoso, 2015; Jones, 2017; Greenberg & MacLean, 1978), and fish (Forsatkar, Nematollahi, & Brown, 2016).

Furthermore, a body of evidence suggests that pride expressions serve a similar signaling function in humans, as they are reliably perceived as communicating high rank (Shariff & Tracy, 2009, Shariff, Tracy, & Markusoff, 2012; Tracy et al., 2013). A series of studies using implicit measures found that observers demonstrated an automatic and unavoidable tendency to perceive pride displays as conveying high status, both when pride was compared with low-status emotions and when it was compared with emotions less theoretically relevant to status (Shariff & Tracy, 2009). This association also emerged when pride was compared with happiness and anger expressions, suggesting that the association between pride and high status cannot be attributed to the positive valence of the pride expression, nor to a tendency to view certain emotions (like anger) as particularly powerful. In an additional study, the implicit association between high status and pride emerged even when pride displays were compared with displays in which the actor's face was neutral but his arms were extended from his body, making him appear larger. This result demonstrates that the association between pride and high status is not due merely to the increased size or amount of space taken up by those showing pride.

The automaticity of the association between pride displays and high-status concepts is relevant to our evolutionary account of pride displays; if the expression evolved as a pre-linguistic, pre-conscious form of communication, then its perception is a task that animal brains have been completing for millions of years, and likely occurs through low-level cognitive processes that can elicit adaptive behavioural responses without any need for conscious reflection (Bargh & Pietromonaco, 1982). Furthermore, if understanding pride's functional

message required conscious deliberation, the expression would be less effective as a rapid source of information. More practically, these findings suggest that the human ability to rapidly and involuntarily assess the social status of others may be due, in part, to humans' ability to automatically recognize and interpret displays of pride.

Perhaps most important for our account of pride as an evolved status signal is evidence that the automatic association between pride displays and high-status concepts generalizes across diverse populations. We replicated several of the IAT studies reviewed above in a population of villagers living in a small-scale traditional society on a remote island in Fiji, essentially cut off from the rest of the global population (Tracy et al., 2013). These studies found that the pride expression is strongly implicitly associated with high status among both highly educated North American university students and Fijian villagers, despite the fact that Fijians hold a set of cultural practices and rituals that suppress personal status displays by individuals of both high and low ascribed statuses. That is, Fijian cultural rules prohibit any nonverbal behaviours that communicate an individual's belief that he or she deserves increased status, making Fiji a "tough test" of the question of whether pride is a universal status signal. If the pride display did not evolve as a status signal, there are few cultural explanations as to why status and pride would have become tightly interconnected in Fiji. As a result, the finding that pride displays are strongly and automatically associated with high status in Fiji provides compelling support for the evolutionary account.

Which kind of status does pride signal? The pride expression communicates both authentic and hubristic pride, and observers have a difficult time disentangling the two expressions from a single static display, unless contextual information is included (Tracy & Prehn, 2012), or the expresser is observed in motion, showing the display in a dynamic manner

(Nelson & Russel, 2014; Lange & Crusius, 2015). Given that the two facets of pride appear to have divergent associations with prestige and dominance, respectively, one might therefore expect the pride display to communicate both forms of social rank. However, recent evidence suggests that the pride expression is more strongly associated with prestige than dominance (Witkower et al., 2019).

First, the pride expression triggers automatic associations with concepts related to the possession of knowledge and expertise (Birch et al., 2010; Martens, 2014), suggesting that the form of status associated with these displays is the more prestigious variety. More direct evidence comes from studies testing whether the critical nonverbal behaviors associated with the pride expression are judged as conveying prestige versus dominance (Witkower et al., 2019). Across a wide range of targets posing various nonverbal expressions, and a variety of participants judging them, displays that included expansive posture, a slight smile, and an upwards head tilt – that is, all components of the prototypical pride expression—were perceived as highly prestigious, but *not* as highly dominant.

Further supporting this account, Witkower and colleagues (2019) coded the nonverbal behaviors spontaneously displayed by individuals engaging in a collaborative group task, among which hierarchies had naturally emerged. Individuals who were perceived by their peers in the group as prestigious tended to display expressions that included an upwards head tilt, slight smile, and expansiveness. In contrast, those perceived as dominant displayed expansiveness but no smile or upwards head tilt. Furthermore, displaying these same behaviors was associated with the attainment of social rank in the group—based on peer ratings and ratings made by outside observers—and the effect of pride displays on increased rank was mediated by perceptions of prestige but not dominance. These findings thus suggest that the pride expression communicates

an individual's prestige, which in turn results in conferrals of social rank—but that this same display does not promote perceptions of dominance. This same research suggests that there is a distinct nonverbal display that does reliably communicate dominance, across cultures, and this display shares certain features with pride (i.e., expansive posture) but not others (i.e., in dominance there is no smile, the head is tilted downward rather than upward; see Witkower et al., 2019; Witkower & Tracy, 2020; Witkower et al., under review).

Conclusions and Future Directions

The research reviewed in this chapter suggests that pride is likely to be an evolved and adaptive emotion in humans, which functions to help individuals navigate their social hierarchies, by motivating them to engage in behaviors that allow them to attain and maintain social rank and communicating to others which group members are deserving of higher rank and should be targets of social learning. Furthermore, because there are two distinct ways to experience pride, this emotion is related to both evolved strategies for rank attainment: dominance and prestige.

Although numerous directions for future work lay ahead, we hope that this review has laid the groundwork for such endeavors. The past several decades have seen a major shift in researchers' understanding of and attention toward this emotion; prior to the 1990s (e.g., Tangney & Fischer, 1995), pride was only rarely included in psychological research, and only in the mid 2000s did scholars begin to consider it an emotion of equal importance and biological foundation as the basic emotions of anger, fear, and sadness (e.g., Tracy & Robins, 2004a; 2004b). Today, however, psychological scientists regularly study pride and include it in a wide range of research endeavors (see Weidman, Steckler, & Tracy, 2017), making it likely that our understanding of this emotion will only increase moving forward. We expect to see continued

growth in both of these areas moving forward, along with a more complete elucidation of the affective pathways underlying the attainment of social rank and the various ways in which individuals navigate their hierarchies.

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Table 1. Correlations of Authentic and Hubristic Pride with Theoretically Related Traits and Behaviors.

Domain	Authentic Pride	Hubristic Pride
Self-evaluation		
Explicit Self-Esteem[f]	.50*	-.14*
Implicit Self-Esteem[g]	.26*	-.10
Self-Efficacy[e]	.62***	-.06
Narcissism[f]	.32*	.22*
Shame-Proneness[f]	-.28*	.09*
Big Five Personality Factors		
Extraversion[f]	.39*	.11
Agreeableness[f]	.19*	-.26*
Conscientiousness[f]	.38*	-.25*
Emotional Stability[f]	.28*	-.05
Openness[f]	.29*	.01
Attributions for Success		
Effort Attributions[f]	.17*	-.10*
Ability Attributions[f]	.02	.09*
Interpersonal Emotions and Functioning		
Authenticity[g]	.46*	-.11*
Envy[e]	.05	.27***

Fear of Negative Evaluation[e]	-.33***	.17***
Petty Crimes and Misbehaviors[g]	-.05	.20*
Aggression[g]	-.20*	.26*
Dyadic Adjustment[g]	.24*	-.11*
Prejudice[a]	-.12***	.29***
Peer-Rated Dominance[c]	.01	.36**
Peer-Rated Prestige[c]	.33*	-.01
Goal Pursuit		
Reward Sensitivity[b]	.27***	.21***
Punishment Sensitivity[b]	-.15***	-.14***
Self-Control[b]	.31***	-.24***
Perseverance[b]	.41***	-.18***
Intrinsic Motivation[d]	.37***	-.11*
Extrinsic Motivation[d]	.05	.10*

Note. References for each effect are indicated with superscripts, as follows: [a]Ashton-James & Tracy, 2012; [b]Carver et al., 2010; [c]Cheng et al., 2010; [d]Damian & Robins, 2013; [e]Dickins & Robins, 2020; [f]Tracy & Robins, 2007c; [g]Tracy et al., 2009.
*$p < .05$
**$p < .01$
***$p < .001$

Figure 1. Prototypical pride expressions, with arms raised (left), and arms akimbo and hands on hips (right). Both displays are reliably recognized at high rates in educated Western samples and by members of isolated small-scale traditional societies.

Figure 2. A: Visual map of links among pride-related constructs produced by pathfinder analysis. B: Dendrogram of hierarchical structure of pride-related constructs, produced by cluster analysis.