

# **Individuals who seek status through dominance are more likely to be deceived for self-gain**

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## **Abstract**

In this preregistered study, we tested the hypothesis that how people acquired their social status can influence others' tendency to behave dishonestly towards them. Participants (N = 151) had the opportunity to lie for self-gain or be truthful to opponents with varying social status levels (i.e., high, middle, or low) which they had achieved through different strategies (i.e., competence, dominance, or virtue). Self-gain lies were significantly fewer when dealing with virtuous high-status opponents than dominant and competent ones. Moreover, opponents who gained high status through dominance elicited negative emotions (i.e., anger, disgust, pity), while virtuous and competent opponents elicited admiration and respect. This work highlights that it is the strategy used to attain high status, rather than the status itself, that significantly influences people's moral behaviors and attitudes toward others.

## Introduction

Lie-telling is the voluntary decision to manipulate or hide information from others (Masip, Garrido, & Herrero, 2004). Self-serving lies, which benefit the liar at the expense of the receiver and face the liar with the risk of reputation loss (Panasiti et al., 2011) can emerge in virtually every social context, from the workplace to intimate relations. As an example, Jane applies for a high-level job that requires proficiency in a specific software. To get the job, she lies on her resume and during the interview, claiming she has the necessary experience and skills. Another example may be that of John, who is in a long-term relationship with Louise but starts seeing Monica and lies to Louise about where he spends the evenings. Both Jane and John face a conflict between lying to get or keep the reward (i.e., a prestigious job or a double relationship) and acting according to their ethical principles and social norms (Mazar, Amir & Ariely, 2008). Previous research indicates that how this conflict will be solved depends on multiple factors ranging from reputation risk (Dupont et al., 2023) to personality traits (Forsyth et al 2021; McLeod et al., 2018), mindfulness levels (Feruglio et al., 2023) and body awareness (Scattolin et al., 2023).

Surprisingly little is known about the role played by the characteristics of the possible victim of the lie (in the case mentioned above, the hiring manager and Louise). Research on moral judgment suggests that both the observer's and the agent's social features can influence how harshly an immoral act is condemned (Hester & Gray, 2020; Kakkar et al., 2020; Soderberg & Howe, 2021). Results concerning first-person moral behaviors are mixed: while some found no difference in the number of lies told to ingroup vs outgroup opponents (e.g. Feldhaus & Mans, 2014), others observed an increase in self-serving lies to strangers, compared to close friends (DePaulo & Kashy, 1998; Ennis, Vrij, & Chance, 2008), and to cold (compared to warm) opponents (Azevedo et al., 2017). A recent study found that participants lied more for self-gain to opponents who they believed had a high- (compared to low-) status job in a company (Schepisi et al., 2020). However, since the lies in that study led to a monetary loss for the opponent, it is possible that participants simply refrained from taking money away from the less wealthy opponent.

Although socioeconomic level is an important aspect of social identity, status-based hierarchies in human societies extend far beyond mere economic distinctions. Social status is the amount of consideration and respect that a person receives from others (Anderson et al., 2001; Cheng et al., 2013; Mattan et al., 2017). High status brings several benefits, including preferential access to resources (Cheng & Tracy, 2014), mating opportunities (Sapolsky, 2004; Gurven & Von Rueden, 2006), and better health and longevity (Marmot et al., 1991; Sapolsky, 2004; Demakakos et al., 2008) and is, therefore, highly desirable. There are, however, multiple strategies (i.e., pathways, see

Mattan et al., 2017) that people can adopt to climb the social ladder. Leading status theories propose either a two-way or a three-way model that includes dominance (using force, intimidation, and threat to gain influence in a group, Anderson & Kilduff, 2009; Cheng et al., 2013; Cheng et al., 2021), competence (i.e., the display of outstanding abilities in a socially valuable domain, Chapais, 2015; Henrich & Gil-White, 2001; Van Vugt, 2006) or virtue (i.e., the display of virtuous behavior beyond the mere conformity to norms, Flynn et al., 2006; Hardy & Van Vugt, 2006; Griskevicius et al., 2010; Bai, 2017; Bai, Ho, & Liu, 2020; Bai, Ho, & Yan, 2020). Although dominance, competence, and virtue are all equally valid strategies to achieve a high standing within a group, there is evidence that, while competent and virtuous high-status individuals are positively evaluated and liked more than lower-status ones (Bai et al., 2017; Cheng et al., 2013; Boukarras et al., 2020; Cloutier et al., 2012; Cloutier & Gyurovski, 2014), dominant high-status individuals are substantially disliked by other individuals (Cheng et al., 2013). Furthermore, while dominance-based status is attained through fear, competence and virtue supposedly lead to status through respect and admiration, respectively (Bai, Ho, & Yan, 2020).

Because lying behavior seems modulated by the receiver's evaluation (Azevedo et al., 2017) and their status (Schepisi et al., 2020), we aimed to disentangle these two aspects in this study. Participants were engaged in the Temptation to Lie Card Game (TLCG, Panasiti et al., 2011), an ecologically validated task in which they were free to lie or tell the truth about the outcome of a card game to an opponent. They were led to believe they were playing against a group of opponents who were described as having achieved a high, middle, or low status (i.e., Status Level) in a previous encounter using either dominance, competence, or virtue (i.e., Status Dimension). We predicted that people would lie more to dominant compared to competent and virtuous high-status characters. We further explored the emotions elicited by the characters within each combination of status level and dimension.

## **Methods**

### **Preliminary vignettes validation and pilot experiment**

Before performing the present experiment, we conducted a preliminary validation ( $N = 68$ ) of the vignettes describing the opponents' profiles (see Supplementary Materials), and a pilot experiment ( $N = 48$ ) with the full procedure used in the present experiment (see Supplementary Materials). From the results of the pilot experiment, we generated a set of hypotheses that were pre-registered on the Open Science Framework platform (<https://doi.org/10.17605/OSF.IO/XJKFP>) and are reported in **Table 1**. These hypotheses were tested in the Main Experiment.

Hypothesis	Expected differences	Supported/not
H1 – Directional. The predicted probability of <b>egoistic lies</b> to the high-status opponent in the Dominance group will be higher compared to the predicted probability of egoistic lies to the high-status opponents in the Virtue and Competence groups and compared to the predicted probability of egoistic lies towards the low- and middle-status opponents in the Dominance group.	High-status_Dominance > High-status_Competence	✗
	High-status_Dominance > High-status_Virtue	✓
	High-status_Dominance > Low-status_Dominance	✓
	High-status_Dominance > Middle-status_Dominance	✓
	Middle-status_Dominance > Low-status_Dominance	✗
H2 - Directional. The predicted probability of <b>egoistic lies</b> towards the high-status opponent in the Competence condition will be lower compared to the predicted probability of egoistic lies towards the low- and middle-status opponent in the same condition.	High-status_Competence < Low-status_Competence	✗
	High-status_Competence < Middle-status_Competence	✗
	Middle-status_Competence < Low-status_Competence	✗
H3 - Directional. The predicted probability of <b>egoistic lies</b> towards the high-status opponent in the Virtue condition will be lower compared to the predicted probability of egoistic lies towards the low- and middle-status opponent in the same condition.	High-status_Virtue < Low-status_Virtue	✓
	High-status_Virtue < Middle-status_Virtue	✓
	Middle-status_Virtue < Low-status_Virtue	✗
H4 - Directional. The high-status profile will be rated as having higher <b>status</b> and having received more <b>attention</b> compared to the low- and middle-status profiles, irrespective of the status pathway - i.e., the three pathways are equally effective for gaining status.	High-status > Middle-status > Low-status	✓

**Table 1** - Set of hypotheses preregistered on the OSF following the Pilot study. The first column table reports the hypothesis, the second specifies its predictions, and the third indicates whether the predictions were supported in the Main Experiment.

## Main Experiment

### *Participants*

One hundred and eighty-seven (187) participants were enrolled in the present experiment. From this initial sample, 36 participants were excluded either because they failed the funnel debriefing (see Procedure), or because of technical issues (e.g., connection issues). Therefore, the final sample consisted of 151 individuals (82 females, 2 non-binary) with a mean age of 25.24 (SD = 3.89). This sample size was deemed adequate to detect a moderate effect size of  $\eta p^2 = .06$ , with a power of .95 and an alpha level (two-sides) of .05 for a 2x3x3 design as computed by an apriori power analysis run on the software MorePower (Campbell & Thompson, 2012). Participants were recruited from a lab database and through posts on social media, and randomly assigned to the Competence (N = 50 (28 F), age = 25(4) years), Dominance (N = 51 (27 F), age = 25(3.9) years, or Virtue (N = 50 (27 F), age = 26(3.7) years)

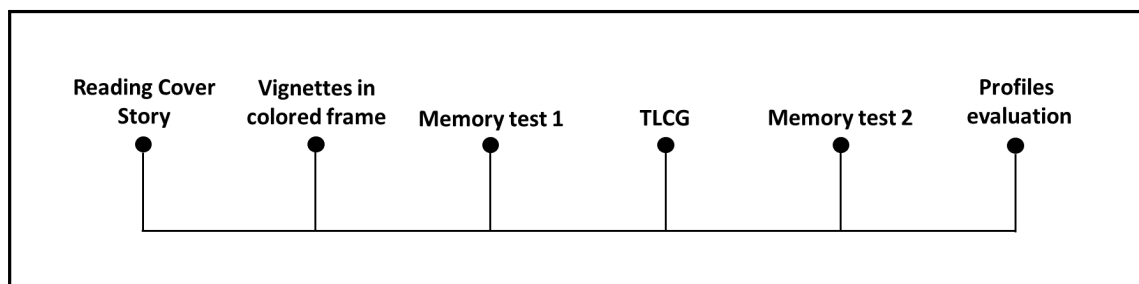
manipulation. No differences between the groups were present in terms of Age ( $F = 1.03$ ,  $p > .05$ ) and Gender ( $\chi^2 = 1.04$ ,  $> .05$ ). Before taking part in the experiment, the volunteers read and signed the informed consent and were made aware that only one among the participants involved in their session (i.e., the actual participant plus six fictitious opponents), randomly chosen, would have received monetary compensation.

The experimental protocol was approved by the ethics committee of the Psychology Department of Sapienza University of Rome. The experiment was conducted online between December 2021 and May 2023.

### *Procedure*

A schematic depiction of the experiment timeline is provided in **Figure 1**. After having agreed to take part in the experiment, participants were sent a URL link redirecting them to a Qualtrics (Qualtrics Research Suite ©, 2020) survey where they could read the experiment description. As a cover story, participants were informed that the experiment intended to study the effect of social interactions on memory (see Supplementary Materials for a full description). More specifically, they were told that they would play a card game with some individuals (hereafter, “opponents”) who participated in a previous study. During this alleged previous study, the opponents were involved in group work, after which they were asked to evaluate the behavior of their peers. According to the cover story, these evaluations had been summarized in short paragraphs (hereafter, “vignettes”) describing the behavior of each opponent during the alleged group work in terms of their attitude toward the other group members and their ability to handle the group work. Participants were asked to read three vignettes (describing the behavior of the high, middle, and low-status opponents, as confirmed by both participants of the validation study ( $N = 68$ ) and of the current one, see Status Vignettes paragraph). The three vignettes were framed with different colors (i.e., sky blue, light purple, and blue). Participants were asked to learn the association between vignettes and colors. For color-blind participants, an alternative version of the frames with easily distinguishable colors (i.e., yellow, red, blue) was provided. After participants’ memory for the color-vignette association was tested, they were instructed about their main task, which is the Temptation to Lie Card Game (TLCG; Panasiti, Pavone, Merla & Aglioti, 2011). Following the TLCG, which was delivered through the Psytoolkit online software (version 3.4.0, Stoet, 2010, 2017), three questions were asked in the following order: 1) “During the game, did you have the feeling that the people you were playing with were not real?” 2) “During the game, do you think you behaved as you would have in real life?” 3) “How much do you think your behavior during the game reflects your behavior in real life?”. The first two questions had a binary “yes/no” response option, while for the third one participants

answered using a VAS ranging from 1 (not at all) to 100 (totally). After participants answered the questions, they were asked to read the vignettes again and to evaluate the opponents along multiple dimensions (see Profiles Evaluation paragraph). At the end of the experiment, the hypotheses, design, and real compensation probability were fully disclosed to them through a standardized debrief message (see Supplementary Materials). Experimental sessions lasted about 50 minutes. Importantly, only those who answered “no” to the second question (the one concerning real-life behavior) were excluded from statistical analyses.



**Figure 1** - Timeline of the experimental procedure

### *Status Vignettes*

The nine status vignettes (see **Table S1**), reporting the alleged behavior of the opponents during the group work (see Procedure), described individuals (opponents) who obtained a certain status in the group (low, middle, or high) through a specific pathway (competence, dominance or virtue). Status level was operationally defined as the amount of attention the opponent received from their peers (Cheng et al., 2013) and the influence they exerted on the group. Thus, high-status opponents were described as being “always” listened to by the others and having influenced “all” the collective decisions (as opposed to “sometimes” for the middle-status and “never” for the low-status). The status dimension or pathway was operationalized based on the prestige-dominance account (Henrich and Gil-White, 2001; Cheng et al., 2010) and on the virtue theory of status (Bai, Ho, & Yan, 2020). The competent high-status character was presented as someone who had a “higher” knowledge of the topics, solved “all” the problems, “never” made mistakes, was fast and efficient, and “always” proposed the right solutions. Using a procedure similar to the one adopted by Bai et al., 2020, middle and low-status characters were constructed by varying the adverbs reflecting the frequency of the described behaviors (i.e., had an “average”/“lower” knowledge, solved “some”/“no” problems, “sometimes”/“always”

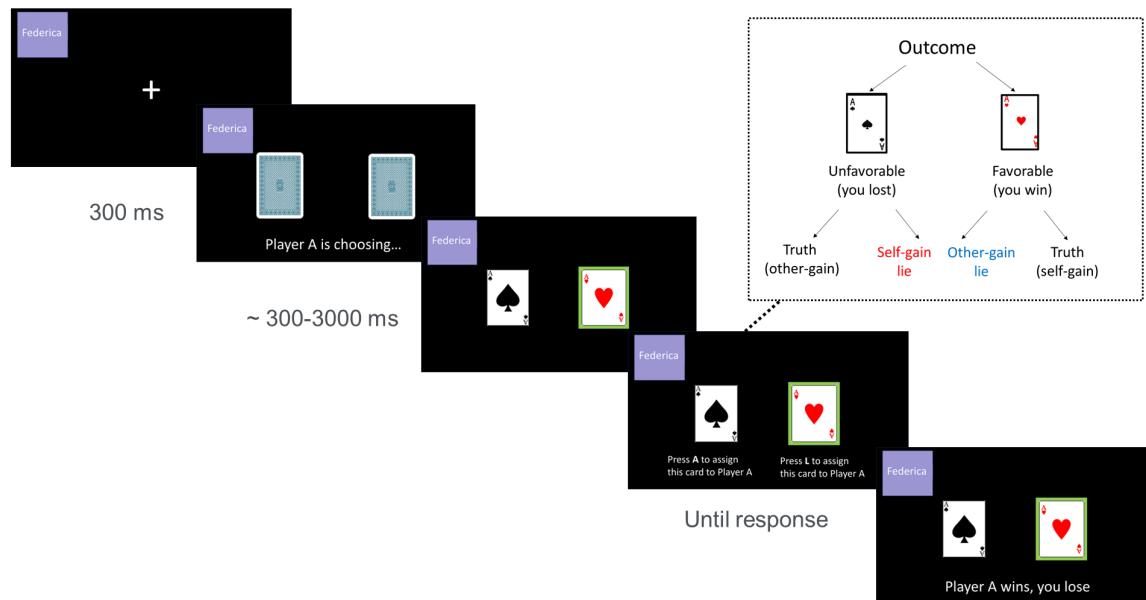
made mistakes and proposed the right solutions). The dominant high-status character was presented as someone who “always” took the floor, interrupted other people talking, showed extreme self-confidence, was impatient, and tried to impose their will. The virtuous high-status “always” worked harder than the others, helped those in need, was cooperative, and tried to restore harmony in case of disagreements. The middle and low-status characters for the dominance and virtue pathways were constructed as described for the competence one. Each participant was only exposed to profiles related to a single pathway to status acquisition which differed in their status level (e.g., participants in the dominance group were presented with the low-dominance, middle-dominance, and high-dominance profiles). Thus, status dimension (or pathway to status) varied between subjects, while status level varied within subjects.

### *Temptation to Lie Card Game (TLCG)*

The TLCG (Panasiti et al., 2011) is an ecological task in which participants can decide whether to lie or tell the truth to an opponent to obtain a monetary reward for themselves or to donate it to the opponent. The opponent, whose behavior, unbeknown to the participant, is randomly generated by the computer, is always the first to choose between two covered cards, which are presented on the computer screen (see **Figure 2**). Importantly, participants are informed that the opponent (Player A) is prevented from seeing the outcome of their own choice, which can be either the ace of hearts (winning card) or the ace of spades (losing card), and that they have to communicate the outcome to the opponent. From the participants’ point of view, “favorable” trials are the ones in which the opponent selects the losing card (and, thus, the participant gets the reward), while “unfavorable” trials are the ones in which the opponent selects the winning card. In both cases, the participant can either accept the outcome or, by lying, reverse it, thus winning when he/she has actually lost (self-gain lie) or losing when he/she has actually won (other-gain lie). In the present experiment, participants were told that they were playing with six fictitious opponents (three females and three males). In each trial, the name of the opponent was shown within a colored square frame reflecting the three colors previously associated with the status vignettes. In this way, participants were able to identify the status level of the opponents just by looking at the frame (see **Figure 2**). For each status level, one male and one female opponent were included in the TLCG. The game comprised 48 trials (8 for each opponent). Participants were informed that during each trial an indefinite amount of points would be awarded to the winner and that at the end of the game, only one among all the players would have been randomly picked to get a monetary compensation



proportional to the number of points accumulated during the game. A detailed description of the task is presented in the Supplementary Materials.



**Figure 2** - Timeline of the TLCG.

### *Profiles Evaluation*

After the TLCG, participants were asked to read again the vignettes and to rate on a 7-step Likert response scale, with 1 = “not at all” and 7 = “a lot”, the following statements: “This person had a high status in the group” (STATUS); “This person received attention by the others” (ATTENTION); how much [status-enhancing characteristic] do you think this person possesses? (COMPETENCE, DOMINANCE, VIRTUE); “How much [emotion] does this person elicit in you?” (ADMIRATION, ANGER, DISGUST, ENVY, FEAR, PITY, and RESPECT). Participants were provided with a verbal description of each emotion (see **Table S2**).

### *Personality questionnaires*

Participants were asked to fill in validated questionnaires in their Italian versions. The 14-item Social Dominance Orientation (SDO, Pratto, Sidanius, Stallworth & Malle, 1994) measures people's tendency to endorse the existence of social hierarchies and to

desire that the in-group prevails over out-groups. Facets of moral identity (i.e., the extent to which morality plays a central role in self-definition and behavioral regulation; Boegershausen, Aquino & Reed II, 2015) were measured with two scales: the Moral Identity Questionnaire (MIQ, Black & Reynolds, 2016) and the Self-Importance of Moral Identity (SIMI, Aquino & Reed, 2002). Although both scales measure the level to which morality shapes self-identity, a major difference between the two is that MIQ, but not SIMI, includes a subscale that evaluates the consistency between one's own moral beliefs and actions. Finally, participants filled in the MacArthur Scale of Subjective Social Status (SSS, Adler, Epel, Castellazzo & Ickovics, 2000), which assesses a person's perceived rank relative to others in their social group.

### *Experimental Design and Statistical Analyses*

The experiment had a 2x3x3 mixed design with Outcome (favorable vs. unfavorable) and Status Level (high vs. medium vs. low) as the within-subjects factors and Status Dimension (Dominance vs. Competence vs. Virtue) as the between-subjects factor. For the TLCG, where we had the binomial dependent variable "Lie" (0 = truth, 1 = lie), we used a Generalized Linear Mixed Model (GLMM), which included as fixed factors Outcome, Status Level, and Status Dimension, while the random structure included a by-participants intercept and the slopes of Outcome and Status Level. The Characters Evaluation Likert data were analyzed using the Align Rank Transform method (Wobbrock et al, 2011) implemented through the R package ARTool (Kay et al., 2021).

## **Results**

### **Confirmatory analyses**

#### *Profiles ratings: attribution of status and attention*

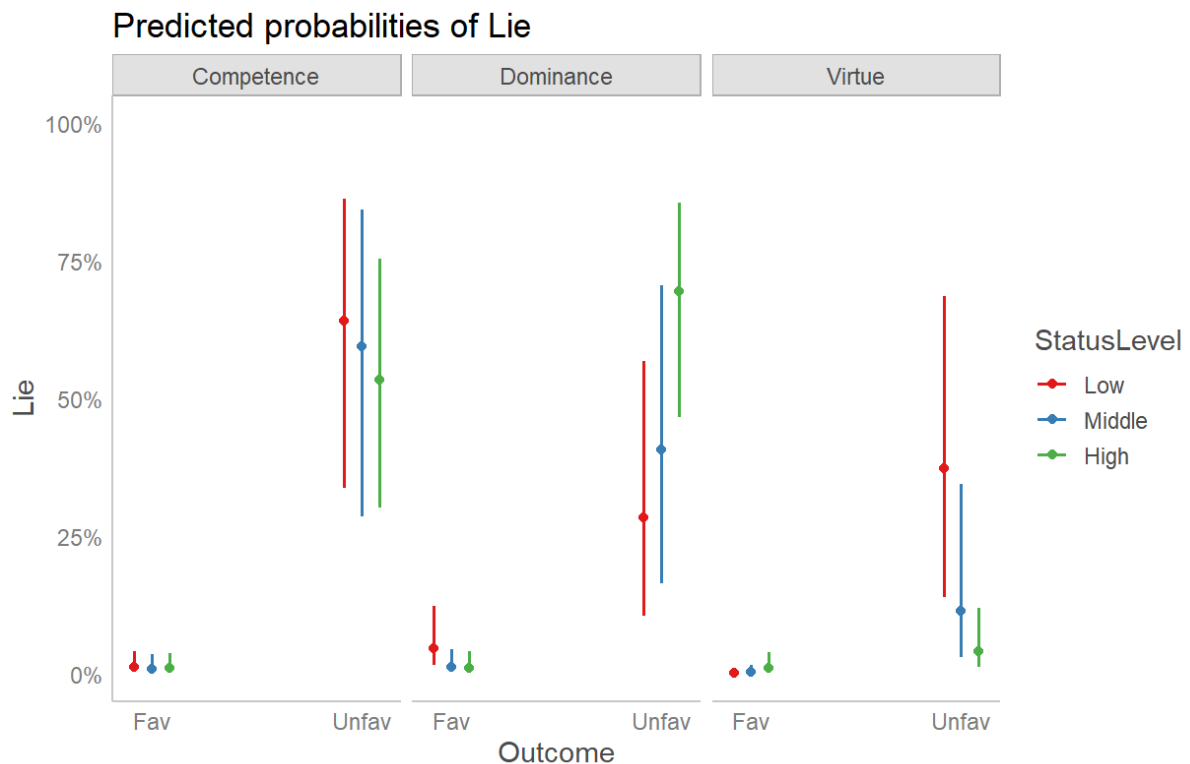
The ART ANOVAs for both Attention and Status ratings revealed a significant effect of Status Level (Attention:  $F(2, 294) = 749.39$ ,  $p < .0001$ ; Status:  $F(2, 294) = 822.10$ ,  $p < .0001$ ) and no significant effect of Status Dimension. Within-group post-hoc comparisons revealed the predicted significant High > Middle > Low pattern for both variables (all  $ps < .0001$ ), see **Table S3** and **Figure S1**. Although both models revealed a significant Status Level x Status Dimension interaction (Attention:  $F(2,$

294) = 6.05,  $p < .001$ ; Status:  $F(2, 294) = 6.31$ ,  $p < .0001$ ), the only significant between-group difference was observed for the variable Status between the Dominant Middle Status and the Virtuous Middle Status (estimate = 43.81, SE = 11.64,  $p < .05$ ). Conversely, no differences in Status and Attention ratings were observed among the High Status profiles (all  $ps > .48$ ) and the Low Status ones (all  $Ps > .79$ ), see **Table S4** and **Figure S2**. Thus, as predicted by H4, in each group, the High-Status profiles received higher ratings of Status and Attention compared to their Low and Middle-Status counterparts, indicating that the three pathways are equally effective for gaining status.

### *Social status level and dimension impact the probability of lying*

The GLMM (Conditional  $R^2$ : 0.83, Marginal  $R^2$ : 0.26) yielded significant main effects of Outcome ( $\chi^2 = 64.29$ ,  $p < .0001$ ), Status Dimension ( $\chi^2 = 14.66$ ,  $p < .001$ ), and Outcome x Status Level x Status Dimension interaction ( $\chi^2 = 37.24$ ,  $p < .0001$ ), see **Figure 3**. Tukey-adjusted post hoc tests on the three-way interaction revealed that, as predicted by H1, the probability of self-gain (but not other-gain) lies was higher for the High-Status Dominant than for the High-Status Virtuous opponent (estimate = 4.09, SE = 0.78, z-ratio = 5.19,  $p < .0001$ ). Instead, contrary to H1 predictions, no significant difference was observed between the High-Status Dominant and the High Status Competent (estimate = -0.50, SE = 0.70, z-ratio = -0.72,  $p = .99$ ). The probability of self-gain lies was also significantly higher for the High Status Competent compared to the High Status Virtuous (estimate = 3.588, SE = 0.79, z-ratio = 4.52,  $p < .001$ ).

When looking at the effects of Status Level within each experimental group, we observed that, in accordance with H1, participants in the Dominance group lied less for self-gain to the Low than to the High (estimate = -1.74, SE = 0.48, z-ratio = -3.62,  $p < .01$ ) and Middle Status (estimate = -1.20, SE = 0.32, z-ratio = -3.75,  $p < .01$ ) opponents, while, contrary to our predictions, there was no significant difference between the High and Middle Status opponents (estimate = -0.53, SE = 0.36, z-ratio = -1.46,  $p = .87$ ). In the Virtue group, we observed the predicted (see H3) differences in self-gain lies between the High and Low Status (estimate = 2.78, SE = 0.61, z-ratio = 4.55,  $p < .001$ ) and the Middle and Low Status opponents (estimate = 1.54, SE = 0.46, z-ratio = 3.31,  $p < .05$ ), while the High-Middle comparison was nonsignificant (estimate = 1.24, SE = 0.48, z-ratio = 2.57,  $p = .19$ ). Contrary to our hypothesis H2, no significant Status Level effect was observed in the Competence group (all  $ps > .98$ ). An exploratory analysis of the probability of other-gain lies revealed a significant difference between the Low Status Dominant and the Low Status Virtuous opponents (estimate = 3.53, SE = 0.88, z-ratio = 4.02,  $p < .01$ ), indicating that participants lied more to benefit the former compared to the latter.



**Figure 3** - Predicted probabilities of Lie in the experimental groups (Competence, Dominance, Virtue) depending on Status Level and Outcome. Fav = favorable outcome (win trials), Unfav = unfavorable outcome (lose trials). Lies in the Favorable condition are considered to be “other-gain”, while lies in the Unfavorable condition are “self-gain”.

## Exploratory analyses

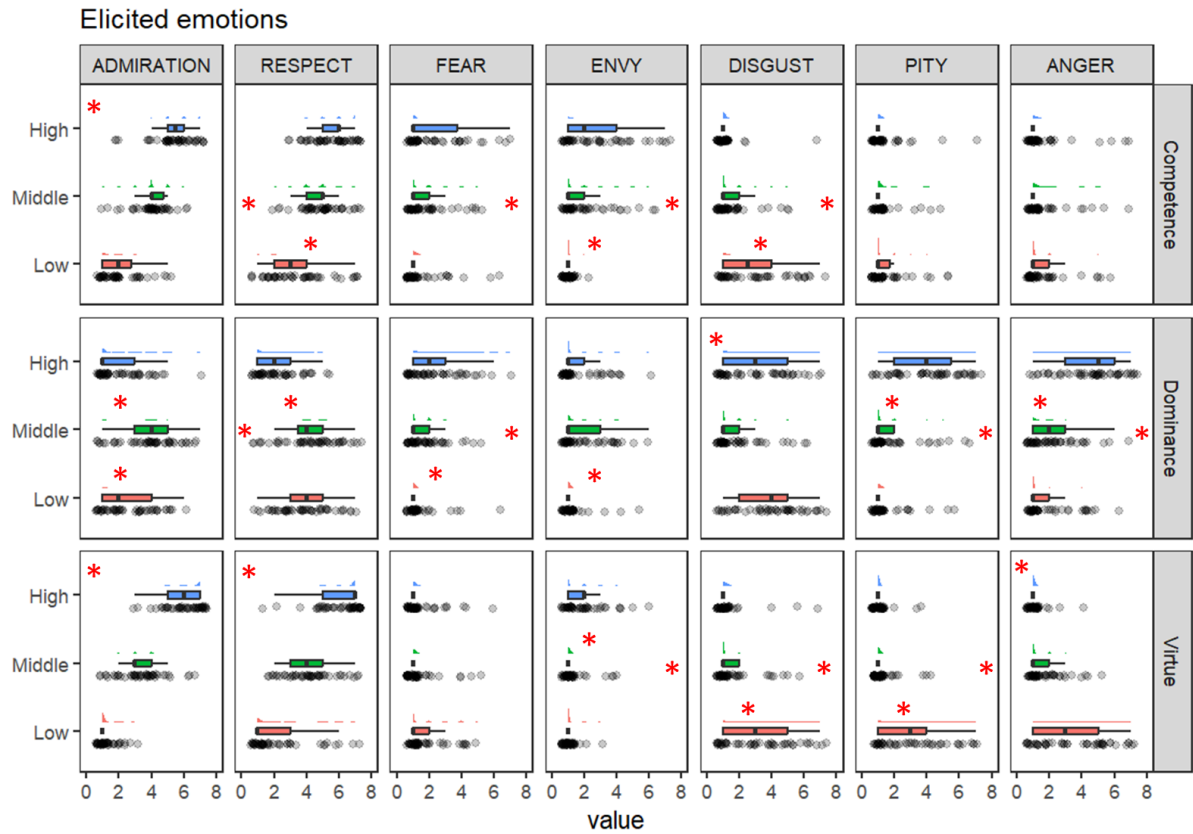
### *Reaction times model for the TLCG*

We examined whether Reaction times (RTs, in seconds) were influenced by the experimental variables. We built an MLMM with Response (truth or lie), Outcome, StatusLevel, StatusDimension and their interaction as fixed effects and the random intercept and slopes for the Response x Outcome interaction. The model yielded a significant effect of Outcome ( $\chi^2 = 30.97$ ,  $p < .0001$ ), indicating that participant responses were slower during Unfavorable than Favorable trials. Moreover, a Response x Outcome interaction ( $\chi^2 = 24.16$ ,  $p < .0001$ ) showed that, when the game outcome was Favourable, participants took longer to say the truth (estimate

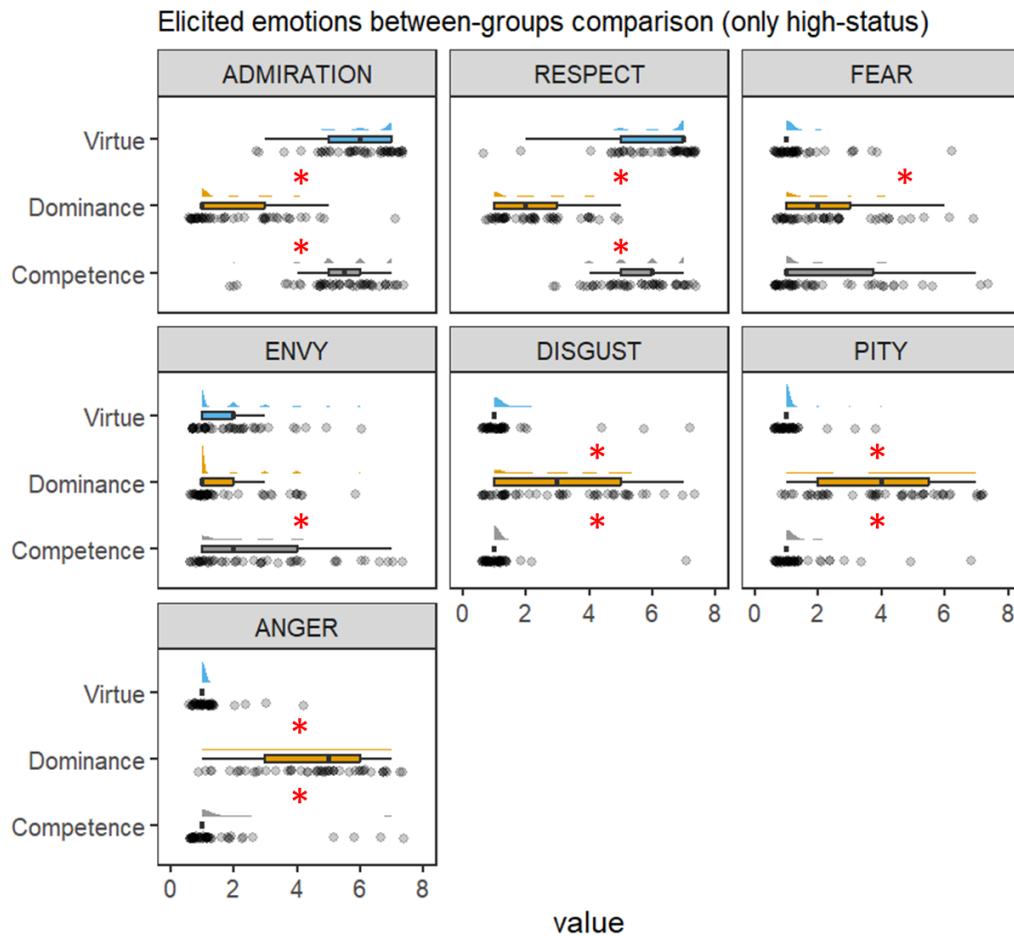
= 1138, SE= 299 z-ratio = 3.80,  $p < .001$ ). Conversely, when the outcome was Unfavorable, there was no difference between lies and truth (estimate = -212, SE = 187, z-ratio = -1.13,  $p = 0.257$ ). All other effects were nonsignificant. Since reaction times can be indicative of conflict processing, our results suggest that participants experienced more conflict before lying to benefit the other than before lying for their personal gain.

### *Profile ratings of elicited emotions*

ART ANOVAs on all emotion ratings showed a significant Status Level x Status Dimension interaction ( $p < .0001$ ). A full description of the within-group comparisons is provided in **Table S2**. In brief, the High Competent and the High Virtuous profiles elicited more positive emotions (i.e., Admiration and Respect) compared to their Middle and Low-Status counterparts (see also **Figure 4**), while the High Dominant and the Low Virtuous elicited more Anger and Pity compared to the other profiles in the same group. Significantly higher ratings of Disgust were observed for the Low Competent and the Low Dominant profiles, while both the High Competent and the High Virtuous profiles elicited more Envy than their counterparts. Finally, both the High Competent and the High Dominant elicited more Fear than the other profiles in the same group. To explore how different status pathways may elicit different emotions in the observer, we looked at between-group differences for the High-Status profiles (see **Figure 5**). Admiration and Respect showed a similar pattern, with significantly lower ratings for the Dominant compared to the Competent (Admiration: estimate = 220.3, SE = 16.3, t-ratio = 13.538,  $p < .0001$ ; Respect: estimate = 221.91, SE = 19.5, t-ratio = 11.394,  $p < .0001$ ) and the Virtuous (Admiration: estimate = -253.4, SE = 16.4, t-ratio = -15.409,  $p < .0001$ ; Respect: estimate = -258.75, SE = 19.7, t-ratio = -13.149,  $p < .0001$ ) High Status. Importantly, the Competent and Virtuous High-Status profiles elicited similar ratings of Admiration (estimate = -33.0, SE = 16.4, t-ratio = -2.010,  $p = 0.53$ ) and Respect (estimate = -36.84, SE = 19.7, t-ratio = -1.872,  $p = 0.63$ ). The High-Status Dominant elicited also more Anger, Pity, and Disgust compared to the Competent and the Virtuous (all  $P$ s  $< .001$ ) and more Anger compared to the Virtuous (estimate = 89.627, SE = 21.2, t-ratio = 4.233,  $p < 0.01$ ). The High Competent elicited more Envy than the High-Status Dominant (estimate = 68.17, SE = 18.7, t-ratio = 3.639,  $p < .01$ ).



**Figure 4** - Ratings of elicited emotions for each profile and within-group comparisons. Data were analyzed with ART ANOVAs (Wobbrock et al, 2011). Asterisks indicate significant ( $p < .01$ ) post hoc comparisons. Asterisks placed in the top left corner indicate that all within-group comparisons were significant.



**Figure 5** - Between-group comparison of elicited emotions for the High-Status profiles. Data were analyzed with ART ANOVAs (Wobbrock et al, 2011). Asterisks indicate significant ( $p < .01$ ) post hoc comparisons.

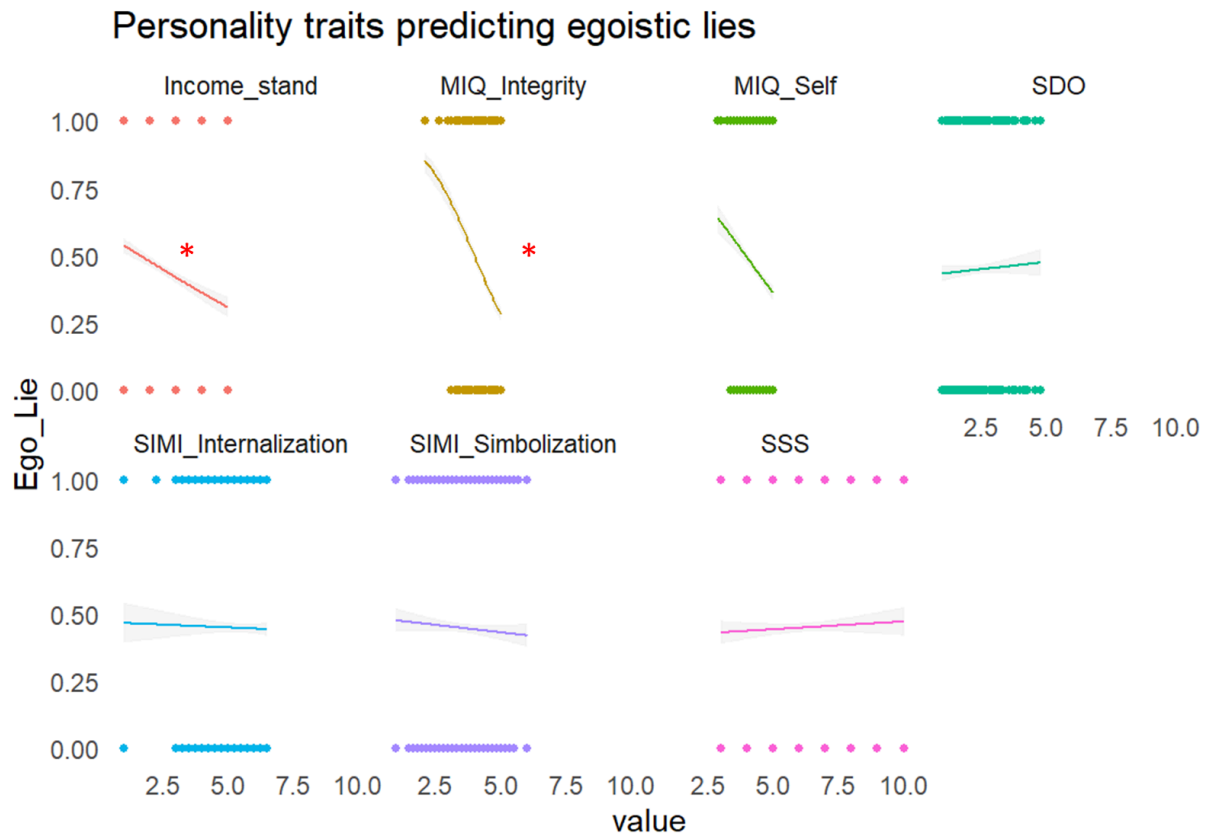
#### *Predicting lies from participants' socioeconomic features and personality traits*

Since other-gain lies were not affected by Status Level or Dimension, we explored the relationship between personality traits and self-gain lies through linear GLMM models including Status Level, Status Dimension, and their interactions as fixed effects. The model indicated that the MIQ\_Integrity ( $\chi^2 = 16.47$ ,  $p < .0001$ ) and Income ( $\chi^2 = 7.346$ ,  $p < .01$ ) negatively predicted egoistic lies, see **Figure 6**. All the other models failed to show any significant effect.

#### *Predicting lies from elicited emotions*

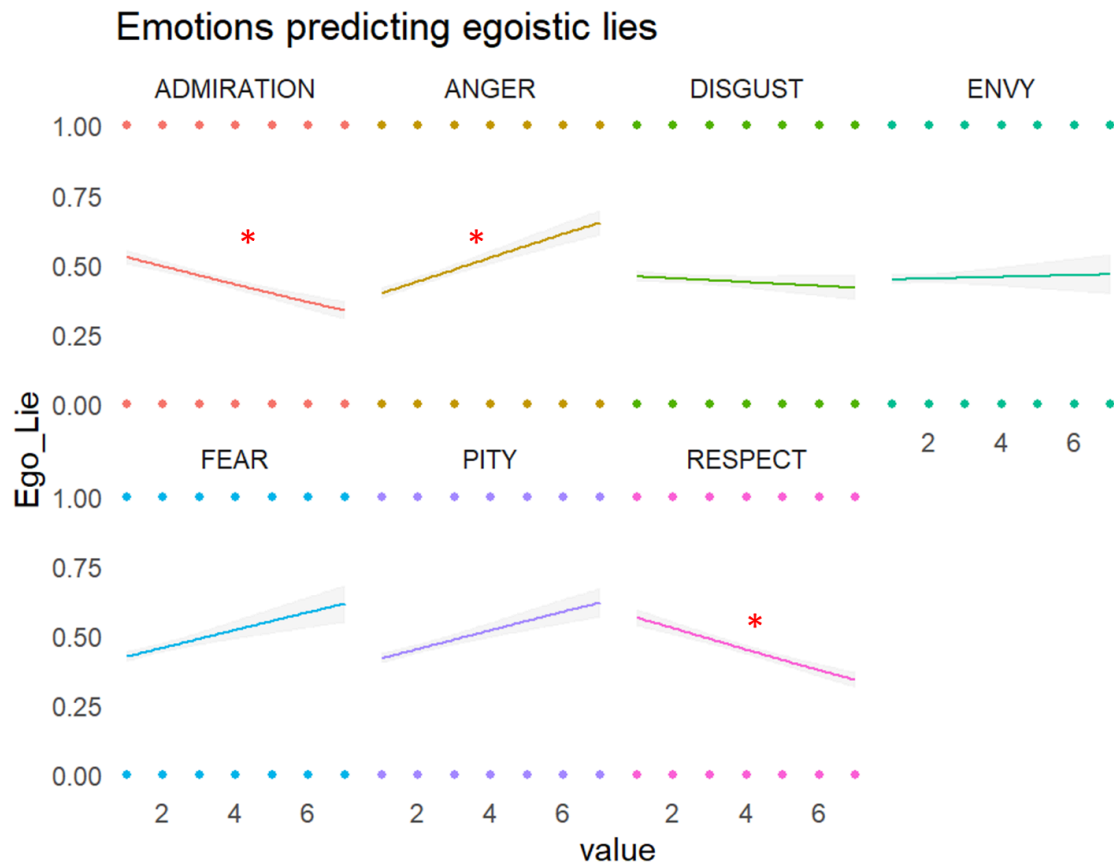
Using a similar approach, we investigated the impact of the emotions elicited by each profile on participants' tendency to lie to that profile for self-gain. Through separate

GLMMs, we observed that, after controlling for the effects of Status Level and Status Dimension, self-gain lies were positively related to ratings of evoked Anger ( $\chi^2 = 34.23$ ,  $p < .0001$ ) and negatively related to ratings of evoked Admiration ( $\chi^2 = 4.1802$ ,  $p < .05$ ) and Respect ( $\chi^2 = 8.9907$ ,  $p < .01$ ), see **Figure 7**.



**Figure 6** - Relationship between personality traits and egoistic (i.e., self-gain) lies in the TLCG. MIQ = Moral Identity Questionnaire, SDO = Social Dominance Orientation, SIMI = Self-Importance of Moral Identity, SSS = Subjective Social Status. Significant effects  $p < 0.05$ .





**Figure 7** - The relationship between emotions elicited by the characters (as measured in the Profile Questionnaire) and egoistic (i.e., self-gain) lies toward the same characters in the TLCG. Significant effects  $p < 0.05$ .

## Discussion

This preregistered study investigated whether individuals adjust their moral behavior based on the status of the recipient and the method by which that status was attained. We observed that participants were more likely to lie for self-gain to opponents who attained high status using dominance compared to their low and middle-status counterparts and compared to opponents who acquired high status through virtue. Along with previous research (Schepisi et al., 2020; Azevedo et al., 2017), this result highlights the relevance of the receiver's social identity in solving moral conflicts. As noted by Hester & Gray (2020), moral psychology, in the search for universal patterns of human ethical behavior, often overlooks the role played by the social identity of the characters, which instead plays a major role in moral judgment (see Rai & Fiske,

2011). Our work further expands this reasoning to first-person moral behaviors and reveals the key role of the receiver's status level and dimension on the production of self-serving lies.

Leading theories of status acquisition identified competence, dominance, and virtue as equally effective pathways "to the top" (Bai, Ho, & Yan, 2020; Cheng et al., 2013), which was confirmed in our study by the observation that status ratings did not vary between the experimental groups. We also confirmed the proposition that, while dominance may be effective for status acquisition, it is negatively evaluated (Cheng et al., 2013; Brand & Mesoudi, 2019) as it evoked more negative and less positive emotions. Our results take a step further and show that people who achieve status through dominance not only are liked less than those who chose the competence or virtue pathways but are also more likely to be deceived by others. This finding has important implications for educational and organizational research and practice, as students and employees might be more willing to lie to teachers and managers who adopt a dominant leadership style compared to prestigious ones (Van Vugt, 2006). Organizational and political psychology studies support the notion that dominant individuals can rise to leadership roles, especially in situations of conflict (Laustsen & Petersen, 2017). Nevertheless, people would not pick them as friends (Laustsen & Petersen, 2015), and they tend to lose influence over time (Redhead et al., 2019). In addition, exploitative acts performed by physically dominant individuals elicit more outrage (Jensen & Petersen, 2011), while high-status dominant actors are punished more harshly for their misconduct than their prestigious counterparts (Kakkar et al., 2020). In this context, the dominance strategy for attaining status and power can be seen as a risky one. By generating negative feelings among followers, it increases the likelihood of backlash or retaliation against the dominant individual whenever an opportunity arises. For example, an employee who has endured the mistreatment of a dominant boss might choose to retaliate by stealing something on their last day of work.

We further observed that dominant high-status characters elicited negative emotions (i.e., anger, disgust, and pity), while the virtuous and the competent ones elicited positive emotions (i.e., admiration, and respect). Importantly, while controlling for the effects of status level and dimension, ratings of anger predicted an increase in the likelihood of egoistic lies, while respect/admiration predicted their decrease. Thus, an anger-induced motivation to punish the dominant high-status may be the mechanism explaining our results. Although theories (Bai, Ho, & Liu, 2020; Bai, Ho, & Yan, 2020) predict that dominant individuals achieve status by instilling fear, our results indicate that the emotions that mostly distinguished the dominant from the competent

and virtuous high-status were anger, disgust, and pity (see Figure 4). In addition, ratings of evoked fear did not predict the occurrence of self-gain lies, while anger ratings did, suggesting that the observed effects are more likely to be explained by anger than fear. The absence of fear is not surprising, considering that the interaction took place online and that the dominant character posed no danger to the participants. Future research should try to replicate our study in in-person interactions, where fear may emerge in participants intimidated by dominant behaviors.

Contrary to our expectations, participants in the Competence group did not modulate their behavior depending on the opponent's status level, and there was no difference in the probability of self-gain lies between the competent and dominant high-status opponents. This finding can be explained by considering that competence-based status is afforded to individuals whose outstanding abilities either provide a direct benefit to the group (Anderson & Kilduff, 2009; Durkee et al., 2020; Boukarras et al., 2020) or can be transferred through social learning (Henrich & Gil-White, 2001). In our paradigm, the competent high-status skills were essentially irrelevant for the participants, who could neither benefit from nor learn them. Therefore, it seems that, while information regarding dominance- and virtue-related behaviors adopted by individuals in previous encounters (thus in a context that is irrelevant to the observer) weighs on moral decision-making, competence-related information does not.

Virtuous high-status targets received a significantly lower number of self-gain lies compared to all the other targets. Theories of status acquisition posit that competence leads to status through respect and virtue through admiration (Bai, Ho, & Yan, 2020), and previous experimental findings indicate that these two pathways do not interact with each other (Bai et al., 2020, Experiment 5). Our results do not support a full orthogonality, since the competent and virtuous high-status characters were rated as eliciting equal levels of respect and admiration. Rather, our findings are in line with other studies indicating that moral targets also elicit competence-respect in observers (Stellar & Willer, 2018) and that virtuous but incompetent employees are not afforded status by their managers (Bai et al., 2020 - Experiment 4), hinting to a cross-talk between respect and admiration.

One unexpected finding was that despite being provided with a dictionary-based definition of pity (see Table S2), participants consistently rated the dominant high status and the virtuous low status as eliciting high levels of this emotion. Previous work (Lazarus, 1991) defined pity as a feeling akin to disdain and contempt that entails a sense of false superiority built upon a mixture of condescension, insecurity, and distancing (Florian et al., 1999). In this sense, our results can be interpreted as an attempt by the participants to distance themselves from the two most negative characters.

This study has some limitations that should be noted. First, the use of vignettes describing behaviors that took place in a previous encounter may limit the procedure to one-shot, online situations. Future studies should try to replicate our findings in a face-to-face setting, where the behavior of the opponents is directly witnessed by the participants in an online or lab-based interaction. We also acknowledge that, although the three pathways to status can be conceived as independent, they are not mutually exclusive (Bai, Ho, & Yan, 2020). Indeed, characters seeking status exclusively through dominance, virtue, or competence, as described in our profiles, are unlikely to be encountered in real life, where a mixture of the three strategies, mostly depending on the context, is more probably employed. Nevertheless, our results highlight how specific behaviors ultimately leading to status are evaluated, and how these behaviors weigh on moral decision-making.

Supplementary materials are available at:

([https://osf.io/e5wz7/?view\\_only=72e96a6ccbc64cdc89cd8918a1874f1c](https://osf.io/e5wz7/?view_only=72e96a6ccbc64cdc89cd8918a1874f1c) ).

## **Research Transparency Statement**

Conflicts of interest: The authors declare no conflict of interest.

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Preregistration: The hypotheses and methods were preregistered ([https://osf.io/xjkfp/?view\\_only=42dffbed4bb94e8b98a047e7379d8539](https://osf.io/xjkfp/?view_only=42dffbed4bb94e8b98a047e7379d8539) ) on 2021-12-03, prior to data collection which began on 2021-12-07. The analysis plan was preregistered. There were no deviations from the preregistration.

Data: All primary data are publicly available ([https://osf.io/e5wz7/?view\\_only=72e96a6ccbc64cdc89cd8918a1874f1c](https://osf.io/e5wz7/?view_only=72e96a6ccbc64cdc89cd8918a1874f1c) ).

Analysis scripts: All analysis scripts are publicly available ([https://osf.io/e5wz7/?view\\_only=72e96a6ccbc64cdc89cd8918a1874f1c](https://osf.io/e5wz7/?view_only=72e96a6ccbc64cdc89cd8918a1874f1c) ).

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