

# Does Virtue Lead to Status? Testing the Moral Virtue Theory of Status Attainment

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The authors perform one of the first empirical tests of the moral virtue theory of status attainment (MVT), a conceptual framework for showing that morality leads to status. Studies 1a to 1d are devoted to developing and validating a 15-item status attainment scale (SAS) to measure how virtue leads to admiration (virtue–admiration), how dominance leads to fear (dominance–fear), and how competence leads to respect (competence–respect). Studies 2a and 2b are an exploration of the nomological network and discriminant validity to show that peer-reported virtue–admiration is positively related to moral character and perceptions such as perceived warmth and unrelated to amoral constructs such as neuroticism. In addition, virtue–admiration mediates the positive effect of several self-reported moral character traits, such as moral identity–internalization, on status conferral. Study 3 supports the external validity of the virtue route to status in a sample of fulltime managers from China. In Study 4, a preregistered experiment, virtue evokes superior status while selfishness evokes inferior status. Perceivers who are high in moral character show stronger perceptions of superior status. Finally, Study 5, another preregistered experiment, shows that virtue leads to higher status through inducing virtue–admiration rather than competence–respect, even for incompetent actors. The findings provide initial support for MVT arguing that virtue is a distinct, third route to status.

**Keywords:** admiration, moral character, morality, status, virtue

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Social and organizational psychologists have shown recently renewed interest in understanding whether individuals can acquire status by showing moral characteristics such as generosity and altruism (e.g., Flynn, 2003; Frimer, Aquino, Gebauer, Zhu, & Oakes, 2015; Halevy, Chou, Cohen, & Livingston, 2012; Hardy & Van Vugt, 2006; Willer, 2009). Yet, the literature remains focused on *dominance*, based on intimidation and coercion that induce fear, and on *competence*, based on demonstrations of task skills and expertise that gain respect, as the two primary routes to status (Cheng, Tracy, Foulsham, Kingstone, & Henrich, 2013; Levine & Moreland, 1990). Despite growing evidence linking moral characteristics directly to status attainment, many theorists still contend that moral characteristics are components or modifiers of the competence route to status rather than an actual pathway to status

(e.g., Bingham, Oldroyd, Thompson, Bednar, & Bunderson, 2014; Cheng & Tracy, 2014; Goldstein, Griskevicius, & Cialdini, 2011; Torelli, Leslie, Stoner, & Puente, 2014).

To better incorporate theories of status attainment, Bai (2017) proposed the moral virtue theory of status attainment (MVT) indicating that a third route to status, beyond dominance and competence, is *virtue*, in which individuals demonstrate morally outstanding or praiseworthy characteristics beyond conformity to norms. Although the conceptual framework has potential theoretical contributions, empirical investigation has yet to examine whether virtue is a distinct, third route to status or a component or modifier of the competence route. If virtue is indeed a distinct pathway to status, how does virtue relate to the other routes to status? In comparison with dominance and competence, does virtue lead to status in real world situations? Are boundary conditions involved? We conducted several studies to address those questions.

## Literature Review

### Status and Status Hierarchy

*Status* indicates relative prominence, deference, or influence in groups or organizations (Anderson, Willer, Kilduff, & Brown, 2012; Bai, 2017; Báles, Strodbeck, Mills, & Roseborough, 1951; Berger, Rosenholtz, & Zelditch, 1980; Cheng, Tracy, & Henrich, 2010; Levine & Moreland, 1990; Martin, 2009; Rosa & Mazur,

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1979). Beginning with Báles et al. (1951), social psychology has long considered social deference and influence to be key components of individual social rankings (Anderson, Willer, et al., 2012; Cheng et al., 2013). The conceptualization is related to but distinct from a more recent conceptualization arguing that status indicates respect and esteem (e.g., Blader & Chen, 2014; Magee & Galinsky, 2008), which tend to be highly correlated (e.g., Anderson, Willer, et al., 2012). However, we consider respect and esteem to be *antecedents* to status conferral, among other antecedents such as fear (Cheng et al., 2013; Cheng, Tracy, Ho, & Henrich, 2016; Levine & Moreland, 1990; Mazur, 1985). Indeed, disrespected individuals can hold superior status in their groups or communities (e.g., Kakkar & Sivanathan, 2017; Whyte, 1943), whereas high status individuals can still be denigrated as inauthentic (e.g., Bai, Ho, & Liu, in press; Hahl & Zuckerman, 2014).

Status is a locally defined, context-specific *sociometric* construct (e.g., Cashdan, 1998; Colby et al., 1983; Tushman & Romanelli, 1983), distinct from *socioeconomic* status (SES) or social class, a global construct based on social positions (Anderson, Kraus, Galinsky, & Keltner, 2012; Frank, 1985; Kraus, Piff, & Keltner, 2009; Krieger, Williams, & Moss, 1997; Weber, 1946). SES typically depends on wealth and income (Piketty, 2014; Wilkinson & Pickett, 2010), educational attainment (Snibbe & Markus, 2005; White, 1982), and occupational prestige (Collett & Lizardo, 2010; Zhou, 2005). In contrast, we focus on sociometric status (that we will call status), emerging from human interactions within specific cultural, situational, or temporal contexts. For example, a professional basketball player who just signed a multimillion-dollar contract enjoys high SES, but the team may regard the player as a low-status newcomer. In addition, status is distinct but often interrelated with other hierarchical constructs, including power (e.g., Emerson, 1962; Fiske & Berdahl, 2007), reputation (e.g., Pfeiffer, Tran, Krumme, & Rand, 2012), popularity (e.g., Coie, Dodge, & Coppotelli, 1982; Scott & Judge, 2009), and leadership (e.g., Hogan & Kaiser, 2005), thoroughly discussed elsewhere (Anderson, John, Keltner, & Kring, 2001; Bai, 2017).

Social organizations often establish social order or hierarchies (Barkow et al., 1975; Fiske, 2010; Magee & Galinsky, 2008), because the desire for higher status is considered to be a fundamental human motive (Anderson, Hildreth, & Howland, 2015). Indeed, high status predicts various positive outcomes across time and situations (Castellucci & Ertug, 2010; Curhan & Pentland, 2007; de Kwaadsteniet & van Dijk, 2010; Djurdjevic et al., 2017; McClean, Martin, Emich, & Woodruff, 2017; Ratcliff, Hugenberg, Shriver, & Bernstein, 2011) including subjective well-being (e.g., Anderson, Kraus, et al., 2012), self-esteem (e.g., Barkow et al., 1975), mental and physical health (e.g., Christie & Barling, 2010), and reproductive success (e.g., von Rueden & Jaeggi, 2016). Unsurprisingly, individuals engage in various “tactics” to enhance their social status (Kipnis, Schmidt, & Wilkinson, 1980; Kyl-Heku & Buss, 1996; Yukl & Falbe, 1990), particularly when they have salient incentives (e.g., Barclay & Willer, 2007; Griskevicius, Tybur, & Van den Bergh, 2010; Hui, Lam, & Law, 2000). As Barkow et al. (1975) points out, human status attainment is “prestige and self-esteem and at the same time the outcome of agonistic encounters, power-striving and politicking, ‘toughness,’ charisma, and many other things” (p. 570).

## Status Attainment

The literature has focused on dominance and competence as the most prominent tactics for attaining status (Cheng et al., 2013; Levine & Moreland, 1990). Dominance is thought to be an innately primate drive to intimidate, coerce, instill fear, anxiety, and deference by appearing willing and able to inflict harm (Anderson & Kilduff, 2009b; Bai, 2017; Mazur, 1985). Dominance tactics can be subtle, such as aggressive “stare-downs” (Mazur et al., 1980). A laboratory study showed that individuals could establish dominance by deepening their voice pitch during the initial moments of interactions (Cheng et al., 2016). A field study found that male executives who have high testosterone and low cortisol, the neuroendocrine profile linked to dominance, were most likely to attain status, measured by the number of subordinates under their authority (Sherman, Lerner, Josephs, Renshon, & Gross, 2016). In task-oriented groups, however, social hierarchies founded primarily on dominance are likely to inhibit collective task performance because dominant people may lack the skills or expertise needed to lead groups (Anderson & Brown, 2010; Ridgeway & Berger, 1986).

In contrast, a functional perspective posits that groups confer status mainly based on perceptions that members are competent and will help the group achieve its goals (Anderson & Kilduff, 2009a; Halevy, Chou, & Galinsky, 2011; Magee & Galinsky, 2008; Ridgeway & Berger, 1986). Competence indicates the “skills, expertise, ideas, or information that are unambiguously valuable to achieve specific task goals” (Bai, 2017, p. 205). Thus, competence is meritocratic and a more legitimate source of status than dominance. Individuals can exhibit skills or expertise as competence tactics (e.g., Wojciszke, Abele, & Baryla, 2009) that instill respect and status. Our conceptualization of competence as being task-specific, which is based on expectation states theory (Berger et al., 1980) underlying the competence route to status (Anderson, Brion, Moore, & Kennedy, 2012; Anderson & Kilduff, 2009a; Berger, Cohen, & Zelditch, 1972; Bunderson, 2003; Driskell, Olmstead, & Salas, 1993; Ridgeway, Berger, & Smith, 1985), is a narrower definition than previous definitions considering competence to depend on group consensus regarding individual social worth (e.g., Cheng et al., 2013).

Specifically, expectation states theorists focus on (a) task- and goal-oriented groups that know what they need and what contributions each member must make to achieve success, and (b) groups that are oriented toward collective decisions and perceive that all members are jointly responsible for outcomes (Berger et al., 1980).

Our definition of competence is more appropriate because the broader formulation (e.g., Cheng et al., 2013) deviates from expectation states theory (Berger et al., 1980) and conflates the independent (i.e., competence) with the dependent variable (i.e., status). Across situations, laboratory and field studies support the competence route to status (e.g., Anderson & Kilduff, 2009b; Berger et al., 1980; Bitterly, Brooks, & Schweitzer, 2017; Brescoll & Uhlmann, 2008; Cheng et al., 2013; Kipnis et al., 1980; Wojciszke et al., 2009). Individuals who signal competence cues and project competent images are afforded status. For example, overconfident individuals with overly but wrongly positive views of their abilities have been shown to signal competence, such as by frequently providing answers and opinions, so that they are misperceived to be competent and deserving of status (Anderson et al., 2012).

## Morality and Status Attainment

Beyond dominance and competence, moral characteristics may lead to status (e.g., Grant, 2013). Following anthropology and cultural psychology research (Fiske, 1992; Miller & Bersoff, 1992; Shweder & Sullivan, 1993), we adopt a descriptive view describing morality as interlocking “values, virtues, norms, practices, identities, institutions, technologies, and evolved psychological mechanisms that work together to suppress or regulate self-interest and make cooperative societies possible” (Haidt, 2012, p. 27). Moral standards and actions are related to not only justice, rights, and human welfare, but also sexual behavior, cleanliness, loyalty, and many other issues (Haidt & Joseph, 2004; Janoff-Bulman, 2011). Accordingly, moral people overcome self-interests to “conform to the established practices and customs” of their groups (Weiss, 1942, p. 381).

Moral characteristics are thought to be components or modifiers of the competence route to status (e.g., Bingham et al., 2014; Cheng & Tracy, 2014; Goldstein et al., 2011; Ridgeway, 1982), acting as “competence cues” to affect performance expectations, similar to gender and race (e.g., Berger, Norman, Balkwell, & Smith, 1992). Or moral characteristics might affect only group acceptance and respect for particular skill contributions (e.g., Cheng & Tracy, 2014; Ridgeway, 1982). The functional perspective argues that status is generally conferred according to (perceived) instrumentality for accomplishing collective goals (e.g., Berger et al., 1972), but fails to consider that moral characteristics are a potential pathway to status even though they are not necessarily valuable for accomplishing collective task goals (Li, Chen, & Blader, 2016).

Social psychologists have indicated that moral characteristics independently lead to status (e.g., Flynn, 2003; Frimer et al., 2015; Hardy & Van Vugt, 2006; Milinski, Semmann, & Krambeck, 2002; Torelli et al., 2014; Willer, 2009). Particularly, social-cognitive research posits that morality (e.g., humility, generosity, and loyalty) is a fundamental social dimension based on which people form social perceptions and judgments, distinct from competence (e.g., intelligence and task skills; Abele & Wojciszke, 2007; Fiske, Cuddy, Glick, & Xu, 2002) and sociability or warmth (e.g., likability and friendliness; Brambilla & Leach, 2014; Goodwin, 2015; Goodwin, Piazza, & Rozin, 2014). Of importance, morality-based information predominates over competence-based and sociability-based information in forming person perceptions (Abele & Wojciszke, 2007; Goodwin et al., 2014). For example, archival evidence from obituaries shows a tendency to focus disproportionately on morality rather than competence or warmth, suggesting that people are most likely to evaluate lives according to moral character (Goodwin et al., 2014). In addition, cross-cultural research shows that moral character traits are universally endorsed as contributing to outstanding leadership (e.g., Den Hartog et al., 1999; Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008).

Furthermore, morality has been shown to evoke status in various situations (Flynn, 2003; Flynn, Reagans, Amanatullah, & Ames, 2006; Frimer et al., 2015; Hardy & Van Vugt, 2006; McClean et al., 2017; Milinski et al., 2002; Torelli et al., 2014; Willer, 2009). For example, laboratory research finds that status is afforded to people who donate proportionally large amounts of their resources (Hardy & Van Vugt, 2006; Willer, 2009). Politicians tend to gain

public approval and policy support by using moral framing and moral references such as care, empathy, loyalty, justice, and rights (Frimer et al., 2015; Van Zant & Moore, 2015). Evaluators, particularly those who have high interdependent self-construal, tend to give higher status evaluations to moral employees (Torelli et al., 2014).

## MVT: The Virtue Route to Status

MVT incorporates the morality–status relationship into theories of status attainment, which identifies virtue as a distinct, third route to status, beyond dominance and competence. Virtues are morally praiseworthy characteristics (Haidt & Joseph, 2004) representing human excellence in moral domains. “Virtues of character” (Aristotle, 2014) can be distinguished from morally irrelevant or amoral intellectual and personal virtues, such as creativity, curiosity, and fortitude (Dahlsgaard, Peterson, & Seligman, 2005; Gert, 2004; Peterson & Seligman, 2004). Furthermore, virtues go beyond mere conformity to mandatory moral norms (e.g., Pagliaro, Ellemers, & Barreto, 2011) and rise above a proscriptive system of moral regulation and avoidance motives against doing “bad.” Instead, virtues are a *prescriptive*, discretionary system focused on approach motives to do “good” (Janoff-Bulman, 2011; Janoff-Bulman, Sheikh, & Hepp, 2009).

MVT adopts a relativistic view of morality, acknowledging that moral codes and the corresponding virtues vary among groups and communities (Haidt, Koller, & Dias, 1993; Rai & Fiske, 2011; Shweder, Much, Mahapatra, & Park, 1997; Walzer, 1983).<sup>1</sup> Virtues may be manifested through generosity (Flynn, 2003; Willer, 2009), altruism (Batson & Shaw, 1991), loyalty (Haidt & Joseph, 2004), humility (Tangney, 2000), purity (Zhong & Liljenquist, 2006), and many other expressions, depending on local contexts (Haidt & Joseph, 2004; Peterson & Seligman, 2004; Shweder et al., 1997). Each manifestation of virtues captures the ideal of the moral domain to which it belongs. For example, consistently sharing resources such as money, food, and space with in-group others indicates generosity (Jaeggi & Gurven, 2013; Willer, 2009), which is the essence of the moral domain that aims to protect and enhance the unity or integrity of a group or community of interdependent individuals (i.e., the ethics of community; Shweder et al., 1997).

Furthermore, MVT conceptualizes virtues to be “relatively stable but still modifiable” innate and socially constructed traits (Bai, 2017, p. 209), distinct from task-relevant skills and competence traits needed to achieve task goals. For example, humility, a moral virtue entailing an accurate self-view, a willingness to acknowledge limitations, and a “forgetting of the self” (Owens & Hekman, 2012; Tangney, 2000), is positively related to moral character traits such as generosity and altruism (Exline & Hill, 2012; LaBouff, Rowatt, Johnson, Tsang, & Willerton, 2012) but not to general mental ability and self-efficacy, two well-established competence traits that consistently predict superior task performance

<sup>1</sup> Differences in morality among groups or communities are a matter of degree rather than kind (Haidt, 2007). For example, U.S. liberals, contrasted with conservatives, tend to downplay purity-related moral issues or virtues but still consider purity relevant to moral judgment (Graham, Haidt, & Nosek, 2009). Also, MVT agrees that universal moral codes (e.g., prohibitions against physical harm) and virtues (e.g., generosity and charity) are found across groups and communities.



(e.g., Salas & Cannon-Bowers, 2001). Moreover, individuals who expend energy in undertaking virtuous actions may sometimes be unable to achieve individual and collective task goals (Bendersky & Shah, 2012; Grant, 2013; Vohs, Redden, & Rahinel, 2013). For example, altruistic people who spend time and energy helping others may be exhausted, burned out, and unable to complete their own tasks.

In summary, MVT posits that moral characteristics that go beyond conformity to norms signal virtue, garner admiration, and earn status. The rationale is that people admire individuals who unselfishly uphold moral ideals and sacrifice their self-interests to advance the collective good. The virtue route to status, therefore, captures the underlying social psychological mechanism, *entailing* observers' perceptions of virtue (i.e., awareness and recognition), subjective feelings or affects elicited by virtue (i.e., admiration for virtue), cognitive responses (i.e., beliefs and expectations) about the virtuous actor, and motivational states (i.e., a desire to imitate the virtuous actor).

MVT emphasizes that witnessing virtuous actions elicits the positive feelings of admiration for virtue, while witnessing excellent task performance elicits the positive feelings of respect for skills (e.g., Wojciszke et al., 2009). Admiration for virtue is distinguishable from respect for skills in several aspects (e.g., antecedents, neural correlates, and behavioral consequences; see Algoe & Haidt, 2009; Immordino-Yang, McColl, Damasio, & Damasio, 2009; Vianello, Galliani, & Haidt, 2010). For example, admiration for an actor's virtue, rather than respect for the actor's task skills, causes observers to have elevated desires to emulate the virtuous actor in the moral domain (Algoe & Haidt, 2009). More important, virtue was previously theorized to be a component of competence or an amplifier of the competence route to status (e.g., Cheng & Tracy, 2014; Ridgeway, 1982), but MVT posits that virtue independently induces admiration for virtue and consequent status.

### The Three Routes to Status

MVT incorporates the virtue route into the previous two-route model of status attainment (Cheng et al., 2013; Levine & Moreland, 1990) and argues that the three routes are not mutually exclusive. Instead, aspiring social "climbers" may follow routes simultaneously. For example, a political candidate such as Donald Trump may become popular via the dominance route by intimidating opponents and minority groups, the competence route by reminding supporters of his wealth and past success, and the virtue route by casting himself as authentic (e.g., Gino, Kouchaki, & Galinsky, 2015).

Building on MVT, we argue that any individual can deploy, consciously or subconsciously, cognitive and behavioral tactics to appear simultaneously dominant, competent, and virtuous to varying degrees toward some other individuals (Cheng et al., 2013), although he or she may actually lack personality traits related to dominance (e.g., trait aggression and formidability), competence (e.g., self-efficacy and intelligence), or virtue (e.g., authenticity and honesty-humility). He or she may not even be consciously aware of the tactics being deployed (e.g., Ridgeway et al., 1985). Observers will nevertheless confer status according to their perceptions regarding fear of harm, respect for skills, or admiration for virtue.

We distinguish between dominance, competence, and virtue as cognitive and behavioral tactics that a focal actor may deploy to acquire status. To identify the social psychological pathways, we discuss dominance that leads to fear (dominance–fear), competence that leads to respect (competence–respect), and virtue that leads to admiration (virtue–admiration) to capture the perceptions, emotions, beliefs and expectations, and motivations that lead others to confer status to the focal actor. Virtue–admiration and dominance–fear may seem contradictory, but individuals can be both admired and feared (e.g., Cheng, Chou, Wu, Huang, & Farh, 2004; Owens, Wallace, & Waldman, 2015). For example, a dominant, feared boss may occasionally acquire admiration by acting virtuously to compensate for abuse (e.g., Liao, Yam, Johnson, Liu, & Song, 2018). Or subordinates might feel fearful if they are reproached by a virtuous and admirable boss (e.g., Stouten, van Dijke, Mayer, De Cremer, & Euwema, 2013). Therefore, we propose that virtue–admiration and dominance–fear represent two relatively orthogonal pathways to status.

In contrast, we propose that virtue–admiration and competence–respect are positively associated. Morality and competence are often considered two orthogonal social dimensions (e.g., Fiske, Cuddy, & Glick, 2007; Wojciszke, 2005), but empirical studies have shown that they are significantly correlated (e.g., Rosenberg, Nelson, & Vivekananthan, 1968; Suitner & Maass, 2008). A series of experiments supported the "inept sinner hypothesis": immoral acts reduced perceptions of competence (Stellar & Willer, 2018). Moreover, admiration and respect are distinctive affective experiences but still "relatives" in the "other-praising" family of emotions (Schindler, Zink, Windrich, & Menninghaus, 2013). They spill over to one another and further inflate their correlation. Therefore, we predict that virtue–admiration and competence–respect coexist.

### Boundary Conditions of the Virtue Route to Status

Sociocultural and interpersonal contexts are likely to determine whether virtue–admiration, dominance–fear, and competence–respect lead to status attainment (Bai, 2017; Li et al., 2016). MVT has acknowledged that individualism–collectivism and social class are contextual factors that may affect how extensively a group or community will deem specific acts to be morally relevant and virtuous, but has avoided theorizing whether and how contextual factors *directly* shape the virtue route to status within groups or communities.

We extend MVT by showing another important contextual factor that directly influences the virtue route to status: the observer's moral character (Cohen & Morse, 2014; Cohen, Panter, Turan, Morse, & Kim, 2014), defined as "an individual's disposition to think, feel, and behave in an ethical versus unethical manner" (Cohen & Morse, 2014, p. 45). Moral character is conceptualized broadly as morally relevant traits, identities, and values including both virtues of character focused on doing good (e.g., moral identity; Aquino & Reed, 2002) and conformity to norms focused on *not* doing bad (e.g., guilt-proneness; Cohen, Kim, Jordan, & Panter, 2016). Moral character can evoke various patterns of moral thinking, emotions, and actions depending on salient moral codes and virtues within sociocultural and interpersonal contexts. For example, guilt-proneness, defined as "a predisposition to experience negative feelings about [even private] personal wrongdoing"

(Cohen, Panter, & Turan, 2012, p. 355), typically fosters interpersonal cooperation, but it can spur competitive behaviors against outgroup members if in-group loyalty is salient (Cohen, Montoya, & Insko, 2006).

Laboratory and field studies have shown that moral character deeply impacts moral and immoral behaviors (Aquino & Reed, 2002; Ashton & Lee, 2007; Cohen et al., 2014; Flesson, Furr, Jayawickreme, Meindl, & Helzer, 2014; Haidt, 2007). For example, employees' self-reported moral character predicted more frequent helpful and less frequent harmful work behaviors months after moral character was initially assessed (Cohen et al., 2014). Moreover, individuals who have high rather than low moral character have been shown to have more intense admiration when they witness forgiveness and sympathy (Aquino, McFerran, & Laven, 2011).

Thus, we propose that observers' moral character is a necessary condition in the virtue route to status. Specifically, people with low moral character are less likely to recognize and admire virtue (e.g., Aquino et al., 2011), so we predict that individuals with low moral character will be less likely than individuals with high moral character to confer status in response to virtue. MVT's key psychological process leading to status conferral is that observers are aware of and admire virtue, but the process may not hold for people with low moral character.

Morally unambiguous situations make it difficult to ignore virtue (Bai et al., in press; Ditto, Pizarro, & Tannenbaum, 2009), but we contend that even then, people with low moral character will still be less likely to reward virtue with superior status. Although everyone benefits when virtuous actors are given high status, people with low moral character are more concerned about maximizing their own interests over collective interests and may actually exploit or persecute virtuous actors. For example, in a highly competitive and ruthless workplace, employees who have low moral character may exploit virtuous actors (Grant, 2013; Pfeffer, 2010).

To reiterate, virtue is expected to enhance the competence-respect pattern for highly competent actors (e.g., Cheng & Tracy, 2014; Ridgeway, 1982), but we contend that task competence is *not* a boundary in the virtue route to status. MVT emphasizes that virtue-admiration rather than competence-respect is the primary pathway leading virtuous actors to high status. Moreover, MVT *implicitly* indicates that the virtue route is not restricted to highly competent people.<sup>2</sup> We extend the reasoning by hypothesizing *explicitly* that, regardless of task competence, observers will admire and confer status to virtuous actors. Moral information has been shown to shape perceptions of task competence (e.g., Stellar & Willer, 2018), but we lack evidence that information about task competence leads to judgments regarding moral character. Thus, we diverge from previous theories to predict that virtue leads to status, even when virtuous individuals are incompetent.

### The Current Work

We conducted several studies to empirically examine the core hypotheses pertaining to MVT's virtue route to status (Bai, 2017) and boundary conditions. We first examine the hypothesis that the virtue route is separate but compatible with the other routes. We then test the hypothesis that observers must have moral character if they are to admire and reward virtuous actors with status. We

also test the hypothesis that virtuous actors may lack task skills or expertise but still attain status via the virtue route.

In Study 1a, we create a large pool of items capturing virtue-admiration, dominance-fear, and competence-respect, and use exploratory factor analysis (EFA) to investigate and refine the underlying factor structure. To confirm the factor structure identified, in Study 1b we conduct confirmatory factor analysis (CFA) and examine the predictive validity of the status attainment scale (SAS). In Study 1c, we cross-validate the factor structure of the SAS and the regression results found in Study 1b. In Study 1d, we investigate the test-retest reliability of the SAS over a 1-month period. Studies 2a and 2b are an investigation of the nomological network and the discriminant validity of virtue-admiration with a multiwave (Study 2a) and a multisource (Study 2b) design. Study 2b is also a preregistered investigation of virtue-admiration as a mediator between targets' self-reported moral character and perceivers' status conferral toward the targets, with perceivers' moral character as the boundary condition. In Study 3, we further investigate the external validity and relative effectiveness of virtue-admiration, dominance-fear, and competence-respect paths using a sample of Chinese managers from various industries. Finally, Studies 4 and 5 are preregistered experiments designed to examine the causal effects of virtue on virtue-admiration and status conferral, with perceiver's moral character (Study 4) and moral actor's task competence (Study 5) as boundary conditions.

### Study 1a: EFA

#### Participants

To ensure that we were developing a generalizable instrument, we recruited two diverse samples. For Sample A, we used Amazon's Mechanical Turk (MTurk) platform to recruit a large sample of online participants located in the United States (Buhrmester, Kwang, & Gosling, 2011). For Sample B, we gave monetary inducements to undergraduates from a large public university in Hong Kong, China. For Sample A, we aimed to recruit 300 participants, as recommended for initial scale development (Wenger & Fabrigar, 2004). After excluding 29 participants who failed attention checks and two participants who had missing responses, we retained 292 participants (169 women;  $M_{\text{age}} = 37.51$  years,  $SD_{\text{age}} = 11.62$ ). For Sample B, we aimed to recruit 160 to ensure the minimum 5:1 subject-item ratio recommended for scale refinement (Hair, Black, Babin, & Anderson, 2010; Owens, Johnson, & Mitchell, 2013). After excluding 10 participants who failed attention checks and four participants who reported missing values, we retained 155 participants (87 women, 66 men, 2 declined to state;  $M_{\text{age}} = 21.27$  years,  $SD_{\text{age}} = 3.30$ , 2 declined to state).

#### Procedure

Participants were first asked to complete a consent form agreeing to complete a short study on interpersonal perceptions. We

<sup>2</sup> MVT also implicitly indicates that dominance is irrelevant in the virtue route to status, but we believe task competence clarifies whether virtue-admiration and competence-respect are distinct, independent routes to status rather than intertwined components of the "prestige" route.

then asked them to type the initials of someone they know well, either an influential person (Sample A) or a peer (Sample B), and to evaluate the person on virtue–admiration, dominance–fear, and competence–respect dimensions.

## Measures

Based on conceptualizations of the three routes to status, we generated five items each for the perceptions, emotions, beliefs and expectations, and motivations underlying virtue–admiration, dominance–fear, and competence–respect dimensions (e.g., *Srivastava, Locke, & Bartol, 2001*). To be consistent with the relativistic view of morality (e.g., *Walzer, 1983*), we created 60 items that capture general responses to virtue (e.g., “I am deeply touched by his/her goodness” and “I strive to follow his/her moral standards”), rather than more nuanced responses to specific culturally bound forms of virtue such as purity (e.g., *Haidt et al., 1993*). We also included all items from the prestige–dominance scale (*Cheng et al., 2013*) that captures competence and dominance routes to status. Participants rated each item on a 7-point Likert scale from 1 = *strongly disagree* to 7 = *strongly agree*. (*Supplementary materials* provide details of items used to develop the SAS).

## Results

**Factor structure.** To explore the underlying factor structure of the items, we first conducted an EFA on Sample A with maximum likelihood estimation and oblimin rotation, allowing factors to be correlated, using SAS 9.4. A visual scree test (*Cattell, 1966*) indicated that three factors emerged before the elbow of the scree plot of eigenvalues with the eigenvalues for the first three unrotated factors (i.e., virtue–admiration, dominance–fear, and competence–respect) to be 99.02, 19.67, and 15.93, representing 53.97, 10.72, and 8.68% of the total variance, respectively. Most items were loaded on their presumed primary factors. We retained items with the highest factor loadings for each factor. To ensure that we kept a relatively equal number of items for each factor, we set the cut-off lines to be .70 for virtue–admiration, .60 for dominance–fear, and .45 for competence–respect. Thirty-four items remained.

**Expert ratings.** We still had too many items compared with established scales of status attainment (e.g., *Cheng et al., 2013*), so we further refined the instrument. Four judges with PhDs in social or organizational psychology evaluated whether and how well each item reflected its target factor (*Wegener & Fabrigar, 2004*). After judges read definitions of the three routes to status, they assigned each of the 34 items to one of the three construct categories and then rated how well each item reflected the assigned construct. Two items were judged unsatisfactory (one for virtue–admiration; one for dominance–fear), and were excluded. Furthermore, one judge suggested that reverse-coded items might cause high cross-loadings on unintended factors. Careful inspection supported that three reverse-coded items intending to capture competence–respect had relatively high cross-loadings on dominance–fear, so we recoded them as suggested.

**Scale refinement.** We performed another EFA with the remaining 32 items on Sample B. Again, a visual scree test (*Cattell, 1966*) revealed a three-factor solution with the eigenvalues for the first three unrotated factors (i.e., virtue–admiration, dominance–

fear, and competence–respect) to be 14.80, 5.48, and 3.55, representing 47.97, 17.75, and 11.51% of the total variance, respectively. We aimed to select items with high factor loadings ( $\geq .40$ ) on their targeted factors and with low cross-loadings ( $\leq .30$ ) on other factors (*Tabachnick & Fidell, 2007*). Eleven items on virtue–admiration, five items on competence–respect, and four items on dominance–fear initially satisfied the criteria.<sup>3</sup> To keep the number of items relatively even among the three factors, we kept six virtue–admiration items with the highest factor loadings, and included one more dominance–fear item “He/she enjoys having control over others,” adopted from the prestige–dominance scale (*Cheng et al., 2013*), with cross-loading on virtue–admiration (.31) slightly above the cut-off line. Responses to 10 of 16 items used the whole spectrum of the scale (observed range = 1–7). Two items (“I am afraid of him/her” and “He/she helps me recognize the better part of myself”) had skewness higher than 1.0 or lower than –1.0, but both items tapped the full spectrum of the scale. Hence, we retained all 16 items for subsequent CFA. *Table 1* gives details of the items and their factor loadings.

## Discussion

Study 1a found initial evidence for virtue–admiration as a distinct construct from dominance–fear and competence–respect, as MVT proposed (*Bai, 2017*). The identified three-factor structure, however, remained to be confirmed in follow-up analyses. Study 1b hence aimed to validate the factor structure identified in Study 1a, explore the interrelationships among the three routes to status, and examine the predictive validity of virtue–admiration, dominance–fear, and competence–respect with the SAS.

### Study 1b: CFA

#### Participants

We used MTurk platform to recruit a sample of U.S. adult workers (*Buhrmester et al., 2011*), aiming to recruit about 160 to meet a 10:1 subject-item ratio for CFA (*Hair et al., 2010*). After excluding three participants who failed attention checks and one with missing responses, 167 participants remained (Sample C: 97 men;  $M_{\text{age}} = 34.87$  years,  $SD_{\text{age}} = 10.04$ ).

#### Procedure

As in Study 1a, participants completed a short study on interpersonal perceptions for monetary rewards. After completing a consent form, participants typed the initials of a coworker they know well, reported their perceptions of the coworkers’ status and likability, and assessed the coworker on virtue–admiration, dominance–fear, and competence–respect dimensions.

#### Measures

**Status Attainment Scale (SAS).** We used the 16-item SAS identified in Study 1a to capture how individuals attain status.

<sup>3</sup> We omitted “I have no respect for his or her opinion,” which had high factor loading (.61) on the dominance–fear factor because it failed to load on its intended competence–respect factor.

Table 1

*Status Attainment Scale (SAS) Exploratory Factor Analysis Results in Study 1a (Sample B; N = 155)*

Items	Factor 1	Factor 2	Factor 3
<b>Virtue–admiration</b>			
1. When I think of him/her, I believe there is still some good in the world <sup>a</sup>	.70	–.17	–.02
2. I am deeply touched by his/her goodness <sup>a</sup>	.70	–.11	.12
3. He/she helps me recognize the better part of myself <sup>a</sup>	.65	–.13	.07
4. He/she is willing to sacrifice his/her self-interest to help others <sup>a</sup>	.61	.01	–.15
5. I strive to follow his/her moral standards <sup>a</sup>	.59	.18	–.06
6. I feel uplifted by his/her goodness <sup>a</sup>	.58	.07	.18
7. When I think of him/her, I want to do something good for others	.56	.00	.02
8. I feel grateful for his/her goodness	.55	–.16	.18
9. I want to be as virtuous as he/she is	.49	.18	.17
10. He/she always acts out of good intention	.48	.01	.01
11. I want to share stories of his/her good deeds with others	.46	–.15	.18
12. When I think of him/her, I want to become a better person	.36	.05	.28
13. I think he/she is an intimidating person	.23	.19	.10
<b>Dominance–fear</b>			
1. I am afraid of him/her <sup>a</sup>	–.14	.71	–.11
2. When I think of him/her, I feel irritated or tense <sup>c</sup>	–.03	.71	–.11
3. I am too scared to confront him/her <sup>a</sup>	.06	.65	–.13
4. I have no respect for his/her opinions <sup>b</sup>	–.10	.62	–.16
5. He/she enjoys having control over others <sup>a</sup>	–.31	.42	.25
6. I dare not refuse his/her requests <sup>a</sup>	.11	.40	.07
7. He/she tries hard to protect his/her dominance	–.11	.31	.30
8. He/she often tries to get his/her own way regardless of what others may want	–.07	.30	.20
9. I always expect him/her to take charge	.09	.21	.13
<b>Competence–respect</b>			
1. His/her talents and abilities are recognized by others <sup>a</sup>	–.04	.05	.68
2. I believe he/she possesses skills and expertise to succeed <sup>a</sup>	.14	.00	.59
3. I respect his/her skills or expertise <sup>a</sup>	.20	–.04	.55
4. He/she is considered an expert on some matters by others <sup>a</sup>	.02	.06	.53
5. I value his/her opinions	.33	–.16	.53
6. I consider him/her effective at work <sup>a</sup>	.16	.03	.48
7. I always expect him/her to be successful	.33	–.05	.44
8. I know it is better to let him/her have his/her way	.14	–.10	.37
9. He/she always gets job done	.25	.06	.36
10. His/her unique talents and abilities are not recognized by others	.20	.36	–.38

Note. Direct oblimin rotation method was used.

<sup>a</sup> Items included in the final scale. <sup>b</sup> Failed to load on the intended competence–respect factor. <sup>c</sup> Excluded later because of high cross-loadings in Study 1b.

Participants rated each item on a 7-point Likert scale from 1 = *strongly disagree* to 7 = *strongly agree*.

**Perceived status.** To capture perceived social standing, we used a four-item perceived status scale (e.g., “he/she is paid attention” and “he/she has high status;”  $\alpha = .89$ ) adapted from previous status scales (Anderson et al., 2012; Cheng et al., 2013), answered on a 7-point Likert scale from 1 = *strongly disagree* to 7 = *strongly agree*. Similar measures of perceived status were found to be positively correlated with actual behavioral influence (Cheng et al., 2013) and leader emergence in groups (McClean et al., 2017).

**Interpersonal liking.** We used a two-item scale (“I like him/her” and “I like working with him/her;”  $\alpha = .92$ ; Cheng et al., 2013) to measure interpersonal liking, answered on a 5-point Likert scale from 1 = *not at all* to 5 = *extremely*. Similarly to Cheng et al. (2013), we probed whether virtue–admiration, dominance–fear, and competence–respect had different associations with interpersonal liking. We expected virtue–admiration and competence–respect to be positively and dominance–fear to be negatively associated with perceived likability. However, we did not expect interpersonal liking to drive the associations between virtue–admiration, dominance–fear, and competence–respect and perceived status. (The [supplementary](#)

[materials](#) provide details regarding the instruments and scales used).

## Results

**Factor structure.** A CFA was conducted on the 16 items to capture the three routes to status. We first tested a three-factor solution with correlated factors, which fit the data reasonably well,  $\chi^2(101, N = 167) = 242.89, p < .001$ , comparative fit index (CFI) = .90, root mean square error of approximation (RMSEA) = .092, standardized root mean square residual (SRMR) = .099, Akaike information criterion (AIC) = 312.89. However, some fit statistics failed to reach the recommended levels (Hair et al., 2010; Neel, Kenrick, White, & Neuberg, 2016). An inspection of modification indices and standardized residuals indicated improved model fit by deleting “when I think of him/her, I feel tense or irritated,” which had high factor loadings on both virtue–admiration and dominance–fear (see Aquino & Reed, 2002 for an example). After careful consideration, we deleted the item because it captured hostility and disliking rather than fear, and was inconsistent with our conceptualization of dominance–fear.

After deleting the item, all fit statistics were within acceptable ranges:  $\chi^2(87, N = 167) = 177.50, p < .001$ , CFI = .93, RMSEA =



.079, SRMR = .075, AIC = 243.50 (e.g., Dunn, Ruedy, & Schweitzer, 2012; Neel et al., 2016). We then compared the three-factor model with a two-factor model that combined virtue-admiration and competence-respect as one factor alongside dominance-fear. The two-factor model,  $\chi^2(89, N = 167) = 362.30$ ,  $p < .001$ , CFI = .79, RMSEA = .136, SRMR = .100, AIC = 424.30, fit the data significantly worse than the three-factor model  $\chi^2(2, 167) = 184.80$ ,  $p < .001$ . In addition, the reliabilities for the virtue-admiration, dominance-fear, and competence-respect subscales were .89, .74, and .87, respectively.

**Correlation analysis.** Table 2 shows descriptive statistics for the study variables. Virtue-admiration was positively associated with competence-respect,  $r = .63$ ,  $p < .001$ , but negatively associated with dominance-fear,  $r = -.20$ ,  $p = .009$ . Competence-respect and dominance-fear were also negatively associated,  $r = -.29$ ,  $p < .001$ . In addition, virtue-admiration,  $r = .57$ ,  $p < .001$  and competence-respect,  $r = .72$ ,  $p < .001$ , but not dominance-fear,  $r = .04$ ,  $p > .250$ , were positively associated with perceived status. As expected, virtue-admiration,  $r = .68$ ,  $p < .001$  and competence-respect,  $r = .67$ ,  $p < .001$  were positively associated with interpersonal liking, whereas dominance-fear was negatively associated,  $r = -.36$ ,  $p < .001$ .

As interpersonal liking and perceived status were positively associated,  $r = .54$ ,  $p < .001$ , to rule out the possibility that interpersonal liking drove the associations between virtue-admiration, dominance-fear, and competence-respect and perceived status, we computed partial correlations controlling for interpersonal liking. After partialing out the impact of interpersonal liking, positive associations remained between virtue-admiration,  $r = .33$ ,  $p < .001$  and competence-respect,  $r = .57$ ,  $p < .001$  and perceived status. The association between dominance-fear and perceived status became significantly positive,  $r = .30$ ,  $p < .001$ .

**Regression analysis.** Results from hierarchical regression analysis including virtue-admiration, dominance-fear, and competence-respect simultaneously, with age and gender as controls (e.g., Cheng et al., 2016), revealed that all three routes had significant positive effects on perceived status: virtue-admiration ( $B = .23$ ,  $t = 3.39$ ,  $p < .001$ ), dominance-fear ( $B = .34$ ,  $t = 5.65$ ,  $p < .001$ ), and competence-respect ( $B = .80$ ,  $t = 9.86$ ,  $p < .001$ ).

Moreover, moderation analysis (Hayes, 2013) examined whether competence-respect moderated the positive effect of virtue-admiration on perceived status. Indeed, virtue-admiration did not interact with competence-respect ( $B = .04$ ,  $t = .81$ ,  $p > .250$ ) to affect perceived status. Finally, controlling for interper-

sonal liking in regression models did not affect the pattern of results. Table 3 shows details of the regression results.

## Discussion

Study 1b confirmed the three-factor structure of the SAS identified in Study 1a. Two dominance-fear items and two competence-respect items in the SAS were adopted from the prestige-dominance scale (Cheng et al., 2013), showing some consistency with prior work. As predicted, virtue-admiration was negatively but weakly correlated with dominance-fear but positively and strongly correlated with competence-respect. Moreover, Study 1b found initial evidence for the three-route model of status attainment proposed in MVT. That is, virtue-admiration, dominance-fear, and competence-respect appeared to be distinct but compatible pathways to status. Virtue-admiration did not conflate with competence-respect in affecting status conferral, but rather served as a distinct pathway to status.

Although the CFA results largely upheld the EFA findings, one dominance item was excluded because of high cross-loadings and conceptual ambiguity. Some fit indices were acceptable but did not reach recommended levels (Hair et al., 2010), perhaps because of the relatively small sample (Hu & Bentler, 1999). Thus, in Study 1c, we cross-validated the updated factor structure on a larger sample.

## Study 1c: CFA Cross-Validation

### Participants

We used Prolific Academic (Peer, Brandimarte, Samat, & Acquisti, 2017) to recruit a large sample of employed U.S. nationals and paid them to complete a short survey. We aimed to recruit approximately 350 to avoid inflating Type I error rates (Hu & Bentler, 1999) and to meet a more strict 20:1 subject-item ratio for CFA (Hair et al., 2010). After excluding one nonconsent and 10 failed attention checks, we had complete responses from 340 participants (Sample D: 177 women, 157 men, 6 declined to state;  $M_{\text{age}} = 32.68$  years,  $SD_{\text{age}} = 11.10$ , 5 declined to state).

### Procedure

As in Study 1b, after participants completed a consent form, they were asked to assess a coworker they know well on perceived

Table 2  
Descriptive Statistics and Correlations of the Measures Used in Study 1b ( $N = 167$ )

No.	Variable	Mean	SD	1	2	3	4	5	6
1	Virtue-admiration	4.58	1.17	—					
2	Dominance-fear	2.72	1.08	-.20**	—				
3	Competence-respect	5.36	1.01	.63***	-.29***	—			
4	Perceived status	5.01	1.24	.57***	.04	.72***	—		
5	Interpersonal liking	3.84	.97	.68***	-.36***	.67***	.54***	—	
6	Age	34.87	10.04	-.06	-.18*	.18*	.12	.03	—
7	Gender <sup>a</sup>	.42	.49	.12	-.19*	.06	.09	.06	.12

<sup>a</sup> 1 = female; 0 = male.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .



Table 3  
Hierarchical Regression Analysis for Variables Predicting Perceived Status in Study 1b  
( $N = 167$ )

Variable	Model 1 <i>B</i>	Model 2 <i>B</i>	Model 3 <i>B</i>	Model 4 <i>B</i>
Intercept	-1.24**	-1.57***	-.81	-1.75***
Controls				
Age		.01	.01	.01
Gender		.17	.17	.19
Interpersonal liking				.18
Virtue-admiration	.22***	.23***	.02	.17*
Dominance-fear	.32***	.34***	.35***	.37***
Competence-respect	.82***	.80***	.65**	.74***
Virtue-admiration $\times$ Competence-respect			.04	

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

status, likability, and virtue-admiration, dominance-fear, and competence-respect dimensions.

## Measures

We used the updated 15-item scale confirmed in Study 1b. Participants rated each item on a 7-point scale from 1 = *strongly disagree* to 7 = *strongly agree*. Perceived status and interpersonal liking were measured with the same four-item scale ( $\alpha = .91$ ) and two-item scale ( $\alpha = .92$ ) used in Study 1b.

## Results

**Cross-validation.** We performed CFA to cross-validate the results reported in Study 1b. The same analytical procedures showed that the three-factor model fit the data from the new sample well:  $\chi^2(87, N = 340) = 217.25, p < .001$ , CFI = .96, RMSEA = .067, SRMR = .074, AIC = 283.25. Given the sample size (i.e.,  $N = 340$ ) and the number of measured variables (15), all the fit indices reached satisfactory levels (Hair et al., 2010)—that is, CFI > .92, RMSEA < .07, and SRMR < .08. An alternative two-factor model combining virtue-admiration and competence-respect as the same factor,  $\chi^2(89, N = 340) = 633.68, p < .001$ , CFI = .82, RMSEA = .134, SRMR = .107, AIC = 695.68, fit the data significantly worse than the three-factor model:  $\chi^2(2, 340) = 416.43, p < .001$ . The SAS also showed satisfactory internal consistency with Cronbach's  $\alpha$ s to be .92, .70, and .88 for virtue-admiration, dominance-fear, and competence-respect, respectively, comparable reports in Study 1b.

**Correlation analysis.** Table 4 shows descriptive statistics for the study variables. Virtue-admiration was positively associated with competence-respect,  $r = .63, p < .001$ , but negatively associated with dominance-fear,  $r = -.37, p < .001$ . Competence-respect and dominance-fear were also negatively associated,  $r = -.10, p = .077$ . Virtue-admiration,  $r = .46, p < .001$ , dominance-fear,  $r = .16, p = .004$ , and competence-respect,  $r = .70, p < .001$  were all positively associated with perceived status. As expected, virtue-admiration,  $r = .78, p < .001$  and competence-respect,  $r = .61, p < .001$  were positively associated with interpersonal liking, whereas dominance-fear was negatively associated with interpersonal liking,  $r = -.38, p < .001$ .

As interpersonal liking was positively associated with perceived status,  $r = .40, p < .001$ , we again computed partial correlations, controlling for interpersonal liking. After partialing out the impact of interpersonal liking, positive associations remained for virtue-admiration,  $r = .25, p < .001$ , dominance-fear,  $r = .36, p < .001$ , competence-respect,  $r = .62, p < .001$ , and perceived status.

**Regression analysis.** Regression results revealed that the three routes had significant positive effects on perceived status: virtue-admiration ( $B = .17, t = 3.24, p = .001$ ), dominance-fear ( $B = .32, t = 6.81, p < .001$ ), and competence-respect ( $B = .73, t = 12.51, p < .001$ ). Virtue-admiration interacted with competence-respect ( $B = .07, t = 2.77, p = .006$ ) to affect perceived status: virtue-admiration had a stronger positive effect on status conferral under high competence-respect ( $B = .24, t = 4.19, p < .001$ ) than under low competence-respect ( $B = .10, t = 1.72, p = .087$ ). Controlling for interpersonal liking in regression

Table 4  
Descriptive Statistics and Correlations of the Measures Used in Study 1c ( $N = 340$ )

No.	Variable	Mean	SD	1	2	3	4	5	6
1	Virtue-admiration	4.82	1.26	—					
2	Dominance-fear	2.56	1.06	-.37***	—				
3	Competence-respect	5.62	1.04	.63***	-.10	—			
4	Perceived status	4.94	1.22	.46***	.16**	.70***	—		
5	Interpersonal liking	3.90	1.00	.78***	-.38***	.61***	.40***	—	
6	Age	32.68	11.10	.10	-.11*	.10	.02	.03	—
7	Gender <sup>a</sup>	.53	.50	.18**	-.07	.16**	.15**	.14**	.09

<sup>a</sup> 1 = female; 0 = male.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 5  
*Hierarchical Regression Analysis for Variables Predicting Perceived Status in Study 1c*  
 ( $N = 333$ )<sup>a</sup>

Variable	Model 1 <i>B</i>	Model 2 <i>B</i>	Model 3 <i>B</i>	Model 4 <i>B</i>
Intercept	-.81**	-.74*	.68	-.75*
Controls				
Age		-.00	-.00	-.00
Gender		.11	.11	.11
Interpersonal liking				.00
Virtue–admiration	.17***	.17**	-.22	.17**
Dominance–fear	.32***	.32***	.33***	.32***
Competence–respect	.73***	.73***	.46***	.73***
Virtue–admiration $\times$ Competence–respect			.07**	

<sup>a</sup> Seven participants were excluded in the regression analysis because of missing values for age and gender.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

models failed to affect the patterns. Table 5 shows details of the regression results, and Figure 1 shows the interaction pattern.

## Discussion

Drawing on a large sample of working adults, Study 1c cross-validated the updated three-factor structure of the SAS and largely replicated the regression results from Study 1b. Virtue–admiration, dominance–fear, and competence–respect each had positive main effects on status conferral, again supporting the three-route model of status attainment (Bai, 2017). Surprisingly, virtue–admiration and competence–respect interacted to affect status conferral, and the positive effect of virtue–admiration on status conferral was marginally significant under low competence–respect. The unexpected interaction, however, should be cautiously interpreted, given the strong positive correlation (i.e.,  $r = .63$ ) between virtue–admiration and competence–respect and the few observations with high/low virtue–admiration and low/high competence–respect.

(The supplementary materials show the scatter plot.) We return to this issue in the General Discussion.

## Study 1d: Test–Retest Reliability

### Participants

We recruited a sample of fulltime employed U.S. workers via Prolific Academic (Peer et al., 2017) and paid them to complete a short two-wave survey. We intended to recruit 134 participants to ensure sufficient power (80% power for two-tailed test) to detect a medium effect ( $r = .30$ ) given our correlational design (Faul, Erdfelder, Lang, & Buchner, 2007), and posted 200 openings on Prolific Academic to allow for some attrition. After excluding five failed attention checks, we initially recorded responses from 197 participants. One month later, 137 participants completed a follow-up survey (Sample E: 86 men;  $M_{\text{age}} = 33.78$  years,  $SD_{\text{age}} = 10.47$ ).

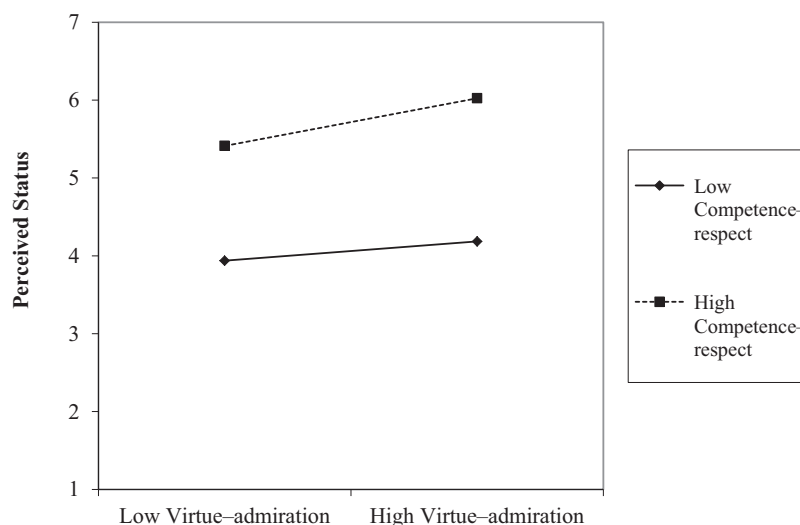


Figure 1. The effects of virtue–admiration on perceived status at high and low levels of competence–respect in Study 1c.

## Procedure

After participants completed a consent form to participate in a study of interpersonal perceptions, they typed the initials of a coworker they know well and assessed the coworker on virtue–admiration, dominance–fear, and competence–respect dimensions. A month later, they were asked to repeat the evaluations.

## Measures

We used the updated 15-item scale confirmed in Study 1b to measure virtue–admiration ( $\alpha = .94$ ), dominance–fear ( $\alpha = .77$ ), and competence–respect ( $\alpha = .90$ ).

## Results

We assessed the correlations between the values of SAS measured initially and those measured 1 month later. In terms of correlation coefficients, the virtue–admiration, dominance–fear, and competence–respect subscales were .82, .67, and .67 ( $ps < .001$ ), respectively, indicating relative stability over a month.

## Discussion

Study 1d provided evidence that virtue–admiration, dominance–fear, and competence–respect are relatively stable constructs as MVT suggests (Bai, 2017).

### Study 2a: Nomological Network and Discriminant Validity of Virtue

After establishing the three-factor structure of the SAS and gathering evidence for test–retest reliability, we conducted a two-wave survey study on a sample of fulltime working adults to investigate the nomological network and discriminant validity of virtue–admiration, dominance–fear, and competence–respect. To alleviate potential common method biases (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), we measured the SAS in the first wave and measured personalities and social perceptions in the second. Specifically, we expected other-reported virtue–admiration to be positively related to established moral constructs. We included expressed humility (Owens et al., 2013; Tangney, 2000) and trustworthiness (Haidt & Joseph, 2004)—two crucial forms of virtue, agreeableness and conscientiousness—the two moral dimensions of the Big Five or Five-Factor Model (FFM) of personality (McCrae & Costa, 1987), and warmth—the moral aspect of social perceptions (Fiske et al., 2002). Next, we expected virtue–admiration to be negatively related to Machiavellianism, psychopathy, and narcissism, the immoral personality traits of the “dark triad” (Lee et al., 2013; Paulhus & Williams, 2002). Finally, we predicted that virtue–admiration should be unrelated to the amoral dimensions of the Big Five (i.e., neuroticism, extraversion, and openness) and agency—the amoral aspect of social perceptions.

## Participants

We used Prolific Academic (Peer et al., 2017) to recruit a sample of fulltime U.S. employees and paid them to complete two short surveys, 5 days apart. We aimed to recruit approximately 134 to ensure sufficient power (80% power for two-tailed test) to detect

a medium effect ( $r = .30$ ), given our correlational design (Faul et al., 2007). After excluding 57 failed attention checks and missing responses, we recorded responses from 132; 103 of which completed the follow-up survey 5 days later. After excluding eight failed attention checks in the second wave, the final sample included completed responses from 95 participants (Sample F: 55 men;  $M_{\text{age}} = 35.25$  years,  $SD_{\text{age}} = 10.51$ ).

## Procedure

After participants completed a consent form, they provided the initials of three coworkers they know well. Then they were randomly assigned to evaluate one of the three using the SAS. Five days later, they evaluated the same coworker on personality and social perceptions.

## Measures

**Status Attainment Scale (SAS).** The validated 15-item SAS was used to measure virtue–admiration ( $\alpha = .82$ ), dominance–fear ( $\alpha = .64$ ), and competence–respect ( $\alpha = .88$ ).

**Expressed humility.** Humility was assessed with a nine-item scale (e.g., “He/she admits it when he/she doesn’t know how to do something”;  $\alpha = .88$ ; Owens et al., 2013). Participants rated each item on a 5-point Likert scale from 1 = *strongly disagree* to 5 = *strongly agree*.

**Trustworthiness.** A seven-item scale adapted by Robinson (1996) was used to measure trustworthiness (e.g., “I am not sure I fully trust him or her” (reverse-coded);  $\alpha = .79$ ) on a 5-point Likert scale from 1 = *strongly disagree* to 5 = *strongly agree*.

**Big Five personality dimensions.** We used the 44-item Big Five Inventory (BFI; John, Naumann, & Soto, 2008) to measure neuroticism (e.g., “He/she worries a lot”;  $\alpha = .81$ ), extraversion (e.g., “He/she is outgoing, sociable”;  $\alpha = .78$ ), agreeableness (e.g., “He/she is helpful and unselfish with others”;  $\alpha = .61$ ), conscientiousness (e.g., “He/she is a reliable worker”;  $\alpha = .81$ ), and openness (e.g., “He/she is curious about many different things”;  $\alpha = .75$ ), rated on a 5-point Likert scale from 1 = *strongly disagree* to 5 = *strongly agree*.

**Warmth and agency.** A 16-item scale (Cheng et al., 2010) adapted from the revised interpersonal adjective scales (Wiggins, Trapnell, & Phillips, 1988) was used to measure warmth (e.g., “gentle-hearted” and “warmth-less” (reverse-coded);  $\alpha = .64$ ) and agency (e.g., “self-assured” and “assertive”;  $\alpha = .51$ ), answered on an 8-point Likert scale from 1 = *extremely inaccurate* to 8 = *extremely accurate*.

**Dark triad.** We used the 27-item short dark triad (SD3) scale (Jones & Paulhus, 2014), which has nine items each for measuring Machiavellianism (e.g., “Whatever it takes, he/she believes that he/she must get the important people on his/her side”;  $\alpha = .87$ ), psychopathy (e.g., “He/she believes that payback needs to be quick and nasty”;  $\alpha = .86$ ), and narcissism (e.g., “He/she believes many group activities tend to be dull without him/her”;  $\alpha = .54$ ). Participants rated each item on a 5-point Likert scale from 1 = *strongly disagree* to 5 = *strongly agree*.

## Results

**Correlation analysis.** Table 6 shows descriptive statistics of the study variables. As in Study 1b, virtue–admiration was posi-

Table 6  
Descriptive Statistics and Correlations Used in Study 2a ( $N = 95$ )

No.	Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Virtue-admiration	5.11	1.22	—															
2	Dominance-fear	3.17	1.41	.31**	—														
3	Competence-respect	5.76	.94	.67***	.16	—													
4	Expressed humility	4.05	.60	.66***	.20	.56***	—												
5	Trustworthiness	3.94	.70	.30**	-.28**	.36***	.54***	—											
6	Extraversion	3.54	.55	.10	-.01	.28**	.27**	.30**	—										
7	Agreeableness	3.69	.65	.21*	-.35***	.35***	.42***	.58***	.30**	—									
8	Conscientiousness	3.84	.65	.29**	-.18	.47***	.38***	.69***	.22*	.64***	—								
9	Neuroticism	2.57	.74	-.09	.30**	-.32**	-.35***	-.55***	-.30**	-.72***	-.69***	—							
10	Openness	3.51	.58	.58***	.31**	.53***	.62***	.32**	.26*	.26*	.26*	.44***	—						
11	Warmth	5.52	1.07	.27**	-.35***	.31**	.42***	.50***	.33***	.62***	.44***	-.51***	.35***	—					
12	Agency	5.37	.92	.03	-.04	.15	.22*	.28***	.57***	.16	.33***	-.33***	.30**	.20*	—				
13	Machiavellianism	3.10	.86	.29**	.64***	.15	.12	-.42**	-.17	-.52***	-.41***	.50***	.15	-.37***	-.22*	—			
14	Narcissism	3.05	.54	.27**	.53***	.13	.16	-.27**	.07	-.30**	-.18	.12	.25*	-.12	.13	.64***	—		
15	Psychopathy	2.64	.84	.16	.54***	.05	-.05	-.54***	-.18	-.61***	-.45***	.52***	.05	-.38***	-.14	.83***	.58***	—	
16	Age	35.25	10.51	.11	-.13	.23*	.03	.18	.04	.33**	.31**	-.26*	.13	.20	.10	-.27**	-.38***	-.23*	—
17	Gender <sup>a</sup>	.42	.50	.05	-.12	.17	.01	.19	.01	.14	.26*	-.14	-.01	.14	.06	-.06	.00	-.14	.17

<sup>a</sup> 1 = female; 0 = male.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

tively associated with competence-respect,  $r = .67, p < .001$  and virtue-admiration was positively related to dominance-fear,  $r = .31, p = .003$ , but competence-respect was not significantly related to dominance-fear,  $r = .16, p = .116$ .

**Nomological network.** As we predicted, virtue-admiration was positively related to expressed humility,  $r = .66, p < .001$ , trustworthiness,  $r = .30, p = .003$ , agreeableness,  $r = .21, p = .038$ , conscientiousness,  $r = .29, p = .004$ , and warmth,  $r = .27, p = .009$ . However, to our surprise, virtue-admiration was positively rather than negatively, associated with two dark triad traits: Machiavellianism,  $r = .29, p = .004$  and narcissism,  $r = .27, p = .007$ , but not associated with psychopathy,  $r = .16, p = .123$ . The positive correlation between virtue-admiration and dominance-fear appeared to drive the unpredicted positive associations. After partialing out dominance-fear, the positive associations between virtue-admiration and Machiavellianism,  $r = .14, p = .192$  and narcissism,  $r = .14, p = .189$  became insignificant.

**Discriminant validity.** Virtue-admiration was unrelated to two amoral dimensions of the Big Five: neuroticism,  $r = -.09, p > .250$  and extraversion,  $r = .10, p > .250$ . Virtue-admiration was also unrelated to agency,  $r = .03, p > .250$ , as predicted. However, it had an unpredicted positive association with openness,  $r = .58, p < .001$ , another amoral dimension of the Big Five.

## Discussion

Study 2a found evidence for the convergent validity of virtue-admiration with established moral constructs such as humility, agreeableness, and warmth. The study also found evidence for the discriminant validity of virtue-admiration with neuroticism, extraversion, and social agency. In addition, a positive, although weak, correlation occurred between virtue-admiration and dominance-fear, suggesting they can be experienced simultaneously. We were surprised to find nonnegative relationships between virtue-admiration and the dark triad, even after partialing out dominance-fear. In other words, virtue-admiration is not the exact opposite of *vice*, consistent with the paradox perspective arguing that individuals have coexisting moral and immoral characteristics (e.g., Owens et al., 2015). Finally, virtue-admiration had an unexpected positive association with openness, warranting future investigations.

## Study 2b: Nomological Network, Discriminant, and Predictive Validities of Virtue With Multisource Data

Study 2b was preregistered<sup>4</sup> and extended Study 2a by using multisource data from a large sample of undergraduates and their friends to examine the convergent, discriminant, and predictive validities of virtue-admiration. Regarding convergent validity, we predicted that moral and immoral characteristics would at least partially affect virtue-admiration because interpersonal judgment of moral character tends to be relatively accurate in the long term (Bai, 2017). Specifically, we expected peer-reported virtue-admiration to be positively related to self-reported moral character traits and values, including moral identity (Aquino & Reed, 2002), honesty-humility and conscientiousness—the two moral dimen-

<sup>4</sup> [https://osf.io/nrhjy/?view\\_only=735b93955fc46b1b6423100130efa6b](https://osf.io/nrhjy/?view_only=735b93955fc46b1b6423100130efa6b).



sions the HEXACO model of personalities (Ashton & Lee, 2009), guilt-proneness (Cohen et al., 2016), and moral foundations (Graham et al., 2011). In contrast, we expected peer-reported virtue-admiration to be negatively related to self-reported Machiavellianism, psychopathy, and narcissism (Jonason & Webster, 2010). Regarding discriminant validity, we predicted that individual characteristics outside the moral domain would not influence virtue-admiration. Therefore, we expected that peer-reported virtue-admiration would not correlate with self-reports of neuroticism, extraversion, and openness (Driskell et al., 1993), academic performance (Rheinschmidt & Mendoza-Denton, 2014), and trait aggression (Bryant & Smith, 2001). We also expected that peer-reported virtue-admiration would be unrelated to impression management (Bai, 2017).

Furthermore, we tested whether observers of moral character traits confer status to the exhibitors of moral traits: the virtue-admiration pattern. Finally, we investigated whether observers' moral character is a boundary condition.

## Participants

We recruited a large sample of undergraduates from the paid subject pool managed by a large public university in Hong Kong, China, and a matched sample of friends who had known the participants well for at least 2 years. To ensure sufficient power (80% power for one-tailed test) to detect a small effect ( $f^2 = .02$ ) given our between-person survey design (Faul et al., 2007), we tried to recruit 311 pairs by positing 400 openings on the university-run research participant system, allowing for some attrition in the data matching process. Although we offered competitive financial incentives (i.e., HK \$50 for participation and an additional 20% chance to win a HK \$50 Starbucks gift card), the paid participant pool is limited, so we recruited only 371. After excluding 59 who failed to nominate valid friends with contact information or failed attention checks, we sent invitations to the nominated friends of 312 participants. After excluding six participants whose peers failed an attention check or missed responses, we had a final sample of 206 focal participants (Sample G: 155 women;  $M_{\text{age}} = 20.67$  years,  $SD_{\text{age}} = 2.24$ ; 90.29% Asian, 1.94% White, 1.46% mixed race, 6.31% other). Thus, the study might be underpowered.

## Procedure

When participants arrived at the laboratory, they were seated at computers in semiprivate cubicles within one large room. After completing a consent form, they answered questionnaires regarding their personalities and demographics, and then nominated three friends who had known them well for at least 2 years. Following a procedure similar to Stellar et al. (2017), we emailed the first two nominated peers and offered a 20% chance to win a HK \$50 Starbucks gift card for filling out a short online survey about the focal participant who nominated them. We recorded responses from the first of the two peers who completed the online survey. If neither responded within 5 days, we contacted the third nominee. The online survey required participants to evaluate their friends on virtue-admiration, dominance-fear, and competence-respect dimensions, perceived status, and interpersonal liking. Peers also completed a short questionnaire about their moral identity-

internalization, guilt-proneness, and moral foundations, along with demographic information.

## Measures

### Self-reports.

**Moral identity.** We used the 10-item moral identity scale (Aquino & Reed, 2002) to measure self-image regarding the centrality of morality, answered on a 5-point Likert scale from 1 = *strongly disagree* to 5 = *strongly agree*. Five items were used to measure the internalization dimension of moral identity (e.g., "I strongly desire to have these characteristics [e.g., compassionate, honest, fair]";  $\alpha = .68$ ). Another five items were used to measure the symbolization dimension of moral identity (e.g., "I am actively involved in activities that communicate that I have these characteristics [e.g., compassionate, honest, fair]";  $\alpha = .61$ ).

**HEXACO personality dimensions.** The 60-item HEXACO personality inventory (Ashton & Lee, 2009) was used to measure honesty-humility (e.g., "I would never accept a bribe, even if it were very large";  $\alpha = .57$ ), emotionality (e.g., "I would feel afraid if I had to travel in bad weather conditions";  $\alpha = .64$ ), extraversion (e.g., "I prefer jobs that involve active social interaction to those that involve working alone";  $\alpha = .78$ ), agreeableness (vs. anger; e.g., "I rarely hold a grudge, even against people who have badly wronged me";  $\alpha = .68$ ), conscientiousness (e.g., "I plan ahead and organize things, to avoid scrambling at the last minute";  $\alpha = .69$ ), and openness to experience (e.g., "I'm interested in learning about the history and politics of other countries";  $\alpha = .72$ ), answered on a 5-point Likert scale from 1 = *strongly disagree* to 5 = *strongly agree*.

**Guilt proneness.** Guilt proneness was measured by the five-item guilt-proneness scale (GP-5) developed by Cohen et al. (2016), answered on a 5-point Likert scale from 1 = *extremely unlikely* to 5 = *extremely likely* (e.g., "You secretly commit a felony. What is the likelihood that you would feel remorse about breaking the law?";  $\alpha = .68$ ).

**Moral foundations.** We used the 20-item *short-form* moral foundations questionnaire (MFQ20; Graham et al., 2011) to measure the five moral foundations: harm/care (e.g., "Compassion for those who are suffering is the most crucial virtue";  $\alpha = .57$ ), fairness/reciprocity (e.g., "Justice is the most important requirement for a society";  $\alpha = .67$ ), ingroup/loyalty (e.g., "I am proud of my country's history";  $\alpha = .40^5$ ), authority/respect (e.g., "Respect for authority is something all children need to learn";  $\alpha = .64$ ), and purity/sanctity (e.g., "People should not do things that are disgusting, even if no one is harmed";  $\alpha = .61$ ).

**Dark triad.** We used the 12-item dark triad dirty dozen scale (Jonason & Webster, 2010) to measure Machiavellianism (e.g., "I tend to manipulate others to get my way";  $\alpha = .68$ ), psychopathy (e.g., "I tend to lack remorse";  $\alpha = .58$ ), and narcissism (e.g., "I tend to want others to pay attention to me";  $\alpha = .80$ ), answered on a 9-point Likert scale from 1 = *strongly disagree* to 9 = *strongly agree*.

**Self-efficacy.** We used the eight-item new general self-efficacy scale (Chen, Gully, and Eden, 2001) to measure general-

<sup>5</sup> Hong Kong's long colonial history and some university students' proindependence sympathies may affect the low internal consistency for the ingroup/loyalty subscale.

ized self-efficacy, answered on a 5-point Likert scale from 1 = *strongly disagree* to 5 = *strongly agree* (e.g., “I will be able to achieve most of the goals that I have set for myself”;  $\alpha = .90$ ).

**Self-reported current and expected GPA.** Participants reported their current grade point average (GPA) and their expected success in the current academic term on a standard 4.0 scale (Rheinschmidt & Mendoza-Denton, 2014). Current and expected GPAs tend to be highly correlated and have been used as indices of competence in studies that use academic settings (e.g., Rheinschmidt & Mendoza-Denton, 2014).

**Trait aggression.** We measured trait aggression by the 12-item *short-form* aggression questionnaire to capture tendencies toward intimidation and hostility (Bryant & Smith, 2001), answered on a 6-point Likert scale from 1 = *extremely uncharacteristic of me* to 6 = *extremely characteristic of me* (e.g., “Given enough provocation, I may hit another person”;  $\alpha = .82$ ).

**Impression management.** We used the 20-item impression management subscale from the balanced inventory of desirable responding (BIRD-Version 6; Paulhus & John, 1998) to capture concerns for social desirability, answered on a 7-point Likert scale from 1 = *not true* to 7 = *very true* (e.g., “I have done things that I don’t tell other people about”;  $\alpha = .66$ ).

**Other-report measures.** We used the 15-item SAS to measure virtue-admiration ( $\alpha = .83$ ), dominance-fear ( $\alpha = .54$ ),<sup>6</sup> and competence-respect ( $\alpha = .87$ ) dimensions. Status conferral was measured with the four-item perceived status scale (e.g., “He/she has high status”;  $\alpha = .81$ ), answered on a 7-point Likert scale from 1 = *strongly disagree* to 7 = *strongly agree*.<sup>7</sup> The two-item scale (“I like him/her”;  $\alpha = .80$ ) from Cheng et al. (2013) was used to capture interpersonal liking, answered on a 5-point Likert scale from 1 = *not at all* to 5 = *extremely*.

Because of time constraints, peers reported their moral identity with the five-item internalization subscale (e.g., “I strongly desire to have these characteristics [e.g., compassionate, honest, fair]”;  $\alpha = .74$ ). Guilt-proneness was measured with the self-reported GP-5 scale ( $\alpha = .73$ ). Moral foundations were also measured with the MFQ20 (Graham et al., 2011), including harm/care ( $\alpha = .70$ ), fairness/reciprocity ( $\alpha = .69$ ), ingroup/loyalty ( $\alpha = .59$ ), authority/respect ( $\alpha = .63$ ), and purity/sanctity ( $\alpha = .62$ ).

## Results

**Correlation analysis.** Table 7 shows descriptive statistics of the study variables. Peer-reported virtue-admiration was positively associated with competence-respect,  $r = .68, p < .001$ , but not significantly associated with dominance-fear,  $r = -.08, p = .228$ . Competence-respect and dominance-fear were unrelated,  $r = -.01, p > .250$ .

Virtue-admiration,  $r = .62, p < .001$  and competence-respect,  $r = .65, p < .001$  were both positively associated with perceived status, but dominance-fear and perceived status were not significantly correlated,  $r = .09, p = .194$ . Similar to our previous findings, virtue-admiration,  $r = .52, p < .001$  and competence-respect,  $r = .44, p < .001$  were positively associated with interpersonal liking, whereas dominance-fear was not,  $r = -.06, p > .250$ . After partialing out the impact of interpersonal liking, the positive associations remained between virtue-admiration,  $r = .51, p < .001$ , competence-respect,  $r = .56, p < .001$ , and

perceived status. The association between dominance-fear and perceived status became marginally positive,  $r = .13, p = .060$ .

**Nomological network.** Peer-reported virtue-admiration was positively related to several self-reported moral character traits, including moral identity-internalization,  $r = .15, p = .028$ , harm/care,  $r = .17, p = .016$ , ingroup/loyalty,  $r = .15, p = .034$ , and purity/sanctity,  $r = .13, p = .070$ , but was unrelated to the other self-reported moral characteristics, including moral identity-symbolization,  $r = .05, p > .250$ , guilt-proneness,  $r = .01, p > .250$ , honesty-humility,  $r = .03, p > .250$ , and conscientiousness,  $r = .03, p > .250$ . Peer-reported virtue-admiration was not associated with Machiavellianism,  $r = -.08, p = .234$ , psychopathy,  $r = -.11, p = .110$ , or narcissism,  $r = .04, p > .250$ .

**Discriminant validity.** Peer-reported virtue-admiration was unrelated to three of the amoral personality dimensions—emotionality,  $r = .02, p > .250$ , extraversion,  $r = .10, p = .137$ , and agreeableness,  $r = .07, p > .250$ , and two self-reported measures of competence—current,  $r = -.03, p > .250$  and expected GPA,  $r = .05, p > .250$ . Adding evidence to the distinction between virtue-admiration and competence-respect, both self-reported extraversion,  $r = .14, p = .042$  and expected GPA,  $r = .14, p = .038$  were positively associated with peer-reported competence-respect. Peer-reported virtue-admiration was also unrelated to self-reported trait aggression,  $r = -.08, p = .234$  and impression management,  $r = .07, p > .250$ . Surprisingly, unpredicted positive associations occurred between peer-reported virtue-admiration and self-reported openness,  $r = .15, p = .028$  and generalized self-efficacy,  $r = .15, p = .026$ .

**Predictive validity.** We applied mediation analysis using the process macro (i.e., Model 4; Hayes, 2013; Hayes & Preacher, 2014) in SAS 9.4 to examine the mediating effects of virtue-admiration between self-reported moral character traits and peer-reported status conferral, with dominance-fear and competence-respect as parallel mediators, and with age and gender as controls. We focused on the self-reported moral character traits that were positively and significantly correlated with peer-reported virtue-admiration—moral identity-internalization, harm-care, and ingroup/loyalty—as our primary predictors. Self-reported moral identity-internalization had significant indirect effects on status conferral through both virtue-admiration ( $b = .10$ , 95% confidence interval, CI [.011, .250]) and competence-respect ( $b = .15$ , 95% CI [.038, .290]), but not through dominance-fear ( $b = -.005$ , 95% CI [-.049, .028]). Self-reported harm/care had a significant indirect effect on status conferral only through peer-reported virtue-admiration ( $b = .08$ , 95% CI [.011, .191]), but not through dominance-fear ( $b = -.003$ , 95% CI [-.039, .020]) or competence-respect ( $b = .03$ , 95% CI [-.054, .110]). Self-reported ingroup/loyalty also had significant indirect effects on status conferral through both peer-reported virtue-admiration ( $b =$

<sup>6</sup> Despite the relatively low reliability score for the dominance-fear subscale, CFA indicated good fit for the three-factor model,  $\chi^2(87, N = 206) = 142.0135, p < .001$ , CFI = .96, RMSEA = .056, SRMR = .061, AIC = 208.01.

<sup>7</sup> As an alternative status measure, we asked peers to indicate whether they might nominate the participant to lead their social group or circle, answered on a 5-point Likert scale from 1 = *not at all* to 5 = *extremely*. The measure was found to be highly correlated ( $r = .64, p < .001$ ) with the perceived status scale, so we omitted it from the data analysis to avoid redundancy.

Table 7  
Descriptive Statistics and Correlations of the Key Variables (Three Routes to Status) and Other Variables in the Nomological Network Used in Study 2b ( $N = 206$ )

No.	Variable	Mean	SD	1	2	3	4	5
1	Virtue-admiration	5.40	.89	—				
2	Dominance-fear	2.77	.94	-.08	—			
3	Competence-respect	5.69	.86	.68***	-.01	—		
4	Perceived status	5.08	1.01	.62***	.09	.65***	—	
5	Interpersonal liking	4.22	.70	.52***	-.06	.44***	.44***	—
6	Moral identity internalization	4.09	.53	.15*	-.02	.18**	.13	-.01
7	Moral identity symbolization	3.31	.59	.05	-.01	.09	-.01	-.02
8	Honesty-humility	3.16	.46	.03	.02	.00	-.05	.03
9	Emotionality	3.38	.51	.02	-.03	.07	-.01	.02
10	Extraversion	3.18	.59	.10	.02	.14*	.24***	-.01
11	Agreeableness	3.17	.51	.07	-.03	-.09	-.07	.07
12	Conscientiousness	3.24	.52	.03	.04	.20**	.03	.12
13	Openness	3.30	.58	.15*	-.05	.16*	.23***	.07
14	Guilt-proneness	3.71	.72	.01	.04	.02	-.04	.12
15	Machiavellianism	4.11	1.41	-.08	.01	-.08	.01	-.13
16	Psychopathy	3.78	1.27	-.11	.00	-.06	.00	-.02
17	Narcissism	5.71	1.50	.04	.04	.11	.18*	.03
18	Harm/care	3.35	.70	.17*	-.02	.05	.07	.08
19	Fairness/reciprocity	3.82	.70	.06	.06	.10	.12	.01
20	Ingroup/loyalty	2.96	.75	.15*	-.09	.12	.08	.14*
21	Authority/respect	2.96	.89	.11	-.16*	.02	.00	.08
22	Purity/sanctity	3.01	.76	.13	-.06	.14*	.16*	.18**
23	Self-efficacy	3.61	.61	.15*	.10	.23***	.30***	.17*
24	Current GPA	3.05	.89	-.03	-.07	.00	-.01	-.12
25	Expected GPA	3.36	.40	.05	-.08	.14*	.02	.06
26	Trait aggression	2.92	.72	-.08	.05	-.06	.10	-.11
27	Impression management	4.15	.62	.07	.00	.07	.01	.08

Note. GPA = grade point average.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

.07, 95% CI [.018, .152]) and competence-respect ( $b = .07$ , 95% CI [.004, .148]), but not through dominance-fear ( $b = -.02$ , 95% CI [-0.057, .005]).

To tease out interpersonal liking as an alternative pathway to status, we tested models including interpersonal liking as a parallel mediator, along with virtue-admiration, dominance-fear, and competence-respect. Interpersonal liking did not affect the pattern of results, and was not a significant mediator for moral identity-internalization ( $b = -.002$ , 95% CI [-0.056, .032]), harm/care ( $b = .01$ , 95% CI [-0.008, .061]), or ingroup/loyalty ( $b = .03$ , 95% CI [-0.0001, .080]).

**Boundary condition.** We used moderated mediation analysis (i.e., Model 58; Hayes, 2013; Hayes & Preacher, 2014) to examine whether peers' moral character traits—that is, moral identity-internalization, harm/care, and ingroup/loyalty—moderated the indirect effects of participants' self-reported moral character traits on status conferral via virtue-admiration. Only peers' harm/care moral foundation had a significant second-stage interaction with virtue-admiration on status conferral ( $b = -.14$ , 95% CI [-0.265, -.015]). Contrary to our prediction, harm/care had a stronger overall indirect effect on status conferral via virtue-admiration when peers had lower levels of harm/care ( $b = .11$ , 95% CI [.030, .219]) rather than higher levels of harm/care ( $b = .01$ , 95% CI [-0.053, .073]).

## Discussion

Study 2b added evidence to the convergent and discriminant validities of virtue-admiration using multisource data collected

from student-friendship dyads. In particular, peer-reported virtue-admiration was indeed positively associated with several established moral character traits (i.e., moral identity-internalization, harm/care, and ingroup/loyalty) self-reported by the focal participants, and was unrelated to self-reported amoral personality traits (i.e., emotionality, extraversion, and agreeableness), academic competence (i.e., current and expected GPAs), trait aggression, and impression management, as expected.

Although inconclusive, the finding that peer-reported virtue-admiration failed to be positively associated with some self-reported moral character traits (e.g., guilt-proneness) may have occurred because the moral constructs are proscriptive rather than prescriptive. People who merely conform to moral norms and restrain from doing harm may not inspire admiration. Another possibility is that some self-reported moral character traits (e.g., moral identity-symbolization) may represent “weak” moral personality traits that predict moral behavior inconsistently (Cohen et al., 2012). Observers who know individuals well will not admire those who do good only under certain circumstances, such as when their reputation is at stake. As in Study 2a, virtue-admiration was not significantly related to the dark triad, indicating that virtue-admiration is not just the opposite end of *vice*. Again, virtue-admiration was positively associated with openness, which we speculate might occur because both constructs are approach-oriented (e.g., Schaller & Murray, 2008). In addition, the generalized self-efficacy scale (Chen et al., 2001) probably caused the unexpected positive association between virtue-admiration and self-efficacy, be-



cause it captures general self-evaluation or self-esteem rather than task-specific abilities or skills.

We found support for the predictive validity of the virtue route to status. Rather than merely relate perceivers' reports of virtue-admiration to status conferral, Study 2b demonstrated that when the targets self-reported certain moral character traits (e.g., moral identity-internalization), observers who knew the targets reasonably well then reported virtue-admiration and subsequent status conferral. Some evidence indicated that targets' moral character traits might also induce competence-respect in observers, supporting the idea that morality and competence are probably not orthogonal (Stellar & Willer, 2018). Surprisingly, observers' moral values (i.e., harm/care) suppressed rather than enhanced status conferral. We used an experimental design to explore this unexpected finding further in Study 4.

### Study 3: Predictive Validity of Virtue Among Managers

In Study 3, we aimed to investigate the external validity of virtue-admiration in predicting status attainment and to test whether virtue-admiration leads to status conferral in real-life organizational settings using a sample of leaders who supervise multiple subordinates in various industries in China. In addition, we validated translations of the SAS in a Chinese-speaking country.

#### Participants

We recruited part-time MBA students at a large eastern university in China as part of a larger research project on morality and leadership. Most of the students held fulltime managerial jobs and typically supervised several subordinates. All MBA students were invited to participate. Our targeted sample size was bounded by the total number of students enrolled. We wanted to do multilevel data analysis, so we excluded six participants who had fewer than two subordinates. We also excluded 15 participants who had missing responses, for a final sample of 108 managers or leaders (Sample H: 68 men;  $M_{\text{age}} = 33.23$  years,  $SD_{\text{age}} = 4.45$ ).

#### Procedure

After participants completed a consent form, they nominated a few subordinates they knew well and evaluated each using the SAS. They nominated an average of 3.48 subordinates, from 2 to 8. We obtained assessments of 376 subordinates. Participants then reported their demographic information (e.g., age, gender, and educational attainment). Approximately 1 month later, participants assessed their nominated subordinates on perceived status and likability. The two-wave design decreased concerns about common method biases (Podsakoff et al., 2003), although the correlational nature still limited causal inferences.

#### Measures

We used the 15-item SAS to measure virtue-admiration ( $\alpha = .89$ ), dominance-fear ( $\alpha = .84$ ), and competence-respect ( $\alpha = .91$ ). Perceived status ( $\alpha = .89$ ) and interpersonal liking ( $\alpha = .85$ ) were also measured with the scales used earlier. All scale items were written in Chinese, using back-translation (Brislin, 1970) to

ensure that items accurately captured their original English meaning. (The [supplementary materials](#) include Chinese translations).

Participants reported their *highest* educational attainment (1 = associate college degree, 2 = bachelor's degree, 3 = master's degree, and 4 = doctoral degree). Only one participant had a doctorate and none had lower than a bachelor's degree. Therefore, we recoded educational attainment: 0 = bachelor's degree (85.18%) and 1 = postgraduate degree (14.82%). In addition, we controlled for organizational tenure ( $M_{\text{tenure}} = 5.92$  years,  $SD_{\text{tenure}} = 4.79$ ) and the number of subordinates each participant evaluated. Participants were from various industries reflecting different macro environments (Ou, Seo, Choi, & Hom, 2017), so we controlled for major industrial types by including four dummy variables: manufacturing (19.44%), finance (27.78%), IT & Internet (25.00%), and others (27.78%).

### Results

**Correlation analysis.** Table 8 shows descriptive statistics for the study variables. Virtue-admiration was positively related to competence-respect,  $r = .59$ ,  $p < .001$ , but unrelated to dominance-fear,  $r = -.06$ ,  $p = .227$ . Competence-respect and dominance-fear were unrelated,  $r = -.05$ ,  $p > .250$ . As in Studies 1b, 1c, and 2b, virtue-admiration,  $r = .61$ ,  $p < .001$  and competence-respect,  $r = .63$ ,  $p < .001$  were positively associated with interpersonal liking, whereas dominance-fear was negatively associated with interpersonal liking,  $r = -.16$ ,  $p = .002$ .

Virtue-admiration,  $r = .36$ ,  $p < .001$  and competence-respect,  $r = .47$ ,  $p < .001$ , but not dominance-fear,  $r = .07$ ,  $p = .155$ , were positively associated with perceived status. Although interpersonal liking was, again, positively related to perceived status,  $r = .33$ ,  $p < .001$ , the positive associations between virtue-admiration,  $r = .21$ ,  $p < .001$  and competence-respect,  $r = .36$ ,  $p < .001$  and perceived status remained and the relationship between dominance-fear and perceived status became significantly positive,  $r = .14$ ,  $p = .008$ , after partialing out the impact of interpersonal liking.

**Regression analysis.** Our data comprised a two-level nested structure with each participant (Level 2) rating multiple subordinates (Level 1). Therefore, we analyzed the data using hierarchical linear modeling (HLM; Raudenbush & Bryk, 2002). Our research questions centered on understanding how Level 1 predictors (virtue-admiration, dominance-fear, and competence-respect) affected status conferral at the within-person level. We grand-mean centered all the Level 1 predictors before entering them into the analysis. Results from the HLM analyses showed that virtue-admiration ( $\gamma = .16$ ,  $t = 2.09$ ,  $p = .038$ ), dominance-fear ( $\gamma = .13$ ,  $t = 2.12$ ,  $p = .035$ ), and competence-respect ( $\gamma = .50$ ,  $t = 6.78$ ,  $p < .001$ ) were all positively related to status conferral in the predicted direction. No control variables significantly impacted perceived status, and the pattern of results held without the control variables (see Table 9). Including interpersonal liking as an additional control variable did reduce the positive effect of virtue-admiration to marginal significance ( $\gamma = .14$ ,  $t = 1.65$ ,  $p = .101$ ); nevertheless, interpersonal liking was not a significant predictor of status ( $\gamma = .09$ ,  $t = .76$ ,  $p > .250$ ). Hence, liking could not explain the positive association between virtue-admiration and status conferral.



Table 8  
Descriptive Statistics and Correlations of the Measures Used in Study 3

No.	Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
Level 1: Subordinate																
1	Virtue-admiration	5.45	.93	—												
2	Dominance-fear	2.04	1.01	-.06	—											
3	Competence-respect	5.43	.92	.59***	-.05	—										
4	Perceived status	4.35	1.19	.36***	.07	.47***	—									
5	Interpersonal liking	3.98	.62	.61***	-.16**	.63***	.33***	—								
Level 2: Manager																
6	Age	33.23	4.45	-.09	.04	.03	-.05	-.03	—							
7	Gender <sup>a</sup>	1.37	.49	.12*	-.12*	.08	.03	.14**	-.01	—						
8	Education	.15	.36	-.02	-.06	-.01	-.03	.04	.04	.004	—					
9	Organizational tenure	5.92	4.79	.06	.05	.06	-.03	.04	.45***	.08	-.00	—				
10	Number of subordinates	3.48	1.02	.02	.01	.16**	.08	.11*	-.01	.01	-.02	-.01	—			
11	Manufacturing	.19	.40	.00	.00	.10	.12*	.05	.13	-.09	-.14	.06	.16	—		
12	Finance	.28	.45	-.11*	.05	-.14**	-.15**	-.16**	.09	.04	.03	.21*	-.13	-.30**	—	
13	IT & Internet	.25	.44	.10	.05	.09	.08	.16**	-.07	-.13	.00	-.18	-.04	-.28**	-.36***	—
14	Others	.28	.45	.02	-.10*	-.03	-.04	-.04	-.14	.17	.09	-.09	.03	-.30**	-.38***	-.36***

Note. All variables were presented at their appropriate levels. That is, for correlations at Level 1,  $N = 376$  subordinates; for correlations at Level 2,  $N = 108$  managers; for cross-level correlations, Level 2 data were disaggregated to Level 1 and  $N = 376$ .

<sup>a</sup> 2 = female; 1 = male.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Virtue-admiration, however, interacted with competence-respect to shape status conferral ( $\gamma = .11$ ,  $t = 2.85$ ,  $p = .005$ ). We probed the significant interaction between virtue-admiration and competence-respect with Preacher, Curran, and Bauer's (2006) approach. We used values at 1  $SD$  above and below the mean of competence-respect to assess the simple slope effects. The simple slope of virtue-admiration on perceived status lost significance at  $-1$   $SD$  of competence-respect ( $\gamma = .11$ ,  $t = 1.42$ ,  $p = .157$ ; Figure 2).

## Discussion

Study 3 generally supported the external validity of virtue-admiration as a distinct route to status, based on a sample of

fulltime leaders from various industries in China. As in Study 1c, virtue-admiration significantly interacted with competence-respect to predict whether managers conferred status in the workplace. In particular, virtuous but incompetent subordinates failed to have status; they had to have both virtue and culturally valued task skills or expertise before gaining status (Cheng & Tracy, 2014). Virtue-admiration did not affect status merely by amplifying competence-respect. Instead, managers had to have at least some respect for an employee's competence before affording status. Again, the finding should be interpreted cautiously, considering that virtue-admiration and competence-respect were highly correlated. In Study 5, we address the issue by experimentally manipulating virtue and competence.

Table 9  
Hierarchical Linear Modeling Results on Status Conferral in Study 3 ( $N = 376$  at Level 1 Subordinate Level,  $N = 108$  at Level 2 Manager Level)

Variable	Model 1		Model 2		Model 3		Model 4		Model 5	
	$\gamma$	SE	$\gamma$	SE	$\gamma$	SE	$\gamma$	SE	$\gamma$	SE
Intercept	4.34***	.07	4.76***	.61	4.53***	.71	4.54***	.72	4.49***	.72
Manager-level controls										
Age			-.01	.02	-.01	.02	-.01	.02	-.00	.02
Gender			-.01	.15	.04	.16	.03	.16	.02	.16
Education					-.03	.21	-.05	.21	-.07	.22
Organizational tenure					-.01	.02	-.02	.02	-.02	.02
Number of subordinates					-.00	.07	-.00	.07	.01	.07
Manufacturing					.28	.23	.27	.23	.24	.23
Finance					-.08	.21	-.08	.21	-.08	.21
IT & Internet					.11	.21	.10	.21	.06	.21
Subordinate-level control										
Interpersonal liking							.09	.12		
Subordinate-level independent variables										
Virtue-admiration	.16*	.08	.16*	.08	.16*	.08	.14	.08	.21**	.08
Dominance-fear	.13*	.06	.13*	.06	.13*	.06	.14*	.06	.15*	.06
Competence-respect	.51***	.07	.51***	.07	.50***	.07	.47***	.08	.56***	.08
Interaction effects										
Subordinate: Virtue-admiration $\times$ Competence-respect									.11**	.04

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

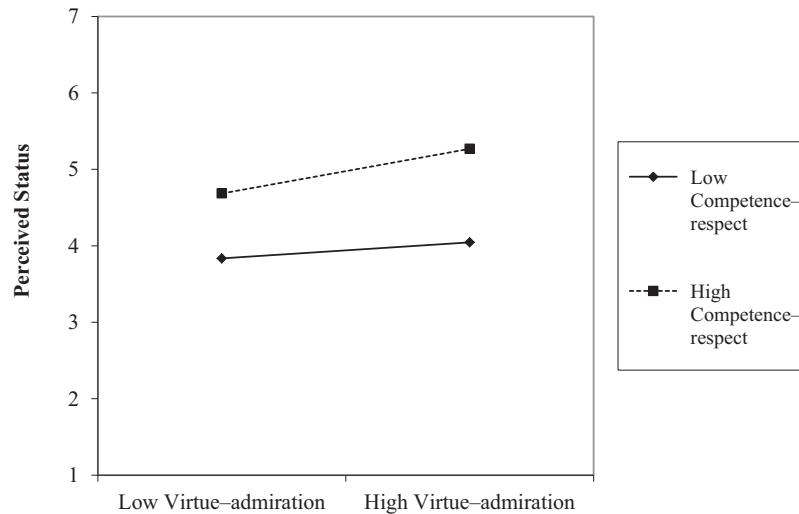


Figure 2. The effects of virtue-admiration on perceived status at high and low levels of competence-respect in Study 3.

#### Study 4: Experimental Tests of the Predictive Validity and Boundary Condition of Virtue

Despite our efforts to collect multiwave and multisource data, the first three studies were essentially correlational rather than causal and failed to show whether the causal flow runs from virtue to status conferral, as proposed in MVT (Bai, 2017), or vice versa (e.g., Meindl, Ehrlich, & Dukerich, 1985). Thus, we conducted Study 4, a preregistered experiment,<sup>8</sup> with a scenario design to manipulate virtuousness and allow a causal interpretation. In addition, we extended Study 2b by further examining whether perceivers' moral character moderates the relationship between virtue and status conferral in a hypothetical context.

#### Participants

We used Prolific Academic (Peer et al., 2017) to recruit U.S. adults working part-time or fulltime to complete a short study on workplace interpersonal perceptions for monetary rewards. Our targeted sample size for the study was 306 to ensure sufficient power (80% power for one-tailed test) to detect a small to medium effect size (Cohen's  $d = .35$ ), given our between-person design (Faul et al., 2007). We posted 330 openings to allow for some attrition from the prescreen to the full study. After excluding six participants who failed attention checks, we obtained completed responses from 324 (Sample I: 151 women, 163 men, 4 transgender, 1 declined to state;  $M_{\text{age}} = 32.28$  years,  $SD_{\text{age}} = 9.70$ ; 75.31% White, 8.33% African Americans, 5.86% Latino/a, 4.32% Asian, 3.70% mixed race, 2.47% other).

#### Procedure

After giving consent, participants were randomly assigned to read one of three scenarios about a fictitious coworker named "Mike." The virtue scenario read:

Imagine that Mike is a coworker of yours. The two of you have been working together with four other colleagues in the same work team for

a while. Mike is an average performer in the team (i.e., Mike's individual task performance is ranked right in the middle of the team), and he has always been the most helpful team member. For example, when it comes to selecting days for time off, Mike is always willing to let others pick the days before him despite his own inconvenience. Even under the most trying business or personal situations, Mike shows genuine concern and courtesy toward other team members. Recently, there is a newcomer to your team; Mike has spent a lot of time and gone out of his way to make the newcomer feel welcomed by the team.

We manipulated the levels of Mike's moral behaviors by varying the frequencies or intensities of three types of moral behaviors, corresponding to the altruism dimension of organizational citizenship behaviors (OCBs; Smith, Organ, & Near, 1983)—that is, letting others have the first choice for days off, showing genuine concern and courtesy toward others, and making a newcomer feel welcomed. Specifically, in the virtue condition, Mike "always" or consistently demonstrates the OCBs, capturing outstanding moral characteristics beyond normative standards. In the control condition, Mike "occasionally" or "at times" performs the good deeds, reflecting the normative level of moral behaviors often expected in the workplace. In the selfishness condition, Mike almost "never" does so, signaling selfishness and a lack of altruistic concerns. (The [supplementary materials](#) provide details of the three conditions).

Immediately after participants read their randomly assigned scenario, they evaluated Mike on the virtue-admiration, dominance-fear, and competence-respect dimensions and indicated their perceptions regarding Mike's status. Participants then reported their own moral character traits of moral identity-internalization, guilt-proneness, empathic concerns, honesty-humility, conscientiousness, and moral foundations. Finally, they were debriefed, compensated, and thanked.

<sup>8</sup> [https://osf.io/zg7qb/?view\\_only=23544a52299f4bf8907a46fc9f6bf08c](https://osf.io/zg7qb/?view_only=23544a52299f4bf8907a46fc9f6bf08c).

## Measures

As a manipulation check, we measured perceptions of Mike's altruistic behaviors with three items (e.g., "Mike lets others pick the off days before himself";  $\alpha = .97$ ), on a 5-point Likert scale from 1 = *not at all* to 5 = *very much*. The 15-item SAS was used to measure virtue-admiration ( $\alpha = .96$ ), dominance-fear ( $\alpha = .65$ ), and competence-respect ( $\alpha = .92$ ). Perceived status and interpersonal liking were measured with the same four-item scale (e.g., "Mike has high status;"  $\alpha = .90$ ) and two-item scale (i.e., "I like him/her";  $\alpha = .97$ ) used in previous studies.

Participants rated their moral identity with the five-item internalization subscale (e.g., "I strongly desire to have these characteristics [e.g., compassionate, honest, fair]";  $\alpha = .82$ ) from the moral identity scale (Aquino & Reed, 2002). Guilt-proneness was measured by the GP-5 scale (e.g., "You secretly commit a felony. What is the likelihood that you would feel remorse about breaking the law?";  $\alpha = .77$ ). Empathic concern was measured by a seven-item subscale (e.g., "I often have tender, concerned feelings for people less fortunate than me";  $\alpha = .87$ ) from the interpersonal reactivity index (Davis, 1983) on a 5-point Likert scale from 1 = *does not describe me well* to 5 = *describes me very well*. Honesty-humility (e.g., "I wouldn't use flattery to get a raise or promotion at work, even if I thought it would succeed";  $\alpha = .76$ ) and conscientiousness (e.g., "I often push myself very hard when trying to achieve a goal";  $\alpha = .79$ ) were measured by the HEXACO-60 personality inventory (Ashton & Lee, 2009). Finally, the five moral foundations, including harm/care ( $\alpha = .73$ ), fairness/reciprocity ( $\alpha = .72$ ), ingroup/loyalty ( $\alpha = .72$ ), authority/respect ( $\alpha = .80$ ), and purity/sanctity ( $\alpha = .86$ ), were measured by the 30-item moral foundations questionnaire (MFQ30; Graham et al., 2011).

## Results

Table 10 shows means, *SD*s, and correlations.

**Manipulation check.** A one-way analysis of variance (ANOVA) found that our experimental manipulation indeed affected perceived altruism,  $F(2, 321) = 1396.84, p < .001$ . Planned comparison revealed that the virtue condition ( $M = 4.89, SD = .31$ ) was perceived to be more altruistic than the control condition ( $M = 4.33, SD = .62, t(213) = 7.50, p < .001$ , which in turn was seen to be more altruistic than the selfishness condition ( $M = 1.25, SD = .64, t(215) = 41.56, p < .001$ ).

**Status Attainment Scale.** Results from ANOVAs showed that the virtue manipulation affected virtue-admiration toward Mike,  $F(2, 321) = 706.88, p < .001$ . In particular, participants in the virtue condition admired Mike ( $M = 5.82, SD = .77$ ) more than did participants in the control condition ( $M = 5.06, SD = .84, t(213) = 6.79, p < .001$ , or selfishness condition ( $M = 1.89, SD = .83, t(215) = 28.63, p < .001$ ).

Our virtue manipulation also affected dominance-fear,  $F(2, 321) = 37.26, p < .001$ . There was, however, no significant difference in dominance-fear between the virtue condition ( $M = 2.14, SD = .89$ ) and the control condition ( $M = 1.99, SD = .76, t(213) = 1.21, p = .227$ ). Instead, the significant effect was primarily driven by the selfishness condition ( $M = 2.97, SD = 1.05$ ), which was feared more than the virtue condition  $t(214) = 6.78, p < .001$ , and the control condition  $t(215) = 8.01, p < .001$ . Similarly, the virtue manipulation significantly impacted

Table 10  
Descriptive Statistics and Correlations of the Variables in Study 4 ( $N = 324$ )

No.	Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	Virtue condition	.33	.47	—																						
2	Control condition	.33	.47	-.50***	—																					
3	Selfishness condition	.34	.47	-.50***	-.50***	—																				
4	Manipulation check	3.48	1.69	.59***	.36***	-.94***	—																			
5	Virtue-admiration	4.25	1.89	.59***	.31***	-.89***	.93***	—																		
6	Dominance-fear	2.37	1.00	-.16*	-.27***	.43***	-.40***	-.37***	—																	
7	Competence-respect	4.20	1.35	.39***	.34***	-.73***	.75***	.79***	.65***	—																
8	Perceived status	3.94	1.45	.39***	.16**	-.55***	.61***	.68***	.92***	.75***	—															
9	Interpersonal liking	15.18	1.42	.53***	.33***	-.86***	.90***	.92***	.92***	.77***	.64***	—														
10	Age	32.28	9.70	.01	-.01	.00	-.02	-.04	.06	-.01	.02	-.02	-.01	-.17**	—											
11	Female	.47	.50	.03	-.04	.02	-.03	-.02	.00	-.07	-.01	.00	.00	-.14*	-.97***	—										
12	Male	.52	.50	-.03	.03	.01	.01	.01	-.02	.05	.00	.00	.00	-.12*	-.13*	-.13*	—									
13	Gender: Nonbinary	.02	.12	.02	.07	-.09	.09	.06	-.06	.07	.05	.06	.05	-.12*	-.12*	-.12*	-.13*	—								
14	Moral identity internalization	4.38	.64	.01	.08	-.08	.09	.13*	-.27***	.10	.02	.14*	.15*	.19***	.20***	.05	.38***	.30***	—							
15	Guilt-proneness	3.96	.76	.07	.03	-.10	.12*	.14*	-.10	.12*	.10	.15*	.12*	.15*	.17**	.08	.41***	.43***	.47***	—						
16	Empathic concern	3.80	.76	.04	-.04	.00	.03	.09	-.09	.07	.09	.09	.09	.20***	.25***	.05	.30***	.26***	.34***	.34***	—					
17	Honesty-humility	3.39	.67	.00	.03	-.02	.02	.02	-.14*	.06	.02	.07	.09	.20***	.25***	.05	.30***	.26***	.34***	.34***	.21***	—				
18	Conscientiousness	3.68	.59	-.01	.03	-.02	.02	.02	-.14*	.06	.02	.07	.09	.20***	.25***	.05	.30***	.26***	.34***	.34***	.21***	.16**	—			
19	Harm/care	3.61	.81	.04	.06	-.10	.13*	.16**	-.07	.11*	.11*	.14*	.09	.27***	.29***	.09	.25***	.39***	.55***	.23***	.15***	.16**	.16**	—		
20	Fairness/reciprocity	3.64	.78	.06	.02	-.08	.11	.14**	-.05	.13*	.12*	.12*	.08	.22***	.23***	.04	.16**	.17**	.44***	.55***	.17**	.13*	.13*	.05	—	
21	Ingroup/loyalty	2.33	.91	-.08	.11*	-.03	.07	.09	.21***	.15**	.12*	.09	.08	.22***	.23***	.04	.16**	.17**	.44***	.55***	.17**	.13*	.13*	.05	.05	—
22	Authority/respect	2.49	.99	-.04	.05	-.02	.06	.08	.14**	.09	.13*	.10	.12*	.07	.09	.09	.08	.07	.07	.07	.06	.05	.01	.05	.01	—
23	Purity/sanctity	2.09	1.26	-.03	.06	-.03	.08	.09	.16**	.09	.14*	.07	.15**	.03	-.01	-.09	-.02	.16**	.05	.06	.11*	.00	.11*	.05	.12*	.71***

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

competence–respect,  $F(2, 321) = 182.83, p < .001$ , but was again driven by the selfishness condition ( $M = 2.82, SD = 1.02$ ), which was less respected than the virtue condition ( $M = 4.94, SD = .93$ ),  $t(214) = -16.86, p < .001$ , and the control condition ( $M = 4.85, SD = .82$ ),  $t(215) = -16.20, p < .001$ .

**Status conferral.** Mediation analysis using process macro (i.e., Model 4; Hayes, 2013; Hayes & Preacher, 2014) in SAS 9.4 was used to examine the mediating effects of virtue–admiration, with dominance–fear and competence–respect as parallel mediators, between the virtue manipulation and subsequent status conferral. Relative to the control condition, the virtue condition had a significant indirect effect on status conferral through virtue–admiration ( $b = .18, 95\% \text{ CI } [.067, .313]$ ) but not dominance–fear ( $b = .03, 95\% \text{ CI } [-.014, .086]$ ) or competence–respect ( $b = .06, 95\% \text{ CI } [-.100, .217]$ ). Relative to the selfishness condition, the virtue condition had positive indirect effects on status conferral through both virtue–admiration ( $b = .77, 95\% \text{ CI } [.306, 1.194]$ ) and competence–respect ( $b = 1.37, 95\% \text{ CI } [1.055, 1.702]$ ), but a negative indirect effect on status conferral through dominance–fear ( $b = -.20, 95\% \text{ CI } [-.321, -.078]$ ).

**Moderated mediation.** To examine both the first-stage and the second-stage moderated mediation, we applied Model 58 in the process macro (Hayes, 2013; Hayes & Preacher, 2014) with SAS 9.4. Table 11 shows a summary of results. Among the moral character traits and values under investigation, guilt-proneness ( $b = .29, 95\% \text{ CI } [.057, .522]$ ), empathic concern ( $b = .43, 95\% \text{ CI } [.211, .657]$ ), and the moral foundation of fairness/reciprocity ( $b = .23, 95\% \text{ CI } [.012, .454]$ ) had significantly positive first-stage moderation with the virtue condition in predicting virtue–admiration, but did not moderate the relationship between virtue–admiration and subsequent status conferral.

Moral identity–internalization had a significantly positive first-stage interaction with the virtue condition in predicting virtue–admiration ( $b = .43, 95\% \text{ CI } [.157, .712]$ ), but had a significantly negative second-stage interaction with virtue–admiration on status conferral ( $b = -.10, 95\% \text{ CI } [-.180, -.018]$ ). Overall, the virtue condition had a slightly stronger indirect effect on status conferral at high levels of moral identity–internalization ( $b = .22, 95\% \text{ CI } [.066, .390]$ ) rather than at low levels of moral identity–internalization ( $b = .18, 95\% \text{ CI } [.078, .293]$ ).

In contrast, the three “binding” moral foundations of ingroup/loyalty ( $b = -.18, 95\% \text{ CI } [-.377, .009]$ ), authority/respect ( $b = -.23, 95\% \text{ CI } [-.398, -.062]$ ), and purity/sanctity ( $b = -.15, 95\% \text{ CI } [-.279, -.017]$ ) all had negative first-stage interactions with the virtue condition in predicting virtue–admiration, but a significantly positive second-stage interaction with virtue–admiration on status conferral (ingroup/loyalty:  $b = .10, 95\% \text{ CI } [.044, .160]$ ; authority/respect:  $b = .08, 95\% \text{ CI } [.025, .129]$ ; and purity/sanctity:  $b = .05, 95\% \text{ CI } [.005, .092]$ ). Overall, the indirect effects of the virtue condition on status conferral at high levels of ingroup/loyalty, authority/respect, and purity/sanctity did not seem to differ substantially from those at low levels of these moral foundations.

The moral foundation of harm/care was the only moral character trait that had a positive, marginally significant, first-stage interaction with the virtue condition in predicting virtue–admiration ( $b = .21, 95\% \text{ CI } [-.003, .425]$ ), and a positive second-stage interaction with virtue–admiration on status conferral ( $b = .07, 95\% \text{ CI } [.007, .143]$ ). Overall, the virtue condition had a stronger indirect effect

on status conferral at higher levels of harm/care ( $b = .23, 95\% \text{ CI } [.087, .386]$ ) than at lower levels of harm/care ( $b = .08, 95\% \text{ CI } [-.004, .200]$ ).

Neither honesty–humility nor conscientiousness moderated the effect of the virtue manipulation on virtue–admiration, and only conscientiousness ( $b = .08, 95\% \text{ CI } [-.015, .017]$ ) had a marginally significant interaction with virtue–admiration in predicting subsequent status conferral.

**Controls.** Controlling for age and gender did not affect the patterns. We also tested models with interpersonal liking as a parallel mediator, along with virtue–admiration, dominance–fear, and competence–respect. The virtue condition had an insignificant indirect effect on status conferral through interpersonal liking relative to the control condition ( $b = .07, 95\% \text{ CI } [-.005, .165]$ ) or the selfishness condition ( $b = .39, 95\% \text{ CI } [-.032, .833]$ ).

## Discussion

In Study 4, we garnered causal evidence that after observers observe virtuous actions, they confer status to virtuous actors. Moreover, by manipulating virtue at the three levels of virtue, control, and selfishness, we demonstrated that virtue earns status while selfishness earns inferior status. We also find a possible disadvantage: virtue may indicate a lack of dominance, and inhibit status attainment.

Study 4 generally supported our contention that observers who have strong guilt-proneness, empathic concern, and harm/care will show stronger virtue–admiration patterns. Perceivers who had low (high) levels of binding foundations (i.e., ingroup/loyalty, authority/respect, and purity/sanctity) felt greater (less) admiration, perhaps because our manipulations of altruism (e.g., genuine concern and courtesy) were more related to the individualizing foundations of harm/care and fairness/reciprocity than to the binding foundations. Perceivers who have high levels of binding foundations may, thus, have greater appreciation and admiration when they observe in-group loyalty and chastity.

Contradicting Study 2b, Study 4 found that perceivers’ harm/care positively moderated the virtue route to status. The finding is initially puzzling, but a closer look at the differences in study settings may explain the inconsistent results. Study 4 is based on hypothetical scenarios, while Study 2b is based on actual friendship, which may evoke moral comparison processes (Monin, 2007) when conferring status. Consequently, perceivers with high moral character might use downward comparison and confer lower status to a friend of lower moral character. In Study 4, however, perceivers were unlikely to socially compare themselves with the hypothetical actor described in the scenarios (Festinger, 1954). Instead, they relied more on their individual cognitive and affective experiences in conferring status.

## Study 5: Experimental Tests of the Interaction of Virtue and Competence in Status Attainment

Study 5 was another preregistered experiment examining the interaction of virtue and competence in predicting status attain-



Table 11

*The Moderated Mediating Effects of the Virtue Condition on Perceived Status via Virtue-Admiration in Study 4 (N = 324)<sup>a</sup>*

Moderator	Stage of moderation	Level of moderation	Effect	95% CIs
Moral identity internalization	First-stage	High	.989*	[.736, 1.242]
		Mean	.728*	[.537, .920]
		Low	.555*	[.332, .777]
	Second-stage	High	.220*	[.077, .362]
		Mean	.279*	[.137, .421]
		Low	.319*	[.168, .470]
	Overall	High	.217*	[.066, .390]
		Mean	.203*	[.092, .328]
		Low	.177*	[.078, .293]
Empathic concern	First-stage	High	1.035*	[.783, 1.288]
		Mean	.726*	[.536, .915]
		Low	.416*	[.173, .658]
	Overall	High	.259*	[.079, .452]
		Mean	.166*	[.058, .291]
		Low	.087*	[.014, .201]
Guilt-proneness	First-stage	High	.886*	[.652, 1.120]
		Mean	.712*	[.519, .906]
		Low	.481*	[.208, .754]
	Overall	High	.229*	[.087, .382]
		Mean	.165*	[.055, .288]
		Low	.095*	[.011, .208]
Honesty-humility	Overall	High	.207*	[.043, .264]
		Mean	.175*	[.066, .303]
		Low	.143*	[.068, .375]
Conscientiousness	Second-stage	High	.280*	[.133, .428]
		Mean	.234*	[.093, .374]
		Low	.187*	[.033, .341]
	Overall	High	.210*	[.077, .363]
		Mean	.169*	[.062, .292]
		Low	.131*	[.028, .260]
Harm/care	First-stage	High	.869*	[.630, 1.109]
		Mean	.729*	[.537, .921]
		Low	.553*	[.291, .814]
	Second-stage	High	.264*	[.120, .407]
		Mean	.214*	[.071, .357]
		Low	.152	[−.010, .313]
	Overall	High	.229*	[.089, .386]
		Mean	.156*	[.047, .280]
		Low	.084	[−.004, .196]
Fairness/reciprocity	First-stage	High	.869*	[.630, 1.109]
		Mean	.714*	[.521, .907]
		Low	.559*	[.313, .806]
	Overall	High	.213*	[.076, .369]
		Mean	.167*	[.058, .292]
		Low	.123*	[.031, .243]
Ingroup/loyalty	First-stage	High	.597*	[.338, .856]
		Mean	.750*	[.555, .946]
		Low	.903*	[.656, 1.151]
	Second-stage	High	.318*	[.173, .464]
		Mean	.233*	[.094, .373]
		Low	.148	[−.001, .298]
	Overall	High	.190*	[.081, .293]
		Mean	.175*	[.062, .303]
		Low	.134	[−.008, .293]
Authority/respect	First-stage	High	.507*	[.249, .766]
		Mean	.737*	[.546, .929]
		Low	.967*	[.716, 1.219]
	Second-stage	High	.309*	[.159, .459]
		Mean	.232*	[.092, .373]
		Low	.155*	[.005, .305]
	Overall	High	.157*	[.062, .323]
		Mean	.171*	[.060, .296]
		Low	.150	[−.007, .322]

(table continues)

Table 11 (continued)

Moderator	Stage of moderation	Level of moderation	Effect	95% CIs
Purity/sanctity	First-stage	High	.534*	[.267, .801]
		Mean	.757*	[.564, .949]
		Low	.955*	[.687, 1.223]
	Second-stage	High	.304*	[.148, .460]
		Mean	.231*	[.090, .372]
		Low	.166*	[.014, .318]
	Overall	High	.162*	[.065, .281]
		Mean	.175*	[.062, .304]
		Low	.159	[−.002, .347]

Note. CI = confidence interval. Results based on 50,000 bootstrap resamples. PROCESS reported confidence intervals at high and low levels only for the moderators with significant moderated mediating effects ( $p < .05$ ).

<sup>a</sup> Control variables: the selfishness condition, dominance–fear, and competence–respect.

\*  $p < .05$ .

ment.<sup>9</sup> The previous correlational studies yielded inconsistent and difficult-to-interpret findings regarding the interaction of virtue–admiration and competence–respect in predicting status conferral, partly because virtue–admiration and competence–respect were highly correlated. To address the issue, in Study 5 we manipulated both virtue and competence with a scenario design, similar to Study 4, to uncover the causal impact of the interaction. Thus, Study 5 was a more direct test of our hypothesis stating that virtue leads to admiration and status conferral, regardless of the task competence.

## Participants

Again, we recruited a sample of U.S. nationals in part-time or fulltime jobs via Prolific Academic (Peer et al., 2017) to complete a short study on workplace interpersonal perceptions for monetary rewards. To ensure sufficient power (80% power for one-tailed test) to detect a small to medium effect (Cohen's  $d = .35$ ) for the main effect of virtue, we targeted a sample size of 204 and posted 220 openings on Prolific Academic to allow some attrition from the prescreen to the full study. After excluding seven participants who failed an attention check, we obtained completed responses from 214 (Sample J: 108 men;  $M_{\text{age}} = 31.39$  years,  $SD_{\text{age}} = 9.63$ ; 78.51% White, 5.14% African Americans, 6.54% Latino/a, 4.21% Asian, 4.21% mixed race, 1.39% other).

## Procedure

After participants signed consent forms, they were randomly assigned to read one of four scenarios about Mike, a fictitious coworker. Aligned with our focus on whether virtue is rewarded with superior status, we manipulated Mike's moral behaviors at virtue versus control levels by varying the frequencies or intensities of three types of moral behaviors capturing the altruism dimension of OCBs, as we did in Study 4. Specifically, in the virtue condition, Mike “always” or consistently demonstrated the OCBs; whereas in the control condition, he did so “occasionally” or “at times.” Instead of holding task competence constant at the medium or control level (as in Study 4), we manipulated task competence at high versus low levels to investigate whether competence or incompetence alter the virtue route to status. In the high competence condition, Mike is described as an “outstanding per-

former” whose individual task performance is ranked “at the top” of the team; in the low competence condition, Mike is described as a “poor performer” whose individual task performance is ranked “at the bottom” of the team. (The [supplementary materials](#) include details about the four conditions).

After participants read the randomly assigned scenario, they evaluated Mike on virtue–admiration, dominance–fear, and competence–respect dimensions and indicated their perceptions of Mike's status. After reporting their demographics (e.g., age and gender), participants were debriefed, compensated, and thanked.

## Measures

As manipulation checks, we measured perceptions of Mike's moral behaviors with three items (e.g., “Mike lets others pick the off days before himself”;  $\alpha = .98$ ) and task competence with two items (e.g., “Mike is an outstanding performer in the team”;  $\alpha = .95$ ), on a 5-point Likert scale from 1 = *not at all* to 5 = *very much*. The 15-item SAS was used to measure virtue–admiration ( $\alpha = .96$ ), dominance–fear ( $\alpha = .72$ ), and competence–respect ( $\alpha = .94$ ). Perceived status and interpersonal liking were measured with the four-items (e.g., “Mike has high status”;  $\alpha = .91$ ) and two-item scales (e.g., “I like him/her”;  $\alpha = .93$ ) used before.

## Results

Table 12 shows means,  $SD$ s, and correlations.

**Manipulation checks.** Two-way ANOVAs revealed that the virtue condition, the competence condition, and their interaction affected perceived altruism,  $F(3, 210) = 12.82, p < .001$ . Nevertheless, more altruism was perceived in the virtue condition than in the control condition under both the high (virtue:  $M = 4.82, SD = .45$ ; control:  $M = 4.60, SD = .53$ ),  $t(108) = 2.19, p = .030$  and low competence conditions (virtue:  $M = 4.88, SD = .51$ ; control:  $M = 4.31, SD = .60$ ),  $t(102) = 5.53, p < .001$ . Perceived competence was only affected by the competence manipulation,  $F(3, 210) = 775.38, p < .001$ : the high competence condition ( $M = 4.81, SD = .50$ ) was perceived to be more competent than the low competence condition ( $M = 1.75, SD = 1.04$ ),  $t(212) =$

<sup>9</sup> [https://osf.io/bsw87/?view\\_only=83358a764ddb4b06a090af3fd7898526](https://osf.io/bsw87/?view_only=83358a764ddb4b06a090af3fd7898526).

Table 12  
Descriptive Statistics and Correlations of the Variables in Study 5 ( $N = 214$ )

No.	Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10
1	Virtue condition	.49	.50	—									
2	Competence condition	.51	.50	.01	—								
3	Virtue manipulation check	4.65	.57	.35***	.11	—							
4	Competence manipulation check	3.32	1.73	-.04	.89***	.12	—						
5	Virtue-admiration	5.28	1.11	.19**	.31***	.52***	.34***	—					
6	Dominance-fear	2.27	1.05	-.05	.10	-.17*	.14*	.05	—				
7	Competence-respect	4.81	1.59	.03	.79***	.25***	.82***	.58***	.25***	—			
8	Perceived status	4.74	1.60	-.01	.76***	.20**	.79***	.53***	.26***	.89***	—		
9	Interpersonal liking	3.69	1.04	.16*	.55***	.42***	.59***	.75***	.03	.74***	.66***	—	
10	Age	31.39	9.63	.08	-.07	-.01	-.01	.00	-.04	-.04	-.07	-.05	—
11	Gender <sup>a</sup>	.50	.50	.03	.07	-.02	.09	-.03	-.16*	.03	-.03	.06	.09

<sup>a</sup> 1 = female; 0 = male.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

27.72,  $p < .001$ . Our manipulations of virtue and competence were successful.

**Status Attainment Scale.** Two-way ANOVAs found that both the virtue and competence conditions had significant main effects on virtue-admiration,  $F(3, 210) = 11.18$ ,  $p < .001$ . Specifically, the virtue condition ( $M = 5.50$ ,  $SD = .97$ ) was more admired than the control condition ( $M = 5.08$ ,  $SD = 1.20$ ),  $t(212) = 2.80$ ,  $p = .006$ . The high competence condition ( $M = 5.62$ ,  $SD = 1.04$ ) was also more admired than the low competence condition ( $M = 4.93$ ,  $SD = 1.08$ ),  $t(212) = 4.74$ ,  $p < .001$ . In contrast, the competence condition affected only competence-respect,  $F(3, 210) = 116.06$ ,  $p < .001$ : the high competence condition ( $M = 6.03$ ,  $SD = .75$ ) was more respected than the low competence condition ( $M = 3.53$ ,  $SD = 1.18$ ),  $t(212) = 18.61$ ,  $p < .001$ . As expected, our experimental manipulations did not affect dominance-fear,  $F(3, 210) = 1.98$ ,  $p = .118$ .

**Status conferral.** Mediation analysis using the process macro (i.e., Model 4; Hayes, 2013; Hayes & Preacher, 2014) in SAS 9.4 was used to examine the mediating effects of virtue-admiration, dominance-fear, and competence-respect between our virtue manipulation and subsequent status conferral, while controlling for the competence manipulation. Relative to the control condition, our virtue condition had a significant indirect effect on status conferral through virtue-admiration ( $b = .06$ , 95% CI [.010, .156]), but not competence-respect ( $b = .04$ , 95% CI [-.125, .215]) or dominance-fear ( $b = -.01$ , 95% CI [-.059, .016]).

**Moderated mediation.** Moderated mediation analysis with Model 8 in process (Hayes, 2013; Hayes & Preacher, 2014) was applied in SAS 9.4 to examine the competence manipulation as a moderator of the relationship between the virtue condition and status conferral via virtue-admiration. No evidence was found for moderated mediation (index of moderated mediation =  $-.03$ , 95% CI [-.151, .022]). Nevertheless, virtue had a significantly positive indirect effect on status conferral via virtue-admiration ( $b = .07$ , 95% CI [.009, .185]) under the low competence condition, whereas virtue had an insignificant indirect effect on status conferral via virtue-admiration ( $b = .04$ , 95% CI [-.002, .115]) under the high competence condition.

**Controls.** Adding age and gender as statistical controls did not affect the pattern of results. Similar to Study 4, we tested models with interpersonal liking as a parallel mediator, along with virtue-

admiration, dominance-fear, and competence-respect, and again found that the virtue condition had an insignificant indirect effect on status conferral through interpersonal liking ( $b = -.003$ , 95% CI [-.077, .064]).

## Discussion

Study 5 corroborated our contention that virtue plays a causal role in generating status. We manipulated task competence at high versus low levels and found that virtue and competence did not interact to predict status conferral. Our virtue manipulation supported the virtue-admiration path rather than the competence-respect path, even for incompetent virtuous actors, supporting MVT (Bai, 2017).

## General Discussion

In this article, we report several studies conducted as initial attempts to examine MVT, a recently proposed theoretical framework for understanding whether morality can lead to status (Bai, 2017). In Study 1, we develop the 15-item SAS that can capture virtue-admiration with acceptable validity and reliability, alongside dominance-fear and competence-respect. Factor analyses confirm that the three-factor structure of the SAS is a significantly better model than the two-factor model that places virtue-admiration as a component of competence-respect. Moreover, preliminary evidence indicates that virtue-admiration is a distinct but compatible pathway and that interpersonal liking fails to explain the positive relationship between virtue-admiration and status conferral.

Study 2 garners support for the convergent, discriminant, and predictive validities of virtue-admiration using multiwave and multisource data. Specifically, virtue-admiration is positively related to established moral constructs, such as perceived warmth (Fiske et al., 2002) and moral identity-internalization (Aquino & Reed, 2002), and unrelated to amoral constructs such as neuroticism (John et al., 2008), perceived agency (Fiske et al., 2002), and academic performance (Rheinschmidt & Mendoza-Denton, 2014). Surprisingly, virtue-admiration is not negatively associated with immoral personality traits (i.e., Machiavellianism, psychopathy, and narcissism; Lee et al., 2013). In other words, virtue-

admiration is perhaps not exactly opposite of immorality, and virtue and vice may even coexist. Several self-reported moral character traits such as moral identity-internalization and the harm/care foundation evoke peer-reported virtue-admiration and subsequent status conferral, adding support for the predictive validity of virtue-admiration. Contrary to our prediction, observers' moral values pertaining to the harm/care foundation suppress rather than foster status conferral.

Study 3 goes beyond English-speaking students and online samples to study fulltime managers from China and further support the external validity of the virtue route to status, showing that managers generally confer status to subordinates they deem virtuous and admirable. Unexpectedly, however, virtue-admiration significantly interacts with competence-respect: if a boss deems a subordinate to be incompetent, virtue is not enough.

In Study 4, we experimentally manipulate virtue, control, and selfishness levels, and obtain causal evidence that perceivers derogate the status of selfish actors but award status to actors who are virtuous beyond simply conforming to norms. Contrary to the findings from Study 2b, perceivers who have high moral character traits (e.g., guilt-proneness, empathic concern, and harm/care) are more likely to exhibit the virtue-admiration pattern.

In Study 5, we experimentally manipulate both virtue and competence and find no significant interaction of virtue and competence in predicting virtue-admiration and status conferral. Virtue leads to higher status via inducing virtue-admiration, as opposed to competence-respect, even when virtuous actors are incompetent.

## Implications

We make a methodological contribution to status attainment research by introducing the SAS for measuring virtue-admiration, dominance-fear, and competence-respect with acceptable validity and reliability. A crucial challenge for examining MVT is the difficulty in discerning the psychological mechanisms underlying the virtue-admiration and competence-respect routes to status (Bai, 2017). Previous instruments such as the dominance and prestige peer-rating scales (Cheng et al., 2010) have treated virtue as a component or modifier of competence, measuring virtue-admiration and competence-respect with general phrasings (e.g., "Your group members respect and admire him/her" and "Your group members hold him/her in high esteem"). Our SAS is somewhat consistent with previous instruments but explicitly disentangles virtue-admiration from competence-respect through factor analysis, supporting the three-factor model including virtue-admiration, dominance-fear, and competence-respect as distinct factors (Bai, 2017). Moreover, we find initial evidence for the construct validity of virtue-admiration as a moral construct positively associated with other established moral character traits, identities, and values such as moral identity-internalization and moral foundations. Our finding that moral traits (e.g., guilt-proneness) with a focus on conforming to moral norms and restraining from doing harm do not predict virtue-admiration indicates that it is, perhaps, a more prescriptive rather than proscriptive moral construct. In summary, we offer a useful tool for researchers to investigate the overall patterns of human status striving.

Second, we contribute to the status attainment literature by presenting one of the first empirical tests of the three-route model

of status attainment (Bai, 2017). Our test provides initial support for MVT's contention that virtue-admiration is a distinct route to status rather than a mere component or modifier of the competence route (e.g., Ridgeway, 1982). Despite the typically strong correlations between virtue-admiration and competence-respect ( $r_s = .59$  to  $.68$ ), virtue-admiration consistently emerged as a significant predictor of status conferral, along with dominance-fear and competence-respect, across our studies. Our analyses including all virtue-admiration, dominance-fear, and competence-respect dimensions when predicting status should be considered a *conservative* test of the virtue route to status, because virtue potentially causes competence perceptions (Stellar & Willer, 2018). More important, virtue-admiration indeed mediated the positive effects of self-reported moral character traits (e.g., moral identity-internalization) and experimentally manipulated virtue on status conferral, lending further causal support to MVT.

Third, we enrich theoretical understandings of the interrelationships among the pathways to status (Bai, 2017; Cheng et al., 2013) by delineating how virtue-admiration relates to dominance-fear and competence-respect. The lack of strong negative correlations across studies supports our prediction that virtue-admiration, dominance-fear, and competence-respect are indeed compatible rather than mutually exclusive routes to status. While competence-respect appears to be the strongest path to status, taking the three routes simultaneously may be most effective. Furthermore, we extend MVT (Bai, 2017) by explicitly hypothesizing that virtue and competence do not interact to affect virtue-admiration and subsequent status attainment. Emphasizing virtue-admiration rather than competence-respect as the primary pathway leading virtuous actors to high status, MVT (Bai, 2017) is ambiguous about whether high task competence is also needed. Our experimental finding that even incompetent virtuous actors could successfully follow the virtue-admiration path provides initial evidence that task competence is probably *not* necessary.

Finally, we make a theoretical contribution to the contextual perspective of status attainment (Bai, 2017; Li et al., 2016) by theorizing and examining observers' moral character as a crucial boundary condition. Extant research has focused on the main effects of moral characteristics (e.g., Flynn, 2003; Hardy & Van Vugt, 2006; Willer, 2009), but we provide a more contextualized view by shifting attention to contextual factors as crucial moderators of the morality-status link. MVT identifies culture (e.g., Hofstede & Hofstede, 2005) as the boundary condition defining the specific acts that groups or communities will deem morally relevant (Bai, 2017), but we extend MVT by exploring observers' moral character as directly affecting how extensively observers admire virtuous actions (e.g., Aquino et al., 2011) and their willingness to confer status based on virtue. Some preliminary evidence, although far from conclusive, indicates that in some situations (e.g., when evaluating virtue based on hypothetical scenarios) perceivers' moral character bounds the virtue route to status.

## Limitations and Future Directions

The reliability score for the dominance-fear subscale of the SAS is notably lower than the scores for the virtue-admiration and competence-respect subscales, perhaps because dominance-fear has fewer items with high factor loadings from EFA than



virtue–admiration and competence–respect. We speculate that some dominance–fear items (e.g., “When I think of him/her, I feel tense or irritated” and “I know it is better to let him/her have his/her way”) initially included in the item pool failed to capture the intended fear of harm and instead captured hostility, annoyance, or influence. Another explanation is that most participants were reporting dominance–fear regarding friends or coworkers and might have been reluctant to provide unfavorable although accurate ratings. Therefore, we call for future work to refine the dominance–fear subscale and the SAS in general by creating additional items that better capture the intended factor and are less vulnerable to social desirability biases. Relatedly, in some of our studies, the zero-order correlation between dominance–fear and perceived status became significantly positive only after partialing out the influence of interpersonal liking. This finding may arise from a general halo effect (e.g., Stellar & Willer, 2018), which deflates the correlation between two factors of opposite valence. Future research might address this issue by using a behavioral (e.g., Cheng et al., 2013) or rank-based (McClean et al., 2017) measure of status beyond subjective ratings of social standings. In addition, by focusing on the virtue–competence interaction, we fall short of theorizing and investigating the interaction of virtue and dominance in affecting status attainment. Nevertheless, future studies should explore whether and how virtue and dominance, two largely orthogonal constructs, interact to affect status attainment.

Second, our studies produce mixed findings regarding the interaction of virtue and competence. In particular, virtue–admiration interacts with competence–respect to affect status attainment in some of our correlational studies but not in our experimental investigation. A closer look suggests that virtue–admiration has a nonlinear or curvilinear effect on status conferral that might partly account for the significant interaction in the correlational studies. Post hoc analysis (see [supplementary materials](#) for details) revealed that virtue–admiration has a significant “J-shaped” curvilinear effect on status: virtue–admiration has a gradually stronger positive effect on status conferral only after a tipping point. In other words, virtue–admiration must pass a certain threshold before status is conferred. Under low competence–respect, because virtue–admiration and competence–respect are highly correlated, virtue–admiration is also restricted at relatively low levels and may be insufficient to evoke status conferral. Future research should use student or nationally representative samples to replicate our experiment regarding the interaction of virtue and competence on status via virtue–admiration, and further investigate virtue–admiration’s curvilinear effect on status conferral in a laboratory using experimental methods.

Third, the seemingly opposite findings regarding the harm/care foundation as a moderator indicates that moral comparison plays a potential role. Theories and research on the morality–status relationship (e.g., Bai, 2017; Willer, 2009) have generally overlooked the downside of moral behaviors, but moral comparison research (Minson & Monin, 2012; Monin, 2007; Monin, Sawyer, & Marquez, 2008) has been accumulating evidence showing that moral actions may evoke resentment, envy, and derogation because people may feel threats to their moral self-images when they make unfavorable upward social comparisons with morally superior others. Future research

should further examine perceivers’ moral character as a moderator, particularly under salient moral comparison. Furthermore, envy could be investigated as a competing mechanism to discover when doing good inhibits status conferral.

Finally, our experimental studies manipulate altruism as the primary form of virtue. Moral psychology research nevertheless suggests that virtue has many manifestations, such as humility, piety, and purity (Haidt & Joseph, 2004), beyond the literature’s current focus on altruism and generosity (e.g., Barclay & Willer, 2007; Hardy & Van Vugt, 2006). Although we collected data from China, we did not specifically investigate culturally relativistic forms of virtue as predictors of status conferral. Future work could examine other countries outside the WEIRD (western, educated, industrialized, rich, and democratic) context and use a culturally relativistic form of virtue such as chastity to find additional generalized support for virtue–admiration as a pathway to status and to explore whether perceivers’ moral character traits corresponding to culturally relevant forms of virtue strengthen or suppress status attainment.

## Conclusion

“Raise the straight and set them over the crooked. This can make the crooked straight.”

—(Confucius, 1983, p. 117)

Confucius’s famous quote voices the ideal: society benefits when good people are admired, emulated, and placed in charge. As we have shown, the good news is that people tend to confer status on virtuous individuals, but the bad news is that virtue may be the slow route to the top. Undeniably, many unworthy and dishonorable people hold top leadership positions in our institutions and societies (Collins, 2005; Pfeffer, 2010). We have shown that virtue is a viable path for getting ahead. To address some of the social crises that damage Western cultures (Stiglitz, 2013; Twenge & Campbell, 2009), the next step would be to identify and validate contextual factors or processes that can facilitate virtuous people’s attainment of status.

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### **Correction to Bai, Ho, and Yan (2019)**

In the article “Does Virtue Lead to Status? Testing the Moral Virtue Theory of Status Attainment” by Feng Bai, Grace Ching Chi Ho, and Jin Yan (*Journal of Personality and Social Psychology*. Advance online publication. May 20, 2019. <http://dx.doi.org/10.1037/pspi0000192>), funding acknowledgments were omitted from the author note. The second paragraph of the author note should read as follows: This research was funded by an internal start-up grant (1-ZE74) awarded to Feng Bai from the Hong Kong Polytechnic University and a grant (NSFC 71572175) awarded to Jin Yan from the National Natural Science Foundation of China.

All versions of this article have been corrected.

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