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# How Virtue, Competence, and Dominance Conjointly Shape Status Attainment at Work: Integrating Person-Centered and Variable-Centered Approaches

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Status researchers have recognized virtue, competence, and dominance as distinct, viable routes to attaining status. While acknowledging that these routes could be compatible and may not operate independently. prior research relying on a variable-centered perspective has largely neglected their potentially complex interactions. This article integrates a person-centered perspective with the variable-centered perspective to explore how different routes conjointly shape workplace status. Study 1A (N = 537) employs latent profile analysis, an inductive person-centered method, to re-analyze existing survey data, identifying seven distinct profiles of virtue, competence, and dominance that people use to attain status. Study 1B (N = 988) confirms the existence of these profiles in an independent sample of full-time U.S. workers, albeit with nuanced differences in levels. Across our initial studies, these profiles differ in status attainment, with a profile characterized by high virtue and competence but low dominance associated with the highest status—a key discovery challenging to uncover using the variable-centered approach alone. Study 2 (N = 792), a preregistered experiment manipulating the three routes in hypothetical scenarios, gathers causal evidence confirming these profiles' varying effectiveness. Study 3 (N = 785), another preregistered experiment using refined manipulations, corroborates the findings of Study 2 and provides evidence for the relevance of these causal insights to real-life workplace contexts. This research has several crucial implications: reaching the top requires a combination of multiple routes; conflating virtue and competence under the umbrella of "prestige" obscures their unique contributions; and dominance's positive effect on status is not universally applicable.

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#### **Theoretical Background**

Status hierarchies are pervasive in human social groups (Fiske, 2010; Frank, 1985; Magee & Galinsky, 2008). Unsurprisingly, the pursuit of high status is considered a fundamental human motive (Anderson et al., 2015), prompting individuals to employ various tactics to get to the top (Barkow et al., 1975; Kyl-Heku & Buss, 1996). Recently, Bai (2017) introduced the moral virtue theory (MVT), a comprehensive theoretical framework positing that status can be attained via three primary routes: virtue, which earns admiration through praiseworthy moral characteristics beyond mere conformity to norms (virtue-admiration); competence,

However, prior studies may not fully capture the intricate nature of status attainment. While acknowledging that different routes are compatible and "need not operate independently" (Zeng et al., 2022, p. 7), status researchers have rarely investigated the potentially complex interplays between these routes. An exception is Bai et al. (2020), who explored the interaction between virtue and competence

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which garners respect through outstanding task skills and expertise (competence-respect); and dominance, which induces fear through coercion and intimidation (dominance-fear). Subsequently, Bai et al. (2020) provided initial empirical evidence for virtue, competence, and dominance as independent predictors of status attainment in work contexts.

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in determining workplace status but reported inconsistent results. The authors speculated that the absence of certain combinations of virtue and competence (e.g., high virtue and low competence) in real-world settings and potential curvilinear effects might underlie the mixed findings, prompting them to call for future exploration of the *complex* interactions among the three routes. Crucial questions remain: How do virtue, competence, and dominance conjointly influence status attainment? What combinations or profiles of these strategies exist in reality? Which profiles are most effective for attaining status?

Addressing these questions presents challenges as most status research utilizes a *variable-centered* approach, emphasizing the unique effect of each route, often through additive, linear models (e.g., Cheng et al., 2013; Durkee et al., 2020). Although it is possible to model complex interactions with the variable-centered approach by adding numerous interaction terms and specifying nonlinear effects a priori through introducing polynomial or product terms, doing so complicates the analysis and renders the interpretation of results troublesome. More importantly, there is a risk that the variable-centered approach may produce artificial profiles of virtue, competence, and dominance that do not actually exist, potentially leading to erroneous and inconsistent predictions based on extrapolations from the representative data patterns in a sample (Bauer & Shanahan, 2007).

To overcome these limitations, we propose supplementing the variable-centered approach with a *person-centered* approach (Zyphur, 2009), the latter of which enables us to detect whether specific combinations of virtue, competence, and dominance tactics are actually employed by individuals. Consider the varied status profiles of high-profile figures: Steve Jobs and Martin Shkreli may be perceived as low in virtue yet high in competence and dominance, in contrast to Warren Buffet and Satya Nadella, who seem to blend high virtue and competence with low dominance. By integrating variable-centered and person-centered approaches, we can verify the existence of such profiles in reality and elucidate the complex effects of the status attainment profiles (Morin et al., 2019; Spurk et al., 2020).

We conducted four studies integrating variable-centered and person-centered approaches to identify distinct status attainment profiles and assess each profile's association with status attainment in workplace settings. Our research aimed to contribute to the literature on status attainment in several ways. Firstly, we investigate the implicit assumption in prior research that the three routes to status-virtue, competence, and dominance-function independently. Our integrated approach not only challenges the existence of most theoretically possible profiles, but also offers novel causal insights into complex interactions among the three routes. Secondly, we enrich theoretical understandings of MVT by underlining the importance of differentiating between virtue and competence, which were previously conflated under "prestige" (Cheng et al., 2013). We demonstrate that distinguishing these two routes is crucial in accurately assessing their respective and joint effects on status attainment. Finally, we contribute to the debate on the role of dominance in status attainment by considering its intricate interactions with virtue and competence, as well as the influence of personal characteristics such as gender.

#### The Three Routes to Status

Status is a *sociometric* construct reflecting an individual's relative prominence, deference, and influence within a group.<sup>1</sup>

MVT (Bai, 2017) expands upon the well-established two-route model of prestige and dominance (Cheng et al., 2013; Henrich & Gil-White, 2001; Maner & Case, 2016) by introducing virtue as a third route to attaining status. The two-route model uses "prestige" to describe competence-based tactics for attaining status and treats moral characteristics as a component or modifier of competence (see review by Bai et al., 2020). However, competence and morality may be more accurately viewed as distinct, and sometimes conflicting, subfacets of prestige. For example, prestigious (but not dominant) leaders sometimes prioritize group members' opinions or concerns (morality) at the expense of group task outcomes (competence; Case et al., 2018, 2021). MVT thus builds on growing evidence suggesting a more independent role for morality in status attainment (e.g., Flynn, 2003; Hardy & Van Vugt, 2006; Willer, 2009), aiming to disentangle virtue and competence from "prestige." Preliminary evidence (Bai et al., 2020; Torelli et al., 2014) suggests that virtue alone can lead to higher workplace status, independent of competence, challenging previous theorizing that emphasizes competence as central to status.

#### **Limitations of Prior Work**

Despite extensive research, previous studies have not adequately captured the intricate nature of status attainment, which may involve the conjoint functioning of multiple status routes (Barkow et al., 1975; Henrich et al., 2015; Zeng et al., 2022). In developmental contexts, research suggests that while children using solely coercive tactics (dominance) fail to gain popularity,<sup>2</sup> the most popular youths combine aggressive tactics with prosocial behavior to mitigate fallout ("bistrategics"; Hawley & Bower, 2018). This finding indicates that the effectiveness of dominance strategies may depend on additional factors like friendliness and academic competence (Rodkin et al., 2000). Extrapolating these developmental findings to adults highlights the need to examine how different status routes interact to fully understand status dynamics.

While status researchers recognize the compatibility of various status routes (Bai, 2017; Cheng et al., 2013), their interactions in adult status attainment remain underexplored. Although Bai et al. (2020) theorized virtue and competence as orthogonal paths to status, with virtue conferring status independently of competence, their studies showed inconsistent interaction effects: two correlational studies found a positive interaction between virtue and competence enhancing status, whereas a preregistered experiment found a negative interaction (approaching significance) where high virtue did not enhance status when competence was also high.

<sup>&</sup>lt;sup>1</sup> Given that *sociometric* status is context-specific and existing research predominantly focuses on workplace and task-oriented settings, this article specifically addresses these contexts and discusses the scope conditions as a limitation in the General Discussion section.

<sup>&</sup>lt;sup>2</sup> Popularity and status, while conceptually related, are distinct concepts. Specifically, popularity encompasses "how well individuals get along with others, how many friends they have, and how well-liked they are by their peers" (Anderson et al., 2001, p. 117). However, popularity does not inherently entail the prominence, respect, and influence associated with status.

These mixed results underscore two major challenges in understanding the potentially complex interplays between status routes using the variable-centered approach. First, although interaction terms in variable-centered analysis can shed light on the combined effects of various status routes, managing multiway and nonlinear interactions is notoriously difficult. To fully capture these interactions, analyses must include at least three main effects, three two-way interactions, and one three-way interaction for linear effects, plus a series of polynomial terms for nonlinear effects, if specified a priori. However, incorporating these terms significantly complicates the analysis, introducing issues like nonnormality and potential multicollinearity (Moosbrugger et al., 1997; Moran et al., 2012), which obscure the separation of lower and higher order effects and complicate result interpretation, akin to navigating a "hall of mirrors" (Cronbach, 1975). Additionally, the demanding nature of such analyses can lead to problems with statistical power, sometimes causing models to fail to converge (e.g., Diefendorff et al., 2019).

Second, and more critically, the reliance on variable-centered research and deductive reasoning may generate artificial profiles of virtue, competence, and dominance that do not actually exist, such as a profile combining high virtue with low competence, regardless of dominance levels (see Supplemental Table S3 in Bai et al., 2020). This approach risks making inaccurate and inconsistent predictions by extrapolating from data patterns within a sample. For instance, a three-way (linear) interaction analysis would yield and compare 2 (Virtue: High vs. Low)  $\times$  2 (Competence: High vs. Low)  $\times$  2 (Dominance: High vs. Low) combinations. Although some of these eight profiles may not actually exist, the analysis could still artificially construct them based on the interpolation of other data points. Moreover, such an analysis might conceal the existence of potentially important profiles, like one with moderate levels of virtue, competence, and dominance.

# Integrating Person-Centered and Variable-Centered Perspectives

To address these challenges, we propose integrating the personcentered perspective, which emphasizes identifying clusters of individuals rather than variables (Woo et al., 2018; Zyphur, 2009), with the traditional variable-centered approach. The person-centered approach excels in uncovering actual profiles that best represent the data, using methods like cluster analysis and latent profile analysis (LPA; Hartl et al., 2020; Rodkin et al., 2000). This approach reveals how different status routes cluster within individuals, demonstrating both quantitative and qualitative variations (Wang & Hanges, 2011). However, it is important to note that the person-centered approach can produce profiles that are highly specific to the sample from which they were derived, potentially limiting their generalizability (Woo et al., 2018).

We employ both approaches in a complementary manner (e.g., Bergman & Trost, 2006; Rodkin et al., 2000). Initially, latent profiles of status routes (variables) that exist in reality are identified using the person-centered approach. These profiles are then integrated into variable-centered analyses as predictors or outcomes, allowing for a nuanced examination of complex interactions between status routes without assuming a specific functional form of relationships among them (Morin et al., 2019; Spurk et al., 2020). Due to the inductive nature of our integrated approach, we cannot precisely deduce the number of profiles that exist, nor can we predict their exact level and shape. While not all theoretically conceivable profiles are likely to exist, some profiles appear more plausible than others. For example, certain individuals likely pursue all three routes simultaneously to attain status, suggesting the existence of a profile with relatively high virtue, competence, and dominance. Conversely, a profile with high virtue and dominance but low competence seems less probable, as both virtue and dominance strategies may subtly convey competence cues and inflate perceived competence (Durkee et al., 2020; Stellar & Willer, 2018).

Formulating hypotheses regarding the most effective profiles for attaining status is challenging due to potential complex interactions among these routes. While virtue, competence, and dominance positively predict status in variable-centered analyses (Bai et al., 2020; Grosz et al., 2024), a profile combining high levels of these routes might not be the only, or the most, effective one for status attainment. For instance, if high virtue ceases to enhance status in the presence of high competence (indicating a negative interaction), then moderate or low virtue might suffice as part of an effective profile.

Moreover, the impact of high dominance may vary depending on other factors like prosocial behavior (virtue) and task-related skills (competence), which might shape how others interpret the use of intimidation and force (Hawley & Bower, 2018). If findings on "bistrategic" children, who successfully combine dominance with prosocial behavior and valued skills, can be extrapolated to adults, high dominance alone might not enhance workplace status unless accompanied by high virtue and/or competence.

The effect of dominance may also differ by demographic factors such as gender. For example, Kakkar (2024) found that on social media (specifically Twitter), women's status decreased with greater dominance, whereas men's status initially increased but saw diminishing returns. Conversely, both genders benefited from increased prestige—a blend of virtue and competence—over time. Wiezel et al. (2024) further found that female leaders, perceived as higher in prestige and lower in dominance, were slightly preferred over male leaders. Taken together, these findings seem to suggest that for women, compared to men, a profile with high virtue and competence but moderate or low dominance might be more effective in attaining status. In summary, the effectiveness of status attainment profiles hinges on potential complex interactions among status routes, as well as personal characteristics like gender.

#### **Overview of Studies**

In four studies integrating variable-centered and person-centered approaches, we aimed to identify distinct status attainment profiles and assess each profile's association with status attainment in workplace settings. Study 1A utilized LPA to re-analyze existing data (Bai et al., 2020), identifying distinct profiles of virtue, competence, and dominance. This study also explored how these profiles, compared to the three routes (variables), relate to individuals' status. Study 1B sought to validate these profiles in a larger, independent sample of U.S. workers, while also exploring the effects of demographic factors such as gender and ethnicity on the emergence and effectiveness of

the identified profiles. Study 2 further addressed the issue of reverse causality through experimental manipulations of virtue, competence, and dominance levels, aiming to validate the LPA findings and establish causal relationships. Finally, Study 3 responded to methodological concerns from earlier studies by adopting gender-neutral vignettes, which allow for a more thorough exploration of gender (and ethnicity) effects, broadening the operationalization of virtue, and enabling a more realistic assessment of status attainment that could be contrasted with hypothetical scenarios. Together, these studies were designed to provide a comprehensive yet nuanced understanding of the intricate interplays between virtue, competence, and dominance in workplace settings.

We reported how we determined our sample size and all data exclusions, manipulations, and measures. Across our studies, we sought to ensure sufficient statistical power by following best-practice recommendations (Spurk et al., 2020) and performing power analysis (Faul et al., 2007). All data, analysis code, and research materials are available at https://osf.io/sn84z (Bai et al., 2024, May 24) or in the Supplemental Materials. Data were analyzed using Mplus 8.3 (Muthen & Muthen, 2012) and SAS 9.4. Studies 1A and 1B were not preregistered. The design, hypotheses, and analysis plan of Study 2 were preregistered; see (https://osf.io/q75b6). The design, hypotheses, and analysis plan of Study 3 were also preregistered; see (https://osf.io/rxkt5).

#### Study 1A

#### Method

#### Participants, Procedures, and Measures

Per recommendation for a minimum sample size of 500 to detect the correct number of profiles (Spurk et al., 2020), we merged two data sets collected for Studies 1c (N = 340) and 1d (N = 197) in Bai et al. (2020). The two data sets were collected following the same procedure from the same population-that is, part- or full-time U.S. workers recruited via Prolific Academic (Peer et al., 2017), with similar mean scores on key variables. After merging the two data sets, we obtained a final sample of 537 participants (253 female, 277 male, and seven unknown;  $M_{age} =$ 32.98 years,  $SD_{age} = 10.63$ ). All participants nominated and assessed a coworker on virtue (e.g., "When I think of him/her, I believe there is still some good in the world";  $\alpha = .92$ ), competence (e.g., "I respect his/her skills or expertise";  $\alpha = .89$ ), and dominance (e.g., "I am afraid of him/her";  $\alpha = .71$ ) with the 15-item status attainment scale (SAS; Bai et al., 2020). They also rated the coworker's status with a four-item perceived status scale (e.g., "He/she has high status";  $\alpha = .88$ ) adapted from previous status scales (Anderson et al., 2012; Cheng et al., 2013). All scale items were recorded with a 7-point Likert scale from 1 = strongly disagree to 7 = strongly agree.

#### Results

#### **Status Attainment Profiles**

Because the three-factor structure of SAS had been confirmed (Bai et al., 2020), we directly conducted LPA on the three variables using Mplus 8.3, considering solutions ranging from two to eight profiles. LPA is an *inductive*, person-centered method to derive

construct-based profiles from quantitative data, treating "profile membership as an unobserved categorical variable, where its value indicates which profile an individual belongs to with a certain degree of probability" (Spurk et al., 2020, p. 2). More specifically, LPA allows us to identify the existence of distinct profiles of virtue, competence, and dominance to which employees belong and explore how these profiles differ in status (Morin et al., 2019; Spurk et al., 2020).

As recommended (Spurk et al., 2020), we calculated a variety of fit statistics, including log likelihood (LL), Akaike information criterion (AIC), Bayesian information criterion (BIC), sample-size-adjusted BIC (SSA-BIC), Lo-Mendell–Rubin likelihood ratio test, bootstrap likelihood ratio test, and entropy. The seven-profile solution showed lower LL, AIC, BIC, and SSA-BIC values than the two- to six-profile solutions, indicating a better fit. Although the eight-profile solution had lower LL, AIC, and SSA-BIC than the seven-profile solution, it had a higher BIC and, more importantly, failed to pass the Lo-Mendell–Rubin likelihood ratio test, indicating a worse fit (see Table 1 for details). Thus, we retained the seven-profile solution as our preferred solution.

Among the seven profiles (illustrated in Figure 1), three differed quantitatively in the absolute level of the profile indicators (i.e., differences in level). We labeled these profiles<sup>3</sup> as *triple achievers* (8.2% of the sample), who demonstrated high levels of virtue ( $M_{virtue} = 5.21$ ), competence ( $M_{competence} = 6.15$ ), and dominance ( $M_{dominance} = 3.82$ ); *balanced contributors* (49.2%), who displayed moderate levels of virtue ( $M_{virtue} = 4.91$ ), competence ( $M_{competence} = 5.76$ ), and dominance ( $M_{dominance} = 2.25$ ); and *modest followers* (8.8%) with relatively low levels of virtue ( $M_{virtue} = 4.06$ ), competence ( $M_{competence} = 4.38$ ), and dominance ( $M_{dominance} = 1.94$ ). Notably, the *balanced contributors* profile was the most common with the three routes' values similar to the mean values of the whole sample ( $M_{virtue} = 4.83$ ,  $M_{competence} = 5.60$ , and  $M_{dominance} = 2.58$ ).

Furthermore, the remaining four profiles differed qualitatively in the relative standing of the profile indicators (i.e., differences in shape). We identified *tempered free-riders* (4.1%) as exhibiting very low levels of virtue ( $M_{virtue} = 2.05$ ) and competence ( $M_{competence} =$ 2.42), yet a moderate level of dominance ( $M_{dominance} = 2.88$ ); *forceful underperformers* (8.2%) with relatively low levels of virtue ( $M_{virtue} = 3.44$ ) and competence ( $M_{competence} = 4.61$ ), but a high level of dominance ( $M_{dominance} = 3.96$ ); *unscrupulous bullies* (3.4%) who demonstrated a relatively low level of virtue ( $M_{virtue} = 3.40$ ), a relatively high level of competence ( $M_{competence} = 6.04$ ), and a very high level of dominance ( $M_{dominance} = 5.36$ ); and *humble champions* 

<sup>&</sup>lt;sup>3</sup> The term "triple achievers" refers to individuals who excel across all three routes to status. "Balanced contributors" describe those with average levels on each route ("balanced"), representing a substantial portion of the workforce ("contributors"). "Modest followers" are labeled for their uniformly low scores across all three routes. "Tempered free-riders" underscore very low levels of virtue and competence—characteristics of "free-riders"—tempered by a moderate level of dominance. "Forceful underperformers" denote individuals with pronounced dominance ("forceful"), coupled with their lower virtue and competence ("underperformers"). "Unscrupulous bullies" highlight those with strategic competence but devoid of virtue ("unscrupulous"), and very high dominance ("bullies"). Finally, "humble champions" spotlight individuals with high virtue and competence—the hallmark of "champions"—without relying on dominance, thus "humble."

No. of profiles	LL	FP	AIC	BIC	SSA-BIC	LMR $(p)$	BLRT (p)	Entrop
Study 1A ( $N = 537$ )								
2	-2324.41	10	4668.83	4711.69	4679.94	.002	.000	.899
3	-2258.96	14	4545.91	4605.91	4561.47	.020	.000	.885
4	-2216.97	18	4469.95	4547.10	4489.96	.006	.000	.820
5	-2193.65	22	4431.29	4525.58	4455.75	.277	.000	.767
6	-2174.52	26	4401.05	4512.48	4429.95	.187	.000	.780
7	-2160.95	30	4381.90	4510.48	4415.25	.012	.000	.779
8	-2151.33	34	4370.66	4516.38	4408.46	.359	.020	.789
Study 1B ( $N = 988$ )								
2	-4318.87	10	8657.74	8706.70	8674.94	.002	.000	.846
3	-4202.00	14	8432.00	8500.54	8456.07	.000	.000	.795
4	-4168.71	18	8373.43	8461.55	8404.38	.340	.000	.799
5	-4129.78	22	8303.56	8411.26	8341.39	.118	.000	.773
6	-4102.73	26	8257.46	8384.75	8302.17	.288	.000	.775
7	-4081.52	30	8223.04	8369.91	8274.63	.193	.000	.789
8	-4057.73	34	8183.45	8349.90	8241.92	.029	.000	.804
9	-4046.09	38	8168.19	8354.22	8233.53	.268	.000	.810
10	-4036.27	42	8156.58	8362.17	8228.77	.588	.000	.817

Table 1 Fit Statistics for Profile Structures in Studies 1A and 1B

Note. The profile solution highlighted in bold was selected as our preferred solution. LL = log-likelihood; FP = free parameters; AIC = Akaike information criteria; BIC = Bayesian information criteria; SSA-BIC = sample-size-adjusted BIC; LMR = Lo et al. (2001) test; BLRT = bootstrapped log-likelihood ratio tests.

(18.3%) who were high in virtue ( $M_{\text{virtue}} = 6.18$ ) and competence  $(M_{\text{competence}} = 6.51)$  but low in dominance  $(M_{\text{dominance}} = 1.98)$ .

Admittedly, due to the inductive nature of LPA, the above categorization of individuals as "high," "moderate," or "low" in each route were more akin to approximations than precise

Figure 1

distinctions. Variances existed under the same high, moderate, or low category-for example, the mean values for profiles under the low virtue category varied between 2.05 (tempered free-riders) and 4.06 (modest followers). However, the categorization process was guided by theory-driven (albeit somewhat subjective)





Note. The results were standardized to help in the interpretation of this histogram. See the online article for the color version of this figure.

judgments,<sup>4</sup> as recommended by Spurk et al. (2020). More importantly, we adopted profile labels that aim to extract the theoretical meaning of the identified profiles, ensuring that they remain relevant and meaningful despite subtle variations in levels.

#### Effectiveness of Profiles

To model status as an auxiliary (outcome) variable, we used the DCON command in Mplus 8.3, which determines whether each profile is different in status (Bennett et al., 2016). All profiles showed significant differences (see Table 2). Three profiles had higher than average status ratings ( $M_{\text{status}} = 4.98$ ): humble champions were associated the highest status ratings ( $M_{\text{status}} = 6.44$ ), followed by unscrupulous bullies ( $M_{\text{status}} = 6.09$ ) and triple achievers ( $M_{\text{status}} = 5.56$ ). In contrast, tempered free-riders were associated with the lowest status ratings ( $M_{\text{status}} = 2.44$ ), followed by modest followers ( $M_{\text{status}} = 3.53$ ), forceful underperformers ( $M_{\text{status}} = 4.36$ ), and balanced contributors ( $M_{\text{status}} = 4.92$ ).

#### **Complementary Variable-Centered Analyses**

For comparison, we conducted complementary analyses using multiple regression analyses (e.g., Chawla et al., 2020). First, we regressed status on virtue, competence, and dominance, simultaneously (see Model 1 in Supplemental Table S1). Regression results confirmed positive main effects of all three routes: virtue, b = .14, t(533) = 3.60, p < .001, competence, b = .77, t(533) = 17.34, p < .001.001, and dominance, b = .33, t(533) = 9.28, p < .001. We calculated the *predicted* values of status based on multiple regression results (e.g., Bauer & Shanahan, 2007) for the seven profiles (also see Table 2). In general, the additive, linear regression model aligned well with the status ratings of most profiles. For example, even though the *tempered free-riders* profile was associated with a lower status than the modest followers and forceful underperformers profiles, which might suggest a curvilinear effect of dominance, their status ratings were well predicted by the linear regression model incorporating virtue, competence, and dominance as main effects. Thus, the notably low status associated with the tempered free-riders profile was more of a result of its very low levels of virtue and competence, rather than moderate dominance. One exception, however, was the *humble champions* profile, whose predicted status  $(\hat{y} = 5.67)$  was substantially lower than its actual status.

We next examined interaction effects by entering three two-way interaction terms among virtue, competence, and dominance simultaneously to the regression model (Model 2). We found a significant Virtue × Competence interaction, b = .05, t(530) = 2.54, p = .011, while the Virtue × Dominance interaction, b = -.04, t(530) = -1.54, p = .125 and the Competence × Dominance interaction, b = -.04, t(530) = -1.00, p = .319 did not reach significance. Finally, we entered the three-way interaction term to the regression model (Model 3). We found no evidence for two-way or three-way interactions: Virtue × Competence, b = .02, t(529) = .42, p = .676, Virtue × Dominance, b = -.11, t(529) = -.93, p = .352, Competence × Dominance, b = -.08, t(529) = .58, p = .329, and Virtue × Competence × Dominance, b = .01, t(529) = .58, p = .565.

(see Table 2 for details). Especially, the predicted status ratings of the *humble champions* profile ( $\hat{y} = 5.79, 5.51$ ) were *consistently* lower than its "true" status. Therefore, the variable-centered approach was unable to detect the profile with the highest status ratings, in which low (rather than high) dominance, coupled with high virtue and competence, is especially desirable.

#### Discussion

In Study 1A, utilizing a person-centered approach, we identified seven qualitatively and quantitatively distinctive profiles derived from the three routes to status within the *work* context. As anticipated, not all theoretically conceivable profiles materialized-most did not. Our integrated approach thus reveals actual profiles that best *represent* the data, which are difficult to detect via the variable-centered approach alone. Another key take-away is that status researchers should reconsider assuming and treating different routes to status as independent, separate main effects. Contrary to the variable-centered prediction that the profile high on all three routes (triple achievers) would be most effective for attaining status, we discovered that the profile with high virtue and competence, but low dominance (humble champions), was associated with the highest status. This finding suggests potentially intricate relationships among the three routes. Specifically, the positive main effect of dominance, while largely applicable to the majority of profiles, does not seem to apply to the *humble champions* profile, in which low dominance, coupled with high virtue and competence, becomes especially desirable-a nuance undetected by the variable-centered approach. Our results thus help address the ongoing debate regarding the role of dominance in status attainment by illuminating when dominance ceases to beget status.

Additionally, although the *unscrupulous bullies* profile was linked to higher, rather than lower, status than the *triple achievers* profile, their status ratings were well predicted by the additive linear regression model incorporating virtue, competence, and dominance as main effects (Model 1 in Supplemental Table S1). Specifically, the higher status associated with the former profile primarily resulted from their much higher level of dominance (5.36 vs. 3.82), rather than their lower level of virtue (3.40 vs. 5.21), as the status gain from higher dominance ([5.36–3.82] × .33 = .51) outweighed the status loss from lower virtue ([3.40–5.21] × .14 = -.25).

Finally, our complementary interaction analysis found no evidence for an interaction of dominance with other routes, but a positive interaction effect between virtue and competence, as reported in Bai et al. (2020). These discrepancies suggest that previous variablecentered, interaction analyses might have produced artificial profiles of

We again calculated the *predicted* values of status based on multiple regression results including two-way and three-way interaction terms. The addition of these two-way or three-way interaction terms did not substantially change the overall pattern of the predicted status ratings

<sup>&</sup>lt;sup>4</sup> As suggested by a reviewer, we conducted Wald test of mean equality (Asparouhov & Muthén, 2014) to validate our subjective categorization of individuals into "high," "moderate," or "low" based on virtue, competence, and dominance. The test revealed significant deviations from the sample means for our "high" and "low" categories in the expected directions. Most "moderate" categories did not significantly differ from the sample mean, with the exception of the dominance level in the *balanced contributors* profile. However, even in this case, the *balanced contributors* profile's dominance level was higher than the "low" dominance profiles and its deviation from the sample mean was comparable to other "moderate" profiles. These results thus lend some support to our initial categorizations.

 Table 2

 Descriptive Information per Latent Profile in Studies 1A and 1B

						I	Predicted statu	IS
Profile	% of sample	Virtue	Competence	Dominance	Status	Model 1	Model 2	Model 3
Study 1A ( $N = 537$ )								
Sample		4.83	5.60	2.58	4.98	4.98	4.91	4.96
Modest followers (A)	8.8%	4.06	4.38	1.94	$3.53_{B,C,D,E,E,G}$	3.73	3.60	3.71
Tempered free-riders (B)	4.1%	2.05	2.42	2.88	$2.44_{ACDEEG}$	2.25	2.52	2.24
Forceful underperformers (C)	8.2%	3.44	4.61	3.96	$4.36_{A,B,D,E,F,G}$	4.48	4.53	4.47
Balanced contributors (D)	49.2%	4.91	5.76	2.25	$4.92_{A,B,C,E,E,G}$	5.01	4.96	4.99
Unscrupulous bullies (E)	3.4%	3.40	6.04	5.36	$6.09_{ABCDEG}$	6.02	6.02	6.02
Triple achievers (F)	8.2%	5.21	6.15	3.82	$5.56_{ABCDEG}$	5.86	5.77	5.84
Humble champions (G)	18.3%	6.18	6.51	1.98	6.44 <sub>A.B.C.D.E.E</sub>	5.67	5.79	5.51
Study 1B ( $N = 988$ )								
Sample		5.04	5.72	2.59	5.12	5.12	5.06	5.05
Modest followers (H)	5.2%	3.96	4.03	2.73	$3.72_{IIKLMNO}$	3.82	3.76	3.77
Tempered free-riders (I)	2.9%	1.83	2.55	2.69	$2.97_{\rm HLKLMNO}$	2.42	2.78	2.80
Forceful underperformers (J)	8.0%	4.53	5.28	4.21	4.65 <sub>H.I.K.M.N</sub>	5.20	5.15	5.20
Balanced contributors (K)	32.1%	4.76	5.64	2.16	5.20 <sub>HIIMNO</sub>	4.89	4.82	4.80
Unscrupulous bullies (L)	2.2%	2.44	4.87	4.93	5.03 <sub>HIMN</sub>	4.74	4.95	4.92
Triple achievers (M)	3.1%	6.00	6.29	4.93	6.16 <sub>HLLKLNO</sub>	6.36	6.27	6.24
Humble champions (N)	41.7%	6.06	6.37	2.24	6.42 <sub>H.LLK.M.O</sub>	5.65	5.70	5.70
Pragmatic egoists (O)	4.8%	2.88	5.50	2.46	4.64 <sub>H,I,K,M,N</sub>	4.54	4.46	4.46

*Note.* Subscripts (A–O) indicate profiles that are significantly different at p < .05. For predicted status, Model 1 includes only the main effects of virtue, competence, and dominance; Model 2 extends Model 1 by adding the three two-way interactions between the three routes; finally, Model 3 includes all the interaction terms of the three routes, encompassing the three-way interaction.

the three routes that do not actually exist (e.g., profiles with high virtue and low competence), leading to inconsistent, potentially erroneous results.

#### Study 1B

We sought to validate the status attainment profiles identified in Study 1A by collecting data from a large, independent sample of U.S. workers. Due to the inductive nature of LPA, we did not expect to exactly replicate Study 1A in terms of the number, proportions, or levels of profiles. Nevertheless, we did expect that most of the seven profiles, albeit with nuanced differences in levels, would emerge. In addition, this study aimed to explore the effects of demographic factors, such as gender and ethnicity, on the emergence and effectiveness of these profiles, offering insights into how these profiles might vary across different social groups.

#### Method

#### Participants, Procedures, and Measures

To ensure sufficient statistical power for LPA (Spurk et al., 2020), we posted 1,000 openings on Prolific Academic (Peer et al., 2017) for full-time U.S. workers. We requested a *gender-balanced* sample to facilitate the exploration of gender effects. Initially, 991 responses were recorded. After excluding three participants who failed an attention check, the final sample consisted of 988 participants (485 female, 491 male, and 12 nonbinary;  $M_{age} = 37.72$  years,  $SD_{age} = 11.06$ ; 58.2% White, 16.1% African American, 10.7% Asian, 8.0% Latino/a, 4.5% mixed race, 2.5% other).

As in Study 1A, all participants nominated and assessed a coworker that they knew well on virtue ( $\alpha = .92$ ), competence ( $\alpha = .89$ ), and dominance ( $\alpha = .70$ ) with the 15-item SAS (Bai et al., 2020). They also rated the coworker on the same four-item

perceived status scale ( $\alpha = .89$ ). All scale items were recorded with a 7-point Likert scale from 1 = strongly disagree to 7 = strongly agree. Finally, participants reported the nominated coworker's gender (495 female, 486 male, and seven nonbinary) and ethnicity (61.8% White, 13.9% African American, 11.5% Latino/a, 6.6% Asian, 2.6% mixed race, 3.5% other).

#### Results

#### **Status Attainment Profiles**

We calculated the same set of fit statistics as in Study 1A. The eight-profile solution showed lower LL, AIC, BIC, and SSA-BIC values than the two- to seven-profile solutions, indicating a better fit. Although the nine-profile solution had lower LL, AIC, and SSA-BIC than the eight-profile solution, it had a higher BIC and, more importantly, failed to pass the Lo-Mendell–Rubin likelihood ratio test, indicating a worse fit (see Table 1). Thus, we retained the eight-profile solution as our preferred solution (see Figure 2 for illustrations).

As expected, we were able to find profiles that were at least qualitatively similar (in shape) to the seven profiles identified in Study 1A. Specifically, the *humble champions* (41.7% of the sample;  $M_{\text{virtue}} = 6.06$ ,  $M_{\text{competence}} = 6.37$ , and  $M_{\text{dominance}} = 2.24$ ) emerged as the most common profile. There was also a *triple achievers* profile (3.1%;  $M_{\text{virtue}} = 6.00$ ,  $M_{\text{competence}} = 6.29$ , and  $M_{\text{dominance}} = 4.93$ ). Another profile (2.2%;  $M_{\text{virtue}} = 2.44$ ,  $M_{\text{competence}} = 4.87$ , and  $M_{\text{dominance}} = 4.93$ ) aligned with the *unscrupulous bullies* profile, albeit with lower levels. We also identified a profile akin to the *balanced contributors* profile with slightly lower levels (32.1%;  $M_{\text{virtue}} = 4.76$ ,  $M_{\text{competence}} = 5.64$ , and  $M_{\text{dominance}} = 2.16$ ). In addition, there were a *tempered free-riders* profile (2.9%;  $M_{\text{virtue}} = 1.83$ ,  $M_{\text{competence}} = 2.55$ , and  $M_{\text{dominance}} = 2.69$ ), and a *forceful underperformers* profile (8.0%;  $M_{\text{virtue}} = 4.53$ ,



#### Figure 2 Status Attainment Profiles Identified in Study 1B

*Note.* The results were standardized to help in the interpretation of this histogram. See the online article for the color version of this figure.

 $M_{\text{competence}} = 5.28$ , and  $M_{\text{dominance}} = 4.21$ ). Another profile (5.2%;  $M_{\text{virtue}} = 3.96$ ,  $M_{\text{competence}} = 4.03$ , and  $M_{\text{dominance}} = 2.73$ ) appeared similar to the *modest followers* profile, albeit with a slightly higher level of dominance. Finally, a new and sizable profile (*pragmatic egoists*; 4.8%) exhibiting a low level of virtue ( $M_{\text{virtue}} = 2.88$ ) and moderate levels of competence ( $M_{\text{competence}} = 5.50$ ) and dominance ( $M_{\text{dominance}} = 2.46$ ) did not resemble any of the profiles identified in Study 1A. The label "*pragmatic egoists*" underscores a pragmatic approach where effectiveness and personal gains are prioritized over adherence to moral standards.

#### Effectiveness of Profiles

We used the DCON command in Mplus 8.3 to assess differences in status among the profiles (see Table 2). *Humble champions* were again the highest in status ratings ( $M_{\text{status}} = 6.42$ ), followed by *triple* achievers ( $M_{\text{status}} = 6.16$ ), balanced contributors ( $M_{\text{status}} = 5.20$ ), and unscrupulous bullies ( $M_{\text{status}} = 5.03$ ). The latter two profiles, however, did not differ significantly in status ratings. In contrast, *tempered free-riders* were again associated with the lowest status ratings ( $M_{\text{status}} = 2.97$ ), followed by modest followers ( $M_{\text{status}} =$ 3.72), pragmatic egoists ( $M_{\text{status}} = 4.64$ ), and forceful underperformers ( $M_{\text{status}} = 4.65$ ). The latter two profiles also did not differ in their status ratings and only had marginally lower status than the unscrupulous bullies profile.

#### **Complementary Variable-Centered Analyses**

As in Study 1A, we conducted complementary analyses with multiple regression analyses. First, regression results (see Supplemental Table S1) confirmed positive main effects of all three routes: virtue, b = .18, t(984) = 6.37, p < .001, competence, b = .68, t(984) = 19.08, p < .001, and dominance, b = .29, t(984) = 11.63, p < .001. We then calculated the *predicted* values of status based on multiple regression results for the eight profiles (Model 1 in Table 2). Generally, the additive, linear regression model aligned well with the status ratings of most profiles. However, the predicted status for the *humble champions* profile ( $\hat{y} = 5.65$ ) was again *substantially* lower than its actual status, replicating a crucial discrepancy observed in Study 1A.

We next examined interaction effects by incorporating three twoway interaction terms among virtue, competence, and dominance simultaneously to the regression model (Model 2). We found a significant Virtue × Competence interaction, b = .07, t(981) = 4.12, p < .001. However, the Virtue × Dominance interaction, b = -.02, t(981) = -1.09, p = .275 and the Competence × Dominance interaction, b = -.04, t(981) = -1.21, p = .226 did not reach significance. Subsequently, we added the three-way interaction term to the regression model (Model 3). Contrary to our findings from Study 1A, this analysis revealed a significant three-way interactions, Virtue × Competence × Dominance, b = -.03, t(980) = -2.00, p = .046, indicating that the positive effect of dominance on status was weaker when virtue and competence were both high (than low).

Additionally, we calculated the *predicted* values of status based on multiple regression results including two-way and three-way interaction terms. The inclusion of these interaction terms did not substantially alter the overall pattern of the predicted status ratings. Consistent with the findings from Study 1A, the predicted status ratings of the *humble champions* profile ( $\hat{y} = 5.70, 5.70$ ) *consistently* fell below its actual status ratings.

#### Gender and Ethnicity Effects

To explore target gender and ethnicity effects, we performed *multinomial* regression with the R3STEP command in Mplus 8.3 (Asparouhov & Muthén, 2014), treating profile membership as a categorical latent outcome. Regression results (see Supplemental Table S2) showed that relative to the *humble champions* profile, men were more likely to belong to *modest followers* (b = 1.13, t = 2.85, p = .004), *forceful underperformers* (b = 1.34, t = 3.72, p < .001), *balanced contributors* (b = .78, t = 3.72, p < .001), and *pragmatic egoists* (b = .86, t = 2.17, p = .030). In contrast, none of the ethnicity effects (White = 1, others = 0) achieved statistical significance.

Given our gender-balanced sample and the tendency of participants to nominate coworkers of the same gender (r = .48, p < .001), we conducted separate LPAs for male and nonmale targets.<sup>5</sup> These analyses revealed distinct preferred profile solutions: a six-profile solution for male targets and a five-profile solution for nonmale targets (see Supplemental Tables S3 and S4 and Figures S1 and S2 for details). Notably, the *unscrupulous bullies* and *pragmatic* egoists profiles did not emerge among male targets. For nonmale targets, the pragmatic egoists, triple achievers, and forceful underperformers profiles were absent, whereas the humble champions profile was more prevalent (54.8%) compared to the male sample (39.5%). Perhaps the most notable finding was that within the male sample, the *triple achievers* profile ( $M_{\text{status}} = 6.26$ ) was associated with the highest status, which however did not differ significantly from that of the humble champions profile ( $M_{\text{status}} = 6.01$ ; chi-square = 3.32, p = .068).

#### Discussion

As anticipated, all seven status attainment profiles identified in Study 1A emerged, albeit with nuanced differences in *levels*, in our follow-up LPA study using an independent sample of full-time U.S. workers. The *humble champions* profile was again associated with the highest workplace status, a result that the variable-centered approach alone failed to predict.

Moreover, we garnered initial evidence for target *gender* effects such that men were less likely to adopt the *humble champions* profile. LPAs conducted separately on the male and nonmale samples further revealed that the *forceful underperformers* and *triple achievers* profiles did not appear among nonmale targets. Instead, for nonmale targets, the *humble champions* profile prevailed with the highest status ratings. In contrast, among male targets, the *triple achievers* profile was associated with the highest status, though their status ratings were not significantly higher than those of the *humble champions* profile. These findings suggest that the status attainment profiles linked with the highest status ratings may vary across different genders. This study also revealed the *pragmatic egoists* profile, which did not correspond to any profile identified in Study 1A. It is not uncommon for LPAs with a larger sample size to identify additional profiles (Bennett et al., 2016). Importantly, the *pragmatic egoists*, alongside the *unscrupulous bullies* (totaling 7.0% of the sample), illustrated a decoupling of virtue and competence, thus highlighting the value of distinguishing virtue and competence from prestige. However, this profile did not surface in the subsequent gender-specific LPAs. The absence of the *pragmatic egoists* profile in these separate analyses for male and nonmale targets presented an inconsistency that prompted us to omit it from further studies.

#### Study 2

One unresolved issue concerns causality. It is possible that the *humble champions* profile is associated with the highest status due to reverse causality, wherein the most influential individuals do not need to assert dominance. To address this, we conducted an experiment manipulating the levels of virtue, competence, and dominance.

We limited these manipulations to three levels—high, moderate, and low—for two main reasons. First, while this broad categorization may not precisely capture the nuances of certain profiles, incorporating additional levels (e.g., *very* low and *very* high) could overcomplicate the design and muddle result interpretation. For example, more levels might obscure whether status differences between *unscrupulous bullies* (characterized by low virtue and *very* high dominance) and *triple achievers* (characterized by high virtue and high dominance) stem from variations in dominance, virtue, or a combination of both.

Second, by manipulating just three levels, we enhanced the generalizability of our findings, as the profiles' actual levels are likely to *fluctuate* across various contexts. This was evident in Study 1B, where we identified profiles aligning qualitatively with those in Study 1A but with nuanced quantitative variations. Our chosen level of abstraction was thus a deliberate strategy to ensure that our results remain relevant across a broader spectrum of contexts.

The aim of the present study thus was not to *exactly* replicate the status attainment profiles from our LPA studies but to validate and establish causal evidence for its key findings, while acknowledging potential nuanced differences. Specifically, at the lower end of status attainment, we hypothesized that the *forceful underperformers* profile would be associated with higher status ratings compared to the *modest followers* and *tempered free-riders* profiles, given that a positive main effect of dominance should apply to these profiles. These profiles, however, would be associated with lower status ratings relative to the *balanced contributors* profile, due to their lack of both virtue and competence. At the upper end of status attainment, we hypothesized that the *humble champions* profile would exhibit higher, or at least similar but not lower, status ratings than the *triple achievers* profile, as low dominance might become especially desirable when coupled with high virtue and competence. Finally,

<sup>&</sup>lt;sup>5</sup> Since seven nominated coworkers (targets) were identified as nonbinary, we conducted an additional LPA excluding these seven targets from the nonmale sample. The results were essentially similar to those for nonmales. Nonetheless, we reported these additional results in the Supplemental Materials (Supplemental Tables S3 and S4).

with dominance levels experimentally fixed, we anticipated that the status ratings of *triple achievers* would surpass those of *unscrupulous bullies*, assuming that virtue and competence do not interact negatively.

#### Method

#### Participants, Procedures, and Measures

Based on prior research (Bai et al., 2020), we anticipated a relatively small effect (*Cohen's d* = .35). To determine the required sample size before data collection, we used G\*Power (Faul et al., 2007). The power analysis indicated that 714 participants (102 per condition) were needed to ensure sufficient (80%; one-tailed) statistical power. To account for potential attrition, we posted 800 openings on Prolific Academic (Peer et al., 2017) for part- or full-time workers located in the United States. We recorded 801 initial responses and excluded nine participants who failed an attention check. The final sample consisted of 792 participants (382 female, 393 male, 17 nonbinary;  $M_{age} = 38.09$  years,  $SD_{age} = 12.01$ ; 73.4% White, 10.9% African American, 6.2% Latino/a, 5.2% Asian, 2.5% mixed race, 1.9% other).

After providing consent, participants were randomly assigned to read one of seven scenarios corresponding to the seven status attainment profiles identified in Study 1A. The Supplemental Materials include details of scenarios. Each scenario featured a fictitious coworker named "Mike." We chose the common male name "Mike" because this study did not aim to test gender effects,<sup>6</sup> which were explored in Study 3. We manipulated the levels (high vs. moderate vs. low) of Mike's virtue by varying the frequencies or intensities of his altruistic behavior, specifically making a newcomer feel welcomed (Bai et al., 2020). In the high virtue condition, Mike is described as "the most helpful team member" who "dedicated a lot of time and effort" helping the newcomer, demonstrating outstanding moral characteristics beyond normative standards. In the *moderate* virtue condition, Mike is portrayed as occasionally "a helpful team member" who "dedicated a limited amount of time and effort" helping the newcomer, reflecting the normative level of moral behaviors often expected in the workplace. In the low virtue condition, Mike is characterized as "not a helpful team member" who "dedicated little, if any, time and effort" helping the newcomer, indicating selfishness and a lack of altruistic concerns.

We also manipulated competence at three levels (high, moderate, and low). In the *high* competence condition, Mike is described as possessing "outstanding skills," with his expertise well-recognized by all team members. In the moderate competence condition, Mike is portrayed as possessing "average skills," with his expertise acknowledged by only a small number of team members. In the low competence condition, Mike is characterized as possessing "poor skills," with his expertise unrecognized by others.

Lastly, we manipulated dominance by varying the frequencies with which Mike intimidates and strikes fear in others (Anderson et al., 2020). In the high dominance condition, Mike is described as "often" intimidating those who disagree with him and "frequently" striking fear in others. In the moderate dominance condition, Mike is portrayed as "seldom" intimidating others and "only occasionally" striking fear in them. In the low dominance condition, Mike is characterized as "never" intimidating others nor striking fear in them. Note that we manipulated low dominance as the absence of dominant behaviors, rather than the presence of submissive behaviors, such as self-doubt and deference to others. Although submissiveness could be considered the lower end of the dominance spectrum (e.g., Wiggins et al., 1988) and potentially undermine status, our current manipulation is more closely aligned with existing research on status attainment (Anderson et al., 2020; Bai et al., 2020; Cheng et al., 2013), which excludes (reverse-coded) submissive behaviors from measurements of dominance. Moreover, certain submissive behaviors (e.g., deference to others) may directly overlap with low influence, thus confounding our dependent variable.

Immediately after the manipulation, we measured perceptions of Mike's virtue (e.g., "Mike tries to make newcomers feel welcomed";  $\alpha = .96$ ), competence (e.g., "Mike possesses outstanding task skills";  $\alpha = .96$ ), and dominance (e.g., "Mike strikes fear in others";  $\alpha = .96$ ) using two items ( $1 = not \ at \ all$  to  $5 = very \ much$ ) for each route as manipulation checks. We then measured the same four-item status scale ( $\alpha = .96$ ) employed in Studies 1A and 1B as our dependent variable. Finally, participants reported their demographics (e.g., age and gender).

#### Results

#### **Manipulation Checks**

A series of analyses of variance showed significant differences in perceptions of virtue, F(6, 785) = 615.86, p < .001, d = 4.27; competence, F(6, 785) = 464.95, p < .001, d = 3.77; and dominance, F(6, 785) = 300.55, p < .001, d = 3.06, across conditions, as intended (see Table 3 for details). Our manipulations were effective.

#### Effectiveness of Profiles

Our conditions differed significantly in perceived status, F(6, 785) = 348.29, p < .001, d = 3.29 (see Table 3). Consistent with our preregistered hypotheses, the *humble champions* condition (M = 6.10, SD = 0.94) was perceived to be the highest in status, followed by the *triple achievers* condition, M = 5.80, SD = .79, t(223) = 2.10, p = .036, d = .35. Moreover, the *triple achievers* condition had higher status than the *unscrupulous bullies* condition, M = 4.33, SD = 1.27, t(224) = 10.52, p < .001, d = 1.42. The *unscrupulous bullies* condition in turn had higher status than the *balanced contributors* condition, M = 3.28, SD = 1.24, t(225) = 7.55, p < .001, d = .85.

At the lower end of status attainment, the *forceful under*performers condition, M = 2.21, SD = 1.27, t(228) = -7.71, p < .001, d = -.85 had lower status than the *balanced contributors* condition but higher status than the *modest followers*, M = 1.77, SD = 0.88, t(224) = 3.16, p = .002, d = .40 and *tempered free-riders*, M = 1.73, SD = 1.01, t(227) = 3.43, p < .001, d = .42 conditions. The latter two conditions, however, did not differ in perceived status, t(223) = .24, p = .812, d = .04.

<sup>&</sup>lt;sup>6</sup> Nevertheless, we preregistered to explore participants' gender as a potential confound or moderator. Our analysis showed no significant main effect of gender (male = 1, others = 0), F(1, 778) = 2.99, p = .084, d = .06, nor any interaction effect between gender and our conditions, F(6, 778) = .75, p = .610, d = .08.

 Table 3

 Descriptive Information per Condition in Study 2

Modest followers (A) $1.27_{D,F,G}$ $1.14_{D,E,F,G}$ $1.38_{B,C,D,E,F}$ $1.77_{C,D,E,F}$ Tempered free-riders (B) $1.25_{D,F,G}$ $1.27_{D,E,F,G}$ $2.00_{A,C,E,F,G}$ $1.73_{C,D,E,F}$ Forceful underperformers (C) $1.22_{D,F,G}$ $1.25_{D,E,F,G}$ $4.59_{A,B,D,F,G}$ $2.21_{A,B,D,F,G}$ Balanced contributors (D) $3.51_{A,B,C,E,F,G}$ $2.27_{A,B,C,E,F,G}$ $1.76_{A,C,E,F,G}$ $3.28_{A,B,C,F,G}$ Unscrupulous bullies (E) $1.38_{D,F,G}$ $4.22_{A,B,C,D,G}$ $4.40_{A,B,D,G}$ $4.33_{A,B,C}$	Condition	Virtue	Competence	Dominance	Status
Triple achievers (F) $4.44_{A,B,C,D,E,G}$ $4.36_{A,B,C,D}$ $4.29_{A,B,C,D,G}$ $5.80_{A,B,C,D}$ Humble champions (G) $4.77_{A,B,C,D,E,F}$ $4.54_{A,B,C,D,E}$ $1.21_{B,C,D,E,F}$ $6.10_{A,B,C,F}$	Modest followers (A)	1.27 <sub>D,F,G</sub>	1.14 <sub>D,E,F,G</sub>	1.38 <sub>b,C,D,E,F</sub>	1.77 <sub>C,D,E,F,G</sub>
	Tempered free-riders (B)	1.25 <sub>D,F,G</sub>	1.27 <sub>D,E,F,G</sub>	2.00 <sub>A,C,E,F,G</sub>	1.73 <sub>C,D,E,F,G</sub>
	Forceful underperformers (C)	1.22 <sub>D,F,G</sub>	1.25 <sub>D,E,F,G</sub>	4.59 <sub>A,B,D,F,G</sub>	2.21 <sub>A,B,D,E,F,G</sub>
	Balanced contributors (D)	3.51 <sub>A,B,C,E,F,G</sub>	2.27 <sub>A,B,C,E,F,G</sub>	1.76 <sub>A,C,E,F,G</sub>	3.28 <sub>A,B,C,E,F,G</sub>
	Unscrupulous bullies (E)	1.38 <sub>D,F,G</sub>	4.22 <sub>A,B,C,D,G</sub>	4.40 <sub>A,B,D,G</sub>	4.33 <sub>A,B,C,D,E,G</sub>
	Triple achievers (F)	4.44 <sub>A,B,C,D,E,G</sub>	4.36 <sub>A,B,C,D</sub>	4.29 <sub>A,B,C,D,G</sub>	5.80 <sub>A,B,C,D,E,G</sub>
	Humble champions (G)	4.77 <sub>A,B,C,D,E,F</sub>	4.54 <sub>A,B,C,D,E</sub>	1.21 <sub>b,C,D,E,F</sub>	6.10 <sub>A,B,C,D,E,G</sub>

Note. N = 792. Subscripts (A–G) indicate profiles that are significantly different at p < .05.

### Discussion

Overall, we replicated the general patterns of results obtained in Studies 1A and 1B, albeit with some nuanced differences. Utilizing an experimental design, we reaffirmed that the humble champions condition, characterized by high virtue and competence but low dominance, is linked to the highest status, underscoring its likely causal role in status attainment. At the lower end of the status spectrum where both virtue and competence were low, high dominance, in contrast, enabled individuals in the forceful underperformers condition to acquire higher status than their counterparts in the modest followers and tempered free-riders conditions. These findings bolster the idea that the effect of dominance on status attainment depends on levels of virtue and competence. Additionally, the forceful underperformers condition still had lower status than the balanced contributors condition, suggesting that high dominance alone cannot compensate for the lack of virtue and competence.

Contrary to our earlier findings from Study 1A, the *triple* achievers condition was associated with higher, rather than lower, status than the unscrupulous bullies condition. This discrepancy was anticipated due to our experimental design, which fixed dominance levels across the two conditions—a pattern also found in Study 1B. This result affirms no evidence for a negative interaction between virtue and competence, but a positive main effect of virtue, when both competence and dominance are high. Collectively, our findings provide further insight into the complex interplay between virtue, competence, and dominance in shaping status attainment.

#### Study 3

Study 2 provided valuable causal insights into status attainment profiles but also revealed methodological limitations that the present study sought to address. First, the reliance on a male vignette character, "Mike," prompted concerns about gender bias and the generalizability of the findings. To mitigate these concerns, our current vignettes employ a gender-neutral name, thereby minimizing potential gender bias while also allowing for a more thorough exploration of the impacts of perceived gender (and ethnicity) on status conferral. It is noteworthy, however, that because we did not directly manipulate gender or ethnicity, we refrained from formally hypothesizing about their effects. Second, our narrow operation of virtue as *helpfulness* in Study 2 fell short of capturing the full spectrum of virtue outlined by MVT (Bai et al., 2020). In this study, we expanded the scope of virtue to encompass a wider range of moral behaviors, with an emphasis on actions driven by good intentions. This refined operationalization allows for a more comprehensive examination of virtue's impact on status attainment. Finally, the hypothetical nature of the interactions in Study 2's vignettes may have allowed participants to more easily discount the status of a dominant actor. To counter this, we invited participants to recall and assess a real-life colleague who fits the described profile, thus enabling a more realistic and direct assessment of status that could be contrasted with the hypothetical scenarios.

#### Method

#### Participants, Procedures, and Measures

Anticipating a similar effect size to Study 2 (*Cohen's d* = .35), we aimed for 714 participants (102 per condition) to ensure sufficient power (80%; one-tailed) statistical power. We again posted 800 openings on Prolific Academic (Peer et al., 2017) for part- or full-time workers located in the United States. We recorded 800 initial responses and excluded fourteen who failed an attention check and one with missing values. The final sample consisted of 785 participants (389 female, 396 male;  $M_{age} = 37.80$  years,  $SD_{age} = 11.80$ ; 69.9% White, 10.2% African American, 7.1% Asian, 6.9% Latino/a, 4.5% mixed race, 1.4% other).

Participants were randomly assigned to one of seven vignettes, each representing a status attainment profile identified earlier, featuring a coworker named "Riley" with a gender-neutral presentation (e.g., Jeong et al., 2019). We varied the depiction (high vs. moderate vs. low) of Riley's virtue by altering the frequencies or intensities of benevolent moral behavior, specifically in the context of selecting dates for time off (Bai et al., 2020). In the high virtue condition, Riley "often" acts with good intentions and "always" allows other colleagues pick their preferred dates for time off first, "even at a personal scheduling inconvenience." The moderate virtue condition describes Riley as "occasionally" acting with good intentions and "sometimes" letting others pick their preferred dates first, "but only if it does not cause personal scheduling inconvenience." In the low virtue condition, Riley "rarely" acts with good intentions and is "reluctant" to let others pick their preferred dates first. Competence and dominance were manipulated as in Study 2, with adaptations to pronouns for gender neutrality.

Postmanipulation, perceptions of Riley's virtue (e.g., "Riley acts with good intentions";  $\alpha = .93$ ), competence (e.g., "Riley possesses outstanding task skills";  $\alpha = .96$ ), and dominance (e.g., "Riley strikes fear in others";  $\alpha = .96$ ) were measured using two-item scales (1 = not at all to 5 = very much) as manipulation checks. Participants

then rated Riley's status using the same four-item perceived status scale ( $\alpha = .93$ ) employed earlier as our dependent variable.<sup>7</sup>

Next, we requested participants to infer the gender and ethnicity of Riley based on the provided vignettes to explore target gender and ethnicity effects. Additionally, participants were invited to consider if they knew a coworker from their own experience who resembled the profile of Riley. If a real-life coworker was identified, they were asked to evaluate this coworker's perceived status ( $\alpha = .89$ ). This evaluation also included reporting the coworker's gender and ethnicity, allowing us to compare these perceptions with the fictional scenarios.

Finally, participants' own demographics were collected before concluding the session with a debrief and an expression of gratitude.

#### Results

#### Manipulation Checks

Analyses of variance showed significant differences in perceptions of virtue, F(6, 778) = 469.85, p < .001, d = 3.77; competence, F(6, 778) = 379.17, p < .001, d = 3.46; and dominance, F(6, 778) = 346.64, p < .001, d = 3.29, across conditions, as intended (see Table 4). Our manipulations were effective.

#### Effectiveness of Profiles

Our conditions differed significantly in perceived status, F(6,778) = 184.02, p < .001, d = 2.40 (also see Table 4).<sup>8</sup> Specifically, participants perceived the *humble champions* condition (M = 5.53, SD = 0.95) as having the highest status, although this was not significantly different from the *triple achievers* condition, M = 5.34, SD = 1.22, t(220) = 1.21, p = .225, d = .17. The triple achievers condition was rated as having higher status than the unscrupulous *bullies* condition, M = 4.56, SD = 1.18, t(224) = 5.06, p < .001, d =.65, which in turn was rated higher than the balanced contributors condition, M = 3.20, SD = 1.21, t(226) = 8.84, p < .001, d = 1.14. At the lower end of status spectrum, the forceful underperformers condition, M = 2.56, SD = 1.15, t(224) = -4.16, p < .001, d = .54was rated lower than the balanced contributors, but higher than the modest followers, M = 2.11, SD = 1.22, t(221) = 2.88, p = .004, d = .38 and tempered free-riders, M = 2.11, SD = 1.16, t(223) =2.87, p = .004, d = .39 conditions. Consistent with Study 2, the modest followers and tempered free-riders did not differ in perceived status, t(220) = -.03, p = .976, d = .00. We thus replicated the general patterns of results found in Study 2.

#### Target Gender and Ethnicity Effects

We next *explored* participants' perceived gender and ethnicity of Riley as potential confounds or moderators. Our gender-neutral design was successful, with 53.1% of participants perceiving Riley as male and 44.5% as female, while the remainder were uncertain about Riley's gender. Notably, compared to the whole sample, participants were less likely to perceive Riley as male in the *humble champions* condition (34.2%, *chi-square* = 13.88, p < .001), but more likely in the *forceful underperformers* condition (65.5%, *chi-square* = 6.10, p = .014). Moderation analyses, however, revealed no significant main effect of Riley's perceived gender on status (male = 1, others = 0), F(1, 783) = .27, p = .601, d = .02, nor any interaction between gender and the conditions, F(6, 778) = .44, p = .851, d = .08. Regarding ethnicity, the majority of participants (85.1%) perceived Riley as White, with no significant variation across conditions. Although moderation analyses found no significant main effect of Riley's perceived ethnicity (White = 1, others = 0) on status, F(1, 783) = .42, p = .518, d = .03, a significant interaction was detected between ethnicity and conditions, F(6, 778) = 2.95, p = .008, d = .19. The interaction was mainly due to the *unscrupulous bullies* being rated as higher in status when Riley was perceived as White, M = 4.67, SD = 1.12, t(113) = 2.90, p = .005, d = .83 compared to when Riley was non-White (M = 3.73, SD = 1.27). However, these results should be approached with caution due to the relatively small number of participants who perceived Riley as non-White (n = 14) in the *unscrupulous bullies* condition.

#### **Real-Life Status Attainment**

We further investigated whether the general patterns of results observed in hypothetical scenarios were applicable to real-life contexts. The majority of participants (54.1%) were able to recall a real-life colleague who resembled the "Riley" character described in their assigned vignette. However, this was less common among participants in the *triple achievers* condition, with only 36.9% identifying a counterpart in their actual workplace. Notably, the status ratings of these real-life coworkers aligned closely with those from hypothetical vignettes (see Table 5). Additionally, moderation analyses found no significant main effect of the recalled coworker's gender, F(1, 423) = .50, p = .481, d = .05, or ethnicity, F(1, 423) = .41, p = .521, d = .05. There was also no significant interaction between gender, F(6, 438) = 1.69, p = .122, d = .25, or ethnicity, F(6, 438) = 93, p = .474, d = .18, and the conditions.

#### Discussion

Study 3, employing a gender-neutral design and a refined operationalization of virtue, largely replicated the general patterns observed in Study 2. Notably, the *humble champions* condition was once again associated with the highest status; however, the difference from the *triple achievers* condition was not significant. Moreover, participants were more likely to perceive the fictitious character "Riley" as female rather than male in the *humble champions* condition, consistent with our exploratory findings from Study 1B, although perceived target gender showed no significant main or moderating effects on status. Furthermore, we obtained preliminary evidence suggesting that the patterns discerned in hypothetical scenarios were applicable to real-life contexts. Although initial evidence highlighted moderating effects of the target's ethnicity on status based on vignettes, these findings were not replicated when assessing status in a more realistic context, urging a cautious interpretation of the results.

<sup>&</sup>lt;sup>7</sup> For exploratory purposes, we *preregistered* to incorporate a leadernomination question to assess the likelihood that participants would choose Riley as their own work leader (Bai et al., 2020; Milinski et al., 2002), immediately following the assessment of perceived status. This measure aimed to capture prestige-based status, conceptualized as "freely conferred deference" (Henrich & Gil-White, 2001) and served to contrast our operational definition of status as prominence and influence.

<sup>&</sup>lt;sup>8</sup> We anticipated potential discrepancies between perceived status and leader nomination for some profiles. Indeed, our results (see Tables 4 and 5) revealed that profiles such as the *triple achievers* and *unscrupulous bullies*, while perceived as high in status, were less likely to be chosen as a preferred work leader.

Condition	Virtue	Competence	Dominance	Status	Leader nominatior
Modest followers (A)	1.50 <sub>C,D,F,G</sub>	1.31 <sub>D,E,F,G</sub>	1.39 <sub>B,C,D,</sub> e.F,G	2.11 <sub>C,D,E,F,G</sub>	1.25 <sub>D,E,F,G</sub>
Tempered free-riders (B)	1.46 <sub>C,D,F,G</sub>	1.30 <sub>D,E,F,G</sub>	2.16 <sub>A,C,D,E,F,G</sub>	2.11 <sub>C,D,E,F,G</sub>	1.19 <sub>D,E,F,G</sub>
Forceful underperformers (C)	1.24 <sub>A,B,D,F,G</sub>	1.20 <sub>D,E,F,G</sub>	4.41 <sub>A,B,D,G</sub>	2.56 <sub>A,B,D,E,F,G</sub>	1.11 <sub>D,E,F,G</sub>
Balanced contributors (D)	3.64 <sub>A,B,C,E,F,G</sub>	2.34 <sub>A,B,C,E,F,G</sub>	1.92 <sub>A,B,C,E,F,G</sub>	3.20 <sub>A,B,C,E,F,G</sub>	1.93 <sub>A,B,C,E,F,G</sub>
Unscrupulous bullies (E)	1.34 <sub>D,F,G</sub>	4.22 <sub>A,B,C,D,G</sub>	4.54 <sub>A,B,D,G</sub>	4.56 <sub>A,B,C,D,F,G</sub>	1.41 <sub>B,C,D,F,G</sub>
Triple achievers (F)	4.34 <sub>A,B,C,D,E,G</sub>	4.35 <sub>A,B,C,D</sub>	4.53 <sub>A,B,D,G</sub>	5.34 <sub>A,B,C,D,E</sub>	2.56 <sub>A,B,C,D,E,G</sub>
Humble champions (G)	4.78 <sub>A,B,C,D,E,F</sub>	4.45 <sub>A,B,C,D,E</sub>	1.09 <sub>A,B,C,D,E,F</sub>	5.53 <sub>A,B,C,D,E</sub>	4.00 <sub>A,B,C,D,E,F</sub>

 Table 4

 Descriptive Information per Condition in Study 3

Note. N = 785. Subscripts (A–G) indicate profiles that are significantly different at p < .05.

These insights mitigated concerns regarding gender bias and bolstered the external validity of our findings.

#### **General Discussion**

In Study 1A (N = 537), we employed LPA to examine existing survey data, identifying seven distinct status attainment profiles of virtue, competence, and dominance in the workplace. In Study 1B (N = 988), a follow-up LPA study using an independent sample of full-time U.S. workers, we confirmed the existence of these profiles, albeit with nuanced differences in levels. Across these initial LPA studies, we found substantial variations in status ratings among the profiles, with the humble champions profile associated with the highest status. In Study 2 (N = 792) adopting a scenario design, we gathered experimental evidence supporting the varying effectiveness of these status attainment profiles, replicating the general patterns of results from Studies 1A and 1B. In Study 3 (N =785), using a gender-neutral design and refined experimental manipulations, we largely replicated the findings of Study 2, but did not find consistent evidence for the moderating effects of a target's gender or ethnicity on profile effectiveness. Additionally, Study 3 garnered initial evidence suggesting that the causal insights gained from hypothetical scenarios are applicable to real-life contexts.

#### **Theoretical Implications**

Our article synthesizes variable-centered and person-centered approaches, offering several significant contributions to the status literature. First, we challenge the implicit assumption that different routes to status operate independently, as posited in prior variable-centered research (e.g., Anderson et al., 2020; Bai et al., 2020; Cheng et al., 2013; Durkee et al., 2020). If the three status routes were indeed independent, most theoretically conceivable

combinations of them would likely exist in reality-essentially, at least 3 (Virtue: High, Moderate, and Low)  $\times$  3 (Competence: High, Moderate, and Low) × 3 (Dominance: High, Moderate, and Low) = 27 profiles. However, our LPA studies show that the majority (>70%) of these combinations do not actually emerge. This discrepancy suggests that these status routes are more interdependent and less orthogonal than previously theorized. Additionally, the absence of most theoretically conceivable profiles implies that interactions between these routes might have been partially based on artificial profiles that do not actually exist, such as those with high virtue and low competence (e.g., Bai et al., 2020), leading to inconsistent and erroneous findings. Moreover, our variable-centered complementary analyses show that the status ratings of certain profiles, such as the humble champions, cannot be accurately predicted by linear regression models, even when two- and three-way interactions are included, indicating potentially complex interactions. By integrating both variable- and personcentered approaches, our research advances the understanding of the complex interrelationships among the three routes to status.

Furthermore, we illuminate the status attainment research by identifying a limited set of existent profiles and their corresponding effectiveness in attaining status. Our experiments are among the first to offer causal evidence for the success of these profiles—a significant advancement over prior studies that often struggled to provide causal insights due to the challenge in manipulating the specific shapes and levels of profiles identified through inductive methods like LPA. A pivotal finding from both our correlational and experimental studies is that none of the profiles associated with above-average status relies solely on one route to status. This discovery counters prior belief that one could ascend to the top primarily through a single route (e.g., dominance; Kakkar & Sivanathan, 2017). Instead, our research suggests that reaching the top often requires a combination of multiple routes. This insight has

Table	5
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Descriptive Information per Condition for Recalled Coworkers in Study 3

Condition	Ν	% Recalled	Status	Leader nomination
Modest followers (A)	57	51.8%	2.82 <sub>C.D.E.F.G</sub>	1.35 <sub>D.F.G</sub>
Tempered free-riders (B)	68	60.7%	2.96 <sub>D.E.E.G</sub>	$1.21_{D,F,G}$
Forceful underperformers (C)	56	50.0%	3.36 <sub>A.E.F.G</sub>	1.16 <sub>D.F.G</sub>
Balanced contributors (D)	77	68.1%	3.55 <sub>A.B.E.E.G</sub>	$1.97_{A,B,C,E,E,G}$
Unscrupulous bullies (E)	59	51.3%	$4.73_{A,B,C,D,F,G}$	$1.34_{D,F,G}$
Triple achievers (F)	41	36.9%	5.38 <sub>A.B.C.D.E</sub>	2.78 <sub>A.B.C.D.E.G</sub>
Humble champions (G)	67	60.3%	5.43 <sub>A,B,C,D,E</sub>	3.93 <sub>A,B,C,D,E,F</sub>

Note. N = 425. Subscripts (A–G) indicate profiles that are significantly different at p < .05.

practical implications for leadership development, advising trainers to guide aspirants toward emulating comprehensive and effective profiles like the *humble champions* or *triple achievers*.

Second, our work advances the MVT by underscoring the importance of distinguishing virtue from competence, rather than conflating them under the umbrella of "prestige" as formulated in the prominent two-route model (Cheng et al., 2013; Henrich & Gil-White, 2001; Maner & Case, 2016). This conflation obscures the distinct contribution of virtue and competence to status attainment. For instance, the high status accorded to the *humble champions* could be erroneously attributed to their competence alone, overlooking the essential role of virtue and competence, such as *unscrupulous bullies* and *pragmatic egoists*, although less prevalent, lends additional support to the distinct nature of these routes. The absence of the *pragmatic egoists* pofile in Study 1A further highlights the dynamic relationship between virtue and competence, illustrating how the "decoupling" of these routes can vary significantly across different contexts.

Third, our research enriches the discourse on dominance's role in status attainment by examining it alongside other routes and demographic factors (e.g., Durkee et al., 2020; Zeng et al., 2022). We find that dominance's positive effect is not universally applicable, as evidenced by its diminished role in the *humble champions* profile. This nuance, elusive to a variable-centered approach, suggests a complex interplay between the three routes to status. Compared to developmental studies indicating that "bistrategic" children—those displaying both prosocial and aggressive behaviors—are most popular (Hawley & Bower, 2018), our research points to a different pattern in adulthood. Notably, it appears that eschewing aggression while exhibiting high virtue and competence is equally, if not more, effective to attaining high status.

Our exploratory analyses, in addition, provide initial evidence for gender differences in the adoption of status attainment profiles, with women favoring the humble champions profile in their pursuit of status. This finding underscores the need to consider gender as a crucial factor in status attainment, and has practical implications for women in the workplace who aspire to leadership positions. In other words, adopting dominant behaviors is not a prerequisite for gaining status, challenging prevailing stereotypes and presenting alternative leadership pathways that are more congruent with individual demographic backgrounds. Moreover, prior research sometimes presents virtue (morality) and dominance (masculinity) as dichotomous or "contrasting." For instance, Kakkar (2024) suggests that men who exhibit virtuous behaviors, such as being supportive and caring, may be perceived as less masculine, potentially impeding their status attainment. Our research offers a nuanced perspective, suggesting that virtue and dominance may be less "contrasting" than previously posited. We find that men can be perceived as both virtuous (and competent) and dominant (i.e., triple achievers), and this profile, alongside one that is high in virtue and competence but low in dominance, is highly effective for their status attainment. These insights carry significant practical implications for men concerned about expressing virtue at the expense of perceived masculinity and status.

#### **Limitations and Future Directions**

Our studies focused on status attainment profiles adopted by U.S. adults specifically in workplace settings. Although leveraging existing data enabled direct comparisons between our personcentered findings and previous variable-centered ones, the generalizability of our research to other cultures, particularly beyond Western, Educated, Industrialized, Rich, and Democratic societies (Henrich et al., 2010) and nonwork contexts, remains uncertain (see Appendix for a Table of Limitations). Given potentially substantial impacts of these contextual factors on status attainment (Grosz et al., 2024; Li et al., 2016; Torelli et al., 2014), we do not anticipate identical profiles across various contexts. However, certain profiles, such as the humble champions profile, may be universally effective for achieving status. Exploring boundary conditions that influence profile emergence and effectiveness is thus crucial. For example, preliminary evidence suggests that cultural tightness may enhance the desirability of triple achievers (Gelfand et al., 2021; Stamkou et al., 2022). In tight (vs. loose) cultures, high dominance-coupled with high virtue and competence-may become especially valuable for deterring deviants and maintaining social order. Relatedly, our study context limits our operationalizations of virtue to helpfulness and prosociality, which are particularly relevant to workplace settings. Admittedly, moral virtues encompass a broader scope of behaviors, such as donating to charity, humility, or purity, which might be particularly valued in non-Western, Educated, Industrialized, Rich, and Democratic and nonwork contexts. We call for future studies to investigate diverse forms of virtues in these novel contexts.

The gender-neutral design adopted in Study 3 effectively mitigated concerns about gender bias and supported our earlier findings. However, exploratory analyses from Study 1B provided preliminary evidence of the potential moderating effects of target gender and, to a lesser extent, ethnicity on status attainment. These moderating effects were not confirmed in Study 3, possibly because we did not experimentally manipulate gender or ethnicity. This limitation leaves our findings susceptible to reverse causality and the influence of potential "third" variables. Additionally, our research did not explicitly hypothesize the effects of target gender and ethnicity, as such an attempt would exceed the scope of the current article. Future research should aim to develop and empirically test such a theoretical model, using experimental methods to clearly delineate the causal roles of these demographic factors in status attainment.

We acknowledge that the status attainment profiles characterized by high levels of virtue also tend to exhibit high levels of competence, though not vice versa. At first glance, this pattern might lead some readers to infer that competence is a *prerequisite* for being perceived as virtuous, suggesting a potential lack of divergent validity between them. However, a closer examination reveals that this pattern is more of a reflection of the emerging profile distribution derived from otherreported (perception) data, possibly shaped by a unidirectional causal effect of moral characteristics on perceived competence (Stellar & Willer, 2018). For instance, Bai et al. (2020) found that self-reported moral traits, such as moral identity internalization and ingroup/ loyalty, increased perceptions of competence, while self-reported measures of competence, such as academic performance, did not increase perceived virtue, further supporting this interpretation. These findings suggest that individuals with high virtue but relatively lower competence might still be perceived as high in both, whereas those with lower virtue but high competence are unlikely to be seen as excelling in both routes. In other words, virtue might be the driving force in the effective profiles where perceived virtue and competence appear linked, although not necessarily in an objective sense. Additionally, our focus on workplace contexts may inflate their association, as the collaborative nature of many jobs could make virtue seem integral to job performance, thus tying it to perceived competence. In less interdependent settings, such as the arts and individual sports, virtue may not be as closely linked to one's skills or task performance in others' eyes. To validate our speculations, future research should explore the interrelationships between virtue and competence across various contexts, incorporating both selfreported and objective measures.

Finally, our research was predominantly cross-sectional, focusing on status attainment at a specific time point when participants were already familiar with their coworkers (targets). We did not explore the longitudinal effects of status attainment profiles from the onset of interactions. Recent variable-centered research indicates that while prestige (virtue and competence) has a lasting positive effect on status attainment across contexts (McClanahan et al., 2022), dominance's positive effect may be short-lived (Kakkar, 2024; Redhead et al., 2019). If so, the effectiveness of the unscrupulous bullies profile may diminish over a long period of time, while that of the *humble* champions profile may increase. Moreover, preliminary evidence from Redhead et al. (2019) implied that status changes might reciprocally affect the levels or configurations of certain profiles over time. For example, if the effectiveness of the unscrupulous bullies profile diminishes, the loss of status could further lower levels of perceived virtue, competence, and dominance, while the shape of the profile remains unchanged. To examine the long-term stability and evolution of these profiles, we call for future longitudinal research, ideally tracking interactions among newcomers over time, to validate and expand upon these initial findings.

#### **Statement of Limitations**

Our research investigates how three routes to status-virtue. competence, and dominance-conjointly shape status attainment, identifying at least seven distinct profiles with varying levels of status attainment. However, due to the inductive nature of latent profile analysis, our categorization of individuals as "high," "moderate," or "low" in each route should be regarded as approximations rather than precise distinctions. Although the use of existing data facilitates direct comparisons with prior findings, our research is restricted to U.S. samples specifically in workplace settings. Our conclusions about the emergence and effectiveness of status attainment profiles may not be generalizable to other cultures, particularly those characterized by strong norms and strict normative punishment (i.e., tight cultures), or to nonwork contexts such as friendship groups and politics. Our exploration of target gender and ethnicity effects is not underpinned by formal theorizing or experimental manipulations, leaving our findings vulnerable to reverse causality and "third" variables. We also acknowledge that the status attainment profiles characterized by high levels of virtue tend to exhibit high levels of competence, challenging our conceptual distinction between these routes. Finally, our research does not explore longitudinal effects of the status attainment profiles. The configuration and effectiveness of these profiles could evolve over time.

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#### Appendix

## **Table of Limitations**

Dimension	Assessment
Internal validity	
Is the phenomenon diagnosed with experimental methods?	Yes
Is the phenomenon diagnosed with longitudinal methods?	No
Were the manipulations validated with manipulation checks, pretest data, or outcome data?	Yes, our manipulations were validated with manipulation checks and pretest data.
What possible artifacts were ruled out?	We ruled out the possibility that our results were due to gender or ethnicity effects by testing participants' and/or targets' gender and ethnicity as potential confounds and moderators.
Statistical validity	
Was the statistical power at least 80%?	Yes, according to our post hoc power analysis, Studies 2 and 3 had over 80% statistical power to detect the smallest effect reported (i.e., <i>Cohen's d</i> = .35). Due to the complexity of estimating statistical power for latent profile analysis, we follow best-practice recommendations (i.e., $N > 500$ ) to ensure sufficient power to detect the correct number of latent profiles in Studies 1A and 1B.
Was the reliability of the dependent measure established in this publication or elsewhere in the literature?	Yes, we report the source and Cronbach's $\alpha$ of the dependent measure in all our studies.
If covariates are used, have the researchers ensured they are no affected by the experimental manipulation before including them in comparisons across experimental groups?	Not applicable
Were the distributional properties of the variables examined and did the variables have sufficient variability to verify effects?	Yes
Were different experimental manipulations used?	Yes, while Study 2 relied on a <i>male</i> vignette character, we adopted a <i>gender-neutral</i> design and refined our virtue manipulation to encompass a wider range of moral behaviors in Study 3.
Generalizability to field settings	
Was the phenomenon assessed in a field setting?	Yes, Studies 1A, 1B, and 3 involved participants (part- or full-time working adults) evaluating their real-life coworkers.
Are the methods artificial?	The methods for Study 2 were artificial, involving hypothetical workplace scenarios. However, we recruited part- or full-time employees who would be likely to have experience with the phenomenon of interest. In fact, some study participants commented that they knew people exactly like the ones described in the scenarios.
Generalizability to times and populations	
Are the results generalizable to different years and historic periods?	This was not tested, but, given changing contexts of social biases, results may be different for other historic periods.
Are the results generalizable across populations (e.g., different ages, cultures, or nationalities)?	This was not tested, but, given that all our studies included U.S. samples, results will likely differ in other populations.
Theoretical limitations	
What are the main theoretical limitations?	Our studies investigated profiles of virtue, competence, and dominance that people adopt to attain status. However, limitations include (a) the lack of consideration of different contexts that may affect the emergence and effectiveness of status attainment profiles and (b) lack of investigation of the longitudinal effects.

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