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## A Naturalist's View of Pride

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### Abstract

Although pride has been central to philosophical and religious discussions of emotion for thousands of years, it has largely been neglected by psychologists. However, in the past decade a growing body of psychological research on pride has emerged; new theory and findings suggest that pride is a psychologically important and evolutionarily adaptive emotion. In this article we review this accumulated body of research and argue for a naturalist account of pride, which presumes that pride emerged by way of natural selection. In this view, pride is prevalent in human life because of the functional and adaptive role it has played in the attainment, maintenance, and communication of social status throughout our evolutionary history.

### Keywords

emotion, pride, self-conscious emotion, social status

At first glance the emotion of pride appears to have been held in an almost uniformly negative regard throughout history. Perhaps most famously the biblical proverb holds that “pride goes before destruction, a haughty spirit before a fall” (16:18). This view was widespread among early Christian thinkers: both Augustine and Aquinas saw pride as the most fundamental of all sins (O’Donnell, 2005; Pope, 2002); the 6th century Pope Gregory variously described pride as “the queen of sin,” “the beginning of all sin,” and even “the root of all evil” (Baasten, 1986); and, of course, to Dante it was the deadliest of the Seven Deadly Sins, beating out more innocuous transgressions such as envy and wrath (Alighieri, 2003). This intense disdain for pride is not limited to the Judeo-Christian tradition; in Buddhism, pride is one of the “ten fetters” that shackles an individual to *samsara*, an endless cycle of suffering (Akira, 1990). Similarly, Chinese philosopher Lao Tzu wrote in the *Tao Te Ching* (circa 6th century BCE) that “those who glorify themselves have no merit, those who are proud of themselves do not last” (Tzu, 1997, 24:3).

Despite this overwhelmingly negative appearance, however, a deeper analysis of the philosophical and religious literature reveals a muddled but undeniable distinction between two related pride concepts which have since become etymologically, and perhaps psychologically, conflated. Aristotle (1925) admired the “proud man,” and viewed pride as “the crown of

the virtues” (a stark contrast to Gregory’s “queen of sin” metaphor). Aristotle saw virtue in claiming what one deserved and, like Nietzsche (2000), despised individuals too humble to recognize their own worth, calling them “little-souled.” However, much as undue humility was condemned by these philosophers, so too was undue or excessive pride (*hyperephanos*, literally “over-appearing”)—and this ultimately leads to an important distinction. The virtuous pride (*megalopsuchia*, or “proper pride”) is a pride that is aligned with one’s merits. Claiming pride beyond one’s merits has long been viewed as vanity; this is the sinful pride decried by those quoted earlier. This distinction appears repeatedly from many sources, and seems to capture an essential bifurcation between two distinct kinds of pride. Even the Dalai Lama echoes Aristotle’s denunciation of both excessive and deficient pride, stating that “excess—both in terms of exaggeration and devaluation—are equally destructive” (Dalai Lama & Cutler, 1998).

Despite this longstanding distinction, the proper and excessive concepts of pride are, in a number of Indo-European languages, represented by the same word.<sup>1</sup> The English word *proud* is thought to have originated in the 11th and 12th centuries from the old French *prud* or *prouz*, which meant brave or valiant. At that time, the French attached no negative meaning to the term, and the Norman knights of the era frequently

applied to themselves. In fact, it may be this usage that led to the later negative connotations associated with the word *proud* when it was taken up by the Anglo-Saxons, who viewed their invading army as haughty and self-inflated. In other Indo-European languages words for pride originate from the non-verbal display that accompanies the emotion. In Welsh, for instance, *balch* likely originates from the verb “to swell”, and in modern Greek, *kamari* can be traced to words relating to puffing out one’s chest. These etymological connections underscore the tight relation between the experience of pride and its prototypic expression, a relation we examine later.

Psychological conceptions of pride have a considerably briefer history than these linguistic, religious, and philosophical views. Although Darwin (1872) included pride in his classic work on emotion expression and argued for a distinct pride nonverbal expression, most subsequent emotion researchers either omitted pride from lists of “basic” emotions (e.g., Ekman, 1992; Izard, 1971; Shaver, Schwartz, Kirson, & O’Connor, 1987), or included it but did not devote considerable research attention to uncovering its subjective experience, cognitive antecedents, nonverbal expression, action tendencies, or relevance to the self. Pride is a “self-conscious” emotion, meaning that, like emotions such as shame and guilt, its experience requires a self-evaluation, and thus the capacity for self-awareness (allowing for an executive “I” to evaluate the self) and self-representations (the “me” self that is evaluated; Buss, 2001; James, 1890; Tracy & Robins, 2004a).<sup>2</sup> Like all self-conscious emotions, pride is generally viewed as a “secondary” emotion (Lewis, Sullivan, Stangor, & Weiss, 1989), and even among self-conscious emotions pride has been something of an underdog. In Tangney and Fischer’s (1995) volume on self-conscious emotions, not a single chapter reviewed the extant research or theory on pride, and only 4 of the 20 chapters mentioned it.

However, in the past decade, a growing body of research on pride has emerged; new theories and findings suggest that pride is a psychologically important and evolutionarily adaptive emotion (e.g., Lewis, 2000; Tiedens, Ellsworth, & Mesquita, 2000; Tracy & Robins, 2007a; Williams & DeSteno, 2008). These studies tend to take a social-functionalist approach toward pride, treating it as an evolutionary adaptation, and, like all self-conscious emotions, as having evolved to serve specifically social functions (Tracy & Robins, 2004a). In this article, we review theory and findings that have accumulated via this approach, and use them to present a naturalist account of pride, akin to James’ naturalist account of the self. James (1890) assumed that conscious mental life “emerged by way of natural selection because it gave our species certain survival, and therefore reproductive, advantages” (Flanagan, 1991, p. 52). If this assumption is correct, it should apply to many of those mental phenomena that emerge from or are dependent on the self, including self-conscious emotions like pride.

A major tenet of the naturalist approach is that mental processes are evolved faculties, so we have adopted Tinbergen’s (1963) approach toward examining an evolved faculty of the mind. In this view, delineated by Pinker (2002, p. 70), researchers

are encouraged to examine a given mental phenomenon at the following levels: (1) “its real-time operation (how it works proximately, from moment to moment);” (2) “how it develops in the individual;” (3) “its function (what it accomplishes in an ultimate, evolutionary sense);” (4) “how it evolved in the species;” and (5) “how it is implemented in neural tissue” (see also Fraley, Brumbaugh, & Marks, 2005; Van Vugt, Hogan, & Kaiser, 2008). Thus, in the sections that follow, we review research on pride at each of these levels.

## Proximal Approach: The “Real-Time Operation” of Pride

As the philosophical and religious accounts reviewed above make evident, pride has long been viewed as too broad a concept to be considered a single, unified emotion. Within the psychological literature too, researchers have argued that there may be more than one kind of pride (Lewis, 2000; Tangney, Wagner, & Gramzow, 1989), largely because it has been theoretically linked to markedly divergent psychological outcomes, ranging from achievement and altruism to relationship conflict and aggression (Kernberg, 1975; Lewis, 2000; McGregor, Nail, Marigold, & Kang, 2005; Morf & Rhodewalt, 2001). Thus, in analyzing pride at the proximal level—its “real-time, day-to-day operation”—we must account for different kinds of pride experiences.

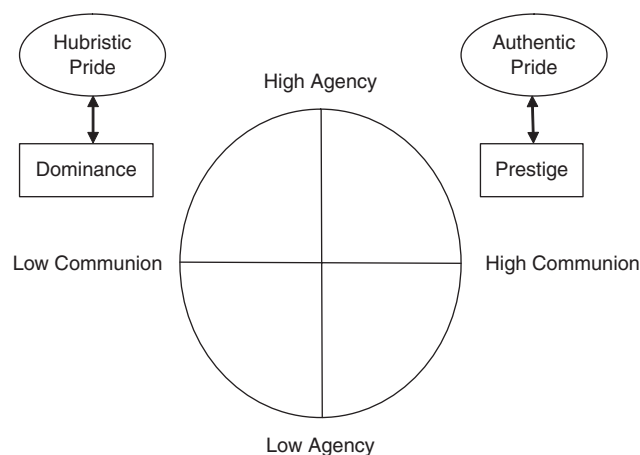
### *A Tale of Two Facets*

Several researchers have addressed the apparently dual-faceted nature of pride by postulating distinct “authentic” and “hubristic” components of the emotion (Lewis, 2000; Tangney et al., 1989; Tracy & Robins, 2004a).<sup>3</sup> Indeed, findings from several lines of research support this two-facet account (Tracy & Robins, 2007d). First, when asked to think about and list words relevant to pride, research participants consistently generate two very different categories of concepts, which empirically form two separate clusters of semantic meaning. The first cluster (authentic pride) includes words such as “accomplished” and “confident,” and fits with the pro-social, achievement-oriented conceptualization of pride. The second cluster (hubristic pride) includes words such as “arrogant” and “conceited,” and fits with a more self-aggrandizing conceptualization. Second, when asked to rate their subjective feelings during an actual pride experience, participants’ ratings consistently form two relatively independent factors, which closely parallel these two semantic clusters. Third, when asked to rate their general dispositional tendency to feel each of a set of pride-related emotional states (i.e., trait pride), participants’ ratings again form the same two factors. Further analyses have demonstrated that the two pride factors are not artifacts of participants’ tendency to group together good versus bad, activated versus deactivated, or trait versus state words.

How might we understand the distinction between these two facets of pride? Studies examining the relation between pride and personality have shown that the facets have highly divergent personality correlates (Tracy, Cheng, Robins, & Trzesniewski, 2009; Tracy & Robins, 2007d). This finding may help resolve the longstanding question of whether pride is

psychologically healthy and virtuous or narcissistic and “sinful.” Contradictory conceptions may exist because, at both the trait and state level, one facet is associated with a positive personality profile and pro-social behaviors, whereas the other is associated with a more negative profile and antisocial behaviors. Specifically, authentic pride is positively related to the socially desirable and generally 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. In addition, authentic pride is positively related to both explicit and implicit self-esteem, whereas hubristic pride is negatively related to implicit and explicit self-esteem, yet positively related to narcissism and shame-proneness. Indeed, the two facets of pride seem to lie at the affective core of the distinction between narcissism and self-esteem, and may account for research suggesting that these two forms of self-positivity lead to highly divergent outcomes.

Specifically, hubristic pride may be what underlies narcissistic aggression, hostility, interpersonal problems, and other self-destructive behaviors (Baumeister, Smart, & Boden, 1996; Bushman & Baumeister, 1998; Campbell, 1999; Kernberg, 1975; Kohut, 1977; Morf & Rhodewalt, 2001). In contrast, authentic pride may be what promotes positive behaviors in the achievement domain (Weiner, 1985; Williams & DeSteno, 2008) and contributes to pro-social investments and the development of a genuine and deep-rooted sense of self-esteem (Herrald & Tomaka, 2002; Lazarus, 1991; Verbeke, Belschak, & Bagozzi, 2004). In fact, at the trait level (i.e., pride-proneness), the two facets show divergent relations with constructs relevant to mental health, social behavior, and relationship functioning—and this divergence almost mirrors the divergence between the external correlates of genuine self-esteem versus narcissism (Tracy et al., 2009). Specifically, individuals high in dispositional authentic pride tend to be low in depression, trait anxiety, social phobia, aggression, hostility, and rejection sensitivity; and high in relationship satisfaction, dyadic adjustment, and social support, and they typically are securely attached to their relationship partners. In contrast, individuals high in dispositional hubristic pride are more likely to experience chronic anxiety, engage in aggression, hostility, and a range of other anti-social misbehaviors (e.g., drug use, petty crimes), and tend to be low in dyadic adjustment and social support. Given these almost antagonistic personality profiles, it is not surprising that the pride facets are located in different places on the Interpersonal Circumplex (i.e., the independent dimensions of agency and communion; Kiesler, 1983; see Figure 1). Although individuals high in agency are prone to experiencing both facets of pride, individuals high in communion are only prone to authentic pride; hubristic pride shows a negative relationship with communal traits (Cheng, Tracy & Henrich, 2009). Together these findings suggest that authentic pride is the pro-social, achievement-oriented facet of the emotion, whereas hubristic pride is the more anti-social and aggressive facet, which is related to narcissistic self-aggrandizement and may, in part, be a defensive response to underlying feelings of shame.



**Figure 1.** Locating pride on the interpersonal circumplex.

Yet it is important to note that, although hubristic pride maps closely onto narcissism and authentic pride onto self-esteem, both facets of pride are distinct from these larger personality constructs (Tracy et al., 2009). Specifically, even after controlling for self-esteem, authentic pride is positively related to authenticity, dyadic adjustment, and relationship satisfaction, and negatively to rejection sensitivity, Machiavellianism, aggression, trait anxiety, and depression. Similarly, even after controlling for narcissism, hubristic pride is negatively related to implicit self-esteem and authenticity, and positively related to rejection sensitivity, trait anxiety, Machiavellianism, aggression, and misbehavior. Hubristic pride also predicts several constructs that are theoretically related to narcissism but which tend not to show predicted correlations with standard measures of narcissism (e.g., the Narcissistic Personality Inventory; Raskin & Terry, 1988): low implicit self-esteem, dyadic maladjustment, and low perceived social support. Thus, although authentic and hubristic pride are major components of genuine self-esteem and narcissism respectively, they cannot be reduced to state forms of these broader constructs.<sup>4</sup>

These distinctions between the two facets may also account for cultural differences in views of pride. Although pride is a highly valued and sought emotion in many Western individualistic cultures (i.e., Australia, the Netherlands, United States), it is viewed as a negative or undesirable emotion in several more collectivistic cultures (i.e., China, Spain, Taiwan; Eid & Diener, 2001; Mosquera, Manstead, & Fischer, 2000). One explanation for this distinction is that, in collectivistic cultures, the predominant conceptualization of pride may be tilted more toward the hubristic facet, whereas in individualistic cultures, which place value on the individual over the group, the predominant conceptualization may be more tilted toward the authentic facet. Alternatively, both facets of pride may be well accepted and valued in collectivistic cultures—as long as these pride experiences are about one’s group instead of one’s individual self (Hofstede, 1980; Markus & Kitayama, 1991). In fact, in a



study comparing pride in China and the US, Chinese participants reported feeling more positively about pride experiences that resulted from others' accomplishments than from their own (Stipek, 1998). Recent research suggests that collective, or group-level, pride can be authentic or hubristic, but differs from individual-level pride in that it is elicited by collective, rather than personal, self-representations (i.e., when a member of the individual's social group succeeds; Pickett, Gonsalkorale, Robins, & Tracy, 2008).<sup>5</sup>

Finally, one of the most important questions for a proximal-level analysis of any phenomenon is *cause*; that is, what is the immediate proximal cause of the given mental process? Importantly, this is not a question of ultimate evolutionary—or distal—cause (i.e., *why* do humans experience pride?), but rather of the day-to-day real-world processes that tend to elicit the given mental event. Emotion researchers have shown that specific emotions are uniquely caused—i.e., elicited and distinguished from each other—not on the basis of distinct events, but rather by the ways in which those events are interpreted, or *appraised*. Thus the same event can elicit two very different emotions, depending on how it is appraised. Pride, in particular, is elicited when individuals appraise a positive event as relevant to their identity (i.e., their most important self-representations) and their goals for their identity (i.e., their ideal self-representations), and as internally caused—that is, due to the self (Ellsworth & Smith, 1988; Lewis, 2000; Roseman, 1991; Tracy & Robins, 2004a; Weiner, 1985).

Authentic and hubristic pride are further distinguished by subsequent attributions; authentic pride seems to result from attributions to internal but unstable, specific, and controllable causes, such as effort (“I won because I practiced”), whereas hubristic pride results from attributions to internal but stable, global, and uncontrollable causes, such as ability (“I won because I’m great”). One study supporting these links found that individuals who were told to attribute a hypothetical success experience (i.e., a positive, identity-relevant and identity-goal congruent event) to their hard work (unstable, specific attribution) expected to feel authentic pride in response, whereas those told to attribute the same success to their stable ability expected to experience relatively higher levels of hubristic pride. Another study found that individuals who tend to make internal but unstable and controllable attributions for a wide range of events also tend to be dispositionally prone to authentic pride, whereas those who tend to make internal but stable and uncontrollable attributions tend to be more prone to hubristic pride (Tracy & Robins, 2007d). Thus, authentic pride is more closely linked to attributions to effort, hard work, and specific accomplishments, whereas hubristic pride is more closely linked to attributions to talents, abilities, and global positive traits (Verbeke et al., 2004).

### *The Nonverbal Display of Pride*

In addition to examining the intrapsychic, subjective pride experience, a proximal-level analysis must also examine how pride

is experienced and communicated interpersonally. Somewhat surprisingly, despite a historical emphasis in the emotion literature on identifying distinct, recognizable nonverbal expressions for each emotion (e.g., Ekman, Sorenson, & Friesen, 1969; Izard, 1971) and Darwin's (1872) speculation that pride has a recognizable expression, it was not until this decade that studies began to empirically address this issue.<sup>6</sup>

A number of studies using a range of methods have now shown that pride is associated with a reliably recognized nonverbal expression, which may be universal and innate (see Figure 2). The prototypical pride expression includes 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, 2007c), and is reliably recognized and distinguished from similar emotions (e.g., happiness, excitement) by individuals from the US, Italy, and Burkina Faso, the last of whom were members of highly isolated, preliterate, small-scale societies, who had almost no exposure to the Western world (Tracy & Robins, 2008b). Pride-recognition rates are typically around 80–90%, comparable to recognition rates found for the more established basic emotions; and, like the basic emotions, pride can be recognized quickly and efficiently from a single snapshot image (Tracy & Robins, 2008a).

Importantly, the recognizable pride expression is also spontaneously *displayed*, in pride-eliciting situations (i.e., success), by children as young as 3-years-old (Belsky, Domitrovich, & Crnic, 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 Olympic athletes from a wide range of cultures, including athletes who are congenitally blind (Tracy & Matsumoto, 2008). Together, these findings suggest that the pride expression may be a human universal. It is unlikely that recognition would be so robust, or would generalize to individuals who could not have learned it through cross-cultural transmission (i.e., films, television, magazines), if it were not a species-constant phenomenon. Furthermore, the finding that individuals from a diverse range of cultures—including blind individuals who have never seen others show the pride expression—spontaneously display pride in response to success suggests that the reason for the expression's ubiquitous recognition is that it is universally displayed.

One question that arises, however, in the face of evidence for two distinct pride facets, is whether each facet is associated with a distinct nonverbal expression. Several studies have addressed this issue by asking participants to identify different versions of the pride expression (e.g., versions with arms raised above the head versus with arms akimbo and hands on hips) using either authentic or hubristic pride labels. All recognizable variants (i.e., expressions reliably identified as “pride”) were relatively equally likely to be identified as authentic or hubristic—suggesting that the same expression conveys both facets (Tracy & Robins, 2007c). Yet anecdotal evidence would suggest otherwise; observers seem to believe that they know which facet of pride a given proud individual is experiencing. One explanation

**Expression A****Expression B**

**Figure 2.** Prototypical pride expressions. Expression A is slightly better recognized than Expression B, but both are reliably identified as pride. Reprinted from Tracy and Robins (2004b).

for this apparent discrepancy is that everyday judgments of authentic and hubristic pride are made on the basis of expressions combined with contextual information about the situation or the person, providing some index of whether the pride is merited (e.g., did the individual experience a success?) and what kinds of attributions were made for the causal event.

Supporting this account, new research from our lab suggests that observers can reach agreement on authentic versus hubristic pride judgments of pride expressions when relevant contextual information is provided (Tracy & Prehn, 2009). Specifically, if observers are informed that an individual showing pride experienced a success, and that he/she attributes the success to his/her ability, observers tend to label the individual's pride as hubristic. In contrast, if the proud individual attributes the success to his/her effort, observers are more likely to label the expression as authentic pride. Interestingly, if these attributions are made by an omniscient narrator rather than the target individual—that is, if information about the cause of success appears to be objective rather than subjective—observers tend to label the expression as authentic regardless of whether success was due to effort or ability. This finding suggests that the two facets are not simply distinguished on the basis of attributions, but rather that social norms of modesty also play a role. Future work is needed to determine the full set of contextual factors that allow for these distinctions, and to examine the extent to which these factors generalize beyond North American culture. At present, extant research converges on the finding that the de-contextualized pride expression is not sufficient to produce a reliable judgment of one facet or the other.

Overall, then, a fairly clear picture of the day-to-day operation of pride has emerged in the literature (see Tracy & Robins, 2007b). Given that the proximal level of analysis is where most social-personality psychological research begins, and the psychological study of emotions has traditionally been located primarily within social-personality, it is not surprising that this is the level at which we best know pride. However, new advances at each of the other levels are providing a more complete understanding of pride, as described in the following sections.

### Developmental Approach: The Ontogeny of Pride

Research on pride at the ontogenetic level is somewhat limited, but a number of studies have assessed the display, recognition, and understanding of pride in children, so a preliminary portrait of the emotion's developmental trajectory has emerged. Like all self-conscious emotions, pride first appears later in the course of development than basic emotions like fear and joy—around 3 years of age, compared to the first nine months of life for some basic emotions (e.g., Belsky & Domitrovich, 1997; Campos, Barrett, Lamb, Goldsmith, & Stenberg, 1983; Lewis et al., 1992; Stipek et al., 1992). This finding is based on studies that give young children a seemingly difficult task they can accomplish (i.e., place them in a pride-eliciting situation), and compare their behavioral and verbal responses after successful completion versus failure, or after successful completion in easy versus difficult conditions (e.g., Belsky & Domitrovich, 1997; Lewis et al., 1992; Stipek et al., 1992). Behavioral components of the pride expression and verbal indicators of pride tend to be shown

in these situations by children who have reached 2.5–3 years of age, but not by younger children, and not in shame-inducing (i.e., failure) situations or easy success conditions.

The capacity to understand pride emerges somewhat later than its (assumed) experience. The earliest-emerging form of understanding is the ability to recognize the pride nonverbal expression, which first appears when children reach the age of 4 years (Tracy, Robins, & Lagattuta, 2005)—the same age at which they begin to show accurate recognition of most other expressions, such as surprise and sadness. In contrast, the ability to understand the situations and contexts in which pride is elicited seems to develop considerably later. Several studies have shown that 7-year-olds have difficulty understanding that pride should be attributed to individuals whose success is due to internal (e.g., effort/ability) but not to external (e.g., luck) factors (Graham, 1988; Graham & Weiner, 1986; Harris, Olthuf, Terwogt, & Hardman, 1987; Kornilaki & Chloverakis, 2004; Thompson, 1989). However, by age 9 or 10, children can make the appropriate attributional distinctions, and become more likely to grant pride only to individuals who are the cause of their own success (Kornilaki & Chloverakis, 2004; Thompson, 1989).

The developmental trajectory of pride proposed here is consistent with the expectation that certain cognitive capacities are pre-requisites for the experience of any self-conscious emotion: self-awareness, stable self-representations, comparisons between one's own behavior and external standards, and internal attributions (Lagattuta & Thompson, 2007; Lewis, 2000; Tracy & Robins, 2004a). By the age of 3, children begin to show self-awareness (i.e., mirror self-recognition, self-referencing, imitation; Hart & Karmel, 1996), and begin to display pride behavioral responses to success, but cannot yet identify pride in others. The development of a full understanding of the situations and attributions that elicit pride and distinguish it from happiness seems to coincide with the achievement of a global sense of self and self-esteem (Harter, 1983). Future studies are needed to tease apart the likely bi-directional causal links between these shifting pride experiences and children's maturing sense of self.

One particularly interesting question for future research is whether these developmental changes influence shifts in the subjective experience of pride. That is, is the pride experienced by 9-year-olds qualitatively different—perhaps more self-relevant—than the pride experienced by 5-year-olds, the latter of whom would likely report feelings of pride after winning a game due to luck? Related to this, it is unclear when children begin to experience authentic and hubristic pride as separate entities. Although no previous studies have directly addressed this issue, it is likely that parents play an important role in promoting attributions to effort versus ability after a success; these early attributional tendencies may be important in shaping later dispositional tendencies toward experiencing each facet. Dweck (1999) has found that children who are encouraged to make effort attributions for their achievements (i.e., they are told that they must have “worked hard” for a particular success) are more persistent at subsequent

tasks compared to children who are encouraged to make ability attributions (i.e., told that they must be “really smart”). Future studies might use similar methods to test whether these distinct behavioral outcomes are differentially associated with the two facets—that is, whether authentic pride promotes greater task persistence than hubristic pride—in both children and adults.

## The Functionalist Approach: An Ultimate Explanation for Pride

The findings reviewed in our proximal-level analysis suggest that pride meets one of the central criteria for a functional universal (i.e., a psychological entity that evolved to serve a particular adaptive function; Norenzayan & Heine, 2005): its expression is displayed by individuals across cultures in the same contexts and situations. The strongest support for this claim comes from recent studies assessing behavioral responses to success at the Olympic and Paralympic Games, showing that sighted and blind athletes spontaneously display the pride expression in response to Olympic victory (Tracy & Matsumoto, 2008). Given that congenitally blind athletes could not have learned to produce expressions by observing others, these findings provide a compelling case for a biologically innate source of these expressions (Eibl-Eisenfeldt, 1989), and are consistent with functional universality. If this account is correct, the pride expression is likely to have evolved to serve a distal function related to the situations in which it occurs: success. Indeed, several theorists have argued that pride evolved to help individuals transform culturally valued achievements into higher social status. At the ultimate explanation level of analysis, then, we must ask *how* pride might function to promote high status.

### *Does Pride Promote High Status?*

In our view, pride likely evolved to serve the distal function of enhancing social status—an outcome with clear adaptive benefits—through three distinct paths. 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 makes them feel good about *themselves*. Through socialization, children come to experience pride in response to praise for socially valued achievements, first by their 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 certainly 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 the need for external evaluations, individuals strive to develop an identity that coheres with social norms. Individuals who are successful in this pursuit are, in turn, rewarded with social approval, acceptance, and increased social status, all of which promote adaptive fitness.



This account of pride, as adaptive through its reinforcing and motivational properties, is supported by several empirical findings. First, Ross, Heine, Wilson, and Sugimori (2005) found that pride (at least as experienced by European Canadians) facilitates memory for pride-eliciting events and makes these events seem temporally more recent. These cognitive changes likely help motivate behaviors oriented toward ensuring that similar events occur in the future. Second, Williams and DeSteno (2008) found that individuals manipulated to experience pride in response to task success are more likely to persevere at subsequent similar tasks, suggesting that the experience of pride directly promotes a desire and willingness to achieve. Similarly, Herrald and Tomaka (2002) found that participants manipulated to experience pride showed improved task performance both during and immediately following the pride experience, and Verbeke and colleagues (2004) found that salespeople who report a high likelihood of experiencing pride in response to work success tend to have a higher level of job performance, exert more effort at work, and report greater motivation toward productivity and success.

Third, studies on embodiment have indirectly supported the pride–achievement link by demonstrating that individuals told to sit in an upright compared to a slumped posture while receiving positive feedback are more willing to persist at a subsequent frustrating task (Riskind & Gotay, 1982). These authors interpreted this finding as consistent with the facial-feedback hypothesis (Tomkins, 1962), whereby emotional states can be elicited through the display of their associated nonverbal expressions. In other words, participants who were made to display a component of the pride expression (expanded posture) while experiencing a pride-eliciting event (positive feedback) may have felt greater pride than participants prevented from displaying pride, and these pride feelings may account for their greater motivation to complete other effortful tasks. More parsimoniously, and still consistent with the argument that pride functions to motivate achievement, the experience of sitting in an upright posture may have been sufficient to trigger pride-associated motives like achievement; in this view, which is consistent with James' (1922) perspective on emotions, participants' expanded posture triggered the status-promoting behavioral response independent of subjective emotional state. In subsequent research, Riskind (1984) buttressed the links between expanded posture, pride, and achievement by showing that successful participants not only became more distressed when instructed to hold a slumped, rather than proud, posture, but also that participants manipulated to fail while holding the proud posture became more distressed. Although this latter finding may appear counterintuitive, Riskind argued that the embodied pride expression is so tightly bound to success, adopting it during failure is experienced as a violation of the appropriate and psychologically adaptive response.

In addition to motivating achievement, the second way in which pride may promote status is through its informational properties. According to the “affect as information” hypothesis (Schwarz & Clore, 1983, 1988), emotional feelings function, in part, to inform individuals of changes in their environment, and thereby allow them to respond knowingly and flexibly to significant

events. Building on this account, pride may function to inform individuals that they merit increased status and group acceptance. In fact, given that trait pride (along with shame) is the emotional disposition most strongly related to self-esteem (Brown & Marshall, 2001), over the long term 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 group rejection (Leary, Tambor, Terdal, & Downs, 1995). Pride may be the affective mechanism that leads to increases in self-esteem, which feed into the sociometer. Specifically, when individuals experience a success they feel pride in response, and over time and with repetition these feelings may promote positive feelings *and* thoughts about their global self, leading to the high self-esteem that informs individuals of their social value.

The third way in which pride likely enhances status is through its universally recognized nonverbal expression, which may function to inform observers (other social group members) of the proud individual's achievement, indicating that he/she deserves higher status. Supporting this account, Tiedens and colleagues (2000) found that individuals who are believed to be experiencing pride are assumed by others to be high status, suggesting an intuitive association between others' perceptions of pride and status. More directly supporting this link, a recent study found that individuals manipulated to experience pride prior to engaging in a group task were perceived by others in the group and by outside observers as behaving in a more “dominant” manner, suggesting that something about the pride experience promoted interpersonal behaviors that increased the perceived status of the proud individual (Williams & DeSteno, 2009). New findings from our lab point to what the key interpersonal behaviors that generate these perceptions may be: the pride nonverbal expression. Using the Implicit Association Test (Greenwald & Banaji, 1995), we found that the pride expression is rapidly and automatically perceived as a signal of high status (Shariff & Tracy, 2009). This automatic association between the pride expression and high status cannot be explained as an artifact of particular features of the pride display, such as extended arms making the individual appear larger, or as a general property of positive emotions or positive valence. In these studies, pride was more strongly associated with high status than a range of other positive and negative emotions—including happiness and anger—and more so than expressions showing similar expansive movements but not the full prototypical configuration.

These findings are consistent with the hypothesis that the pride expression evolved as a gestalt signal to convey success and thereby indicate that the proud individual merits high status. This communication would clearly be adaptive to displayers, who would receive increased resources, attention, and other status-related benefits; but it would also benefit observers, who could more effectively navigate the status hierarchy by showing appropriate deference, knowing whom to emulate, forming productive alliances, and facilitating their own status jockeying.



Thus, the pride expression may be an evolved adaptation for the automatic communication of changes in social status, which would complement the pride experience's function of motivating continued achievements to promote the maintenance of high status, and informing the proud individual of his/her increased status and group acceptance.

It is noteworthy, in this context, that although there are gender differences in status (males typically hold higher-status positions than females in most human and non-human hierarchies; Hendrix, 1994), we have no reason to expect gender differences in the status-promoting functions of pride. There are no perceiver-gender differences in recognition of the pride expression, and the only target- (i.e., expresser) gender difference found thus far suggests that pride is more readily recognized when it is displayed by *women*, perhaps because it "stands out" more from the prototypical female stance than from the prototypical male stance, the latter of which may include a broad posture (Tracy & Robins, 2008b). There are also no gender differences documented thus far in the display of pride; based on the extant research, men and women are equally likely to spontaneously show the pride expression in response to success (Tracy & Matsumoto, 2008). Similarly, the literature on status judgments suggests that male and female perceivers are equally accurate at perceiving status in others, and this holds across the gender of the target individual being judged (Mast & Hall, 2004). Thus, men and women seem to be equally adept at assessing the status, and the pride, of individuals of their own and the opposite sex.

One important question for future research, however, is whether the pride expression conveys the high status of male and female targets to an equal degree. Although studies have not yet addressed this question, we would not expect to see a gender dimorphism in these characteristics. Although cultural and social factors play a major role in determining which and how many high-status positions are available to members of each gender, both men and women have, historically and at present, competed over status. As a result, if pride is an evolved mechanism for increasing one's status, there would have been little evolutionary pressure for this adaptation to become sex-linked. Pride is thus likely to function similarly for both men and women, despite social prescriptions that make it difficult for women to attain certain high-status positions in certain cultural groups.

### *Do the Two Facets Have Two Functions?*

If pride evolved to serve the distal function of promoting high status, one question that arises is why would such an adaptive emotional experience have a "dark side"? That is, given that there are two facets of pride, do they *both* promote high status? Why might an anti-social (hubristic) facet have evolved?

One answer may be found in the theory that humans evolved to seek and attain two distinct forms of high status, labeled *dominance* and *prestige* (Henrich & Gil-White, 2001). Building on this account, authentic pride may have evolved to motivate the attainment of prestige, a high status that is granted on the basis of demonstrated knowledge, skills, and altruism (i.e.,

respect-based status); whereas hubristic pride may have evolved to motivate the attainment of dominance, a high status that is achieved through force, threat, and intimidation (i.e., fear-based status; see Figure 1). According to this perspective, these two distinct forms of status are attained through divergent behavioral patterns, and were selected for by distinct evolutionary pressures (Henrich & Gil-White, 2001).<sup>7</sup>

When individuals experience hubristic pride, they evaluate themselves as better in some way than others, and experience a subjective sense of dominance, superiority, and power. Hubristic pride thus may equip individuals with the mental preparedness to assert their power (e.g., making internal, stable, uncontrollable attributions for success), and motivate behaviors that promote a reputation of dominance: hostility, aggression, and a tendency toward interpersonal conflict (Tracy et al., 2009). It is this aggression, or threat of aggression, that allows dominant individuals to retain their power, given that their high status is typically not merited on the basis of actual achievements or expertise. The resulting sense of not quite deserving one's status may be a cause of the shame and implicit insecurity associated with hubristic pride (Tracy & Robins, 2007d; Tracy et al., 2009). Supporting this account, recent research found that those leaders who are most aggressive are also lowest in self-perceptions of competence (Fast & Chen, 2009). In contemporary society, dominant individuals may choose not to demonstrate their power through direct physical aggression, but rather through verbal and nonverbal cues of aggression and hostility, such as behavioral displays of boredom, rudeness, and disengagement—a pattern recently found to typify the interpersonal interactions of individuals high in socioeconomic status (Kraus & Keltner, 2009).

In contrast, in order to retain subordinates' respect, prestigious individuals must avoid succumbing to feelings of power and superiority. Competition for prestige would likely favor individuals who demonstrate knowledge and a willingness to share it but do not arrogate their authority or lash out at subordinates; aggressive interpersonal behaviors would in some sense "raise the price" subordinates must pay to attain the valued knowledge. In fact, overly aggressive behaviors have been identified as attributes that can "break a leader" in largely prestige-based hierarchies (Ames & Flynn, 2007; Bass, 1990). Authentic pride thus may have evolved to facilitate the attainment of prestige by promoting a focus on one's effort and accomplishments (i.e., making internal, unstable, controllable attributions for success), fostering a sense of humility (Cheng & Tracy, in preparation), and inhibiting aggression and hostility. The findings that state and trait authentic pride promote pro-social behavior, agreeableness, conscientiousness, and voluntary moral action (Hart & Matsuba, 2007; Tracy et al., 2009; Tracy & Robins, 2007d; Verbeke et al., 2004) are also consistent with our account of this facet of pride as promoting a prestigious (i.e., highly respected) reputation.

New findings from our lab provide more direct support for this functionalist account of the two facets (Cheng et al., 2009). First, individuals high in trait levels of authentic pride tend to describe themselves as prestigious, whereas those high in trait

hubristic pride are more likely to describe themselves as dominant. Second, this pattern was replicated in a study examining dispositional pride and status among individuals on varsity-level athletic teams. In this study, individuals high in trait authentic pride were viewed as prestigious but not dominant by their teammates, whereas those high in trait hubristic pride were viewed as dominant but not prestigious. That these findings emerged in peer-ratings from teammates points to their ecological validity; varsity teams are real-world groups where status hierarchies play a major role in shaping intragroup behaviors and emotions.

In summary, an analysis at the ultimate-function level provides a strong case for pride as an evolved mechanism for attaining increased social status. Both through the reinforcing, motivational, and informational properties of the pride experience, and the social-communication properties of the pride expression, the emotion seems ideally suited to prepare individuals to respond adaptively to socially valued successes, ensuring that they benefit from their own achievements by increasing their social status. High status, in the form of both prestige and dominance, has been associated with a range of adaptive outcomes (e.g., improved physical and mental health, access to higher quality resources and mates; Adler, Epel, Castellazzo, & Ickovics, 2000; Ellis, 1995), making it likely that pride promotes fitness—regardless of whether the pride experienced is authentic or hubristic.<sup>8</sup>

### Evolutionary Level: How Did Pride Evolve in the Species?

Questions about the phylogenetic history of a particular human characteristic often beg speculation, given the difficulty of empirically tracing the path of evolution. Nonetheless, the question of how a faculty of the mind evolved to its present form in humans is an important one for the naturalist approach, and examinations of the comparative and functionalist literatures can be informative about whether a trait that appears to exist in two distinct species does so for reasons of shared ancestry (i.e., homology) or convergent evolution (i.e., analogous evolutionary pressures leading to similar adaptive solutions). In the case of pride, it is unclear whether the subjective feeling experience and associated action tendencies (i.e., achievement motivation/aggression) are present, in any form, in non-human animals. Given that pride requires complex self-evaluative processes, it may exist in some form in the other Great Apes (i.e., chimpanzees, bonobos, gorillas, and orangutans) and other animals in whom evidence of self-awareness (e.g., mirror self-recognition) has been documented (Hart & Karmel, 1996), but is unlikely to be experienced by animals that do not self-reflect or hold stable self-representations. If other primate species do experience pride-like feelings, these feelings are likely to be closer to the human hubristic facet, associated with dominance and awareness of a power differential resulting from the animal's ability to physically overtake or intimidate others. It is unclear whether prestige hierarchies exist in any species other than humans; such species would need, at some point, to have benefited from

shared cultural knowledge (Henrich & Gil-White, 2001). Thus, the most parsimonious conclusion, based on the extant evidence, is that prestige-based status and corresponding authentic pride are human-only phenomena.

However, if human hubristic pride evolved from an earlier non-human version of this facet, we should see evidence of homologies of human pride in non-human primates. Indeed, researchers have suspected that the human nonverbal pride expression emerged from earlier dominance displays, which have evolved throughout our shared ancestry with primates and other mammals (e.g., Barkow, 1975; Darwin, 1872; Tracy & Matsumoto, 2008; Weisfeld, 1999). The pride expression includes features such as expanded posture and head tilted back, creating an overall appearance that is seemingly similar to the “inflated display” shown by dominant chimpanzees who have defeated a rival, or the “bluff display” documented in these animals prior to an agonistic encounter (presumably with the goal of intimidating a rival; de Waal, 1989). Other non-human dominance displays that are visually reminiscent of the pride expression include the chest-beating intimidation displays observed in mountain gorillas (Schaller, 1963), and the “strutting [and] confident air” that characterizes dominant Catarrhine monkeys (Maslow, 1936). Animals who show these behaviors typically receive high-status benefits such as greater attention and resources (e.g., Deaner, Khera, & Platt, 2005).

If the human pride display evolved from earlier non-human dominance displays that likely functioned to indicate a direct threat or power differential, then at some point in our evolutionary history the non-human bluff display became a more indirect communicative *signal* of deserved status, and eventually ritualized into the recognizable pride expression (Eibl-Eisenfeldt, 1989). In other words, it is likely that these displays originated, in a non-human ancestor, as a way of intimidating rivals who threatened one's power, or of threatening others' power through the same intimidation. For high-status animals, it would be adaptive to respond to status threats with a quick behavioral intimidation display, as the display alone could save resources that would otherwise need to be devoted to aggressive acts every time a new individual enters the social group.

The particular components of the pride display, and of non-human bluff displays, seem well suited for this function. The expanded posture and outstretched arms in humans, and the generalized body expansion, shoulder raising, and fur piloerection in chimps, all make the animal appear larger, facilitating the assertion of dominance or power, and simultaneously attracting the attention of onlookers. In addition, the potentially “handicapping” open and expanded posture may indicate the sincerity of the display. Zahavi and Zahavi (1997) have argued that the veracity of a behavioral signal is established to conspecifics on the basis of whether it is handicapping—that is, costly to the sender. If individuals display such signals despite inherent risks (e.g., revealing oneself to a predator in the process of alerting others to the danger), onlookers can trust the message's sincerity. Thus, the potentially risky open posture associated with pride and bluff displays may have originated as an honest way of conveying one's dominance or success.

## Neurobiological Account

Although neurobiological research on pride is fairly limited, recent studies have begun to uncover both the brain structures and neurochemicals that may be involved in experiences of pride and high status.<sup>9</sup> To date, we are aware of only two functional magnetic resonance imaging (fMRI) studies on pride (Takahashi et al., 2008; Zahn et al., 2009). Takahashi and colleagues found greater activation in the posterior superior temporal sulcus and left temporal lobe—two brain regions thought to be involved in theory of mind—when participants imagined themselves in pride-eliciting scenarios, compared to when they imagined themselves in neutral scenarios. Although theory of mind may be an important cognitive pre-requisite for pride (self-evaluations require the understanding that others can evaluate the self), these researchers had expected to find greater medial prefrontal cortex (mPFC) activation, given previous findings of mPFC activity during experiences of negative self-conscious emotions such as embarrassment, guilt, and shame, as well as research indicating that the mPFC is central to self-referential thought (e.g., Fossati et al., 2003; Kircher et al., 2002; Takahashi et al., 2004). In fact, the other neuro-imaging study that examined pride, in which participants read statements involving self-agency regarding a positive or negative outcome (compared to statements involving other-agency), greater activation was found in the anterior ventromedial PFC for both the pride and guilt conditions (Zahn et al., 2009). The failure to find mPFC activity in imagined pride experiences, in Takahashi and colleagues' study, raises a number of questions, but in general these findings need to be replicated, ideally in studies that more directly evoke pride, control for other emotions, and seek neural correlates that are both similar to and distinct from other self-relevant states.

In contrast to the limited research on the neural-anatomical correlates of pride, there is a fairly extensive body of neurochemical and endocrinological research on the dominance system in humans and other animals, which we can draw upon to make hypotheses about the neural and hormonal correlates of pride. Specifically, testosterone (T) seems to be a clear physiological marker of the emotions experienced in response to an increase in status (i.e., pride); both human and rhesus monkey males show increases in T following status-enhancing events (Mazur, 1983; Rose, Gordon, & Bernstein, 1972). In humans, these events need not be physical contests (e.g., success at chess increases T), but they do need to be situations where success is attributed to the individual's skill or abilities (i.e., internal causes), rather than luck (Mazur & Lamb, 1980), hinting at the importance of pride to the T response.

However, despite a well-established positive relation between momentary increases in status and T, other studies have repeatedly shown that, in human males, basal levels of T are either unrelated or *inversely* correlated with status. High-T men, compared to low-T men, are generally less well educated, earn lower incomes, hold lower-status jobs, and are more likely to be unemployed (Dabbs, 1992). One potential way of reconciling this negative relation at the dispositional level and

positive relation at the state level is to draw on the distinction between hubristic and authentic pride. T is apparently related to dominant (i.e., hubristic-pride motivated), but *not* prestigious (authentic-pride motivated), behaviors. High T men tend to be aggressive, assertive, confrontational, and violent (e.g., Dabbs, Carr, Frady, & Riad, 1995; Kouri, Lukas, Pope, & Oliva, 1995). Though valuable to attaining status in dominance-based hierarchies (e.g., prisons, some professional sports), these traits are counterproductive to success in domains where status is based on prestige—domains which tend to predominate in most contemporary societies. In fact, one study that specifically assessed prestige-based status found a negative relation with T (Johnson, Burk, & Kirkpatrick, 2007).

The pattern among females, though somewhat more complex, is largely consistent. Cashdan (1995) found that women with higher androgen levels (which includes T, as well as serum levels of estradiol and androstenedione) tend to rate themselves as higher status than their peers, but are rated as lower status *by* their peers. Cashdan's measure of the difference between these two ratings, which she calls 'overranking' and is similar to objective measures of self-enhancement (e.g., Kwan, John, Robins, & Kuang, 2008), may represent the overclaiming of status that is likely to occur among those high in hubristic pride, perhaps as part of their quest for dominance. In fact, in our study measuring teammates' perceptions of team members' dominance and prestige, individuals high in trait hubristic pride rated themselves higher in dominance than they deserved, according to peer ratings (Cheng, Tracy, & Henrich, in preparation). Others have found that female androgen levels correlate positively with dominating behavior among adolescent girls, self-reported confidence among female college students, and convictions based on unprovoked violence among female prison inmates (Baucom, Besch, & Callahan, 1985; Dabbs & Hargrove, 1997; Inoff-Germain et al., 1988). One notable gender difference, however, is that, in contrast to Dabbs' (1992) finding that T in men is inversely correlated with their professional status, high-androgen women are overrepresented among professionals (Purifoy & Koopmans, 1979). However, as Cashdan (1995) notes, whereas Purifoy and Koopmans (1979) compared high achieving professional women with clerical workers and housewives, Dabbs compared professional men with blue-collar workers and the unemployed. Had both researchers used the same low-status comparison group, results may have been more consistent across gender.<sup>10</sup>

In addition to low levels of T, prestige-oriented behaviors seem to be associated with high levels of the neurotransmitter serotonin. Serotonin is relevant to social status in many primates; both human and monkey males occupying leadership positions tend to show chronically elevated serotonin levels (Raleigh & McGuire, 1994). Yet the nature of the status held by these individuals is not the same as that associated with high T; serotonin is negatively related to aggression (Raleigh & McGuire, 1994). Furthermore, serotonergically enhanced vervet monkeys spend more time approaching and grooming conspecifics, and can parlay these affiliative behaviors into the attainment of higher status (Mehlman, Higley, Faucher, &



Lilly, 1995; Raleigh, Brammer, McGuire, & Yuwiler, 1985). In humans, college undergraduates taking serotonin agonists (i.e., increasing brain levels of serotonin) have repeatedly shown decreases in quarrelsomeness and increases in affiliation, cooperation, and social status (Moskowitz, Pinard, Zuroff, Annable, & Young, 2001; Tse & Bond, 2002). Interestingly, the causal relation that has been documented between serotonin and social status seems to occur only in hierarchies that are at least somewhat dependent on social affiliation (i.e., at least partially prestige-based; Larson & Summers, 2001), suggesting that high serotonin may be associated with a dispositional tendency toward authentic pride. In contrast, high levels of T, particularly when combined with low levels of serotonin, may be more strongly associated with hubristic pride.

## Predictions and Future Directions

The research reviewed in this article provides an account of pride as an evolved faculty of the mind. Given that much of this account is at least somewhat theoretical, considerable work remains. Following, we briefly outline several predictions that emerge from our review, and suggest future research directions to test these hypotheses.

1. *The pride expression should influence real-world status judgments and consequent decisions.* Although we have found that the pride nonverbal expression leads to implicit perceptions of high status, we do not know whether these perceptions generalize to real-world decisions or behaviors. Studies are needed to determine whether individuals who show the pride expression are afforded political power, and whether recognition of the expression influences real-world political (e.g., voting) decisions.
2. *The development of hubristic and authentic pride in children should parallel the development of the ability to make complex causal attributions, as well as developmental shifts in dominance and prestige hierarchies.* Previous research on the structure of childhood social groups suggests that early social hierarchies are almost exclusively dominance-based, but become more prestige-based at about 5 years of age (e.g., Abramovitch, 1976; Hold, 1976). Thus, if the two facets of pride function to facilitate the attainment of each form of status, it is likely that young children's earliest pride experiences are largely hubristic, and only later become more authentic and tied to specific, effort-based accomplishments. Although children's first documented pride experiences occur in response to specific achievements (perhaps driven by a basic-level "competence motivation;" White, 1959), they are still more likely to be attributed to the broader global self than to the self's actions in that situation; very young children lack the capacity to distinguish between the global self and a specific action taken by that self (i.e., rather than thinking "I did a good thing," the child thinks "I'm good"). Longitudinal studies assessing children's pride experiences over the course of development are needed to test this hypothesis.
3. *Authentic and hubristic pride should be causally related to prestigious and dominant reputations.* If each facet of pride promotes the attainment of each form of status, the specific pride–status relations should be causal in nature. Experimental studies are needed to separately manipulate each facet of pride, and assess effects on prestige- versus dominance-oriented behaviors and resultant reputations. One important question for this line of research is whether these causal relations will emerge in one-time interactions or experimental settings, given that real-world dominant and prestigious reputations are typically built up over time through repeated interactions.
4. *The pride expression should be homologous with dominance displays seen in other primates.* Anecdotal evidence points to similarities between the human pride expression and the dominance displays of other primates, but systematic comparative studies are needed to examine whether the specific components of the pride display are shown by non-human primates in situations parallel to those that elicit human pride. In addition, phylogenetic tracing methods (e.g., Fraley et al., 2005) could be used to determine whether any similarities found are likely to indicate homology or convergent evolution.
5. *Serotonin and testosterone should be directly related to the experience of authentic and hubristic pride.* Research is needed to assess these potential neuro-endocrine markers of pride. Unlike T, serotonin is not easy to measure, making correlational studies challenging, but a stronger test of this hypothesis would involve experimentally manipulating both neurochemicals, and assessing subsequent levels of authentic and hubristic pride in response to success.

In conclusion, there are a number of important avenues for future research on pride. These studies will help address questions about whether pride is, in fact, an evolved faculty of the mind, and one that functions to promote status and establish social hierarchies. Our hope is that this review provides a framework for such future research, and, more broadly, indicates the importance of pride to a complete understanding of human social nature.

## Notes

- 1 Interestingly, however, several languages have two distinct words for pride, which at least roughly correspond to the positive and negative conceptions of the emotion (e.g., in French, a distinction is made between *fierté* and *orgueil*; similar terms exist in Italian and Spanish). Indeed, English may be one of the few romance languages to conflate both sides of pride with a single word.
- 2 Non-self-conscious emotions (e.g., fear, joy) can involve complex self-evaluations, but, unlike self-conscious emotions, they can also occur without any complex self-referential thinking other than a low-level distinction between self and other. For this reason, animals without the capacity for self-awareness or self-representations can experience basic emotions such as fear, but, in all likelihood, cannot experience pride.
- 3 We have adopted the terms "authentic" and "hubristic" to emphasize that the first facet (authentic pride) is based on actual accomplishments and is likely accompanied by genuine feelings of self-worth. This label also connotes the full range of academic, social, moral, and interpersonal accomplishments that may be important elicitors (in previous work [Tracy & Robins, 2004a], we referred to this facet of pride with the



narrower descriptor “achievement-oriented”). However, the label “hubristic pride” should not be taken to imply that this facet is not an authentic emotional experience. Rather, from our theoretical perspective at least, the *elicitors* of hubristic pride may be more loosely tied to actual accomplishments, and may involve a self-evaluative process that reflects a less authentic sense of self (e.g., distorted and self-aggrandized self-views), but the subjective experience is likely to be as genuine as that of any other emotion.

- 4 Although emotions are typically conceived as transient, momentary states, they also can be conceptualized as dispositional tendencies to frequently experience a given momentary state repeatedly over time (Goldsmith, 1994). Thus, individuals who are dispositionally high in authentic and hubristic pride are those who, more frequently than others, experience these emotions as momentary states. Although correlations between trait pride and variables, such as depression and relationship functioning, cannot tell us whether a particular depressive episode or maladaptive relationship will lead to a particular momentary pride experience (and, in this case, it is highly unlikely that the relation between these variables works in this manner), they are informative about the kinds of people who tend to experience each facet of pride in a range of contexts and situations.
- 5 Pride experienced in response to others’ successes is not, in our view, a different emotion from individual pride; the difference is simply in the self-representations that are activated. Consider the case of a person who feels pride while watching someone else win an athletic event. This experience could generate pride, first, because the individual directly takes credit for the outcome (e.g., as might the athlete’s coach). Second, the individual could experience pride because he/she includes the other within his/her collective self-representations (e.g., if the athlete represents the individual’s country in the Olympics). Similarly, if the individual is the athlete’s parent, he/she might experience pride because the event triggers a relational self-representation (e.g., “I’m a good father”). Finally, the event could elicit pride because the individual has an empathic response towards the athlete (e.g., “That could have been me”), which could occur even when the individual has no prior psychological connection to the athlete. These processes are likely no different from those that occur regularly for other self-conscious and non-self-conscious emotions (e.g., parents feel fear for their children on a regular basis).
- 6 One notable exception is in the developmental literature, where researchers in the 1980s and 1990s assessed behaviors such as “erect posture” and “head up” as indicators of pride and early development of self in preverbal children (e.g., Lewis et al., 1992; Stipek et al., 1992).
- 7 This distinction is similar to Kemper and Collins’ (1990) distinction between “power” (i.e., dominance) and “status” (i.e., prestige), and Gilbert’s (1989, 1992) distinction between “resource-holding potential” (i.e., dominance) and “social attention-holding power” (i.e., prestige).
- 8 Given that both facets are reliably identified from the same nonverbal expression (Tracy & Robins, 2007c), the experience of either would likely allow proud individuals to attain the social-communication benefits of the pride expression; however, this is an important question for future research.
- 9 It is important to note, in this context, that although we clearly view pride as having a biological basis, we would not expect to see a specific, dedicated “pride module” in the brain. The pride experience is too complex, and involves too many distinct appraisals, attributions, and self-evaluation processes to be causally related to a single neural region or event.
- 10 Another possibility is that with only a fraction of the testosterone levels of high T men, high T women are less likely to exhibit the same degree of aggressiveness that can prove toxic to finessing the white-collar world. In fact, some level of above-average assertiveness among women—especially in 1979 when this research was published—may be important for success in certain professional domains. The proportion of women who exceed that optimal level, and become professionally crippled by a proneness to impulsiveness and violence, is likely much smaller than the comparable proportion for men.

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