

Running Head: STATUS AND PRIDE

Pride, Personality, and the Evolutionary Foundations of Human Social Status

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Abstract

Based on evolutionary logic, Henrich and Gil-White (2001) distinguished between two routes to attaining social status in human societies: *dominance*, based on intimidation, and *prestige*, based on the possession of skills or expertise. Independently, emotion researchers Tracy and Robins (2007) demonstrated two distinct forms of pride: *hubristic* and *authentic*. Bridging these two lines of research, this paper examines whether hubristic and authentic pride, respectively, may be part of the affective-motivational suite of psychological adaptations underpinning the status-obtaining strategies of dominance and prestige. Support for this hypothesis emerged from two studies employing self-reports (Study 1), and self- and peer-reports of group members on collegiate athletic teams (Study 2). Results from both studies showed that hubristic pride is associated with dominance, whereas authentic pride is associated with prestige. Moreover, the two facets of pride are part of a larger suite of distinctive psychological traits uniquely associated with dominance or prestige. Specifically, dominance is positively associated with traits such as narcissism, aggression, and disagreeableness, whereas prestige is positively associated with traits such as genuine self-esteem, agreeableness, conscientiousness, achievement, advice-giving, and pro-sociality. Discussion focuses on the implications of these findings for our understanding of the evolutionary origins of pride and social status, and the interrelations among emotion, personality, and status attainment.

Keywords: social status, hubristic pride, authentic pride, dominance, prestige

23 All human societies reveal status differences among individuals that influence patterns of
24 conflict, resource allocation, and mating (Fried, 1967), and often facilitate coordination on group
25 tasks (Bales, 1950; Berger, Rosenholtz, & Zelditch, 1980; Ellis, 1995). Even the most egalitarian
26 of human foragers reveal such status differences, despite the frequent presence of social norms
27 that partially suppress them (Boehm, 1993; Lee, 1979; see discussion in Henrich and Gil-White
28 2001). High-status individuals tend to have disproportionate influence, such that social status can
29 be defined as the degree of influence one possesses over resource allocations, conflicts, and
30 group decisions (Berger, Rosenholtz, & Zelditch, 1980). In contrast, low-status individuals often
31 passively give up these benefits, deferring to higher status group members. As a result, higher
32 status tends to promote higher fitness than low status, and a large body of evidence attests to a
33 strong relation between social rank and fitness or well-being (e.g., Barkow, 1975; Cowlshaw &
34 Dunbar, 1991; Hill, 1984).

35 In evolutionary accounts, emotions are fitness-maximizing affective mechanisms that
36 coordinate a suite of cognitive, motivational, physiological, behavioral, and subjective feeling
37 responses to recurrent environmental events of evolutionary significance (e.g., Cosmides &
38 Tooby, 2000; Nesse & Ellsworth, 2009). Given that status competition has, in all likelihood, long
39 been a fitness-relevant feature of human social life, humans may have evolved a motivational,
40 affective, and ethological suite of psychological adaptations geared toward competing with other
41 group members for social status, and signaling (self-perceived) relative status. The emotion of
42 *pride* may be a major part of the affective suite of mechanisms that (a) motivates status-seeking
43 efforts, (b) supplies psychological rewards and recalibrates psychological systems to sustain
44 attained status, and (c) provides the affective substrate for signaling (via pride displays) status
45 achievements or self-perceived status. Thus, pride may represent a psychological adaptation that

46 guides the selection of strategies (including cognitions, subjective feelings, and behaviors) from
47 an organism's repertoire, and thereby facilitates the acquiring, sustaining, and signaling of social
48 status (Tracy, Shariff, & Cheng, in press).

49 Several lines of psychological research are consistent with this perspective. First, a
50 number of studies have demonstrated conceptual and experiential links between pride and status:
51 (a) individuals intuitively associate pride with high status (Tiedens, Ellsworth, & Moskowitz,
52 2000), (b) dispositionally agentic individuals (i.e., those who typically seek and possess power
53 and control) tend to feel greater pride than those low in agency (Anderson & Berdahl, 2002), and
54 (c) individuals induced to feel pride tend to display high-status behaviors and are perceived by
55 others as influential (Williams & DeSteno, 2009). Second, pride experiences have been found to
56 motivate achievement and perseverance at difficult or tedious tasks, at least among American
57 subjects (Verbeke, Belschak, & Bagozzi, 2004; Williams & DeSteno, 2008); consequent
58 achievements are, in turn, rewarded with social approval, acceptance, and high status. Third,
59 nonverbal displays of pride, which are universally recognized and shown in response to success
60 (Tracy & Matsumoto, 2008; Tracy & Robins, 2008), send a rapidly and automatically perceived
61 message of high status to other group members (Shariff & Tracy, 2009). This automatic
62 association between the pride nonverbal expression and high status generalizes even to small-
63 scale societies on Fiji's outer islands (Tracy, Shariff, Zhao, & Henrich, in prep). Among
64 educated Western samples, pride has been shown to signal high status more strongly than any
65 other emotion expression examined, and the high-status message sent by the pride expression is
66 powerful enough to override contradicting contextual information in predicting implicit
67 judgments of status (Shariff, Markusoff, & Tracy, 2009; Shariff & Tracy, 2009). Thus, the
68 accumulated evidence is consistent with the view that pride evolved as a mechanism for

69 motivating behaviors oriented toward increasing social status and informing other group
70 members of self-perceived status shifts.

71 One question that arises from this account, however, is why there exist two distinct facets
72 of pride, only one of which is associated with socially valued achievements (e.g., Tangney,
73 Wagner, & Gramzow, 1989; Tracy & Robins, 2004; 2007). Studies have shown that pride is best
74 characterized as consisting of a *hubristic* facet, marked by arrogance and conceit; and an
75 *authentic* facet, fueled by feelings of accomplishment, confidence, and success. These two facets
76 are conceptualized and experienced as distinct and independent, and are associated with highly
77 divergent personality profiles (Tracy & Robins, 2007). Hubristic pride is the more anti-social
78 facet, associated with disagreeableness, neuroticism, and a lack of conscientiousness, as well as
79 narcissism, problematic relationships, and poor mental health outcomes (Tracy, Cheng, Robins,
80 & Trzesniewski, 2009). In contrast, authentic pride is the more pro-social, achievement-oriented
81 facet, associated with the socially desirable Big Five personality traits of extraversion,
82 agreeableness, and conscientiousness, high implicit and explicit self-esteem, satisfying
83 interpersonal relationships, and positive mental health.

84 Given the notably negative personality correlates of hubristic pride, it is not immediately
85 evident why this facet would have evolved. One possibility, though, is that both pride facets
86 emerged to promote social status, but along different avenues.

87 *Two Evolved Status Strategies: Prestige and Dominance*

88 Henrich and Gil-White (2001) proposed an evolutionary model articulating two distinct
89 paths to attaining status in human societies: *dominance* and *prestige*. *Dominance* refers to the use
90 of intimidation and coercion to attain a social status based largely on the effective induction of
91 fear. In the dominance hierarchies that characterize many nonhuman species, social rank is

92 determined on the basis of agonistic encounters (Trivers, 1985). In humans, dominance is not
93 limited to physical conflict, but can be wielded by controlling costs and benefits in many
94 domains, and is typically seen in individuals who control access to resources, mates, and well-
95 being. Dominant individuals create fear in subordinates by taking or threatening to withhold
96 resources. In turn, subordinates submit by complying with demands or providing material or
97 social resources to safeguard other more valuable resources, such as their physical welfare,
98 children, or livelihoods. *Prestige*, in contrast, refers to status granted to individuals who are
99 recognized and respected for their skills, success or knowledge. According to Henrich and Gil-
100 White (2001), prestige arose in evolutionary history when humans acquired the ability to acquire
101 cultural information from other group members, because natural selection favored selectively
102 attending to and learning from the most knowledgeable or skilled others. As a result, subordinate
103 group members would be motivated to provide deference (e.g., mates, food, coalitional support)
104 to prestigious individuals, who in turn permit followers access to copying their skills, strategies,
105 and know-how.

106 Distinctions parallel to dominance and prestige have been made in anthropology (e.g.,
107 Krackle, 1978; Barkow, 1975; Chance & Jolly, 1970), psychology (e.g., Gilbert, Price, & Allan,
108 1995), and sociology (e.g., Kemper, 1990), but the framework adopted here has several
109 advantages over these earlier models: (a) it explains why humans seem to demonstrate two
110 notably different ethological patterns in subordinates (e.g., copying and deferring to leaders, or
111 avoiding and fearing them), only one of which is paralleled in non-human primates, (b) it
112 explains why certain socially attractive qualities (e.g., expertise and success) promote high
113 status, (c) it can account for cultural differences in the traits and abilities that lead to high status
114 (e.g., why athletic ability is valued among adolescent boys but not academic scholars), and (d) it

115 explains the differential patterns of imitation, memory, attention, and persuasion directed from
116 subordinates toward different high-status individuals. In sum, by positing a cultural learning
117 process, the dominance-prestige theory provides a basis for understanding the distal forces that
118 shape preferences for social models and processes of social influence.

119 *Which strategy to use?* Although both dominance and prestige are, in theory, viable
120 strategies for acquiring high status, the effectiveness of each will vary depending on individual
121 attributes (e.g., physical size, skills) and the situation in which it is used. Dominance-oriented
122 behaviors (e.g., aggression, manipulativeness) can impose greater costs than benefits when
123 individuals lack the capacity to intimidate others or enforce threats, or in social groups with
124 norms or social structures that suppress coercive influence. Prestige, too, can be futile, when
125 individuals are not perceived as possessors of valued cultural information, or in social groups
126 structured largely around dominance hierarchies (e.g., prison populations).

127 However, as is the case for many psychological processes, conscious, deliberate analysis
128 about which status strategy to pursue in a given situation may be costly, as such mental
129 computations are inefficient, error prone, and potentially hampered by metacognitive awareness
130 (e.g., metacognitive doubts about one's ability to, or the social appropriateness of, performing
131 the fitness-maximizing behavior). An automatic affective mechanism propelling the appropriate
132 response in each context, occurring under the radar of any metacognition, would free valuable
133 mental resources (Plutchik, 1980). Indeed, affect programs guided by automatic analyses of the
134 relative costs and benefits of potential responses to events are thought to have evolved to
135 promote quick behavioral and cognitive responses to recurrent, evolutionarily significant events
136 (Cosmides & Tooby, 2000). From this perspective, pride may be the automatic affect program
137 that allows individuals to cope most effectively with opportunities for status attainment, and the

138 two facets of pride may have separately evolved to guide behaviors oriented more specifically
139 toward the attainment of dominance or prestige. That is, hubristic pride may have evolved to
140 motivate behaviors, thoughts, and feelings oriented toward attaining dominance, whereas
141 authentic pride may have evolved to motivate behaviors, thoughts, and feelings oriented toward
142 attaining prestige.

143 More specifically, hubristic pride may promote and sustain dominance through its
144 subjective feelings of superiority and arrogance, which could provide the necessary mental
145 preparedness to exert force and intimidate subordinates, and through its associated behavioral
146 tendencies of aggression, hostility, and manipulation—which would facilitate the attainment of a
147 dominant reputation. Indeed, individuals high in trait hubristic pride tend to report a willingness
148 to engage in anti-social behaviors and poorer interpersonal relationships (Tracy et al., 2009; see
149 Supplementary Materials for more information on previous studies documenting these
150 associations). These anti-social traits and behaviors may allow individuals dispositionally prone
151 to hubristic pride to induce fear in subordinates, and maneuver their way up the dominance
152 hierarchy.

153 In contrast, the subjective feelings of confidence and accomplishment that occur in
154 authentic pride experiences may provide the mental preparedness for attaining prestige; these
155 feelings may also serve as psychological reinforcement for socially valued achievements, given
156 that authentic pride arises from accomplishments attributed to unstable, controllable behaviors,
157 such as effort and hard work (Tracy & Robins, 2007). Other studies have shown that such effort-
158 based achievements promote greater perseverance on challenging tasks and desire for future
159 success (Dweck, 1999; Verbeke et al., 2004; Williams & Desteno, 2008), both of which should
160 lead to increased prestige. More broadly, individuals who tend to be confident, agreeable, hard-

161 working, energetic, kind, empathic, non-dogmatic, and high in genuine self-esteem—the
162 personality profile associated with trait authentic pride (Hart & Matsuba, 2007; Tracy et al., 2009;
163 Tracy & Robins, 2007)—would be most likely to become attractive social models. Competition
164 for prestige should favor individuals who demonstrate knowledge and a willingness to share it
165 but do not arrogate their authority. In fact, overly aggressive behaviors have been identified as
166 attributes that can ‘break a leader’ in largely prestige-based hierarchies (Ames & Flynn, 2007).
167 Yet, extremely prestigious individuals, swarmed by aspirants, may be adapted to experience
168 some arrogance as an affective mechanism for “raising the deference price” that subordinates
169 must pay to attain valued knowledge (Henrich & Gil-White, 2001). Notwithstanding this case,
170 authentic pride may have evolved to facilitate the attainment of prestige by reinforcing effort and
171 promoting accomplishment, while motivating and fostering agreeableness, confidence, and a
172 sociability that cues a potential openness to sharing one’s knowledge.

173 Although the hypothesized effects of each facet of pride on each form of status are
174 predicted to occur through an on-line, state-level, causal process (i.e., via momentary, state
175 experiences of hubristic and authentic pride), these effects may be more readily apparent at the
176 trait level. Given that prestigious and dominant reputations develop over time from repeated
177 interpersonal interactions, it is unclear that a single state experience of either facet of pride would
178 substantially interact with an individual’s current dominant or prestigious standing, to shape
179 his/her longstanding reputation. Recent experimental studies suggest that individuals can very
180 quickly perceive momentary expressers of pride as possessing high status (Shariff & Tracy, 2009;
181 Williams & DeSteno, 2009), but it is unlikely that more complex judgments of dominance versus
182 prestige can be made on this basis, particularly given evidence that hubristic and authentic pride
183 cannot be distinguished from a decontextualized nonverbal expression (Tracy & Robins, 2007b).

184 Indeed, it is more likely that individuals who, due to stable personality characteristics (e.g.,
185 narcissism, self-esteem) or other genetically influenced traits (e.g., physical size) are chronically
186 prone to experiencing one facet or the other, tend to repeatedly experience the suite of subjective
187 feelings, associated cognitions, and motivations toward behavioral patterns that together promote
188 a dominant or prestigious reputation in the eyes of community members. In other words, while
189 the causal process from pride to status theoretically works at a momentary state level (e.g., the
190 momentary experience of hubristic pride promotes the subjective feelings of grandiosity and
191 behaviors of aggression needed to secure a dominant reputation), it is likely more typical that
192 individuals develop a prestigious or dominant relationship with others by repeatedly
193 experiencing a given pride facet, and thus frequently engaging in the motivated behaviors
194 associated with each form of status.

195 Importantly, the causal dynamics in this model may be bidirectional. Individuals may
196 possess traits such as physical size, narcissism, or aggressiveness that differentially predispose
197 them to activate the suites of behaviors, cognitions, and emotions associated with dominance or
198 prestige. Alternatively, differential experiences in using coercion versus succeeding in locally
199 valued activities may differentially activate the dominance or prestige behavioral, cognitive, and
200 affective suites, leading to differences in hubristic and authentic pride, as well as in related
201 personality traits. Such differential state activations may, over the course of development, instill
202 or create trait or trait-like patterns, though it remains plausible that substantial facultative
203 flexibility remains.

204 Fully sorting out the details of this psychological bi-directional causality is beyond the
205 scope of this paper; instead, we aim to take a modest step toward empirically examining this
206 model, by testing straightforward predictions regarding the relations between pride, other related

207 traits and attributes, and the two forms of status. To substantiate their theory, Henrich and Gil-
208 White (2001) reviewed findings from ethnography, psychology, ethology, sociology, and
209 sociolinguistics, in light of 12 predictions derived from their theory. However, because the
210 theory was developed temporally after the empirical findings, it is possible that that the theory
211 was shaped with foreknowledge of the findings, and that choice of supporting findings was
212 selective. To our knowledge, only five subsequent empirical studies have examined the
213 dominance-prestige distinction. First, psychologists have shown that dominance and prestige,
214 assessed through self-reports, have divergent relations with trait aggression and basal
215 testosterone levels (Johnson, Burk, & Kirkpatrick, 2005), and with a host of personality traits
216 including agreeableness, conscientiousness, openness, and Machiavellianism (Buttermore, 2006).
217 Second, in a study on evolved mating preferences, women were found to prefer prestigious over
218 dominant men (Snyder, Kirkpatrick, & Barrett, 2008). Third, anthropologists have found that
219 among the Tsimane', a small-scale Amazonian society, peer-ranked dominance is positively
220 associated with physical size, and peer-ranked prestige with hunting ability, generosity, and
221 number of allies (Reyes-Garcia et al., 2008; von Rueden, Gurven, & Kaplan, 2008). Together,
222 these five research programs provide the first empirical support for the theory that dominance
223 and prestige are distinct constructs. However, given the importance of this distinction to our
224 understanding of group dynamics, cultural transmission, and social behavior, considerable work
225 remains.

226 The contribution of the present research is two-fold. First, we test the novel theory that
227 the two facets of pride evolved to promote distinct forms of status. Previous studies examining
228 the link between pride and status have focused exclusively on the association between
229 undifferentiated pride (i.e., not distinguishing between hubristic and authentic) and

230 undifferentiated status (i.e., not distinguishing between dominance and prestige; e.g., Shariff &
231 Tracy, 2009; Tiedens et al., 2000; Williams & DeSteno, 2009), but have not examined more
232 specific associations that require making distinctions within these broad categories. Second,
233 building on Henrich and Gil-White’s model, we test whether dominance and prestige, measured
234 through both self- and peer-perceptions, show predicted divergent relations with a broad range of
235 personality traits, competencies, and social abilities, most of which have previously been shown
236 to have correspondingly distinct relations with hubristic and authentic pride (Tracy et al., 2009).
237 Table 1 presents our specific predictions and the theoretical rationale for each.

238 Two studies tested the predictions presented in Table 1. In Study 1, participants reported
239 dispositional levels of hubristic and authentic pride, dominance and prestige, and the relevant
240 personality traits predicted to underlie these status patterns. In Study 2, participants were varsity-
241 level athletes who reported dispositional levels of hubristic and authentic pride and the relevant
242 traits, and were rated by their teammates on dominance, prestige, relevant skills and abilities
243 (e.g., intellectual, social, and leadership abilities), and pro-social attributes.

244 Study 1

245 *Method*

246 *Participants and Procedure*

247 191 undergraduates (70% female) completed an on-line questionnaire in exchange for
248 course credit.

249 *Measures*

250 Trait levels of dominance and prestige (α s=.83 and .80, respectively) were assessed using
251 newly developed self-report scales, based on previous work by Buttermore (2006); see
252 Supplementary Materials for scale construction. Trait hubristic and authentic pride (α s=.89

253 and .87, respectively) were assessed with the 14-item Hubristic and Authentic Pride-Proneness
254 Scales (Tracy & Robins, 2007). The Big Five factors of personality were assessed using the Big
255 Five Aspects Scale (BFAS; DeYoung et al., 2007), which provides scores for each of the Big
256 Five traits as well as two distinct aspects within each trait: extraversion ($\alpha=.81$; enthusiasm and
257 assertiveness, $\alpha_s=.83$ and .87, respectively), agreeableness ($\alpha=.81$; compassion and politeness,
258 $\alpha_s=.85$ and .75, respectively), conscientiousness ($\alpha=.81$; industriousness and orderliness, $\alpha_s=.82$
259 and .74, respectively), neuroticism ($\alpha=.81$; withdrawal and volatility, $\alpha_s=.81$ and .87,
260 respectively), and openness to experience ($\alpha=.81$; intellect and openness, $\alpha_s=.84$ and .75,
261 respectively). Aggression was assessed with the Aggression Questionnaire (Buss & Perry, 1992;
262 $\alpha=.91$); social acceptance with the Inclusionary Status Scale (Spivey, 1990; $\alpha=.91$); self-esteem
263 with the Rosenberg Self-Esteem scale (RSE; Rosenberg, 1965; $\alpha=.89$); and narcissism with the
264 Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988; $\alpha=.86$). Following Paulhus,
265 Robins, Trzesniewski, and Tracy (2004), who demonstrated that self-esteem and narcissism are
266 distinct but share variance in self-favorability, we computed separate variables to capture the
267 unique variance in each by regressing self-esteem on narcissism, and vice-versa, and saving the
268 standardized residuals. The resultant residualized variables can be conceptualized as the non-
269 overlapping, uncontaminated constructs of genuine self-esteem and narcissistic self-
270 aggrandizement. Finally, academic achievement was assessed via self-reported Grade Point
271 Average (GPA).

272 *Results and Discussion*

273 *Hubristic Pride and Dominance, and Authentic Pride and Prestige*

274 Consistent with predictions, trait hubristic pride was positively related to dominance
275 ($r=.48, p<.001$), and trait authentic pride was positively related to prestige ($r=.51, p<.001$).

276 Hubristic pride was negatively related to prestige ($r=-.17, p< .05$), suggesting that, consistent
277 with our model, arrogance may generally lower the degree of respect one is granted. However,
278 an unexpected positive association emerged between authentic pride and dominance ($r=.19$), but
279 this association was considerably weaker than that between hubristic pride and dominance ($r=.48$;
280 $Z=3.52, p< .001$), and may have been due to shared variance in self-perceived agency. The two
281 facets of trait pride were statistically independent ($r=.07, ns$), as were dominance and prestige
282 ($r=.03, ns$).

283 *Dominance, Prestige, and Related Suite of Traits and Abilities*

284 Table 2 presents correlations of the two forms of status with genuine self-esteem,
285 narcissistic self-aggrandizement, social acceptance, aggression, the Big Five personality traits,
286 and GPA. As predicted in Table 1, dominance was negatively related to genuine self-esteem
287 (controlling for narcissism) and social acceptance, and strongly positively related to narcissistic
288 self-aggrandizement (controlling for self-esteem) and aggression; whereas prestige was strongly
289 positively related to genuine self-esteem and social acceptance, and negatively to aggression.
290 Also as predicted, a weak positive relation emerged between narcissistic self-aggrandizement
291 and prestige, and a considerably stronger association emerged between narcissistic self-
292 aggrandizement and dominance ($r_s=.15$ vs. $.56, Z=-4.55, p< .001$). Thus, although individuals
293 high in narcissism may attain prestige—perhaps due to their strong sense of confidence and
294 social popularity in short-term acquaintanceships (Paulhus & Morgan, 1997)—they are far more
295 likely to attain dominance. Alternatively, individuals who achieve both forms of high status may
296 become narcissistic, but prestigious individuals may seek to suppress such tendencies to avoid
297 impairing their interpersonal relationships with followers.

298 For the most part, dominance and prestige also showed predicted relations with the Big
299 Five traits (see Table 2). Prestigious individuals tended to be extraverted, agreeable,
300 conscientious, emotionally stable, and open to experience. The positive association with
301 openness, for which we had no prediction, may reflect the importance of intellectual curiosity
302 and creativity as socially valued attributes among academically minded individuals (i.e.,
303 university students). In contrast, dominant individuals tended to be extraverted, disagreeable, and
304 emotionally unstable (i.e., neurotic). Surprisingly, extraversion was less strongly associated with
305 dominance than prestige, and dominant individuals were somewhat conscientious. These
306 unexpected relations may be due to dominant individuals' propensity to self-inflate on these
307 socially desirable traits emphasizing one's ability to command attention and experience
308 achievement. However, the correlations with extraversion are further explicated by the more
309 specific relations of dominance and prestige with the two sub-component aspects of extraversion:
310 assertiveness and enthusiasm. Assertiveness was positively related to dominance and prestige
311 ($r_s = .46$ and $.56$, $p_s < .001$), whereas enthusiasm was positively related to prestige ($r = .45$,
312 $p < .001$), but trended toward a negative relation with dominance ($r = -.11$, $p = .13$). Previous
313 research has demonstrated the importance of extraversion to status attainment (e.g., Anderson et
314 al., 2001; Judge et al., 2002), but the present findings add nuance to this association by
315 highlighting the different aspects of extraversion that underlie it. Both dominance and prestige
316 depend on assertiveness and agency, but only prestige is also associated with enthusiasm and
317 friendliness. Finally, as predicted, prestige was positively associated with, and dominance
318 unrelated to, GPA, consistent with our expectation that academic achievement is valued among
319 university students.

320 Overall, these results are consistent with the expectation that individuals high in
321 dominance are self-aggrandizing and socially disliked group members who acquire influence
322 through aggression, assertiveness, intimidation, and emotional volatility. In contrast, individuals
323 high in prestige tend to be socially accepted, have genuine high self-esteem, and exhibit
324 enthusiasm alongside their assertiveness, as well as conscientiousness, emotional stability,
325 openness, and achievement. Both forms of high status are associated with narcissistic self-
326 aggrandizement, but prestige less so. Thus, these results support our predictions, and provide
327 evidence for the discriminant validity of dominance and prestige. Furthermore, the trait profiles
328 of dominance and prestige that emerged largely replicate the trait profiles of hubristic and
329 authentic pride found previously, consistent with the expectation that the two facets of pride—
330 measured as dispositional traits—are differentially linked to these two cognitive and behavioral
331 suites (Tracy et al., 2009; Tracy & Robins, 2007).

332 A principal limitation of Study 1 is its reliance on self-report measures of status.
333 Although previous research suggests that individuals are generally accurate perceivers of their
334 own social status (Anderson, Srivastava, Beer, Spataro, & Chatman, 2006), other studies suggest
335 that the tendency to overestimate one's positive traits is prevalent (Taylor & Brown, 1988).
336 Furthermore, pride-prone individuals may be particularly vulnerable to such biases, possibly
337 leading to artificial inflation of the key correlations of interest. Thus, in Study 2 we assessed
338 status via peer reports.

339 Study 2

340 To capture the perceived distribution of status and abilities, which are more deterministic
341 of status dynamics than individuals' own perceptions of their social rank, in Study 2 we asked
342 peers to rate the status and abilities of group members. In previous studies that have measured

343 group members' perceptions of the distribution of dominance and prestige within the group (e.g.,
344 Reyes-Garcia et al., 2008; von Rueden, Gurven, & Kaplan, 2008), both forms of status were
345 assessed via single items, which, for prestige, asked participants to "list the names of all the
346 important people" or decide whether each group member "is well-respected". As these
347 researchers noted, these brief measures may capture overall high status or official leadership,
348 rather than prestige (see Reyes-Garcia et al., 2008). The present research is thus the first to use
349 an empirically validated, multi-item scale developed based on factor analytic techniques to
350 assess peer-perceptions of dominance and prestige. Study 2 also extends Study 1 by sampling
351 individuals from naturalistic social groups: university-level varsity athletic teams. Athletic teams
352 provide an ideal context for this research because teammates are long-term group members who
353 spend an extensive amount of time together, making them well suited to serve as peer-raters on a
354 variety of domains. In addition, team members typically agree about the skills most important to
355 the team's success (i.e., athletic skill and ability), so assessing perceptions of whether teammates
356 possess such skills allows us to test predictions about the role of peer-perceived expertise in the
357 attainment of prestige.

358 *Method*

359 *Participants and Procedure*

360 Ninety-one male athletes from four university-level varsity athletic teams (baseball, $n=33$;
361 soccer, $n=19$; volleyball, $n=13$; rugby, $n=26$) completed questionnaires in exchange for a lump-
362 sum payment to the team. All participants were members of the team for at least 4 months,
363 allowing sufficient time for acquaintanceships to develop and status relationships to stabilize.
364 Participants provided self-reports on personality and emotional dispositions, and rated five
365 randomly selected teammates on dominance, prestige, and theoretically relevant traits and

366 abilities. Participants were instructed to complete the questionnaires privately and avoid
367 discussing the study with teammates prior to completion.

368 *Measures*

369 *Self-reports.* As in Study 1, trait hubristic and authentic pride were assessed with the
370 Hubristic and Authentic Pride-Proneness scales ($\alpha=.88$ and $.78$); aggression with the AQ
371 ($\alpha=.89$); social acceptance with the Inclusionary Status Scale ($\alpha=.78$); self-esteem with the RSE
372 ($\alpha=.84$); and narcissism with the NPI ($\alpha=.86$). Genuine self-esteem and narcissistic self-
373 aggrandizement scales were again computed by regressing self-esteem on narcissism, and vice-
374 versa, and saving the standardized residuals. Big Five personality traits were assessed with the
375 44-item Big Five Inventory (BFI; John, Donahue, & Kentle, 1991), with scales measuring
376 extraversion ($\alpha=.84$), agreeableness ($\alpha=.81$), conscientiousness ($\alpha=.79$), neuroticism ($\alpha=.74$), and
377 openness to experience ($\alpha=.76$). Agency and communion were assessed with 8 items selected
378 from the Revised Interpersonal Adjective Scales (IAS-R; Wiggins, Trapnell, & Phillips, 1988);
379 these were the four items at each pole of the two major axes: “self-assured”, “assertive”, “self-
380 confident”, “dominant”, “timid”, “unauthoritative”, “shy”, and “unaggressive” (combined to
381 form an agency scale, with the latter 4 items reverse-scored; $\alpha=.85$) and “softhearted”, “tender”,
382 “gentlehearted”, “tenderhearted”, “hardhearted”, “unsympathetic”, “coldhearted”, and
383 “warmthless” (combined to form a communion scale, with the latter 4 items reverse-scored;
384 $\alpha=.89$). GPA was again assessed to index academic achievement.

385 *Peer-reports.* After completing all self-ratings, participants were told: “You will now be
386 asked to provide your impressions and feelings about other members of your team... Think about
387 this particular person as you are providing your responses”. For each target, participants were
388 presented with the 8-item dominance and 9-item prestige scales, reworded to refer to a peer (see

389 Supplementary Materials). Internal consistency α s were .88 and .85 for peer-rated dominance
390 and prestige, respectively, and inter-rater α s were .78 and .84, respectively. These high levels of
391 inter-rater agreement suggest that individuals were able to reach consensus regarding their peers'
392 dominance and prestige.

393 Judges also completed the Self-Attributes Questionnaire (Pelham & Swann, 1989) for
394 each target, in which they were instructed to: "Rate your impressions about the activities and
395 abilities of this particular person... relative to other members of your group". We added several
396 traits to the original questionnaire to assess, in total: intellectual ability (inter-rater $\alpha=.74$), social
397 skills ($\alpha=.78$), athletic ability ($\alpha=.70$), leadership ability ($\alpha=.80$), altruism ($\alpha=.55$),
398 cooperativeness ($\alpha=.59$), helpfulness ($\alpha=.55$), ethicality ($\alpha=.55$) and morality ($\alpha=.45$).

399 Participants were also asked to indicate the likelihood that they would approach each of the five
400 targets for advice in the following domains: school ($\alpha=.59$), family ($\alpha=.37$), friends ($\alpha=.41$),
401 romantic partners ($\alpha=.38$), work ($\alpha=.44$), sports ($\alpha=.55$), and the target's area of expertise
402 ($\alpha=.48$). The low inter-rater agreement on these items likely reflects the fact that idiosyncratic
403 factors such as friendships play an important role in determining who is sought for advice.
404 However, the fact that any consensus emerged points to the importance of some underlying
405 psychological construct in determining an individual's "advisorliness". To index each target's
406 overall perceived advice-giving ability, we aggregated ratings across the seven domains (internal
407 consistency $\alpha=.87$; inter-rater $\alpha=.61$).

408 *Results and Discussion*

409 *Hubristic Pride and Dominance, and Authentic Pride and Prestige*

410 Hierarchical linear models (see Supplementary Materials for model description) were
411 estimated to account for the nesting of peer-ratings of dominance and prestige within perceivers
412 and targets (Bryk & Raudenbush, 1992). As predicted, hubristic pride was positively related to

413 dominance, $b=.36$, $z=3.03$, $p<.01$, whereas authentic pride was unrelated to dominance, $b=.01$,
414 $z=.06$, *ns*. In contrast, authentic pride was positively related to prestige, $b=.33$, $z=2.21$, $p<.05$,
415 but hubristic pride was unrelated to prestige, $b=-.01$, $z=-.14$, *ns*. Thus, replicating Study 1's
416 findings based on self-ratings of status, individuals higher in hubristic pride also attained higher
417 dominance in the eyes of their peers, and those higher in authentic pride attained higher peer-
418 rated prestige. It is noteworthy that the unexpected weak positive relation between authentic
419 pride and dominance that emerged in Study 1 did not emerge here, when dominance was based
420 on peer-, rather than self-perceptions. Consistent with Study 1, the two facets of trait pride were
421 statistically independent ($r=-.01$), as were dominance and prestige (with team membership
422 partialled; $b=-.09$, $z=-1.37$, *ns*).

423 *Dominance, Prestige, and Related Suite of Traits and Abilities*

424 Replicating Study 1 and consistent with predictions, dominance was positively related to
425 narcissistic self-aggrandizement, aggression, extraversion, and disagreeableness; and prestige
426 was positively related to genuine self-esteem, social acceptance, and conscientiousness (see
427 Table 3). These patterns of correlations with extraversion and conscientiousness are more
428 consistent with our predictions than those that emerged in Study 1, likely due to the use of peer-,
429 rather than self-, ratings to measure status, and the more reliable and repeatedly validated
430 measure of the Big Five traits (the BFI, instead of the BFAS used in Study 1). Also diverging
431 from Study 1 but consistent with predictions was the null relation between narcissistic self-
432 aggrandizement and prestige. Thus, though narcissists may sometimes tend to view themselves
433 as prestigious, they are not viewed this way by other group members. As predicted, neuroticism
434 was unrelated to dominance but showed a negative trend with prestige ($p=.16$). In contrast to
435 Study 1, no significant associations emerged for openness to experience, perhaps because

436 creativity and intellectual curiosity are less valued among varsity athletes, who, here, were
437 evaluating the social status of individuals they knew largely in an athletic-team context. In
438 general, the pattern of correlations found here, based on peer-reports of status, replicates that
439 found in Study 1 using self-reports of status.

440 Also as predicted, both dominance and prestige were positively associated with agency.
441 The relation between dominance and communion was in the predicted negative direction,
442 although we did not find the predicted positive relation between prestige and communion ($r=.05$,
443 *ns*). Replicating Study 1, GPA was positively related to prestige, and unrelated to dominance.

444 To further explore the suite of characteristics that underlie each form of status, we next
445 examined their correlations with peer-ratings of expertise and advice-giving ability. As predicted,
446 individuals perceived as prestigious were viewed as capable advice-providers, and as
447 intellectually, athletically, and socially competent (see Table 3). They were also viewed as
448 altruistic, cooperative, helpful, ethical, and moral, consistent with the expectation that prestigious
449 individuals must demonstrate pro-sociality. In contrast, dominance was not significantly related
450 to perceived advice-giving abilities, or intellectual or social skills, and was negatively related to
451 all pro-social tendencies assessed. Somewhat surprisingly, individuals high in dominance were
452 perceived as athletically talented; however the association between athletic skills and prestige
453 ($r=.57$) was significantly stronger than that with dominance ($r=.29$; $Z=2.28$, $p<.05$). Nonetheless,
454 this finding suggests that some level of athletic competence may be necessary to attain either
455 form of status in the context of an athletic team, but is most central to prestige-based status.
456 Finally, as expected, both dominance and prestige were positively correlated with leadership
457 ability, suggesting that both forms of status represent a means of obtaining and exerting
458 influence.

459 Overall, the findings of Study 2 are consistent with our predictions, and with findings
460 from Study 1. Individuals high in dispositional hubristic pride attained greater dominance within
461 their social group, whereas individuals high in dispositional authentic pride attained greater
462 prestige. Dominance and prestige also were characterized by divergent profiles of personality
463 traits, pro-social tendencies, and abilities. The consistency of findings across studies, obtained
464 using different methods and samples, indicates the robustness of these effects, and suggests that
465 findings from Study 1 are not likely to be artifacts of self-perceived biases or shared method
466 variance.

467 General Discussion

468 The goal of this research was to extend prior theoretical work hypothesizing two distinct
469 avenues of human status, one rooted in dominance and the other in prestige—by deriving and
470 testing predictions about the emotions, personality traits, social tendencies, and competencies
471 that underpin each of these status strategies. As a result, this research establishes a tentative link
472 between two previously independent research programs: the evolutionary foundations of human
473 status and the psychology of pride. Prior research on pride, also using undergraduates, has
474 revealed two psychologically distinct forms of pride, which differ at both the state (i.e.,
475 momentary emotional response to an event) and trait (chronic, dispositional tendency to
476 experience a particular emotion) levels. This previous work also demonstrated that both the
477 chronic and momentary experience of each form of pride (i.e., trait and state hubristic and
478 authentic pride) are associated with distinct personality dispositions. In the present research,
479 using both self- and peer-reports of status, and assessing status as a dispositional trait and within
480 the context of a specific social group, we found that individuals high in dispositional hubristic
481 pride tend to view themselves, and be viewed by their peers, as dominant, whereas individuals

482 high in dispositional authentic pride tend to view themselves and be viewed by peers as
483 prestigious. We also found converging support across studies for the predicted suites of traits and
484 abilities underlying dominance and prestige. Dominant individuals tend to be narcissistic,
485 aggressive, extraverted, disagreeable, and agentic. In contrast, prestigious individuals tend to
486 have high genuine self-esteem and be conscientious, socially accepted, agentic, intelligent, pro-
487 social, and capable advisors.

488 In addition to providing the first empirical support for the predictions linking the two
489 forms of status with the two facets of dispositional pride, as well as distinct personality traits,
490 social skills, and competencies, our findings extend previous research in several ways. First, only
491 a few previous studies have examined the determinants of dominance and prestige. In general,
492 our findings replicate those of Buttermore (2006), Johnson and colleagues (2007), and von
493 Rueden and colleagues (2008) in demonstrating distinct trait profiles for the two forms of status.
494 However, the present research extends these previous studies by showing that dominance and
495 prestige are associated with distinct, theoretically predicted personality profiles even when status
496 is assessed using peer-, rather than self-, perceptions, and when dominance and prestige are
497 measured using reliable, validated scales. This contribution is particularly important because an
498 individual's social status, perhaps more than any other trait, is more validly assessed by asking
499 his/her peers, given that status is defined as the amount of influence conferred by group members.
500 Furthermore, the use of peer-reports allows us to eliminate the possibility that differences in the
501 personality profiles of dominant and prestigious individuals are due to socially desirable
502 responding or other sources of shared method variance. Thus, our findings provide compelling
503 evidence that: (a) dominance and prestige represent distinct ways of attaining and maintaining
504 status in naturalistic groups; (b) the attainment of dominance versus prestige is associated with

505 distinct sets of emotions and traits, and the two pride dispositions are key components of these
506 broader suites; and (c) personality traits, social skills, and abilities are strongly related to who
507 attains social status and, more specifically, which form of status is attained.

508 More broadly, by demonstrating that dominance and prestige are distinct status-
509 attainment behavioral strategies that can be reliably assessed from group members, this research
510 provides some of the clearest empirical support for Henrich and Gil-White's (2001)
511 conceptualization of group hierarchies. As a result, these findings have several implications for
512 the literature on social status. First, they suggest that when researchers studying leadership,
513 power, and status ask questions about the traits that promote status, they should make the
514 clarification: Which kind of status? Previous studies have defined status as general influence
515 (Anderson & Kilduff, 2009; Littlepage, Schmidt, Whisler, & Frost, 1995), importance (Reyes-
516 Garcia et al., 2008), leadership (Brunell et al., 2008; Judge et al., 2002), toughness (Weisfeld &
517 Beresford, 1982), or respect (Hardy & Van Vugt, 2006), and, not surprisingly, have yielded
518 discrepant and sometimes incompatible conclusions. Based on the present findings, researchers
519 might fruitfully return to this previous literature and examine whether the status assessed was
520 akin to dominance or prestige; this distinction may account for the divergent results that have
521 emerged. For example, several studies have found that agreeableness and prosociality are
522 unrelated to status (Anderson et al., 2001; Judge et al., 2002), but others have shown that
523 individuals who behave altruistically enjoy higher status (Hardy & Van Vugt, 2006; Willer,
524 2009). The present research demonstrates that agreeableness is negatively related to dominance
525 but positively related to prestige, thereby qualifying Anderson and colleagues' (2001) conclusion
526 that "being nice, warm, and kind" does not lead to higher status. These traits clearly do matter in
527 prestige-based contexts.

528 Second, our findings also shed light on longstanding debates about the role of narcissism
529 and self-esteem in the attainment of status. Several studies have shown that narcissists emerge as
530 leaders in social groups (Brunell et al., 2008; Rosenthal & Pittinsky, 2006), but others have
531 shown that narcissists have poor leadership skills and are disliked by their peers (Harms, Wood,
532 & Roberts, 2009). The present findings suggest that narcissism, and hubristic pride, may promote
533 status largely by increasing dominance, which does not require respect or social acceptance. In
534 fact, previous studies suggesting that narcissism promotes aggression, particularly in response to
535 ego-threats (Baumeister, Smart, & Boden, 1996; Bushman & Baumeister, 1998; Donnellan,
536 Trzesniewski, Robins, Moffitt, & Caspi, 2005), are consistent with the present findings of an
537 association between narcissism and dominance. Similarly, our research adds nuance to the
538 previously noted association between self-esteem and high status. Leary and colleagues (1995)
539 have argued that self-esteem functions as a ‘sociometer’, informing individuals of their relative
540 status within a group, and motivating the behaviors needed to maintain an acceptable level of
541 status and group inclusion. Given the positive association between self-esteem and prestige, and
542 the negative association between genuine self-esteem (controlling for shared variance with
543 narcissism) and dominance, it is likely that self-esteem serves this informational function
544 regarding prestige hierarchies, in particular. In fact, previous research has demonstrated that
545 genuine self-esteem—controlling for narcissism—tends to be negatively associated with the anti-
546 social and aggressive behaviors typical of dominant leaders (Donnellan et al., 2005; Paulhus et
547 al., 2003). This is consistent with Barkow’s (1975) account of self-esteem as an evolved adaption
548 for monitoring one’s current level of prestige, and may help explain Leary and colleagues’
549 finding that high social acceptance (i.e., being well-liked) and high agency are both critical to the
550 maintenance of self-esteem (Leary, Cottrell, & Phillips, 2001). However, these studies have

551 sampled predominantly North American populations, so future research is needed to examine the
552 consequences of narcissism and self-esteem for status attainment in other populations.

553 Finally, while supporting Barkow's (1975) argument that prestige-based hierarchies are
554 distinct from fear-based hierarchies, the present research also raises questions for Barkow's
555 (1975) contention that all human social hierarchies are prestige-based, having evolved (or
556 "exapted") from earlier dominance hierarchies seen in other animals. Barkow suggested that as
557 species "ascend the phylogenetic scale", status relations based purely on threat of force and
558 appeasement become untenable, so such relations should not be found in human societies (1975,
559 p. 553). The present findings suggest that, in fact, human social status is characterized by both
560 dominance and prestige, and both kinds of leaders are viewed by group members as agentic and
561 capable of leadership. Those pursuing influence via prestige, rooted in admiration, may coexist
562 in social groups with individuals competing for dominance, who rely on threat, coercion, and
563 fear; and both sets of individuals may directly compete with each other for leadership and power.
564 Humans may be unique in that merit-based institutional positions endowed with control of costs
565 and benefits, such as president and CEO, can evoke either dominance- or prestige-based social
566 strategies.

567 *Limitations and Future Directions*

568 One limitation of this research is that the correlational nature of both studies prevented us
569 from directly addressing questions of causality—whether the experience of each facet of pride
570 promotes behaviors that lead to a reputation of dominance or prestige. However, given that the
571 impact of each facet of pride on status likely occurs over time (i.e., leadership reputations are
572 shaped over many experiences), these causal relations may be difficult to assess experimentally.
573 It is not clear that a one-time experience of hubristic pride would lead to perceptions of

574 dominance—but this is an important question for future research. Recent studies suggest that
575 experimentally manipulated, state experiences of hubristic versus authentic pride have divergent
576 effects on prejudicial beliefs and behaviors, indicating that these emotional experiences may
577 elicit concurrent dominance and prestige-oriented interpersonal behaviors (i.e., state hubristic
578 pride promotes hostility and outgroup derogation, whereas state authentic pride promotes
579 forgiveness and outgroup favoritism; Ashton-James & Tracy, 2009). Thus, one of the most
580 important future directions for this research is to directly test the causal model suggested by our
581 theoretical account.

582 A second limitation of the present research is its reliance on North American
583 undergraduates, especially given evidence for the psychological peculiarity of such samples
584 (Henrich, Heine, & Norenzayan, in press). In addition, Study 2 was limited in its reliance on an
585 all-male sample. It is thus particularly important that future studies seek to replicate these
586 findings in diverse human populations, and include both genders, to examine whether the effects
587 found here are indicative of universal human adaptations.

588 That said, it is worth noting that some elements of the broader theory from which this
589 investigation derives have already been verified in diverse populations. Tracy and Matsumoto
590 (2008) found that the pride nonverbal expression is spontaneously displayed in response to
591 success across 36 nations that differ widely along important dimensions, including individualism
592 vs. collectivism (Hofstede, 2001), secular-rational vs. traditional, and survival vs. self-expression
593 (Inglehart & Norris, 2003). Tracy and Robins (2008) found that this same expression is reliably
594 recognized across highly diverse populations, including one small-scale society in Burkina Faso.
595 Other recent efforts suggest that these pride displays are implicitly associated with high status,
596 both in individuals living on one of the outer islands in Fiji and Canadian university students

597 (Shariff & Tracy, 2009; Tracy, Shariff, Zhao, & Henrich, in prep). Finally, in an anthropological
598 study from a highly egalitarian population of forager-horticulturalists in the Bolivian Amazon
599 (the Tsimane), von Rueden and colleagues (2008) found support for the basic prestige-
600 dominance distinction proposed by Henrich and Gil-White (2001), consistent with broad
601 ethnographic evidence summarized by Henrich and Gil-White (2001) and suggesting the
602 existence of both prestige and dominance in small-scale human societies.

603 At the same time, alternative theoretical accounts for these extant data remain plausible.
604 It is possible, for example, that the two dispositional pride facets are adaptations to selection
605 pressures other than the need to maintain dominance and prestige. Hubristic pride may have
606 evolved to facilitate mating; given evidence that narcissistic men tend to have multiple partners
607 and more unrestricted sexual relationships (Reise & Wright, 1996; Rhodewalt & Eddings, 2002),
608 hubristic pride may motivate the acquisition of sexual partners, promoting increased reproductive
609 fitness—at least in men. Similarly, authentic pride may have evolved for the more superordinate
610 function of promoting positive interpersonal relationships, or “getting along”, with its associated
611 gain in prestige merely a by-product. Nonetheless, we view the account presented here, based on
612 the Henrich and Gil-White (2001) model, as the most parsimonious and compelling explanatory
613 account of pride’s two facets.

614 Given that the present research was limited to long-term groups where status dynamics
615 are fairly solidified, another important future direction is to examine the early formation of
616 dominance and prestige hierarchies. In such contexts, initial judgments of traits such as
617 intelligence and competence (prestige cues) may be misled by more noticeable traits, such as
618 extraversion or (low) shyness (Paulhus & Morgan, 1997). If these more apparent traits are
619 mistaken for indicators of prestige, the relation between authentic pride and prestige may be

620 attenuated in early group formation. Indeed, recent research has found that highly agentic
621 individuals, even those lacking competence, can attain influence by *appearing* competent in
622 newly acquainted groups (Anderson & Kilduff, 2009), where they are presumably assumed to be
623 prestigious (this research measured only generalized status).

624 In conclusion, the present research provides the first evidence that the two facets of pride
625 might have arisen from the need to attain dominance and prestige, and that these two forms of
626 status represent distinct avenues to social influence, associated with divergent personality and
627 behavioral profiles.

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629

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Table 1. Predicted psychological (emotional, trait, and attribute) differences between dominance and prestige

Suite of Psychological Traits, Emotions, and Emergent Phenomena	Predicted Relation with Each Form of Status		Evolutionary Explanation for Prediction
	Dominance	Prestige	
Hubristic pride	Positive	Negative or zero	This facet of pride is the emotional substrate that motivates the pursuit of the dominance status-seeking strategy.
Authentic pride	Negative or zero	Positive	This facet of pride is the emotional substrate that motivates the pursuit of the prestige status-seeking strategy.
Genuine Self-Esteem ^a	Negative or zero	Positive	Self-esteem reflects self-perceived social acceptance (Leary, Tambor, Terdal, & Downs, 1995). Group members seek out and accept prestigious individuals (those with skills or know-how), but revile and avoid those using coercion. Dominant individuals are unlikely to seek to increase their level of social inclusion or genuine self-esteem, given that acceptance and popularity are not commodities they require to attain status.
Narcissistic Self-Aggrandizement ^b	Positive	Positive but weak, or zero	All high status individuals are likely to reveal some degree of narcissism, due to their ability to influence outcomes that serve their own interests. However, dominant individuals are particularly likely to use narcissistic behaviors of manipulation and coercion to exploit others. Prestigious individuals must, to some extent, suppress narcissistic tendencies of arrogance and hostility, to attract followers and avoid any aggressive behaviors that might cue dominance.
Social acceptance	Negative or zero	Positive	Dominant individuals exercise forceful authority and power based on coercion. Consequently, they fail to develop positive interpersonal relationships. In contrast, followers seek proximity and access to prestigious individuals and their information, leading the prestigious to be socially accepted.
Aggression	Positive	Negative or zero	The centerpiece of the dominant's strategy is aggression, in its many forms (physical, emotional, etc.). Prestigious individuals must avoid aggression, to avoid being mistaken for a dominant and to maintain social attractiveness.

Extraversion	Positive	Positive but weak, or zero	Dominant individuals benefit from assertiveness, energy, and the active seeking of opportunities to re-enforce their position over subordinates (who otherwise avoid them). In contrast, the prestigious are frequently approached by followers, and thus need not be particularly extraverted. However, introversion is highly disadvantageous in both cases.
Agreeableness	Negative	Positive but weak	Dominant individuals are forceful, manipulative, and narrowly (zero-sum) self-interested, reflecting high disagreeableness. Prestige demands the avoidance of disagreeableness, but does not require high agreeableness, because followers need to be pleasant and accommodating toward the prestigious, not vice-versa. Excessive agreeableness (i.e., conformity) would make the prestigious less useful to a learner seeking information.
Conscientiousness	Negative or zero	Positive	Prestige is the result of superior skills and expertise, which are typically developed through practice. Dominance is not based on acquired skill, and therefore does not demand high conscientiousness.
Neuroticism	Positive or zero	Negative	Adaptive dominant strategies include outbursts of unpredictable anger (inducing stress in subordinates), resulting from any actions that could be interpreted as threatening to their power; this may relate to a general tendency to experience negative affect and mood swings. The prestigious are rarely challenged or attacked by others, and need to be emotionally stable and less reactive to stress to retain attractiveness as a social model.
Openness to experience	No prediction	No prediction	There are no general predicted differences in openness between the two forms of status. An exception, however, is that openness may be more closely linked to prestige in cultures that emphasize creativity and innovation.
Agency	Positive	Positive	All high status individuals exert power and influence, and thus are highly agentic.
Communion	Negative	Positive	Central to dominance is inducing fear in others, achieved by unempathic and ruthless behaviors to coerce and intimidate. The prestigious have no authority or power to enforce decisions, but instead show empathy, kindness, and warmth toward followers to maintain respect and attract more followers.
Advice-giving ability	Zero	Positive	Prestigious individuals are recognized as possessors of high quality skills, wisdom, and “copy-worthy” information, who are capable of offering advice in valued domains. Dominance is unrelated to offering wisdom or advice.

Skills & expertise (intellectual/ athletic ability or competence in valued domains)	Negative or zero	Positive	Excelling in valued domains of activity (e.g., scholastics and intellect in student groups, athletics in athletic groups, hunting or story telling in hunter-gatherer societies) brings prestige. Dominance does not depend on achievement, skill, or knowledge in valued domains. A potential exception may arise from cases in which competence in aggression/intimidation is skill-based and locally valued.
Social skills	Positive but weak	Positive	All high status individuals are likely to have high social skills, due to their capacity to communicate their desires and wishes, and to exert influence. However, prestigious individuals benefit more from the ability to convey advice and transmit knowledge, which permits them to out-excel other prestigious models.
Prosociality (Altruism, cooperativeness, helpfulness, morality)	Negative	Positive	For dominants, pro-sociality would mitigate the evoked fear among subordinates that confers their power. In contrast, the tendency of subordinates to copy prestigious individuals alters the prestigious' incentives because, if a prestigious individual cooperates (e.g., contributes to the group) others are likely to follow suit, increasing the prestigious individual's immediate payoff. If a prestigious individual defects, others are likely to defect, reducing any potential free-riding benefits for the prestigious individual. Dominants' behaviors are not copied, so any attempts at pro-sociality (cooperation or punishment) on their part will not result in increased pro-sociality in the group as a whole (Henrich, 2005).
Leadership ability	Positive	Positive	Dominance and prestige each represent a means of obtaining and exerting influence, so both are associated with assuming a leadership position.

^aSelf-esteem controlling for narcissism, created by regressing self-esteem on narcissism and saving the standardized residuals.

^bNarcissism controlling for self-esteem, created by regressing narcissism on self-esteem and saving the standardized residuals.

Table 2. Correlations of Dominance and Prestige with Theoretically Related Traits and Attributes, Study 1

	Predicted Relation with Dominance	Self-rated Dominance	Predicted Relation with Prestige	Self-rated Prestige
Genuine Self-Esteem ^a	- / 0	-.16*	+	.45**
Narcissistic Self-Aggrandizement ^b	+	.56**	+ / 0	.15*
Social Acceptance	- / 0	-.16*	+	.59**
Aggression	+	.55**	- / 0	-.38**
Extraversion	+	.20**	+ / 0	.59**
Agreeableness	-	-.61*	+	.27**
Conscientiousness	- / 0	.15*	+	.39**
Neuroticism	+ / 0	.13†	-	-.39**
Openness	n/a	.08	n/a / +	.43**
GPA	- / 0	.08	+	.24**

Note. $N=191$.

^aSelf-esteem controlling for narcissism, created by regressing self-esteem on narcissism and saving the standardized residuals.

^bNarcissism controlling for self-esteem, created by regressing narcissism on self-esteem and saving the standardized residuals.

† $p < .10$. * $p < .05$. ** $p < .01$

Table 3. Correlations of Peer-rated Dominance and Prestige with Theoretically Related Traits, Attributes, and Abilities, Study 2

	Predicted Relation with Dominance	Peer-rated Dominance	Predicted Relation with Dominance	Peer-rated Prestige
Self-rated Traits and Attributes				
Genuine Self-Esteem ^a	- / 0	-.03	+	.24*
Narcissistic Self-Grandizement ^b	+	.22*	+ / 0	.17
Social Acceptance	- / 0	.08	+	.29**
Aggression	+	.35**	- / 0	.03
Extraversion	+	.29**	+ / 0	.12
Agreeableness	-	-.39**	+	.15
Conscientiousness	- / 0	-.13	+	.23*
Neuroticism	+ / 0	-.02	-	-.15
Openness	n/a	.13	n/a	.10
Agency	+	.46**	+	.39**
Communion	-	-.12	+	.05
GPA	- / 0	-.15	+	.19†
Peer-rated Abilities				
Advice-giving	0	.12	+	.56**
Intellectual	- / 0	-.06	+	.37**
Athletic	- / 0	.29**	+	.57**

	Predicted Relation with Dominance	Peer-rated Dominance	Predicted Relation with Dominance	Peer-rated Prestige
Social skills	+ / 0	.19†	+	.71**
Altruism	-	-.36**	+	.36**
Cooperativeness	-	-.54**	+	.33**
Helpfulness	-	-.38**	+	.39**
Ethicality	-	-.41**	+	.26**
Morality	-	-.32**	+	.31**
Leadership	+	.40**	+	.73**

Note. $N=91$.

^aSelf-esteem controlling for narcissism, created by regressing self-esteem on narcissism and saving the standardized residuals.

^bNarcissism controlling for self-esteem, created by regressing narcissism on self-esteem and saving the standardized residuals.

† $p < .10$. * $p < .05$. ** $p < .01$

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