Who Attains Social Status? Effects of Personality and Physical Attractiveness in Social Groups

Cameron Anderson, Oliver P. John, Dacher Keltner, and Ann M. Kring
University of California, Berkeley

One of the most important goals and outcomes of social life is to attain status in the groups to which we belong. Such face-to-face status is defined by the amount of respect, influence, and prominence each member enjoys in the eyes of the others. Three studies investigated personological determinants of status in social groups (fraternity, sorority, and dormitory), relating the Big Five personality traits and physical attractiveness to peer ratings of status. High Extraversion substantially predicted elevated status for both sexes. High Neuroticism, incompatible with male gender norms, predicted lower status in men. None of the other Big Five traits predicted status. These effects were independent of attractiveness, which predicted higher status only in men. Contrary to previous claims, women's status ordering was just as stable as men's but emerged later. Discussion focuses on personological pathways to attaining status and on potential mediators.

Tonya and Caroline are members of the same social group. Tonya is well respected by the other group members, her opinions and behavior are very influential, and she gets a great deal of attention from the group. Caroline, on the other hand, is never the center of attention, and her opinions and ideas hold little sway with the others. For these two individuals, being part of the same group represents vastly different social experiences—Tonya is a high-status member, whereas Caroline has much lower status. How did these two individuals end up in such different positions? What is it about Tonya that afforded her such a socially rewarding role, and what is it about Caroline that led to her relative invisibility? Is it their different personalities? Their different physical characteristics?

According to many theorists, status is ubiquitous in social life and an organizing force in personality. Breaking away from orthodox psychoanalysis and its emphasis on the sex drive, Alfred Adler (1930) was one of the first to emphasize that humans are inherently social creatures, motivated by what he called the "striving for superiority." More recently, Hogan (1983) emphasized the importance of "getting ahead." Indeed, hierarchies are said to exist in all social groups (Bernstein, 1981; A. H. Buss, 1988; Eibl-Eibesfeldt, 1989; Mazur, 1985), such as peer groups, neighborhood communities, athletic teams, and work organizations. Striving for status has been proposed as a primary and universal human motive (Barkow, 1975; Hogan & Hogan, 1991).

Striving for status in one's social groups is not only ubiquitous but also important. Status attainment leads to a host of vital consequences for the individual. Research has shown that individuals' status within their group influences personal well-being, social cognition, and emotional experience (Adler, Epel, Castellazzo, & Ickovics, 2000; Barkow, 1975; Eibl-Eibesfeldt, 1989; Fiske, 1993; Keltner, Young, Heerey, Oemig, & Monarch, 1998). Despite the importance of status in groups, however, little empirical research has examined the personological origins of status. As Hogan and Hogan (1991) put it, "Although status considerations are ubiquitous and consequential, psychologists have tended to avoid this topic" (p. 137).

In the current research, we examined whether personality traits and physical attractiveness predict status differences—that is, differences in prominence, respect, and influence among the group members. Synthesizing two theoretical approaches, we argue that status is a function of both the individual's drive and ability to attain status in interpersonal settings and the congruence of the individual's personal characteristics with the characteristics valued by the group. Our three studies examined status in face-to-face groups—groups in which members interact with each other directly. Moreover, we focused not on short-term experimental groups but on naturalistic long-term groups where the effects of personality have the opportunity to unfold over time. Finally,

Cameron Anderson, Oliver P. John, Dacher Keltner, and Ann M. Kring, Department of Psychology, University of California, Berkeley.

The writing of this article was supported, in part, by several sources, including a University of California Graduate Fellowship awarded to Cameron Anderson and Grants MH43948 and MH49255 for the work of Oliver P. John. We are grateful to Samantha Upchurch Bailey for her help in collecting the data for Study 2 and to Cenita Kupperbusch for her thoughtful comments on a draft. We also acknowledge the resources and support provided by the Institute of Personality and Social Research.

Correspondence concerning this article should be addressed to Cameron Anderson, who is now at the Dispute Resolution Center, Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Room 386, Evanston, Illinois 60208. Electronic mail may be sent to c-anderson2@kellogg.nwu.edu.

Journal of Personality and Social Psychology, 2001, Vol. 81, No. 1, 116–132
 0022-3514/01/$5.00 DOI: 10.1037//0022-3514.81.1.116

several theorists have argued that, for diverse reasons, men and women differ in the way they think about and are motivated by status (D. M. Buss, 1999; Hoyenga, 1993; Sidanius, Pratto, & Bobo, 1994); for example, "men are predicted to be higher in status striving than women" (D. M. Buss, 1999, p. 43). Thus, we tested for sex differences, asking whether agreement about the status hierarchy, the stability of status over time, and the personological determinants of status differ for men and women.

Status in Face-to-Face Groups

Face-to-Face Status: Prominence, Respect, and Influence in a Group

Although theoretical definitions of status in face-to-face groups vary, theorists tend to agree on three major components. First, status involves asymmetrical amounts of attention, such that those higher in the hierarchy receive more attention than those lower in the hierarchy (Chance, 1967; Fiske, 1993); thus, higher status group members are more prominent, visible, and well-known and receive more scrutiny. Second, status involves differential amounts of respect and esteem; higher status members are more respected and held in higher regard (Barkow, 1975; Eibl-Eibesfeldt, 1989; Goldhamer & Shils, 1939). Third, status involves differential amounts of influence within the group; higher status members are allowed more control over group decisions and processes (e.g., Bales, Strodtbeck, Mills, & Roseborough, 1951; Berger, Cohen, & Zelditch, 1972). Hence, we propose that status within face-to-face groups be defined as involving prominence, respect, and influence.

It is useful to conceptually differentiate face-to-face status from other, often related concepts involving social functioning and success. One important property of face-to-face status is that it is contextual, defined with reference to a particular group (Berger et al., 1972; Owens & Sutton, 1999; Savin-Williams, 1979). The contextual nature of face-to-face status differentiates it from socioeconomic status (SES), a much more global characteristic defined in terms of education, occupation, and income. Indeed, individuals might have low levels of SES but have high status within their face-to-face groups (e.g., church or neighborhood community). Some personality psychologists have examined the personological origins of status defined as SES, such as success in one's occupation or profession (see Hogan & Hogan, 1991) and education and salary (Kyl-Heku & Buss, 1996). A second important property of face-to-face status is that it is not *taken* by the individual but *given* to the individual by the other group members (Emerson, 1962; Kemper, 1984, 1991); in other words, status exists in the eyes of others and is thus appropriately assessed by peer ratings. This property differentiates face-to-face status from SES and also from social power, which has been defined by some theorists as the ability to influence others despite resistance (e.g., boss and subordinate in work contexts; Collins, 1990; Goldhamer & Shils, 1939; Kemper, 1984, 1991).

Face-to-face status has also been distinguished from the related concepts of popularity (see Coie, Dodge, & Coppotelli, 1982; Mann, 1959) and leadership (see Gibb, 1985; Hogan, Curphy, & Hogan, 1994; Mann, 1959; Stogdill, 1948). In several theories, status and popularity are defined as two conceptually distinct dimensions (Bakan, 1966; Moskowitz, 1994; Wiggins, 1979)—popularity involves how well individuals get along with others, how many friends they have, and how well-liked they are by their peers (Coats & Feldman, 1996; Hogan, 1983); the associated personality traits are warmth, love, nurturance, altruism, and communion, all related to the broader Big Five dimension of Agreeableness (Wiggins & Trapnell, 1996).

Leadership has also been distinguished from face-to-face status: "Leadership involves persuading other people to set aside for a period of time their individual concerns and to pursue a common goal that is important for the responsibilities and welfare of a group" (Hogan et al., 1994, p. 493). Thus, leadership is defined by numerous tasks and responsibilities that are not part of the definition of status, such as planning and organizing, problem solving, supporting others, motivating others, and so on (Yukl, Wall, & Lepsinger, 1990). Although leadership and status may correlate in many groups, leaders are sometimes not well-respected (Raven & French, 1958), and non-leaders are sometimes the most influential members of their groups (Wheelan & Johnston, 1996). It is not surprising then that leadership has been linked to four of the Big Five personality dimensions, namely high Conscientiousness, Agreeableness, and Extraversion and low Neuroticism (for a review, see Hogan et al., 1994). In short, face-to-face status has been conceptually distinguished from other life outcomes such as SES, popularity, and leadership; although these concepts may be empirically correlated, they should have distinct patterns of personological origins.

Studying Face-to-Face Status in Long-Term Social Groups

Most empirical work on the personality determinants of important social outcomes has relied on ad hoc groups—individuals experimentally assigned to groups that existed only for short periods of time and that worked together on a specific task. Thus, we need studies that examine more typical groups, that is, groups that exist for extended periods of time in which members spend a good deal of time together and have a wide range of interactions. For example, manipulativeness might facilitate status attainment in a short-term group because other group members do not have time to detect the individual's cheating ways. In contrast, manipulativeness might limit status attainment in long-term groups because other group members have opportunities to detect selfish and antisocial behaviors, damaging the individual's reputation. Therefore, in the current research we studied a fraternity, a sorority, and a dormitory—intact groups of individuals that live together and thus have a broad range of interactions across an extensive period of time.

Personological Origins of Face-to-Face Status

Two Perspectives: Proactive and Evocative Person–Environment Interaction

Two theoretical perspectives on the origins of face-to-face status can be distinguished. The first perspective locates the origin of status in the individual, viewing status as resulting from the individual's personality characteristics (e.g., Mazur, 1985; Savin-Williams, 1979). According to this perspective, differences in status develop because personality differences dispose some individuals to strive for status and use successful strategies to navigate

the hierarchy. This is akin to what Caspi and Bem (1990) called proactive person–environment interaction: Individuals select and construct their own particular social environments.

The second perspective locates the origin of status in the environment. To be more specific, status is viewed as a function of the group's collective judgments and decisions about which individuals deserve social status (Bales et al., 1951; Berger et al., 1972; Eibl-Eibesfeldt, 1989; Emerson, 1962; Goldhamer & Shils, 1939). According to this perspective, groups develop an implicit consensus as to which individual characteristics are valued, and the group allocates high and low status positions according to whether the individual possesses relatively more positively or negatively valued characteristics. Individuals who possess more positive and fewer negative characteristics are afforded high status positions in the group, whereas individuals who possess more negative and fewer positive characteristics are allocated low status positions. This is akin to what Caspi and Bem (1990) called evocative person–environment interaction: Each individual evokes distinctive responses from others.

Because these two perspectives place the determinants of status within the individual and within the group, respectively, they might at first glance seem to contradict each other. However, they describe processes that occur in tandem. Status attainment is a function of both the individual's personality and the group's values and perceptions. Thus, building on both perspectives, we now consider which personological characteristics will help individuals attain status in face-to-face groups.

Big Five Personality Dimensions and Face-to-Face Status

In the present studies, we focused on the Big Five personality dimensions (Goldberg, 1993; John & Srivastava, 1999; McCrae & Costa, 1999) as potential sources of status differences. The Big Five dimensions currently provide the most comprehensive and widely accepted taxonomy of personality traits; they also converge with the three-factor models advocated by Tellegen (1985) and Eysenck (1986) in systematic ways (see Clark & Watson, 1999; John & Srivastava, 1999). Thus, these five dimensions would seem a good starting point for a broad-range investigation of the personality origins of status. Moreover, various researchers interested in the social outcomes of personality (D. M. Buss, 1996; Cote & Moskowitz, 1998; Hogan, 1996; Wiggins & Trapnell, 1996) have adopted the Big Five dimensions as the most heuristically useful framework.

Which of the five dimensions should facilitate status attainment, which should most likely hinder it, and which should be irrelevant? To assess lay beliefs regarding this question, we asked 185 undergraduates to rate the status implications of 44 personality characteristics (e.g., "outgoing and sociable," "generally trusting") that define the Big Five dimensions (John & Srivastava, 1999, p. 132). In particular, students were asked to think of the same social groups we examined in our studies (fraternity, sorority, and dormitory) and to "rate each characteristic in terms of how much it hinders or helps men (women) in gaining status—that is, respect, prominence, and influence" using a 5-point scale. The undergraduates' ratings indicated that (a) the desirable pole of all five dimensions would help status attainment; (b) the five dimensions differed significantly in their relative helpfulness, with Conscientiousness most helpful, then low Neuroticism (i.e., Emotional Stability), then Extraversion, and finally Agreeableness and Openness, which did not differ from each other; and (c) effects would differ for the sexes on two dimensions, such that Agreeableness and Conscientiousness (the two dimensions defining good character and being well-socialized) would be more helpful to status attainment in women than in men. How do these intuitive beliefs about status attainment square with psychological theory and research?

Extraversion. We expected that Extraversion would have a strong relation with status in these face-to-face groups. In the Big Five conception, Extraversion implies an "*energetic approach* to the social and material world and includes traits such as sociability, activity, assertiveness, and positive emotionality" (John & Srivastava, 1999, p. 121)—all characteristics that should get extraverts more attention and social influence in their groups than introverts. This prediction is consistent with findings showing that extraverts report using a diverse range of interpersonal tactics when they want to get ahead. Extraverts draw attention to themselves and to their positive attributes, such as their skills and abilities (Kyl-Heku & Buss, 1996) and their valued resources (D. M. Buss, 1996). Moreover, extraverts are more socially skilled than introverts (Akert & Panter, 1988; Riggio, 1986), and these skills should help them attain higher status, especially influence and respect, from other group members. Finally, Extraversion itself is a valued characteristic and thus should lead to higher status in these social groups. Extraverted attributes, such as dealing effectively in social situations, the ability to entertain others, and charisma and charm, are all seen as socially desirable attributes (D. M. Buss, Gomes, Higgins, & Lauterbach, 1987; Hampson, Goldberg, & John, 1987). In short, multiple theoretical perspectives agree that Extraversion should affect status attainment in face-to-face groups; however, this hypothesis has not yet been tested directly.

Agreeableness. A number of competing hypotheses may be formulated regarding the effects of Agreeableness. One possibility is that Agreeableness relates positively to status because agreeable traits, such as altruism, trust, modesty, and tender-minded concern for others, are generally valued interpersonal characteristics (Graziano & Eisenberg, 1997; Hampson et al., 1987). These attributes are valued, we suggest, because they contribute to group cohesion and interpersonal harmony.

On the other hand, the popular saying "nice guys finish last" suggests a negative relation, favoring cheaters and bullies in the competition for status (Masters, 1988). Extremely agreeable individuals may eschew competition in favor of cooperation and interpersonal harmony to such an extent that they lose out to disagreeable individuals, who report using deceptive and manipulative tactics to get ahead, such as derogating others, boasting, and aggression (Kyl-Heku & Buss, 1996).

However, the antagonism of individuals low in Agreeableness could undermine their ability to get along with others and to negotiate the social network successfully. Thus, a third hypothesis combines elements of the first and second, suggesting a quadratic relation, in the shape of an inverted U-function: Both too little and too much Agreeableness will hurt individuals' chances for status attainment, whereas moderate levels of Agreeableness are best for status attainment.

A fourth hypothesis is an interaction suggested by Jensen-Campbell, Graziano, and West's (1995) work on attraction: Agreeableness might interact with Extraversion, such that individuals

who have both traits achieve the highest status because they use their extraverted characteristics in prosocial ways that benefit group cohesion and harmony.

Finally, Agreeableness may not be related to status at all. This view stems from theories that conceptualize status (i.e., how much attention and respect individuals receive from others) as orthogonal to popularity (i.e., how much they are liked by others; Coie et al., 1982; Foa & Foa, 1974; Wiggins & Trapnell, 1996). That is, someone may be prominent and influential in a group but not well liked, whereas another person may be well liked but not be prominent and influential (Savin-Williams, 1979).

Neuroticism. The Neuroticism dimension in the Big Five reflects individual differences in negative emotionality, including vulnerability to stress, anxiety, depression, and negative self-conscious emotions, such as guilt, shame, and embarrassment (Costa & McCrae, 1992). These traits do not bode well for the attainment of status; as Mazur (1985) argued, status competition and negotiation is inherently stressful, putting individuals high in Neuroticism at a distinct disadvantage. Consistent with this prediction, neurotic individuals report influence tactics that appear immature and ineffective. For example, with a dating partner, they use "the silent treatment" and regression (e.g., sulking, pouting; D. M. Buss et al., 1987); when trying to get ahead they are unlikely to organize–strategize, display knowledge, assume leadership, or show autonomy (Kyl-Heku & Buss, 1996).[1]

Moreover, traits related to Neuroticism are generally valued negatively and seen as undesirable in others (Hampson et al., 1987). However, negative emotionality is evaluated more negatively in men than in women. These differential gender norms may make high levels of Neuroticism more detrimental for status attainment in men than in women. Brody (2000) reviewed research on negative emotionality and its differential social consequences for men and women, concluding: "The expression of sadness, depression, fear, and dysphoric self-conscious emotions such as shame and embarrassment are viewed as 'unmanly,' and men who display such emotions are not only evaluated more negatively than females . . . but are also less likely to be comforted than are women" (p. 26). In other words, men who show signs of stress, anxiety, depression, or self-consciousness (i.e., highly neurotic men) are viewed more negatively than are highly neurotic women and are likely to be socially punished.[2] Developmental studies of parenting show that boys are routinely taught, and often pressured, to control and hide their emotions much more than are girls. For example, mothers of boys endorse statements like "I teach my child to control his feelings at all times," whereas mothers of girls do not (see Brody, 2000). Gross and John (2001) found that men are much more likely than women to use suppression as a way to regulate their emotions.

The greater social recriminations that men receive when expressing fear, depression, or self-conscious emotions are also consistent with two independent findings: Men consistently score lower on Big Five Neuroticism measures (Benet-Martinez & John, 1998; Costa & McCrae, 1992), and men express these emotions much less than women even in controlled laboratory settings (e.g., Kring & Gordon, 1998). These findings all converge on a sex interaction prediction: Because high Neuroticism violates male gender norms governing the experience and expression of emotion, the relation between Neuroticism and status should depend on gender, with a stronger negative relation in men than in women.

Conscientiousness. This Big Five dimension refers to "*socially prescribed impulse control* that facilitates task- and goal-directed behavior" (John & Srivastava, 1999, p. 121); thus, conscientious individuals are dutiful, hard-working, and organized. In terms of life outcomes, Conscientiousness is associated with upward mobility in occupational settings (Willerman, 1979); it predicts school performance in children as young as age 12 years old (John, Caspi, Robins, Moffitt, & Stouthamer-Loeber, 1994) and later predicts work performance across most job categories (Barrick & Mount, 1991). Thus, Conscientiousness should be an important predictor of SES, that is, status in work and career contexts (Jencks, 1979). Hogan and Hogan (1991) reviewed their own and others' findings, which showed that across occupations, people who achieve success work much harder than less successful people (p. 151). In short, Conscientiousness should be associated with achievement, such as good grades and later professional success. However, these findings do not suggest that Conscientiousness leads to high status in face-to-face social groups in which achievement and task-related performance are not emphasized. Indeed, in these social groups, hard work, diligence, and good grades are likely irrelevant. Therefore, Conscientiousness would seem less central and valued in these groups, suggesting that it might not relate to status attainment.

Openness to Experience. Openness describes "the breadth, depth, originality, and complexity of an individual's *mental and experiential life*" (John & Srivastava, 1999, p. 121). McCrae's (1996) extensive review showed that Openness has numerous important social consequences, including social interests, political attitudes, and evaluations of others. Kyl-Heku and Buss (1996) suggested that individuals "high on Intellect–Openness exploit educational routes to the hierarchy" (p. 499), and this hypothesis is indeed consistent with their finding that open individuals report tactics to get ahead that rely on knowledge, education, industriousness, and autonomy. Note, however, that this hypothesis addresses the attainment of SES, as indexed by variables such as education and annual salary (Kyl-Heku & Buss, 1996). There is no theory or evidence linking Openness to social status in face-to-face groups, and we therefore did not expect Openness to relate to status in the social-living groups studied here.

Physical Attractiveness and Social Status: Mixed Evidence

We also studied the effects of physical attractiveness on status in face-to-face groups. Although there is little empirical research, we expected that physical attractiveness would predict elevated status. First, physical attractiveness is a generally valued characteristic (D. M. Buss & Kenrick, 1998; Eagly, Ashmore, Makhijani, & Longo, 1991; Feingold, 1992). Second, during social interactions physically attractive individuals are looked at more often than are less attractive individuals (Karraker, 1986; la Freniere & Charles-

[1] Note that these findings were reported only for men and women combined. We thus do not know whether the link between Neuroticism and ineffective negotiation tactics might be stronger for men than for women.

[2] These arguments do not apply to interpersonal anger and aggression, which are less likely to be discouraged in boys than in girls (Fivush, 1989, 1991) and, in Big Five terms, map more closely onto Agreeableness than Neuroticism.

worth, 1983). Third, physical attractiveness predicts a number of positive social outcomes, such as having more dates and more friends (Feingold, 1992) and maybe even making more money (Roszell, Kennedy, & Grabb, 1989). Fourth, perceptions of physically attractive individuals are often influenced by halo effects; that is, others judge them to possess a number of actually unrelated positive characteristics, such as social skills (Ashmore & Longo, 1995; Eagly et al., 1991). Indeed, Riggio (1986) argued that "two decades of research have shown that physically attractive persons have a distinct advantage in interpersonal encounters because they tend to make a more favorable impression on others" (p. 655). In short, the perception that attractive people possess a plethora of positive characteristics, accurate or not, may lead other group members to grant them higher status.

However, such stereotyped perceptions of strangers may wane quickly if group members actually have a chance to get to know each other. Ashmore and Longo (1995) reviewed the literature and cautioned that the "beauty-is-powerful stereotype does not fit well with the findings of studies that have assessed actual attractive–unattractive differences in interpersonal power" (p. 81). They noted that few empirical studies have been done; so far, the evidence is limited and does not show a clear link between attractiveness and interpersonal influence. In fact, the only clear demonstration involved a mixed-sex interaction among strangers, showing that men are more likely to do a favor for a physically attractive (rather than unattractive) woman (Ashmore & Longo, 1995). Therefore, the present research examined the relation between physical attractiveness and status attainment not only in mixed-sex groups, but also in same-sex groups.

We were also concerned that effects of personality on status attainment might be due to differences in attractiveness. Kyl-Heku and Buss (1996) found that several Big Five dimensions were associated with reporting tactics of hierarchy negotiation related to appearance. For example, individuals high in Extraversion were more likely to report trying to enhance their appearance and to report "using sex" to get ahead; individuals high in Agreeableness and high in Conscientiousness were less likely to report using sex. Thus, we examined whether personality effects were independent of differences in attractiveness. In addition, we explored whether physical attractiveness interacts with personality dimensions in predicting status because previous research has suggested interactive effects in predicting occupational success (Mueller & Mazur, 1997). Finally, we examined sex differences in the attractiveness–status link; because in many contexts physical attractiveness is valued more in women than in men (D. M. Buss & Kenrick, 1998), we expected a stronger positive relation between physical attractiveness and status in women.

Overview of Studies

In three studies, we examined the status hierarchies of three naturally constituted social groups. We used peer ratings to measure status and related them to self-reports on the Big Five personality dimensions and to observer ratings of physical attractiveness. Thus, the three constructs of interest—personality traits, physical attractiveness, and status—were measured without any overlapping method variance. In Studies 1 and 2, we examined an all-male and an all-female group—a fraternity and sorority, respectively. Previous research has shown that fraternities and sororities are useful groups for research on status dynamics because their members spend a great deal of time together, know one another for extended periods of time, and are known to have some hierarchical organization (Keltner et al., 1998; Montgomery, 1971). In Study 3, we examined the status hierarchy in two mixed-sex dormitory floors, in a longitudinal design extending over the course of an academic year. Studying mixed-sex dormitories allowed us to test whether similar traits contribute to status in mixed-sex groups as in same-sex groups. The longitudinal design made it possible to test whether personality and attractiveness measured at the beginning of the academic year predicted status measured later in the year. Moreover, examining these hierarchies over time allowed us to study the emergence and temporal stability of status hierarchies in men and women—issues that have not been studied in longer-term groups.

Study 1: Status Within an All-Male Group

Method

Participants. Forty-eight members of a fraternity at a large Midwestern state university participated as part of a larger project on personality. On average, the men were 20 years old (SD = 1.2 years), and almost all were Caucasian. The fraternity was paid $850 for their participation in this study.

Big Five personality traits. As a measure of the Big Five personality dimensions, we used Costa and McCrae's (1992) 60-item NEO Five Factor Inventory (NEO–FFI), a short version of their longer NEO–PI–R. The 12-item NEO–FFI scales have excellent psychometric characteristics, including internal consistency, temporal stability, and construct validity with other self-report Big Five measures, peer ratings, and spouse ratings. To illustrate the item content of the five scales, here is an example item for each dimension: Extraversion—"I really enjoy talking to people"; Agreeableness —"I would rather cooperate with others than compete with them"; Neuroticism—"When I'm under a great deal of stress, sometimes I feel like I'm going to pieces"; Conscientiousness—"I keep my belongings neat and clean"; and Openness to Experience—"I have a lot of intellectual curiosity."

Physical attractiveness. Riggio, Widamen, Tucker, and Salinas (1991) distinguished between static and dynamic attractiveness. Static attractiveness captures the physiognomic qualities of beauty and can be rated from still photos. Dynamic attractiveness, however, involves aspects of movement and expressive behavior; when rated from video clips of ongoing behavior, this type of attractiveness is related to personality differences in expressive behavior (Riggio et al., 1991). Thus, to derive a measure of physical attractiveness not confounded with personality (Feingold, 1992), ratings of physical attractiveness were based on a 10-s video clip of each participant, recorded while each participant was listening to the experimenter's instructions and sitting relatively motionless. Attractiveness ratings were obtained from 10 undergraduate coders (five women and five men) who knew neither the participants nor anything about their backgrounds. Each coder watched the 10-s video clips and rated each participant's physical attractiveness on a 7-point scale ranging from 1 (*not at all attractive*) to 7 (*very attractive*). Coders agreed considerably on these attractiveness ratings; the coefficient alpha reliability of the mean ratings was .70. The mean attractiveness rating was 4.2 (SD = .5).

Status. We used two indicators of social status within the fraternity, derived from two kinds of data sources. One indicator was peer ratings of prominence in the fraternity. Each participant rated the other fraternity members' prominence on a 4-point scale ranging from 1 (*don't know at all*) to 4 (*know extremely well*). The coefficient alpha reliability of these ratings of prominence was substantial (α= .92). That is, status differences can be measured reliably. The mean prominence score was 2.4 (SD = .4).

The second indicator used objective life-outcome data. Assuming that individuals who are prominent and command respect in the fraternity would be given positions of social influence, we used the number of positions and offices each member had held in the house (e.g., rush chairman, house manager). These scores ranged from 0 to 2, and the mean score was .54 (SD = .62).

What was the relation between these two status indicators, one based on peer ratings, the other on public recognition of being elected to an office? The correlation between prominence and number of offices held was substantial (r = .56, $p < .01$). We thus standard scored each of the two indicators and summed them to form an overall measure of status (α= .66). As one would expect, fraternity members differed in how long they had been associated with the house. Because length of association affords more opportunities to run for elected offices and to become more prominent, we removed the effect of tenure from the status variable using regression residuals. In this way, the findings reported below cannot be attributed to differential tenure in the fraternity.

Results and Discussion

Personality and status. Table 1 presents the correlations between the Big Five dimensions and status in the fraternity. As expected, Extraversion was related to status, and the correlation was substantial (r = .47). The size of this effect is particularly impressive, given that personality and status were measured from entirely different data sources.

Also as predicted, Neuroticism was negatively and significantly related to status (r = –.31), indicating that less neurotic men tended to achieve higher status in the fraternity. Extraversion and Neuroticism had the only significant correlations with status; neither Agreeableness, nor Conscientiousness, nor Openness to Experience were linearly related to status in the fraternity.

For Agreeableness, we also examined curvilinear relations in a multiple regression analysis; neither the main effect nor the quadratic term had significant betas. In fact, individuals with intermediate levels of agreeableness showed a trend to attain the lowest levels of status, a pattern inconsistent with any of the theoretical models.

We also examined the possibility that Agreeableness is important only when considered in interaction with Extraversion. We conducted a moderated multiple regression (Aiken & West, 1991), which added little to the correlations in Table 1: Extraversion had the same strong effect (β = .46, $p < .01$), Agreeableness had the same null effect (β = .10, *ns*), and there was no interaction (β = –.06, *ns*). Thus, in the all-male fraternity sample, Agreeableness was not related to status in linear, quadratic, or interactive ways.

Table 1
Correlations of the Big Five Dimensions and Physical Attractiveness With Social Status in the Fraternity Sample

Measure	Correlations	
	Zero-order	Physical attractiveness partialled
Big Five		
Extraversion	.47**	.40*
Agreeableness	.12	.13
Neuroticism	–.31*	–.26*
Conscientiousness	.23	.15
Openness	–.05	–.10
Physical attractiveness	.39**	

* $p < .05$. ** $p < .01$.

Physical attractiveness. Also presented in Table 1 is the correlation between physical attractiveness and status. Physical attractiveness was significantly related to status attainment (r = .39), indicating that more physically attractive fraternity members tended to achieve higher status.

Did the correlations between the Big Five dimensions and status hold up even when the effects of physical attractiveness were controlled? As shown in Table 1, the positive correlation between Extraversion and status remained significant as did the negative correlation between Neuroticism and status. These partial correlational analyses indicate that Extraversion and Neuroticism both relate to status independent of physical attractiveness. Using moderated multiple regressions, we also tested whether physical attractiveness interacted with any of the Big Five dimensions. The findings were clear: Attractiveness did not interact with any of the Big Five dimensions. Overall, these findings suggest that physical attractiveness and personality are two truly independent pathways to social status.

Summary. Study 1 used four kinds of data: self-reported personality, peer-rated status, the number of offices held (life-outcome data), and physical attractiveness rated from videotape by observers. We found a strong relation between Extraversion and status in the fraternity, and this relation remained significant even after partialling out the effects of physical attractiveness. We also found a significant negative relation between Neuroticism and status, indicating that less neurotic men had higher status in the fraternity whereas more neurotic men had lower status. This relation was also independent of physical attractiveness. Finally, we found a strong relation between physical attractiveness and status: More physically attractive men tended to have higher status.

We did not find evidence for a relation of any kind between Agreeableness and status—linear, curvilinear, or interactive with Extraversion. Thus, although more agreeable men might be better liked by others, these findings suggest that they do not necessarily attain higher levels of prominence, influence, and respect.

We also did not find any effects for Conscientiousness or for Openness to Experience. Note that the group we studied is a social-living group. It is not a work or employment group that is achievement-oriented or task-focused, where hard work (Conscientiousness) and creativity (Openness) might be highly valued. Finally, we did not find any interactions between physical attractiveness and any of the Big Five dimensions; thus, high Extraversion and low Neuroticism represent personological pathways to social status that are independent of physical attractiveness.

Study 2: Status Within an All-Female Group

Method

Participants. Forty-four members of a sorority at a Southern university participated as part of a larger project on personality, similar to the participants in Study 1. On average, the women were 19 years old (SD = 1 year), and almost all were Caucasian. Similar to the fraternity, the sorority was paid $850 for participating in the study.

Measures. With the exception of the way we measured status, the procedure and measures were all identical to Study 1. Participants completed the NEO–FFI, and we used the same judges as in Study 1 to rate the

physical attractiveness of each sorority member. Interjudge reliability was substantial for the attractiveness ratings (α= .78), and the mean rating was 4.2 (SD = .6).

We measured status with three separate peer ratings. Participants rated the other sorority members on the amount of status (1 = *low status*, 7 = *high status*) they had in the sorority, the amount of influence (1 = *not influential*, 7 = *very influential*) they had in the sorority, and their prominence in the sorority (1 = *not visible*, 7 = *very visible*). As in Study 1, interjudge reliability was substantial for all three ratings, with alphas of .90, .95, and .97, respectively. The three ratings correlated highly, with an average intercorrelation of .93. In other words, the participants' rating of general status was essentially indistinguishable from the specific ratings of influence and prominence, suggesting that our participants' intuitive understandings closely agreed with our definition of status in terms of influence and prominence.[3] We thus averaged the mean ratings of the three dimensions to form one overall status score for each participant (M = 4.16, SD = .83); the alpha for this overall status measure was .98.

Similar to fraternity members, sorority members differed in their length of tenure in the house, and this length of association afforded greater opportunity to attain higher status. We thus removed the effect of tenure from the status variable using regression residuals, so that the findings reported below cannot be attributed to differential tenure in the sorority.

Results and Discussion

Personality and status. Table 2 presents the correlations between the Big Five dimensions and status. As expected, Extraversion was strongly related to status (r = .45). Similar to Study 1, the magnitude of this effect is noteworthy given that personality and status were measured from two different data sources.

We did not find a significant relation between Neuroticism and status in this female sample. This finding is consistent with the hypothesis that Neuroticism has a less negative effect on status in women. With respect to the other three Big Five dimensions, we replicated the fraternity findings from Study 1: Agreeableness, Conscientiousness, and Openness to Experience were not correlated with status in the sorority. Moreover, as in Study 1, there was no evidence for any type of curvilinear relation between Agreeableness and status, nor was there any interaction between Agreeableness and Extraversion.

Physical attractiveness. An unexpected finding was that there was no relation between physical attractiveness and status. Note that this lack of an attractiveness effect was not due to restriction of range; when we examined the variance in the attractiveness ratings, we found that the standard deviation in the sorority sample (.6) was no different from that in the fraternity (.5). Together with the fraternity findings, the sorority finding indicates that in these same-sex groups, physical attractiveness might be linked to status in men but not in women.

Table 2
Correlations of the Big Five Dimensions and Physical Attractiveness With Social Status in the Sorority Sample

Measure	Correlations	
	Zero-order	Physical attractiveness partialed
Big Five		
Extraversion	.45**	.43**
Agreeableness	.24	.21
Neuroticism	−.21	−.21
Conscientiousness	.03	.03
Openness	.11	.12
Physical attractiveness	−.12	

** $p < .01$.

Did the relation between Extraversion and status hold up after controlling for physical attractiveness? Similar to the fraternity sample in Study 1, the relation between Extraversion and status remained substantial (partial r = .43).

As in Study 1, we also tested whether physical attractiveness interacted with any of the Big Five dimensions in its relation to status. These moderated multiple regressions did not show any evidence for interaction effects; none of the interaction betas were significant.

Summary. We found a strong relation between Extraversion and status in this female sample, similar in magnitude to that in the male sample: More extraverted women had attained higher status in their group, just as more extraverted men had. Moreover, this strong relation was not due to physical attractiveness. With respect to Neuroticism, we did not find a significant relation as we had in the male sample. This finding is consistent with the hypothesis that high levels of Neuroticism are more detrimental to status attainment in men than in women.

Similar to the fraternity men, we did not find a relation between Agreeableness and status of any kind—linear, curvilinear, or in interaction with Extraversion. Nor did we find effects for Conscientiousness or Openness. In combination, our two studies suggest that these three Big Five dimensions may not be related to status attainment, at least in the same-sex groups we have studied so far.

Physical attractiveness was not related to status among sorority women, whereas there was a relation among the fraternity men. Why might this be? One possibility is related to the finding that men value attractiveness in a potential mate more than women do (D. M. Buss & Schmitt, 1993). Thus, if women are less attentive to attractiveness cues in general, they might not value attractiveness in other women, relying on other attributes instead. In other words, a woman's physical attractiveness might give her greater access to potential dating partners and greater popularity (Feingold, 1992) but not increase her prominence, respect, and influence among other women.

Study 3: Status Within Mixed-Sex Groups Over an Academic Year

Study 3 was designed to extend the findings from our first two studies, examining status differences in a different kind of social group and across time. Most important, we examined whether our findings would hold in mixed-sex groups. The same-sex groups we examined in Studies 1 and 2 had an important advantage for research on social status—we knew that fraternities and sororities typically have well-defined status hierarchies. However, groups that include both sexes are much more common than same-sex groups; thus, status in mixed-sex groups is ultimately more important to understand. Indeed, mixed-sex groups have somewhat

[3] Unfortunately, data about offices held were not available in the sorority. However, the fraternity findings suggest good convergence between peer ratings and life-outcome measures of status.

different dynamics than same-sex groups (e.g., Aries, 1996; Kerr & MacCoun, 1985; Piliavin & Martin, 1978). Hence, we studied men and women living together in a coed dormitory.

The use of mixed-sex groups in Study 3 also allowed us to examine sex differences within the same sample. In particular, in Studies 1 and 2 we found Neuroticism was significantly negatively related to status among fraternity men but not among sorority women. In Study 3, we analyzed the data separately for the two sexes, thus making results comparable to our previous studies. Then we used a moderated multiple regression design to test directly whether the link between Neuroticism and status differs for the two sexes and to estimate the size of this sex-by-trait interaction.

Longitudinal Stability of Status in Men and Women

In Studies 1 and 2, we examined personality traits and physical attractiveness as predictors of status in a concurrent design—the social groups we studied existed before our assessments, and their status hierarchies were already well-established. Can we show that preexisting personality traits and physical attractiveness predict status in newly formed groups? Longitudinal data would provide more concrete evidence that traits and attractiveness play a role in the attainment of status. Study 3 used a longitudinal design, studying dormitory residents over the course of an academic year. Personality traits and physical attractiveness could thus be measured early in the group's formation—within the first 2 weeks of the semester—and status attainment 4 and 9 months later could be considered as an outcome.

Measuring status at three different times also allowed us to explore an important issue in the development of status, namely its stability and change over time. Virtually no empirical work has examined the development of naturally occurring status hierarchies (Berdahl, 1996), and little is known about the temporal course of status. Evolutionary psychologists have argued that men should have a greater desire for status and thus allocate more time and effort to seeking status than women (D. M. Buss, 1999, p. 43). Social-role theorists have similarly suggested that status is stable among men but relatively unstable among women, and some findings are consistent with this claim (Aries, 1996, p. 56; Paikoff & Savin-Williams, 1983; Savin-Williams, 1979). The rationale is that men are more hierarchical in nature and therefore establish status orders that remain stable over time; for women, in contrast, status is said to be less relevant and thus more fluid, varying from interaction to interaction (Aries, 1996; Savin-Williams, 1979).

Is status among women really unstable, however? The past studies interpreted as demonstrating that status among women is unstable examined short-term groups that existed at the most for a few weeks (Aries, 1996; Savin-Williams, 1979). Thus, an alternative hypothesis is that men negotiate and settle hierarchies more rapidly than women do, but that eventually both sexes develop status orders that are quite stable. Indeed, some status theorists have suggested that men's status order is established very quickly whereas women's status negotiation has been described as a more complicated and subtle process (Mazur, 1985; Savin-Williams, 1979). Thus, the status order among women might just take longer to emerge. In Study 3, we examined the stability of status from the beginning of the semester to 4 months later, and again from 4 months to 9 months later, allowing us to test whether a status order among women does stabilize but later in time than in men.

Generalizability to Other Trait Measures

The first two studies showed that Neuroticism related significantly to status among fraternity men but not among sorority women. It has been argued that men tend to underreport the negative emotions that form the Neuroticism domain, such as fear, sadness, and worry, presumably because emotionality is seen as a feminine trait (e.g., Barrett, Robin, Pietromonaco, & Eyssell, 1998; Brody, 2000). If so, the Neuroticism effect we found among the fraternity men might reflect self-report bias rather than real personality differences in negative emotion. To examine this potential confound, we included in Study 3 a second, more objective, measure of Neuroticism, namely the behavioral expression of negative emotion as coded from videotape with a reliable and well-validated coding system, the Facial Action Coding System (FACS; Ekman & Friesen, 1978).

Another generalizability issue involves the Big Five personality dimensions. In our first two studies, we measured the Big Five traits using the NEO–FFI (Costa & McCrae, 1992). Demonstrating the same findings with a different instrument would further strengthen our case. Cross-instrument generalizability is of particular interest here because we found no effects for Agreeableness. In Costa and McCrae's (1992) conception, Extraversion includes warmth and is thus defined as somewhat more "agreeable" than it is on other Big Five instruments (Goldberg, 1993; John & Srivastava, 1999). Indeed, in student samples the NEO–FFI Extraversion Scale tends to show a positive, though small, correlation with the Agreeableness Scale; for example, in Studies 1 and 2 the correlation averaged .21. In Study 3 we used the Big Five Inventory (BFI; John, Donahue, & Kentle, 1991); the Extraversion and Agreeableness Scales on the BFI are quite independent (Benet-Martinez & John, 1998).

Physical Attractiveness

Our findings for physical attractiveness also need to be replicated in a broader sample because, compared with the general student population, the sorority and fraternity members may represent a relatively restricted range of physical attractiveness. Physical attractiveness often functions as an implicit criterion for inclusion in these groups, resulting in both higher mean levels of attractiveness and potentially lower variances. In Study 3, therefore, we examined dormitory residents, who are less selected on attractiveness and are expected to show greater variation.

Method

Participants. The participants were 74 residents (42 men and 32 women) of two dormitory floors at a large Midwestern university. The students were freshmen and sophomores and were mostly 18 and 19 years old. Each dormitory floor was paid $400 for participating in the study. The two dormitory floors did not differ in sex and age composition, Big Five personality scores, videotape-coded negative emotion expression, or physical attractiveness. Thus, the data were combined in our analyses.

Prior acquaintance among the dorm floor residents was an important variable because we were interested in status over time and in sex differences in the stability of status. We considered two measures. First, did the

participants already know many dormitory floor residents beforehand? Participants reported that they "did not know at all" 73% of their new dorm mates; men and women did not differ in prior acquaintance. Second, at both the Time 1 and the Time 3 assessments, participants rated their acquaintance with the other residents; we analyzed these ratings in a 2 × 2 analysis of variance (ANOVA), with sex as a between-subjects factor and time as a repeated-measures factor. The only significant effect was for time; over the 9 months of the study, acquaintanceship ratings increased by more than a standard deviation (effect size measure $d = 1.1$). In short, the dormitory residents had some prior acquaintance and also showed the expected increase in acquaintanceship; none of the measures showed a sex difference.

Measuring status. Peer-rated status was assessed at three times in the academic year: within the first 2 weeks of the fall semester (Time 1), in the last week of the fall semester (Time 2), and in the last week of the spring semester (Time 3). At each of the three assessments, participants rated the residents of their dormitory floor on the status they had within that dormitory floor. Status was defined for the participants as "the amount of prominence, respect, and influence" the individual held in the residence hall; the rating scale ranged from 1 (*low*) to 7 (*high*).

Peer-rated status was the average of all ratings given to each dormitory member by the other members. As in Studies 1 and 2, the mean status ratings were quite reliable. Alpha reliability coefficients were computed separately for male and female targets and for the total sample combined, and each alpha exceeded .75; the mean of the alphas was .81. In addition, we found high agreement across male and female judges; across the three assessments, the average correlation between the male-judged status composite and the female-judged status composite was .84. Finally, in terms of mean ratings, there was no consistent sex-of-target difference across time; a 2 × 3 ANOVA with sex as a between-subject factor and time as a repeated-measures factor showed that the men and women in this dormitory did not differ in the status they were assigned by their peers.

A subset of 65 participants also completed self-ratings of status, using the same construct definition and rating scale. Although we did not use these self-ratings, future researchers might want to use such self-reports to measure status. Thus, the convergence of the self-ratings with the composite peer ratings may be of interest. Once the status hierarchy was established, self-reports of status agreed substantially with the peer ratings both at Time 2 ($r = .58$, $p < .01$) and at Time 3 ($r = .62$, $p < .01$), and these convergent validity coefficients did not differ across the two sexes. Moreover, self-rated status showed substantial stability across the 5-month interval from Time 2 to Time 3 ($r = .65$, $p < .01$).

Big Five personality traits. To measure the Big Five personality dimensions, we used the 44-item BFI (John et al., 1991), which participants completed during the first assessment. The BFI uses short phrases to assess the most prototypical traits defining each of the Big Five dimensions (John & Srivastava, 1999). The trait adjectives (e.g., "thorough") that form the core of each of the 44 BFI items (e.g., "Does a thorough job") were selected because experts judged them as the most clear and prototypical markers of the Big Five dimensions (John, 1989, 1990). The BFI scales show substantial internal consistency, retest reliability, and clear factor structure as well as considerable convergent and discriminant validity (Benet-Martinez & John, 1998; John & Srivastava, 1999). Moreover, Extraversion and Agreeableness are more independent on the BFI than on the NEO–FFI (John & Srivastava, 1999). Indeed, in the current study, BFI Extraversion and Agreeableness correlated .00. This independence is important because we wanted to test whether it is Extraversion itself, rather than elements of Agreeableness, that is related to status.

Negative emotion expression. To obtain a more objective measure of Neuroticism, we scored the negative emotion expressions participants displayed during videotaped laboratory sessions. The videotapes included a number of emotion-eliciting situations commonly used in emotion research (e.g., Buswell & Keltner, 2001; Tomaka, Blascovich, Kelsey, & Leitten, 1993). These situations generally elicit moderate levels of a variety of negative emotions that are considered part of Neuroticism, such as fear, embarrassment, shame, sadness, anger, contempt, and disgust. For example, one situation designed to evoke embarrassment and shame involved asking participants to count backwards by 17s, out loud and in front of others.

The videotapes were coded with Ekman and Friesen's (1978) Emotion Facial Action Coding System (EMFACS). To use EMFACS, coders must be certified, training on the system for approximately 100 hr and then passing a reliability test designed by Ekman and Friesen. To ensure reliability of codes for the current study, a second EMFACS-certified coder coded 20% of the facial action units observed; as expected, reliability estimates for the two coders was high, at 81%. To derive scores for negative emotion expression, participants' displays of the following emotions were scored and averaged: fear, embarrassment, shame, sadness, anger, contempt, and disgust. For each of these emotions, the frequency, duration, and intensity was coded, standardized, and summed (cf. Keltner, Moffitt, & Stouthamer-Loeber, 1995). Each participant's overall negative emotion expression was calculated by aggregating all instances of negative emotion displayed across the emotion induction procedures.

Physical attractiveness. The judges who rated participants' physical attractiveness in Studies 1 and 2 also rated the participants in the current study, using the same 7-point scale. As in Studies 1 and 2, these ratings were based on 10-s video clips of each participant, recorded while the participant was listening to instructions and sitting relatively motionless. The judges agreed substantially on the physical attractiveness of the dormitory members: alpha was .92 for all targets, .91 for male targets, and .91 for female targets.

We compared the attractiveness ratings from the fraternity and sorority samples with the dormitory men and women in a 2 × 2 ANOVA, with sex and living group ("Greek" vs. dorm) as between-subjects factors. As expected, the dormitory residents ($M = 3.8$, $SD = .96$) were rated significantly less attractive than were the Greeks ($M = 4.2$, $SD = .56$); the main effect of sex and the interaction were not significant. More important, Levene's test for the equality of variances showed the range restriction effects we had suspected in the two Greek samples. In particular, the variance among the sorority women ($SD = .6$) was significantly smaller than among the dormitory women ($SD = 1.0$), and the variance among the fraternity men ($SD = .5$) was significantly smaller than among the dormitory men ($SD = .9$). The larger variance among the dormitory residents' attractiveness allowed us to test the link between attractiveness and status with less concern about range restrictions. Note, however, that the two sexes *within* each kind of living group did not differ in their attractiveness variances. Thus, sex differences in the link between attractiveness and status cannot be attributed to differential variances, either for Studies 1 and 2 or for the present study.

Results and Discussion

Stability of status. Table 3 presents the stability correlations of peer-rated status for the two time intervals. For dormitory men,

Table 3
Stability of Social Status: Correlations Across 4 and 9 Months in the Dormitory Sample

Participants	Time 1 to Time 2	Time 2 to Time 3
Men	.80**	.89**
Women	.41*	.88**
Combined	.61**	.86**

Note. Time 1 = 2 weeks into semester; Time 2 = 4 months into year; Time 3 = 9 months into year.
* $p < .05$. ** $p < .01$.

status was already highly stable from Time 1 to Time 2 (r = .80). This 4-months stability correlation is especially noteworthy because status at Time 1 was measured after only 2 weeks into the academic year. Male status was also highly stable from Time 2 to Time 3, a time interval of another 5 months (r = .89). These findings suggest that men had already established a stable hierarchy within 2 weeks—that is, quite early in a group's development, consistent with studies of hierarchy formation in young boys (Savin-Williams, 1979).

For the women in the same dormitory, the stability correlation between status at Time 1 and 2 was only .41. To test whether status was significantly less stable for the women than for the men, we conducted a moderated multiple regression analysis (Aiken & West, 1991) predicting status at Time 2 from status at Time 1, sex, and their interaction. As expected, the interaction effect was significant (β =.20, $p < .05$). Thus, early in the group's formation, female status was less stable, consistent with earlier findings suggesting relative instability (Aries, 1996; Savin-Williams, 1979). However, status among the women did not remain unstable. As Table 3 shows, the correlation between Time 2 and 3 was .88 among women, almost exactly the same as the .89 we observed among men; there was no longer a sex interaction effect in the moderated multiple regression. Thus, at least by the 4th month, status ordering among the women had become as stable as it was among the men. In combination, these findings demonstrate that the hierarchy in men developed and stabilized rapidly, whereas the hierarchy in women stabilized more slowly.

Extraversion and status. Did Extraversion, measured at the first assessment, predict status 4 and 9 months later? The correlations are shown in Table 4. All correlations between Extraversion and status were significant and substantial, for both men and women and at both Time 2 and Time 3. Even 9 months later, Extraversion predicted status with correlations above .35. Moreover, as in our first two studies, we also computed partial correlations controlling for the effects of physical attractiveness. As shown in Table 4, all Extraversion effects remained significant. Thus, we replicated and extended the findings from Studies 1 and 2, now showing that preexisting personality predicts status attainment in a newly formed group. Moreover, the importance of Extraversion was not limited to same-sex groups; the correlations for men and women in the current study are about the same size as those in Studies 1 and 2.

Agreeableness and status. As in Studies 1 and 2, we found no evidence that Agreeableness predicted status. Table 4 shows no evidence of a linear relation; the four relevant correlations were .01, –.01, .08, and .17, remarkably and consistently close to zero. There was also no evidence for curvilinear effects: Agreeableness did not relate in a curvilinear way to status in either men or women at either time. Moreover, there was no interaction with the other interpersonal dimension, Extraversion. In short, our findings suggest that Agreeableness was irrelevant to status.

Two indicators of Neuroticism and status. Table 4 also presents the correlations between status and Neuroticism, using two different indicators. First, self-reported BFI Neuroticism correlated negatively and significantly with status at Times 2 and 3 among men but did not correlate with status among women at either Time 2 or 3, thus replicating the NEO–FFI self-report findings from Studies 1 and 2. Second, EMFACS-coded negative emotion expression also correlated negatively and significantly with status at Times 2 and 3 among men but not at either time among women. These findings are remarkably consistent with the self-report Neuroticism findings and with the findings from Studies 1 and 2, lending further support to the idea that low Neuroticism is linked to male, but not to female, status. Moreover, the partial correla-

Table 4
Predicting Social Status 4 and 9 Months Later: Correlations With the Big Five Dimensions and Physical Attractiveness in the Dormitory Sample

	Men		Women	
Measure	4 months	9 months	4 months	9 months
Extraversion				
Zero-order	.48**	.40**	.39*	.36*
Phys. attr. partialed	.53**	.44**	.43*	.38*
Agreeableness				
Zero-order	.08	.17	.01	−.01
Phys. attr. partialed	.10	.20	−.02	−.03
Neuroticism				
Zero-order	−.39*	−.46**	.08	.14
Phys. attr. partialed	−.31*	−.38*	.04	.12
Negative Emotion				
Zero-order	−.42**	−.39*	.19	.14
Phys. attr. partialed	−.47**	−.44**	.17	.12
Conscientiousness				
Zero-order	.16	.19	−.20	−.31
Phys. attr. partialed	.17	.21	−.22	−.32
Openness to Experience				
Zero-order	−.03	.00	−.12	−.24
Phys. attr. partialed	−.01	.02	−.09	−.22
Physical attractiveness	.43**	.44**	.26	.16

Note. Phys. attr. = physical attractiveness.
* $p < .05$. ** $p < .01$.

tions (see Table 4) show that these effects are independent of individual differences in physical attractiveness. Note also that the self-report and EMFACS-coded results among men showed substantial effect sizes; all correlations exceeded .38. These findings suggest that the sex difference in the link between Neuroticism and status does not simply reflect self-report biases.

To test the significance of this sex difference, we used moderated multiple regressions, with sex as the moderator variable. These regressions showed that the relation between self-reported Neuroticism and status was significantly different for male and female dormitory members; the beta of the interaction effect was $-.22$ ($p < .05$) at Time 2 and $-.32$ ($p < .01$) at Time 3. Parallel analyses for negative emotion expression showed the same sex interaction effects; the beta for the interaction term was $-.30$ ($p < .01$) at Time 2 and $-.28$ ($p < .05$) at Time 3.

Taken together, these results suggest a number of conclusions: (a) The gender difference in the relation between Neuroticism and status is significant; (b) this gender difference remains even when a non-self-report measure of negative emotional expressiveness is used; (c) among men, Neuroticism trait levels predict status not only concurrently, but also measured later in time; and (d) the importance of Neuroticism to male status is not limited to all-male groups.

Other Big Five traits. As in Studies 1 and 2, neither Conscientiousness nor Openness to Experience predicted status among men or women at either Time 2 or 3.

Physical attractiveness. Table 4 also shows the correlations between physical attractiveness and status for male and female dormitory members. Consistent with the fraternity findings, physical attractiveness predicted status in dormitory men at both Times 2 and 3, with *r*s exceeding .40. Also, consistent with the sorority findings, physical attractiveness was not significantly related to status in dormitory women at either time. These findings for the dormitory women replicate the zero correlation between attractiveness and status in the sorority women of Study 2 and suggest that it was not due to restriction of range. Note also that the attractiveness variance in the dormitory women was at least as large as for the dormitory men, ruling out this statistical artefact explanation.

We further explored the relation between physical attractiveness and status by examining two possibilities. First, evolutionary psychologists have argued that men are particularly attuned to attractiveness cues (D. M. Buss & Kenrick, 1998; D. M. Buss & Schmitt, 1993). Thus, attractiveness might play a role when men judge status but not when women judge status; this hypothesis is consistent with the sorority findings. However, when we examined the effects separately for male-judged status and female-judged status in the dormitory sample, status judged by male raters and by female raters did not differ in their correlations with attractiveness. A second hypothesis is that, for heterosexual individuals, attractiveness plays a role when they judge the status of the opposite sex but not the same sex. Indeed, there was a small trend for attractiveness to play a greater role in cross-sex status ratings (male judges rating female targets and vice versa) than in same-sex status ratings; although consistent for all four comparisons (by sex of judge and across two times), those effects were weak and not significant, averaging .36 for cross-sex and .30 for same-sex status ratings. Overall, then, the lack of an attractiveness–status link in women cannot be explained by sex differences among status judges, and future research needs to examine other possibilities.

General Discussion

The primary aim of the current research was to examine whether the status ordering of face-to-face groups could be predicted from individual differences in personality traits and physical attractiveness. Using a multimethod approach, our three studies offer strong evidence that personality and attractiveness are indeed linked to status differences. Moreover, our findings show which personality traits are important in shaping the status ordering of informal social groups. Table 5 summarizes our findings across the three studies, separately for men and women.

Extraversion Is Important for Both Sexes

In both men and women, in both same-sex and mixed-sex groups, and across time, Extraversion was related to elevated status. As shown in our summary in Table 5, the correlations ranged from .36 to .48, with a mean of .45 for all male samples and .40 for all female samples. Even when status was measured 4 and 9 months after the personality measures, every predictive correlation still exceeded .35. These are substantial effect sizes, and our

Table 5
Correlations of the Big Five Dimensions and Physical Attractiveness With Social Status: Summary of Three Studies

	Men			Women				
		Dormitory			Dormitory		Average	
Measure	Fraternity	Time 2	Time 3	Sorority	Time 2	Time 3	Men	Women
Big Five								
Extraversion	.47**	.48**	.40**	.45**	.39*	.36*	**.45**	**.40**
Agreeableness	.12	.08	.17	.24	.01	−.01	.12	.08
Neuroticism								
Self-report	−.31*	−.39*	−.46**	−.21	.08	.14	**−.39**	.00
Emotional expression		−.42**	−.39*		.19	.14	**−.41**	.17
Conscientiousness	.23	.16	.19	.03	−.20	−.31	.17	−.24
Openness to Experience	−.05	−.03	.00	.11	−.12	−.24	−.02	−.16
Physical attractiveness	.39**	.43**	.44**	−.12	.26	.16	**.42**	.10

Note. Correlations replicated across the studies are set in bold. Time 2 = 4 months into the year; Time 3 = 9 months into the year.
* $p < .05$. ** $p < .01$.

multimethod designs ensure that they cannot be attributed to shared method variance. Moreover, the effect remained strong in all analyses even after controlling for the effects of physical attractiveness. Thus, in terms of the strength and consistency of the findings, Extraversion was the most important individual difference in predicting status in face-to-face groups.

Neuroticism Impedes Status in Men

In both the fraternity and the dormitory men, Neuroticism was negatively related to status; as shown in Table 5, all three correlations exceeded –.30, and the average was –.39. However, Neuroticism was not related to status in either the sorority women or the two assessments of the dormitory women in Study 3; as shown in Table 5, the average correlation was .00. That is, sex moderated the relation between Neuroticism and status, as shown by a significant sex by Neuroticism interaction in Study 3 that replicated at both times. This moderator effect also replicated at both times with a second, more objectively scored measure of Neuroticism, negative emotion expression; thus, this sex difference could not be attributed to a sex difference in self-report biases. In combination, these findings offer considerable support for the hypothesis that gender norms about negative emotion are involved: "Real" men are not supposed to feel and act afraid, sad, guilty, or vulnerable, and men who violate these gender expectations are less likely to be granted high status in face-to-face groups.

Physical Attractiveness Facilitates Status in Men

Physically attractive men tended to attain higher status in both the fraternity and dormitory samples, with substantial effect sizes (mean r = .42). One surprise in our data was that we did not find any evidence for this relation in either the sorority or the dormitory women (mean r = .10). This lack of effect, summarized in Table 5, is surprising because it is often thought that physical attractiveness is valued more in women than in men (D. M. Buss & Schmitt, 1993). One possible explanation is that physical attractiveness does relate to number of dates in both sexes (Feingold, 1992), but that dating success may be a mixed blessing for women in terms of their status among their peers. That is, success in dating and number of romantic partners in college may lead to increases in status among men but not among women. This explanation is consistent with differences in gender norms regarding dating and sexual behavior; presumably, men's success in the romantic arena contributes to higher status, but that may not be true for women. Thus, our results suggest a preliminary answer to the question of whether attractiveness relates to greater social influence (e.g., Ashmore & Longo, 1995): The answer appears to be yes for men but no for women. Future research needs to establish whether these results hold in other samples and, if so, identify the mechanisms underlying these sex differences.

Agreeableness Is Not Important for Either Sex

Our three studies also offer clear and consistent evidence regarding Agreeableness: It did not affect face-to-face status. We did not find a single linear, curvilinear, or interaction effect in either men or women, in same-sex or mixed-sex groups, or at the two different times in Study 3.[4] As can be seen in Table 5, the overall mean of the six relevant correlations was .10. These consistent null effects are most easily explained by models that conceptualize status or "getting ahead" as orthogonal to popularity or "getting along" (Hogan, 1983; Wiggins, 1979). In general, then, nice guys (and gals) have nothing to worry about: They are no more likely to finish last than are manipulative, mean, and nasty folks. Yet being nice, warm, and kind did not lead to higher status, either. What might account for these findings?

The explanation may lie in the benefits and costs of manipulation and cheating in social groups. We propose that the status negotiation tactics associated with the two poles of Agreeableness sometimes work and sometimes do not. The deceptive, manipulative, and aggressive tactics of individuals low in Agreeableness (see Kyl-Heku & Buss, 1996) may sometimes succeed in getting them ahead but at the risk of detection and damage to the individual's reputation; once individuals have acquired a bad reputation, they may be shunned and find it even harder to get ahead in the group. Thus, exploratory item-level analyses of our data showed that NEO–FFI items like "Some people think of me as cold and calculating" were negatively related to status—this is an individual low in altruism and everybody knows it. On the other hand, an occasional and well-executed manipulation may serve to enhance the status of a low Agreeableness individual; low Agreeableness items indicating a Machiavellian approach to social life, such as "If necessary, I am willing to manipulate people to get what I want," were positively related to status. Future research should examine the facets that define the broad Agreeableness dimension (Costa & McCrae, 1992, 1995). If our argument has merit, then a reputation for selfishness (i.e., low scores on the Altruism facet of Agreeableness) should hinder status attainment in face-to-face groups, whereas some Machiavellian tendencies (i.e., low scores on the Straightforwardness facet) might facilitate status attainment. Further predictions center on interactions with the kind of group studied. For example, discerning altruism may pay off in tight-knit groups where all members have known each other for years (e.g., rural villages). In contrast, Machiavellianism might be effective in groups that do not have extensive interactions, allowing their members some reputational anonymity.

Conscientiousness and Openness Are Not Important in These Groups

Status was not related to either Conscientiousness or Openness to Experience in any of our studies. These replicated null effects reinforce the view that, in the informal social groups we have studied here, status functions differently than in organizational and professional groups (e.g., Gibb, 1985), where task-performance and achievement play a central role. In such task-focused groups,

[4] We also explored whether there were any curvilinear effects or interactions for the other Big Five dimensions and physical attractiveness. The findings are simple to summarize: We did not find any consistent effects. It is important to emphasize the consistency of effects across studies and sexes, rather than significance in any one study, because very large samples would be needed to detect small higher order effects (Chaplin, 1997). Indeed, we examined the size, shape, and patterns of these effects but did not uncover any systematic findings. For example, the shape of the quadratic term for Agreeableness did not replicate from Study 1 to Study 2. Moreover, personality and attractiveness had nonoverlapping effects. At this point, the most parsimonious conclusion is that the links between the Big Five dimensions, physical attractiveness, and social status are likely linear and suggest independent pathways to status attainment.

the personality predictors may be similar to those for educational achievement, professional success, and SES (Digman, 1989; Hogan & Hogan, 1991; Kyl-Heku & Buss, 1996)—Conscientiousness should certainly play an important role and Openness may as well.

Status as a Function of the Individual and of the Group

One important strength of the present research is the focus on one kind of group—all three groups we studied were naturalistic social groups where the members live together. Thus, taken together our three studies can provide a clear and replicated picture of the characteristics that predict status in this particular kind of group.

Of course, such a clear focus is also an important limitation, as our studies do not provide information about the predictors of status in other kinds of groups. For example, would the present findings apply to groups such as business organizations, athletic teams, psychology departments, or juries? In these task-focused groups, the goals and the scope of interaction are defined much more narrowly than in the social-living groups we have studied here. Thus, specific tasks and abilities may be central determinants of status; individuals who do their jobs well, such as sales people who sell more product, players who score more touchdowns, and researchers who publish more papers, will likely end up with higher status. Some of these task-specific skills may be independent of personality (e.g., athletic skills). Still, we can make some general personality predictions. In particular, the literature on work performance (Barrick & Mount, 1991) highlights the importance of Conscientiousness, which predicts work performance across all job categories. Thus, in groups where task performance is valued, Conscientiousness would likely be a generally important predictor of status.

In general, then, the importance of personality factors for status attainment should depend on the kind of group being studied (Eibl-Eibesfeldt, 1989; Goldhamer & Shils, 1939; Hogan & Hogan, 1991). For example, Openness will likely predict status in groups that value creativity, originality, and independence of judgment, such as in an artist colony, during brain-storming sessions of a product development team, or in an academic university department, but probably not in the military. Agreeableness might predict status in support groups and during a team-building exercise. That is, future theory and research needs to specify the characteristics of the groups being studied and explain how particular traits become relevant to status negotiation within that group.

What about our present findings? As we have argued, the Extraversion effect depends on having an informal interaction context, and the Neuroticism effect depends on traditional male gender norms. Thus, to the extent that a work group provides some opportunity for informal interaction and is subject to gender expectations, Extraversion and Neuroticism should again emerge as important determinants of status.

These considerations return us to the two general theoretical perspectives we described in the introduction. One locates the origin of status in the individual and the other locates it in the group. We suggested that both perspectives together are needed to understand the personological origins of status differences in social groups. Indeed, our findings illustrate the importance of taking such an integrative view. For example, the Extraversion effect may be explained in terms of the behaviors, skills, and tactics that some individuals have at their disposal to effectively negotiate the status hierarchy in their group. However, for the Neuroticism effect, such an individual-focused explanation is not sufficient. The group's values—in this case the gender norms and expectations—are needed to explain why Neuroticism related negatively to status among the men but not the women in our samples.

Status in Women: Does It Exist?

What can we conclude from our findings about social status in women? Both evolutionary psychologists and social-role theorists have suggested that status is less important to women than to men. A strong version of this view holds that status is not relevant to the social lives of women and that status is an inherently male concept. If women did not pay attention to status and no meaningful status hierarchy existed among women, status judgments made by women should differ from those made by men, and we would expect group members to disagree when judging status in women. Moreover, status ratings for women should be inherently unstable over time, and status differences obtained at any one time should not be predictable from personological variables.

Our findings clearly do not support this strong view of status as a gendered construct. Interjudge agreement was high in both the same-sex and the mixed-sex groups of women, and agreement was just as high as for ratings of status in men, even when the status ratings were made only by women. Moreover, Study 3 showed that men and women agreed highly with each other on their status ratings. Thus, status was conceptualized similarly by women and men, and women and men were judged equally clearly in terms of their relative status positions. Moreover, in contrast to research on leadership where women score lower than men (Eagly & Karau, 1991), we found no consistent mean differences between women and men in status.

Whereas these findings highlight similarities between the sexes, we also found some differences. One set of differences involved the emergence of the status hierarchy and its stability over time. In the longitudinal design of Study 3, we found that the status hierarchy in men became and remained very stable within just a few weeks. In contrast, initially the hierarchy in women was substantially less stable but reached the same level of stability as in men after several months. These findings demonstrate that female status is not unstable as previously suggested (e.g., Aries, 1996). Rather, we suggest that the status order among women takes longer to emerge and stabilize than among men, but eventually men and women do not differ in the stability of their status hierarchies. These longitudinal findings again speak against a strong gendered view of status and are more compatible with the view that status negotiation is a more subtle and complex process in women than in men, just as Savin-Williams (1979) suggested for boys and girls. Indeed, even a recent study of female chimpanzees suggests a similar conclusion: In contrast to the male chimpanzee hierarchy, "dominance rank is so subtle as to be nonexistent, yet it has a huge impact on reproductive success" (Angier, 1997, p. B11; Pusey, Williams, & Goodall, 1997).

Finally, we found both similarities and differences in the characteristics that predict status in men and women. Extraversion predicted status in both men and women, and Agreeableness, Conscientiousness, and Openness were irrelevant for status attain-

ment in both sexes. The sex differences involve Neuroticism and physical attractiveness, with both predicting status in men but not in women, a finding replicated across same-sex and mixed-sex groups. One way to think about these findings is to focus on the predictability of status; in terms of the multiple *R*s, status was substantially less predictable in women than in men, despite the fact that the reliabilities of the status ratings and the predictor variables did not differ.

One question for future research is to identify other factors that predict status in women, thus making status hierarchies in women just as predictable as they are in men. One potential candidate is concern with communion and intimacy. These attributes are thought to be valued more by women than by men (e.g., Wood, Christensen, Hebl, & Rothgerber, 1997) and might thus relate more strongly to status differences in women than in men. However, note that we did not obtain any differential gender effect for Agreeableness, a dimension related to communion; that makes us less than sanguine in predicting a gender interaction for communion. If, in the end, no other predictors of status in women can be found, we would have to conclude that although status can be measured with equal consensus and stability in both sexes, status differences in women emerge later and remain less clear and predictable than in men. In that case, status would still not be completely irrelevant to women but instead differ somewhat in origin and dynamics from status in men.

Measuring Status

On the basis of our literature review, we defined status in face-to-face groups as differences in prominence, respect, and influence among the group members. Because status exists in the eyes of other members of the group, we measured status in terms of peer ratings. Note that our measures of status differed somewhat in what aspects of the definition were emphasized. Nonetheless, the findings replicated closely across the three studies. Future research should consider other measures of status in face-to-face groups. Even more important, future studies should measure not only status, but also related concepts of social functioning, such as popularity and leadership, and even broader concepts of achievement, such as success in education and career. Although these concepts are conceptually distinct, they are likely to be empirically related, a topic that has not been sufficiently addressed. The present findings suggest that a certain amount of empirical differentiation can be expected: Status was not related to Agreeableness whereas popularity should be (Wiggins, 1979), and status was not related to Conscientiousness whereas leadership (Hogan et al., 1994) and occupational success (Barrick & Mount, 1991; Hogan & Hogan, 1991) have been shown to relate to that Big Five dimension.

Identifying Mediator Variables

Another important direction for future research is to examine the processes that translate the broad dispositions captured by the Big Five dimensions into status attainment. For example, what exactly do the extraverts do that gets them such prominence, respect, and influence in their groups?

Facets of the Big Five. One step for future research would be to examine the lower level, more specific facets that make up each of the superordinate Big Five dimensions. For example, Hogan (1996; see also Hogan & Hogan, 1991) argued that ambition needs to be considered separately from the broad dimensions of Extraversion and Conscientiousness. Although our research was not designed for that purpose, we conducted an exploratory analysis to find out how the individual Big Five items and item facet clusters correlated with status in our three studies, allowing us to articulate hypotheses for future research. For Extraversion, the most important finding was that it was not just one specific facet that carried the entire effect. Instead, at least four facets seemed important; we found significant correlations for items from the Activity facet ("very active"), Positive Emotions ("cheerful, high-spirited"), Sociability ("outgoing, sociable"), and Assertiveness ("an assertive personality"; "not shy or inhibited"). In other words, it was not solely the Extraversion facet of assertiveness or dominance that was important for status attainment; rather, a more general set of processes that underlies all these facets of Extraversion must be involved.

The approach system. Contemporary accounts of Extraversion that tie together these seemingly varied facets focus on the central role of positive emotion (Tellegen, 1985; Watson & Clark, 1997) and the neurobiological approach system (Clark & Watson, 1999; Depue, 1996; Gray, 1982). Positive incentive stimuli (or signals of reward) are said to activate the approach system. Approach is a very general behavior pattern—"forward locomotion and search behavior as a means of satisfying an animal's need for food, a sex partner, social interaction, a nesting place" (Depue, 1996, p. 350). Individuals differ in the sensitivity of this biological system to the signals of reward. When the organism detects reward signals, the approach system activates incentive motivation, accompanying positive affect, approach behavior, and supportive social–cognitive processes, and it is this whole pattern of response that forms the basis of the Extraversion dimension.

Thus, theoretically guided studies of the processes underlying differential status attainment can be conducted at multiple levels of analysis. Studies of mediating processes may most profitably start with an analysis of positive emotions, such as interest, joy, excitement, desire, hope, and love, measured during several group interactions. The mediating effects of approach behavior could be operationalized in terms of activity level and tempo, assertive behaviors, social initiative, or more specifically the particular tactics the individual uses to get ahead (Kyl-Heku & Buss, 1996). Finally, supportive social–cognitive processes could be studied in terms of the many-faceted construct of social skills (Riggio, 1986). The analysis above suggests that it is not any one of these individual responses but, rather, the whole pattern that will account for the effects of Extraversion on status.

These kinds of correlational studies could be done in naturalistic groups similar to those we studied here. However, this correlational research must eventually be supplemented with experimental studies. The gender-role hypothesis for the Neuroticism effect in men may lend itself to such an approach. In particular, Gross (in press) showed that individuals can be instructed to regulate their emotions using various strategies. Thus, both men and women could be assigned to either an emotion regulation condition ("suppress any negative emotion") or a control condition ("act naturally"), which would be one way to test whether differential expression of negative emotion is indeed the causal factor underlying the Neuroticism effect. Compared with the control group,

men who are suppressing negative emotion should receive higher status ratings from the other group members than women who are suppressing. Experimental approaches could also be used to study the social and perceptual processes underlying the effects of physical attractiveness on status. Such a two-pronged strategy combining correlational and experimental methods will be most likely to explicate the personality processes underlying status attainment.

In the introduction, we considered our students' intuitions about the personality traits that would help or hinder status attainment. In actuality, only a few of their intuitions were supported. The dimension they thought most important—Conscientiousness—was not at all related to actual status attainment; only two of the five dimensions they thought would be helpful were indeed helpful, and they entirely missed the gender interaction effect for Neuroticism. In the end, then, these effects were less intuitively obvious than one might have anticipated. Indeed, the fact that the students are unaware of the real determinants of status in their own living groups is reminiscent of a recurrent issue in American presidential politics: Voters claim they care about where the candidates stand on the issues and about their competence (Conscientiousness and Openness). But in the end, like the members of our social groups, people have historically elected presidents who have charisma and social skills (i.e., Extraversion), do not express fear and vulnerability (i.e., low Neuroticism), and are physically attractive.

References

Adler, A. (1930). Individual psychology. In C. Murchison (Ed.), *Psychologies of 1930* (pp. 395–405). Worcester, MA: Clark University Press.

Adler, N. E., Epel, E., Castellazzo, G., & Ickovics, J. (2000). Relationship of subjective and objective social status with psychological and physiological functioning: Preliminary data in healthy White women. *Health Psychology, 1,* 586–592.

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions.* Newbury Park, CA: Sage.

Akert, R. M., & Panter, A. T. (1988). Extraversion and the ability to decode nonverbal communication. *Personality and Individual Differences, 9,* 965–972.

Angier, N. (1997, August 12). In the society of female chimps, subtle signs of vital status. *The New York Times,* p. B11.

Aries, E. (1996). *Men and women in interaction.* New York: Oxford University Press.

Ashmore, R. D., & Longo, L. C. (1995). Accuracy of stereotypes: What research on physical attractiveness can teach us. In Y. Lee, L. J. Jussim, & C. R. McCauley (Eds.), *Stereotype accuracy: Toward appreciating group differences* (pp. 63–86). Washington, DC: American Psychological Association.

Bakan, D. (1966). *The duality of human existence: An essay on psychology and religion.* Skokie, IL: Rand McNally.

Bales, R. F., Strodtbeck, F. L., Mills, T. M., & Roseborough, M. E. (1951). Channels of communication in small groups. *American Sociological Review, 16,* 461–468.

Barkow, J. H. (1975). Prestige and culture: A biosocial interpretation. *Current Anthropology, 16,* 553–572.

Barrett, L. F., Robin, L., Pietromonaco, P. R., & Eyssell, K. M. (1998). Are women the "more emotional" sex? Evidence from emotional experiences in social context. *Cognition & Emotion, 12,* 555–578.

Barrick, M. R., & Mount, M. K. (1991). The Big Five personality dimensions and job performance: A meta-analysis. *Personnel Psychology, 44,* 1–26.

Benet-Martinez, V., & John, O. P. (1998). Los cinco grandes across cultures and ethnic groups: Multitrait–multimethod analyses of the Big Five in Spanish and English. *Journal of Personality and Social Psychology, 75,* 729–750.

Berdahl, J. L. (1996). Gender and leadership in work groups: Six alternative models. *Leadership Quarterly, 7,* 21–40.

Berger, J., Cohen, B. P., & Zelditch, M. (1972). Status characteristics and social interaction. *American Sociological Review, 37,* 241–255.

Bernstein, I. S. (1981). Dominance: The baby and the bathwater. *Behavioral and Brain Sciences, 4,* 419–457.

Brody, L. R. (2000). The socialization of gender differences in emotional expression: Display rules, infant temperament, and differentiation. In A. H. Fischer (Ed.), *Gender and emotion: Social psychological perspectives* (pp. 24–47). New York: Cambridge University Press.

Buss, A. H. (1988). Dominance. In A. H. Buss (Ed.), *Personality: Evolutionary heritage and human distinctiveness* (pp. 196–222). Hillsdale, NJ: Erlbaum.

Buss, D. M. (1996). Social adaptation and five major factors of personality. In J. S. Wiggins (Ed.), *The five-factor model of personality: Theoretical perspectives* (pp. 180–207). New York: Guilford Press.

Buss, D. M. (1999). Human nature and individual differences: The evolution of human personality. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 31–56). New York: Guilford Press.

Buss, D. M., Gomes, M., Higgins, D. S., & Lauterbach, K. (1987). Tactics of manipulation. *Journal of Personality and Social Psychology, 52,* 1219–1229.

Buss, D. M., & Kenrick, D. T. (1998). Evolutionary social psychology. In D. T. Gilbert & S. T. Fiske (Eds.), *Handbook of social psychology* (4th ed., Vol. 2, pp. 982–1026). Boston: McGraw-Hill.

Buss, D. M., & Schmitt, D. P. (1993). Sexual strategies theory: An evolutionary perspective on human mating. *Psychological Review, 100,* 204–232.

Buswell, B., & Keltner, D. (2001). *Themes and variations in facial expression of embarrassment.* Manuscript in preparation.

Caspi, A., & Bem, D. J. (1990). Personality continuity and change across the life course. In L. A. Pervin (Ed.), *Handbook of personality: Theory and research* (pp. 549–575). New York: Guilford Press.

Chance, M. R. A. (1967). Attention structure as the basis of primate rank order. *Man, 2,* 503–518.

Chaplin, W. F. (1997). Personality, interactive relations, and applied psychology. In R. Hogan & J. A. Johnson (Eds.), *Handbook of personality psychology* (pp. 873–890). San Diego, CA: Academic Press.

Clark, L. A., & Watson, D. (1999). Temperament: A new paradigm for trait psychology. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 399–423). New York: Guilford Press.

Coats, E. J., & Feldman, R. S. (1996). Gender differences in nonverbal correlates of social status. *Personality and Social Psychology Bulletin, 22,* 1014–1022.

Coie, J. D., Dodge, K. A., & Coppotelli, H. (1982). Dimensions and types of social status: A cross-age perspective. *Developmental Psychology, 18,* 557–570.

Collins, R. (1990). Stratification, emotional energy, and the transient emotions. In T. D. Kemper (Ed.), *Research agendas in the sociology of emotions* (pp. 27–57). Albany, NY: State University of Albany Press.

Costa, P. T., & McCrae, R. R. (1992). *NEO PI–R professional manual.* Odessa, FL: Psychological Assessment Resources.

Costa, P. T., & McCrae, R. R. (1995). Domains and facets: Hierarchical personality assessment using the Revised NEO Personality Inventory. *Journal of Personality Assessment, 64,* 21–50.

Cote, S., & Moskowitz, D. S. (1998). On the dynamic covariation between interpersonal behavior and affect: Prediction from neuroticism, extraversion, and agreeableness. *Journal of Personality and Social Psychology, 75,* 1032–1046.

Depue, R. (1996). A neurobiological framework for the structure of per-

sonality and emotion: Implications for personality disorders. In J. F. Clarkin & M. F. Lenzenweger (Eds.), *Major theories of personality disorder* (pp. 347–390). New York: Guilford Press.

Digman, J. M. (1989). Five robust trait dimensions: Development, stability, and utility. *Journal of Personality, 57,* 195–214.

Eagly, A. H., Ashmore, R. D., Makhijani, M. G., & Longo, L. C. (1991). What is beautiful is good, but . . . : A meta-analytic review of research on the physical attractiveness stereotype. *Psychological Bulletin, 110,* 109–128.

Eagly, A. H., & Karau, S. J. (1991). Gender and the emergence of leaders: A meta-analysis. *Journal of Personality and Social Psychology, 60,* 685–710.

Eibl-Eibesfeldt, I. (1989). *Human ethology.* New York: Aldine De Gruyter.

Ekman, P., & Friesen, W. V. (1978). *Facial action coding system: A technique for the measurement of facial movement.* Palo Alto, CA: Consulting Psychologists Press.

Emerson, R. M. (1962). Power-dependence relations. *American Sociological Review, 27,* 31–41.

Eysenck, H. J. (1986). Models and paradigms in personality research. In A. Angleitner, A. Furnham, & G. Van Heck (Eds.), *Personality psychology in Europe, Vol. 2: Current trends and controversies* (pp. 213–223). Lisse, the Netherlands: Swets & Zeitlinger.

Feingold, A. (1992). Good-looking people are not what we think. *Psychological Bulletin, 111,* 304–311.

Fiske, S. T. (1993). Controlling other people: The impact of power on stereotyping. *American Psychologist, 48,* 621–628.

Fivush, R. (1989). Exploring sex differences in mother–child conversations about the past. *Sex Roles, 20,* 675–691.

Fivush, R. (1991). Gender and emotion in mother–child conversations about the past. *Journal of Narrative and Life History, 1,* 325–341.

Foa, U. G., & Foa, E. B. (1974). *Societal structures of the mind.* Springfield, IL: Charles C Thomas.

Gibb, C. A. (1985). Leadership. In G. Lindzey & E. Aronson. (Eds.), *Handbook of social psychology* (3rd ed.). New York: Random House.

Goldberg, L. R. (1993). The structure of phenotypic personality traits. *American Psychologist, 48,* 26–34.

Goldhamer, H., & Shils, E. A. (1939). Types of power and status. *American Journal of Sociology, 45,* 171–182.

Gray, J. A. (1982). *The neuropsychology of anxiety.* New York: Oxford University Press.

Graziano, W. G., & Eisenberg, N. (1997). Agreeableness: A dimension of personality. In R. Hogan & J. A. Johnson (Eds.), *Handbook of personality psychology* (pp. 795–824). San Diego, CA: Academic Press.

Gross, J. J. (in press). Emotion regulation in adulthood: Timing is everything. *Current Directions in Psychological Science.*

Gross, J. J., & John, O. P. (2001). *Measuring individual differences in emotion regulation: The Emotion Regulation Questionnaire.* Manuscript submitted for publication.

Hampson, S. E., Goldberg, L. R., & John, O. P. (1987). Category-breadth and social-desirability values for 573 personality terms. *European Journal of Personality, 1,* 241–258.

Hogan, R. (1983). A socioanalytic theory of personality. In M. Page (Ed.), *Nebraska symposium on motivation, 1982: Personality—Current theory and research* (pp. 55–89). Lincoln: University of Nebraska Press.

Hogan, R. (1996). A socioanalytic perspective on the five-factor model. In J. S. Wiggins (Ed.), *The five-factor model of personality: Theoretical perspectives* (pp. 163–179). New York: Guilford Press.

Hogan, R., Curphy, G. J., & Hogan, J. (1994). What we know about leadership: Effectiveness and personality. *American Psychologist, 49,* 493–504.

Hogan, R., & Hogan, J. (1991). Personality and status. In D. G. Gilbert & J. J. Connolly (Eds.), *Personality, social skills, and psychopathology: An individual differences approach* (pp. 137–154). New York: Plenum Press.

Hoyenga, K. B. (1993). Sex differences in human stratification: A biosocial approach. In L. Ellis (Ed.), *Social stratification and socioeconomic inequality, Vol. 1: A comparative biosocial analysis* (pp. 139–157). Westport, CT: Praeger.

Jencks, C. (1979). *Who gets ahead? The determinants of economic success in America.* New York: Basic Books.

Jensen-Campbell, L. A., Graziano, W. G., & West, S. G. (1995). Dominance, prosocial orientation, and female preferences: Do nice guys really finish last? *Journal of Personality and Social Psychology, 68,* 427–440.

John, O. P. (1989). Towards a taxonomy of personality descriptors. In D. M. Buss & N. Cantor (Eds.), *Personality psychology: Recent trends and emerging directions* (pp. 261–271). New York: Springer-Verlag.

John, O. P. (1990). The "Big Five" factor taxonomy: Dimensions of personality in the natural language and in questionnaires. In L. A. Pervin (Ed.), *Handbook of personality: Theory and research* (pp. 66–100). New York: Guilford Press.

John, O. P., Caspi, A., Robins, R. W., Moffitt, T. E., & Stouthamer-Loeber, M. (1994). The "Little Five": Exploring the nomological network of the five-factor model of personality in adolescent boys. *Child Development, 65,* 160–178.

John, O. P., Donahue, E. M., & Kentle, R. (1991). *The "Big Five" Inventory: Versions 4a and 54.* Berkeley, CA: University of California, Institute of Personality and Social Research.,

John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 102–138). New York: Guilford Press.

Karraker, K. H. (1986). Adult attention to infants in a newborn nursery. *Nursing Research, 35,* 358–363.

Keltner, D., Moffitt, T. E., & Stouthamer-Loeber, M. (1995). Facial expressions of emotion and psychopathology in adolescent boys. *Journal of Personality and Social Psychology, 104,* 644–652.

Keltner, D., Young, R. C., Heerey, E. A., Oemig, C., & Monarch, N. D. (1998). Teasing in hierarchical and intimate relations. *Journal of Personality and Social Psychology, 75,* 1231–1247.

Kemper, T. D. (1984). Power, status and emotions: A sociological contribution to a psychophysiological domain. In K. R. Scherer & P. Ekman (Eds.), *Approaches to emotion* (pp. 369–383). Hillsdale, NJ: Erlbaum.

Kemper, T. D. (1991). Predicting emotions from social relations. *Social Psychology Quarterly, 54,* 330–342.

Kerr, N. L., & MacCoun, R. J. (1985). Role expectations in social dilemmas: Sex roles and task motivation in groups. *Journal of Personality and Social Psychology, 49,* 1547–1556.

Kring, A. M., & Gordon, A. H. (1998). Sex differences in emotion: Expression, experience, and physiology. *Journal of Personality and Social Psychology, 74,* 686–703.

Kyl-Heku, L. M., & Buss, D. M. (1996). Tactics as units of analysis in personality psychology: An illustration using tactics of hierarchy negotiation. *Personality and Individual Differences, 21,* 497–517.

la Freniere, P., & Charlesworth, W. R. (1983). Dominance, attention, and affiliation in a preschool group: A nine-month longitudinal study. *Ethology and Sociobiology, 4,* 55–67.

Mann, R. D. (1959). A review of the relationship between personality and performance in small groups. *Psychological Bulletin, 56,* 241–270.

Masters, R. D. (1988). Nice guys DON'T finish last: Aggressive and appeasement gestures in media images of politicians. In M. R. A. Chance & D. R. Omark (Eds.), *Social fabrics of the mind* (pp. 277–295). Hove, England: Erlbaum.

Mazur, A. (1985). A biosocial model of status in face-to-face primate groups. *Social Forces, 64,* 377–402.

McCrae, R. R. (1996). Social consequences of experiential openness. *Psychological Bulletin, 120,* 323–337.

McCrae, R. R., & Costa, P. T., Jr. (1999). A five-factor theory of person-

ality. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 139–153). New York: Guilford Press.

Montgomery, R. L. (1971). Status, conformity, and resistance to compliance in natural groups. *Journal of Social Psychology, 84,* 197–206.

Moskowitz, D. S. (1994). Cross-situational generality and the interpersonal circumplex. *Journal of Personality and Social Psychology, 66,* 921–933.

Mueller, U., & Mazur, A. (1997). Facial dominance in Homo Sapiens as honest signaling of male quality. *Behavioral Ecology, 8,* 569–579.

Owens, D. A., & Sutton, R. I. (1999). Status contests in meetings: Negotiating the informal order. In M. E. Turner (Ed.), *Groups at work: Advances in theory and research* (pp. 25–35). Mahwah, NJ: Erlbaum.

Paikoff, R. L., & Savin-Williams, R. C. (1983). An exploratory study of dominance interactions among adolescent females at a summer camp. *Journal of Youth and Adolescence, 12,* 419–433.

Piliavin, J. A., & Martin, R. R. (1978). The effects of the sex composition of groups on style of social interaction. *Sex Roles, 4,* 281–296.

Pusey, A., Williams, J., & Goodall, J. (1997). The influence of dominance rank on the reproductive success of female chimpanzees. *Science, 277,* 828–831.

Raven, B. H., & French, J. R. P., Jr. (1958). Group support, legitimate power, and social influence. *Journal of Personality, 26,* 400–409.

Riggio, R. E. (1986). Assessment of basic social skills. *Journal of Personality and Social Psychology, 51,* 649–660.

Riggio, R. E., Widamen, K. F., Tucker, J. S., & Salinas, C. (1991). Beauty is more than skin deep: Components of attractiveness. *Basic and Applied Social Psychology, 12,* 423–439.

Roszell, P., Kennedy, D., & Grabb, E. (1989). Physical attractiveness and income attainment among Canadians. *Journal of Psychology, 123,* 547–559.

Savin-Williams, R. C. (1979). Dominance hierarchies in groups of early adolescents. *Child Development, 50,* 923–935.

Sidanius, J., Pratto, F., & Bobo, L. (1994). Social dominance orientation and the political psychology of gender: A case of invariance? *Journal of Personality and Social Psychology, 67,* 998–1011.

Stogdill, R. M. (1948). Personal factors associated with leadership: A survey of the literature. *Journal of Psychology, 25,* 35–71.

Tellegen, A. (1985). Structures of mood and personality and their relevance to assessing anxiety, with an emphasis on self-report. In A. H. Tuma & J. D. Maser (Eds.), *Anxiety and the anxiety disorders* (pp. 681–716). Hillsdale, NJ: Erlbaum.

Tomaka, J., Blascovich, J., Kelsey, R. M., & Leitten, C. L. (1993). Subjective, physiological, and behavioral effects of threat and challenge appraisal. *Journal of Personality and Social Psychology, 65,* 248–260.

Watson, D., & Clark, L. A. (1997). Extraversion and its positive emotional core. In R. Hogan, J. Johnson, & S. Briggs (Eds.), *Handbook of personality psychology* (pp. 767–793). San Diego, CA: Academic Press.

Wheelan, S. A., & Johnston, F. (1996). The role of informal member leaders in a system containing formal leaders. *Small Group Research, 27,* 33–55.

Wiggins, J. S. (1979). A psychological taxonomy of trait-descriptive terms: The interpersonal domain. *Journal of Personality and Social Psychology, 37,* 395–412.

Wiggins, J. S., & Trapnell, P. D. (1996). A dyadic–interactional perspective on the five-factor model. In J. S. Wiggins (Ed.), *The five-factor model of personality: Theoretical perspectives* (pp. 88–162). New York: Guilford Press.

Willerman, L. (1979). *The psychology of individual and group differences.* New York: Freeman.

Wood, W., Christensen, P. N., Hebl, M. R., & Rothgerber, H. (1997). Conformity to sex-typed norms, affect, and the self-concept. *Journal of Personality and Social Psychology, 73,* 523–535.

Yukl, G. A., Wall, S., & Lepsinger, R. (1990). Preliminary report on the validation of the management practices survey. In K. E. Clark & M. B. Clark (Eds.), *Measures of leadership* (pp. 223–238). West Orange, NJ: Leadership Library of America.

Received September 12, 2000
Revision received December 22, 2000
Accepted December 27, 2000 ■