Higher social class predicts increased unethical behavior

Paul K. Piff^{a,1}, Daniel M. Stancato^a, Stéphane Côté^b, Rodolfo Mendoza-Denton^a, and Dacher Keltner^a

^aDepartment of Psychology, University of California, Berkeley, CA 94720; and ^bRotman School of Management, University of Toronto, Toronto, ON, Canada M5S 3E6

Edited* by Richard E. Nisbett, University of Michigan, Ann Arbor, MI, and approved January 26, 2012 (received for review November 8, 2011)

Seven studies using experimental and naturalistic methods reveal that upper-class individuals behave more unethically than lower-class individuals. In studies 1 and 2, upper-class individuals were more likely to break the law while driving, relative to lower-class individuals. In follow-up laboratory studies, upper-class individuals were more likely to exhibit unethical decision-making tendencies (study 3), take valued goods from others (study 4), lie in a negotiation (study 5), cheat to increase their chances of winning a prize (study 6), and endorse unethical behavior at work (study 7) than were lower-class individuals. Mediator and moderator data demonstrated that upper-class individuals' unethical tendencies are accounted for, in part, by their more favorable attitudes toward greed.

socioeconomic status | immoral action | ethical judgment | self-interest

Which social class is the more likely provenance of unethical behavior, the upper class or the lower class? Examining how social class is associated with unethical behavior, or actions that harm others and are illegal or morally objectionable to one's community (1), would shed light on behaviors such as cheating, deception, or breaking the law that have important consequences for society. On the one hand, lower-class individuals live in environments defined by fewer resources, greater threat, and more uncertainty (2, 3). It stands to reason, therefore, that lower-class individuals may be more motivated to behave unethically to increase their resources or overcome their disadvantage.

A second line of reasoning, however, suggests the opposite prediction: namely, that the upper class may be more disposed to the unethical. Greater resources, freedom, and independence from others among the upper class give rise to self-focused social-cognitive tendencies (3–7), which we predict will facilitate unethical behavior. Historical observation lends credence to this idea. For example, the recent economic crisis has been attributed in part to the unethical actions of the wealthy (8). Religious teachings extol the poor and admonish the rich with claims like, "It will be hard for a rich person to enter the kingdom of heaven" (9). Building upon past findings, in the present investigation we tested whether upper-class individuals—relative to lower-class individuals—are more likely to engage in unethical behavior, and whether their attitudes toward greed might help explain this tendency.

Social class, or socioeconomic status (SES), refers to an individual's rank vis-à-vis others in society in terms of wealth, occupational prestige, and education (2, 3). Abundant resources and elevated rank allow upper-class individuals increased freedom and independence (4), giving rise to self-focused patterns of social cognition and behavior (3). Relative to lower-class individuals, upper-class individuals have been shown to be less cognizant of others (4) and worse at identifying the emotions that others feel (5). Furthermore, upper-class individuals are more disengaged during social interactions—for example, checking their cell phones or doodling on a questionnaire—compared with their lower-class peers (6).

Individuals from upper-class backgrounds are also less generous and altruistic. In one study, upper-class individuals proved more selfish in an economic game, keeping significantly more laboratory credits—which they believed would later be exchanged

for cash—than did lower-class participants, who shared more of their credits with a stranger (7). These results parallel nationwide survey data showing that upper-class households donate a smaller proportion of their incomes to charity than do lower-class households (10). These findings suggest that upper-class individuals are particularly likely to value their own welfare over the welfare of others and, thus, may hold more positive attitudes toward greed.

Greed, in turn, is a robust determinant of unethical behavior. Plato and Aristotle deemed greed to be at the root of personal immorality, arguing that greed drives desires for material gain at the expense of ethical standards (11, 12). Research finds that individuals motivated by greed tend to abandon moral principles in their pursuit of self-interest (13). In one study, a financial incentive caused people to be more willing to deceive and cheat others for personal gain (14). In another study, the mere presence of money led individuals to be more likely to cheat in an anagram task to receive a larger financial reward (1). Greed leads to reduced concern for how one's behavior affects others and motivates greater unethical action.

We reason that increased resources and independence from others cause people to prioritize self-interest over others' welfare and perceive greed as positive and beneficial, which in turn gives rise to increased unethical behavior. We predict that, given their abundant resources and increased independence, upper-class individuals should demonstrate greater unethical behavior and that one important reason for this tendency is that upper-class individuals hold more favorable attitudes toward greed.

We conducted seven studies using university, community, and nationwide samples to test this general prediction. Throughout this research, we sought to generalize our results across operationalizations of social class, using both self-report and objective assessments of unethical behavior, and while controlling for alternative explanations of the results concerned with characteristics related to social class (e.g., age, ethnicity, religiosity). In studies 1–3, we tested whether higher social class is linked to more unethical behaviors in naturalistic settings (behavior while driving) and unethical responding to various ethical judgments. In study 4, we extended our research by examining whether experimentally primed higher and lower social-class mindsets cause different levels of unethical judgment and behavior. In studies 5–7, we examined whether more positive attitudes toward greed help explain why higher social class relates to greater unethicality.

Results

Studies 1 and 2. Our first two studies were naturalistic field studies, and examined whether upper-class individuals behave

Author contributions: P.K.P., D.M.S., S.C., and D.K. designed research; P.K.P. and D.M.S. performed research; P.K.P. analyzed data; and P.K.P., D.M.S., S.C., R.M.-D., and D.K. wrote the paper.

The authors declare no conflict of interest.

^{*}This Direct Submission article had a prearranged editor.

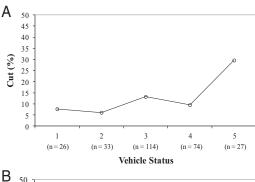
¹To whom correspondence should be addressed. E-mail: paulpiff@gmail.com.

This article contains supporting information online at www.pnas.org/lookup/suppl/doi:10. 1073/pnas.1118373109/-/DCSupplemental.

more unethically than lower-class individuals while driving. In study 1, we investigated whether upper-class drivers were more likely to cut off other vehicles at a busy four-way intersection with stop signs on all sides. As vehicles are reliable indicators of a person's social rank and wealth (15), we used observers' codes of vehicle status (make, age, and appearance) to index drivers' social class. Observers stood near the intersection, coded the status of approaching vehicles, and recorded whether the driver cut off other vehicles by crossing the intersection before waiting their turn, a behavior that defies the California Vehicle Code. In the present study, 12.4% of drivers cut in front of other vehicles. A binary logistic regression indicated that upper-class drivers were the most likely to cut off other vehicles at the intersection, even when controlling for time of day, driver's perceived sex and age, and amount of traffic, b = 0.36, SE b = 0.18, P < 0.05. Percentages of cars that cut off other vehicles as a function of vehicle status are shown in Fig. 1A.

In study 2, we tested whether upper-class drivers are more likely to cut off pedestrians at a crosswalk. An observer positioned himor herself out of plain sight at a marked crosswalk, coded the status of a vehicle, and recorded whether the driver cut off a pedestrian (a confederate of the study) attempting to cross the intersection. Cutting off a pedestrian violates California Vehicle Code. In this study, 34.9% of drivers failed to yield to the pedestrian. A binary logistic regression with time of day, driver's perceived age and sex, and confederate sex entered as covariates indicated that upperclass drivers were significantly more likely to drive through the crosswalk without yielding to the waiting pedestrian, b = 0.39, SE b = 0.19, P < 0.05. Percentages of cars that cut off the pedestrian as a function of vehicle status are shown in Fig. 1B.

Study 3. Study 3 extended these findings by using a more direct measure of social class and assessing tendencies toward a variety of unethical decisions. Participants read eight different scenarios that implicated an actor in unrightfully taking or benefiting from something, and reported the likelihood that they would engage



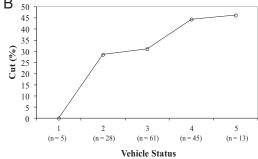


Fig. 1. Percentage of cars that cut off (i) other vehicles at the four-way intersection (from study 1) (A) or (ii) the pedestrian at the crosswalk (from study 2) (B), as a function of vehicle status (1 = lowest status, 5 = highest status).

in the behavior described (16). Participants also reported their social class using the MacArthur scale of subjective SES (2). This measure parallels objective, resource-based measures of social class in its relationship to health (2), social cognition (4), and interpersonal behavior (7). As hypothesized, social class positively predicted unethical decision-making tendencies, even after controlling for ethnicity, sex, and age, b=0.13, SE b=0.06, t (103) = 2.05, P<0.04. These results suggest that upper-class individuals are more likely to exhibit tendencies to act unethically compared with lower-class individuals.

Study 4. Study 4 sought to provide experimental evidence that the experience of higher social class has a causal effect on unethical decision-making and behavior. We adopted a paradigm used in past research to activate higher or lower social-class mindsets and examine their effects on behavior (5, 7). Participants experienced either a low or high relative social-class rank by comparing themselves to people with the most (least) money, most (least) education, and most (least) respected jobs. Participants also rated their position in the socioeconomic hierarchy relative to people at the very top or bottom. This induction primes subjective perceptions of relatively high or low social-class rank. In this prior research, as expected, manipulations of perceived social-class rank influenced generosity (7) and the ability to identify others' emotions (5). Participants completed a series of filler measures, which included the measure of unethical decision-making tendencies used in study 3 (16). Our main dependent variable was a behavioral measure of unethical tendencies. Specifically, at the end of the study, the experimenter presented participants with a jar of individually wrapped candies, ostensibly for children in a nearby laboratory, but informed them that they could take some if they wanted. This task was adapted from prior research on entitlement (17) and served as our measure of unethical behavior because taking candy would reduce the amount that would otherwise be given to children. Participants completed unrelated tasks and then reported the number of candies they had taken.

The manipulation of social-class rank was successful: Participants in the upper-class rank condition (M=6.96) reported a social-class rank significantly above participants in the lower-class rank condition (M=6.00), t(127)=3.51, P<0.01, d=0.62. Central to our hypothesis, participants in the upper-class rank condition took more candy that would otherwise go to children (M=1.17) than did those in the lower-rank condition (M=0.60), t(124)=3.18, P<0.01, d=0.57. Furthermore, replicating the findings from study 3, those in the upper-rank condition also reported increased unethical decision-making tendencies (M=4.29) than participants in the lower-class rank condition (M=3.90), t(125)=2.31, P<0.03, d=0.41. These results extend the findings of studies 1–3 by suggesting that the experience of higher social class has a causal relationship to unethical decision-making and behavior.

Study 5. Study 5 focused on positive attitudes toward greed as one mediating mechanism to explain why people from upper-class backgrounds behave in a more unethical fashion. Participants took part in a hypothetical negotiation, assuming the role of an employer tasked with negotiating a salary with a job candidate seeking long-term employment (14). Participants were given several pieces of information, including the fact that the job would soon be eliminated. Participants reported the percentage chance they would tell the job candidate the truth about job stability. Participants also reported their social class using the MacArthur scale (2) and completed a measure of the extent to which they believed it is justified and moral to be greedy (18).

We first tested the associations between social class, attitudes toward greed, and probability of telling the job candidate the truth, while accounting for participant age, sex, and ethnicity, as well as religiosity and political orientation, variables that can influence unethical behavior (19). Social class negatively predicted probability of telling the truth, b = -4.55, SE b = 1.90, t(103) = -2.39, P < 0.02, and positively predicted favorable attitudes toward greed, b = 0.16, SE b = 0.04, t(103) = 3.54, P <0.01. In addition, favorable attitudes toward greed negatively predicted probability of telling the truth, b = -12.29, SE b =3.93, t(100) = -3.12, P < 0.01. Testing our mediational model, when social class and attitudes toward greed were entered into a linear regression model predicting probability of telling the job candidate the truth, social class was no longer significant, b = -2.43, SE b = 1.87; t(101) = -1.30, P = 0.20, whereas attitudes toward greed were a significant predictor, b = -11.41, SE b = 3.81; t(101) = -3.00, P < 0.01. Using the bootstrapping method (with 10,000 iterations) recommended by Preacher and Hayes (20), we tested the significance of the indirect effect of social class on probability of telling the truth through attitudes toward greed. The 95% confidence interval for the indirect effect did not include zero (range: -3.7356 to -0.6405), suggesting that upper-class individuals are prone to deception in part because they view greed in a more positive light.

Study 6. Study 6 extended these findings to actual cheating behavior. Participants played a "game of chance," in which the computer presented them with one side of a six-sided die, ostensibly randomly, on five separate rolls. Participants were told that higher rolls would increase their chances of winning a cash prize and were asked to report their total score at the end of the game. In fact, die rolls were predetermined to sum up to 12. The extent to which participants reported a total exceeding 12 served as a direct behavioral measure of cheating. Participants also completed the measures of social class (2) and attitudes toward greed (18) that we used in study 5.

Controlling for participant age, sex, ethnicity, religiosity, and political orientation, social class positively predicted cheating, $\hat{b} = 0.22$, SE b = 0.11, t(181) = 1.98, P < 0.05, and more favorable attitudes toward greed, b = 0.06, SE b = 0.03, t(186) =2.22, P < 0.03. In addition, attitudes toward greed predicted cheating behavior, b = 0.61, SE b = 0.29, t(180) = 2.36, P < 0.02. When social class and attitudes toward greed were entered into a linear-regression model predicting cheating behavior, social class was no longer a significant predictor, b = 0.16, SE b = 0.11, t(185) = 1.50, P = 0.14, whereas attitudes toward greed significantly predicted cheating, b = 0.68, SE b = 0.27, t(185) = 2.50, P < 0.02. The Preacher and Hayes (20) bootstrapping technique (with 10,000 iterations) produced a 95% confidence interval for the indirect effect that did not include zero (range: 0.0005-0.3821). These results further suggest that more favorable attitudes toward greed among members of the upper class explain, in part, their unethical tendencies.

Study 7. To further understand why upper-class individuals act more unethically, study 7 examined whether encouraging positive attitudes toward greed increases the unethical tendencies of lower-class individuals to match those of their upper-class counterparts. When the benefits of greed were not mentioned, we expected that upper-class individuals would display increased unethical tendencies compared with lower-class individuals, as in the previous studies. However, when the benefits of greed were emphasized, we expected lower-class individuals to be as prone to unethical behavior as upper-class individuals. These findings would reveal that one reason why lower-class individuals tend to act more ethically is that they hold relatively unfavorable attitudes toward greed (and, conversely, that one reason why upperclass individuals tend to act more unethically is that they hold relatively favorable attitudes toward greed).

Participants listed either three things about their day (neutral prime) or three benefits of greed (greed-is-good prime). Participants then responded to a manipulation check assessing their attitudes toward greed before completing a measure of their propensity to engage in unethical behaviors at work, such as stealing cash, receiving bribes, and overcharging customers (21). Participants also reported their social class using the previously described MacArthur measure (2).

As expected, participants primed with positive features of greed expressed more favorable attitudes toward greed (M =3.12) compared with participants in the neutral-prime condition (M = 2.42), t(87) = 2.72, P < 0.01, d = 0.58. Our central prediction was that the manipulation of attitudes toward greed would moderate the relationship between social class and unethical behavior. To test this theory, we regressed the measure of unethical behavior on social class, the greed manipulation, and their interaction, while controlling for age, ethnicity, sex, religiosity, and political orientation. Results yielded a significant effect for social class, such that upper-class participants reported more unethical behavior than lower-class participants, b = 0.13, SE b = 0.07, t(84) = 2.00, P < 0.05, and a significant effect for the greed manipulation, such that participants primed with positive features of greed reported more unethical behavior than neutral-primed participants, b = 0.38, SE b = 0.18, t(84) = 2.18, P < 0.04. These effects were qualified by the predicted significant interaction between social class and the greed manipulation, b = -0.24, SE b = 0.18, t(84) = -2.34, P < 0.03. As shown in Fig. 2, in the neutral-prime condition, upper-class participants reported significantly more unethical behavior relative to lowerclass participants, t(45) = 2.04, P < 0.05. However, when participants were primed with positive aspects of greed, lower-class participants exhibited high levels of unethical behavior comparable to their upper-class counterparts, t(38) = -1.42, P = 0.17.

Together, the findings we observed in study 7 indicate that priming the positive features of greed moderates class-based differences in unethical behavior. Importantly, lower-class individuals were as unethical as upper-class individuals when instructed to think of greed's benefits, suggesting that upper- and lower-class individuals do not necessarily differ in terms of their capacity for unethical behavior but rather in terms of their default tendencies toward it.

Discussion

The results of these seven studies provide an answer to the question that initiated this investigation: Is society's nobility in fact its most noble actors? Relative to lower-class individuals, individuals from upper-class backgrounds behaved more unethically in both naturalistic and laboratory settings. Our confidence in these findings is bolstered by their consistency across operationalizations of social class, including a material symbol of social class identity (one's vehicle), assessments of subjective SES, and a manipulation of relative social-class rank, results that

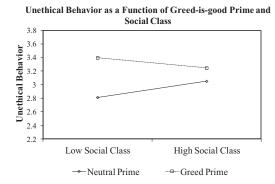


Fig. 2. The relationship between social class and propensity for unethical behavior, moderated by the greed-is-good prime (from study 7).

point to a psychological dimension to higher social class that gives rise to unethical action. Moreover, findings generalized across self-report and objective assessments of unethical behavior and in both university and nationwide samples.

Why are upper-class individuals more prone to unethical behavior, from violating traffic codes to taking public goods to lying? This finding is likely to be a multiply determined effect involving both structural and psychological factors. Upper-class individuals' relative independence from others and increased privacy in their professions (3) may provide fewer structural constraints and decreased perceptions of risk associated with committing unethical acts (8). The availability of resources to deal with the downstream costs of unethical behavior may increase the likelihood of such acts among the upper class. In addition, independent self-construals among the upper class (22) may shape feelings of entitlement and inattention to the consequences of one's actions on others (23). A reduced concern for others' evaluations (24) and increased goal-focus (25) could further instigate unethical tendencies among upper-class individuals. Together, these factors may give rise to a set of culturally shared norms among upperclass individuals that facilitates unethical behavior.

In the present research we focused on a values account, documenting how upper-class individuals' more favorable attitudes toward greed can help explain their propensity toward unethical behavior. Such attitudes among the upper class are likely to be themselves multiply determined as well. Our prior work shows that increased resources and reduced dependency on others shape self-focused social-cognitive tendencies (3, 5–7), which may give rise to social values that emphasize greed as positive. Furthermore, economics education, with its focus on self-interest maximization, may lead people to view greed as positive and beneficial (26, 27). Upper-class individuals, who may be more likely to serve as leaders in their organizations (2), may also be more likely to have received economics-oriented training and to work in settings that hone self-interest. These factors may promote values among the upper class that justify and even moralize positive beliefs about greed.

The current findings should be interpreted within the confines of certain caveats and with suggested directions for future research. Importantly, there are likely to be exceptions to the trends we document in the current investigation. There are notable cases of ethical action among upper-class individuals that greatly benefited the greater good. Examples include whistle-blowing by Cynthia Cooper and Sherron Watkins, former Vice Presidents at Worldcom and Enron, respectively, and the significant philanthropy displayed by such individuals as Bill Gates and Warren Buffet. There are also likely to be instances of lower-class individuals exhibiting unethical tendencies, as research on the relationship between concentrations of poverty and violent crime indicates (28). These observations suggest that the association between social class and unethicality is neither categorical nor essential, and point to important boundary conditions to our findings that should be examined in future investigations.

"From the top to the bottom of the ladder, greed is aroused," Durkheim famously wrote (29). Although greed may indeed be a motivation all people have felt at points in their lives, we argue that greed motives are not equally prevalent across all social strata. As our findings suggest, the pursuit of self-interest is a more fundamental motive among society's elite, and the increased want associated with greater wealth and status can promote wrongdoing. Unethical behavior in the service of self-interest that enhances the individual's wealth and rank may be a self-perpetuating dynamic that further exacerbates economic disparities in society, a fruitful topic for the future study of social class.

Methods

Study 1. Participants. The behavior of 274 drivers of vehicles at a busy four-way intersection in the San Francisco Bay Area yielded the data for study 1.

Procedure. Coding of driving behavior took place at a four-way intersection, with stop signs on all sides, on two consecutive Fridays in June 2011, from \sim 3:00 PM to 6:00 PM. Two separate teams of two coders (blind to the hypotheses of the study) stationed themselves out of drivers' sight at opposite corners of the intersection. From their respective highways, each coding team selected an approaching vehicle in a quasirandom fashion and coded the characteristics of the vehicle and driver before it reached the stop sign (a photo of the intersection is presented in Fig. 3). Coders rated each vehicle's status (1 = low status, 5 = high status) by taking into account its make (e.g., Mercedes, Toyota), age, and physical appearance (M = 3.16, SD = 1.07). A breakdown of the vehicles in the current study by vehicle status is presented in Table S1. Coders also noted the vehicle driver's perceived sex (0 = male, 1 = female; 175 female, 99 male) and age (1 = 16-35 y, 2 = 36-55 y, 3 = 56 y and up; M = 1.70, SD = 0.59), the time of day (M = 3:40 PM, SD = 38 min), and—to index the amount of traffic—the number of highways in the intersection with vehicles already stopped in them when the target vehicle arrived at the intersection. A maximum of three other highways could be coded as having cars in them (M = 2.69, SD = 0.50). Procedures for assessing the reliability of codes are presented in SI Text. Once the target vehicle came to a complete stop, coders observed whether or not the vehicle's driver cut in front of other vehicles at the intersection (0 = no cut, 1 = cut). California Vehicle Code states that vehicles approaching an intersection should yield the right-ofway to any vehicle that has already arrived at the intersection from a different highway (30). To reduce coding demands, each team produced one set of agreed-upon codes. The number of vehicles that did and did not cut off other vehicles as a function of vehicle status is presented in the left hand columns of Table S1. Zero-order and partial correlations between vehicle status and cutting off other vehicles are shown in Table S2.

Study 2. Participants. The behavior of 152 drivers of vehicles that approached a pedestrian crosswalk of a busy throughway in the San Francisco Bay Area provided the data for study 2.

Procedure. Coding took place from \sim 2:00 PM to 5:00 PM on three weekdays in June 2011, at an unprotected but marked crosswalk of a busy one-way road. A coder (blind to the hypotheses of the study) positioned him- or herself near the crosswalk, beyond drivers' direct line of sight, and recorded whether an approaching vehicle yielded for a pedestrian—a confederate of the study—who was waiting to cross (a photo series depicting the procedure is presented in Fig. 4). Sex of the confederate was alternated. Paralleling study 1, the coder rated the perceived status of an approaching vehicle using its make, age, and physical appearance (1 = low status, 5 = high status; M = 3.22, SD = 0.96). A breakdown of the vehicles in the current study by vehicle status is presented in Table S1. Coders also noted the vehicle driver's sex

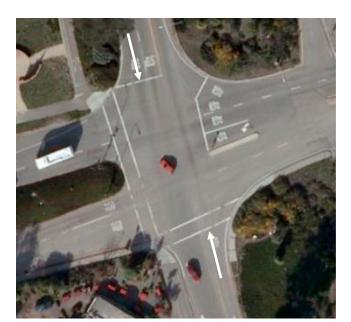


Fig. 3. Aerial view of four-way intersection (from study 1). White arrows depict highways used by coders to code driver behavior at the intersection (image courtesy of © 2011 Google Maps).







Fig. 4. Photo series depicting crosswalk from study 2 with confederate posing as a pedestrian approaching (Top) and standing at crosswalk (Middle) as target vehicle fails to yield (Bottom).

(0 = male, 1 = female; 72 female, 80 male) and age (1 = 16-35 y, 2 = 36-55 y, 3)= 56 y and up; M = 1.66, SD = 0.69); the time of day (M = 3:12 PM, SD = 49 min); whether the driver indicated having seen the pedestrian by directing his or her gaze toward the pedestrian or briefly decelerating (all drivers were coded as having seen the pedestrian); and the sex of the confederate (0 = male, 1 = female; 49 female, 103 male). Finally, coders observed whether the driver yielded the right-of-way or cut off the pedestrian (0 = yield, 1 = cut). According to California Vehicle Code, a driver must yield the right-ofway to a pedestrian crossing the roadway within any marked crosswalk (30). We also held constant several factors that might otherwise confound the results. First, we only coded vehicles in the lane closest to the pedestrian. Second, only vehicles that approached the crosswalk when the confederate was the sole pedestrian were coded. Third, only after a vehicle crossed a designated point on the road ~15 m from the crosswalk did the pedestrian enter the beginning of the crosswalk and look toward the oncoming vehicle, thereby signaling his or her intent to cross. Fourth, a vehicle was only coded if there were no other vehicles in front of it when it passed the designated point on the road. The number of vehicles that did and did not yield for the pedestrian as a function of vehicle status is presented in the right hand columns of Table S1. Zero-order and partial correlations between vehicle status and cutting off the pedestrian are shown in Table S3.

Study 3. Participants. One-hundred five University of California at Berkeley undergraduates (43 female; age 18–36 y, M = 20.33, SD = 2.52) provided informed consent and completed a survey in the laboratory in exchange for course credit. Of these, 37 participants selected European American as comprising their ethnic background, 4 selected African American, 15 selected Latino, 50 selected Asian American, 2 selected Native American, and 11 selected Other. The sum of these values exceeds 105 because participants could select multiple categories (this was also true in studies 4-7). Given that European Americans were the largest represented ethnic category in the majority of the current studies (studies 5-7), and to parallel precedent in prior social-class research (4, 7), in study 3, as in subsequent studies, ethnicity was coded as 1 = European-American and 0 = non-European American. We repeated the analyses with two different coding schemes, one contrasting Asians to non-Asians (1 = Asian and 0 = non-Asian), and one with a dummy code for each ethnic category represented (with European-American as the comparison category); the results in study 3 and subsequent studies were virtually the same.

Procedure. Participants accessed the study via a private computer terminal and completed filler measures and the measure of unethical decision-making tendencies (16). Participants were presented with eight hypothetical scenarios describing an unethical behavior and rated how likely they would be to engage in the behavior described (1 = not at all likely, 7 = highly likely; M = 4.39, SD = 1.08, $\alpha = 0.68$). The items and information regarding the validity of this measure is presented in SI Text. Participants also completed demographics, including the measure of social class: the MacArthur Scale of subjective SES (2, 7). In this measure, participants are presented with a figure of a ladder containing 10 rungs representing people with different levels of education, income, and occupational prestige. Participants are asked to think of people at the top of the ladder as "those who are the best off, have the most money, most education, and best jobs," whereas the people at the bottom of the ladder are "those who are the worst off, have the least money, least education, and worst jobs or no job." Participants then select a rung that represents where they perceive they stand relative to others (M = 6.30, SD = 1.72). This measure predicts patterns in health (2), social cognition (4), and interpersonal behavior (7), consistent with objective, resource based measures of social class (e.g., wealth, educational attainment). Zero-order and partial correlations between social class and unethical decision making are shown in Table S4.

Study 4. Participants. One-hundred twenty-nine University of California at Berkeley undergraduates (85 female; age 18–27, M = 20.07, SD = 1.67) completed a study in the laboratory in exchange for course credit. Of these, 34 participants selected European American as comprising their ethnic background, four selected African American, 16 selected Latino, 73 selected Asian American, 1 selected Native American, and 12 selected Other (one unreported).

Procedure. Participants accessed the survey via a private computer terminal and completed the manipulation of social-class rank. Participants were shown an image of a ladder with 10 rungs representing where people stand socioeconomically in the United States. Participants were then randomly assigned to compare themselves to those at the very bottom or top of the ladder by indicating where they stand economically relative to these people, and to write a brief description of how an interaction with one of these individuals might go (for complete instructions see SI Text). After the manipulation, participants completed a filler task, which was followed by the measure of unethical decision-making tendencies used in study 3 (M = 4.11, SD = 0.97, α = 0.66) (16). Participants then completed demographics before notifying the experimenter. The experimenter (blind to condition) asked the participants to wait in the hall as the experimenter purportedly set up the second part of the study. At this time, the experimenter presented participants with a jar of individually wrapped candies that, participants were told, were intended for children participating in studies in a nearby laboratory (17). The experimenter told participants that they could take some if they wanted. The jar contained $\sim\!40$ pieces of candy and was labeled with a note stating that it was to be taken to a specific child-research laboratory. The experimenter then left the participants alone with the candy jar for ~30 s to set up the second part of the study. Participants then reentered the laboratory and completed some unrelated tasks on the computer before reporting how many pieces of candy they had taken (M = 0.91, SD = 1.05).

Study 5. Participants. One-hundred eight adults (61 female, 1 unreported; age 18-82, M = 35.87, SD = 13.62) completed an online study via Amazon's Mechanical Turk (MTurk), a Web site that features a nationwide participant pool for online data collection. Of these, 80 participants selected European American as comprising their ethnic background, 6 selected African American, 9 selected Latino, 14 selected Asian American, 6 selected Native American, and 4 selected Other.

Procedure. Participants accessed the study via a survey link and were presented with instructions for a hypothetical negotiation (14). Participants were asked to imagine that they were an employer tasked with negotiating a low salary with a job candidate. Participants were told that the position was certain to be eliminated in 6 mo but that the candidate, who desired to maintain the job for at least 2 y, was not aware of this (complete instructions are presented in SI Text). Participants were then asked, "What is the percentage chance that you will tell the job candidate that the position is certain to be eliminated in 6 months if she/he specifically asks about job security?" (14). Participants responded by clicking and dragging a slider to a value between 0% and 100% (M = 62.30, SD = 31.03). Next, participants completed demographics, including measures of religiosity (1 = not at all religious, 7 = deeply religious; M = 3.45, SD = 2.09) and political orientation (1 = extremely liberal, 7 = extremely conservative; M = 3.76, SD = 1.69), and the MacArthur Scale of subjective SES to index social class (M = 5.35, SD = 1.65) (2). Finally, participants rated their agreement with seven items that assessed the extent to which they endorsed beliefs that greed is justified, beneficial, and moral (1 = strongly disagree, 7 = strongly agree; M = 3.67, SD = 0.80, $\alpha = 0.61$) (18). The complete list of items is presented in SI Text. Zero-order and partial correlations between social class, attitudes toward greed, and probability of telling the truth are shown in Table S5.

Study 6. *Participants.* One-hundred ninety-five adults (129 female, 6 unreported; age 18–72, M = 33.82, SD = 13.26) responded to an advertisement on Craigslist, an online community forum, and received an invitation to complete an on-line study for a chance to win a \$50 gift certificate toward an online retailer. Of these, 141 participants selected European American as comprising their ethnic background, 11 selected African American, 12 selected Latino, 17 selected Asian American, 21 selected Native American, and 19 selected Other (two unreported).

Design and procedure. Participants took part in a game of chance in which they were told that the survey software would "roll" a die for them five times by randomly displaying one side of a six-sided die. Participants were informed that for every five points rolled, they would be awarded a credit (in addition to the one received for their participation) toward the \$50 prize drawing, and that remaining points would be rounded up or down to the nearest multiple of five. Participants were also told that because the experimenters had no way of ascertaining their individual rolls, they would be asked to report their total for all five rolls at the end of the game. In fact, the "rolling" of the die was predetermined such that all participants received a 3

- Gino F, Pierce L (2009) The abundance effect: Unethical behavior in the presence of wealth. Organ Behav Hum Dec 109:142–155.
- Adler NE, Epel ES, Castellazzo G, Ickovics JR (2000) Relationship of subjective and objective social status with psychological and physiological functioning: Preliminary data in healthy white women. Health Psychol 19:586–592.
- Kraus MW, Piff PK, Keltner D (2011) Social class as culture: The convergence of resources and rank in the social realm. Curr Dir Psychol Sci 20:246–250.
- Kraus MW, Piff PK, Keltner D (2009) Social class, sense of control, and social explanation. J Pers Soc Psychol 97:992–1004.
- Kraus MW, Côté S, Keltner D (2010) Social class, contextualism, and empathic accuracy. Psychol Sci 21:1716–1723.
- 6. Kraus MW, Keltner D (2009) Signs of socioeconomic status: A thin-slicing approach. *Psychol Sci* 20:99–106.
- Piff PK, Kraus MW, Côté S, Cheng BH, Keltner D (2010) Having less, giving more: The influence of social class on prosocial behavior. J Pers Soc Psychol 99:771–784.
- Galperin BL, Bennett RJ, Aquino K (2011) Status differentiation and the protean self:
 A social-cognitive model of unethical behavior in organizations. J Bus Ethics 98: 407–424.
- 9. The Holy Bible. Matthew 19:23–24.
- Independent Sector (2002) Giving and Volunteering in the United States (Independent Sector, Washington, DC).
- 11. Shklar JN (1990) The Faces of Injustice (Yale Univ Press, New Haven, CT).
- 12. Wang L, Murnighan JK (2011) On greed. Acad Manage Ann 5:279–316.
- Steinel W, De Dreu CKW (2004) Social motives and strategic misrepresentation in social decision making. J Pers Soc Psychol 86:419–434.
- Aquino K, Freeman D, Reed A, II, Felps W, Lim VK (2009) Testing a social-cognitive model of moral behavior: The interactive influence of situations and moral identity centrality. J Pers Soc Psychol 97:123–141.
- Frank RJ (1999) Luxury Fever: Why Money Fails to Satisfy in an Era of Excess (Free Press. New York. NY).

on their first roll, a 1 on their second, a 2 on their third, a 2 on their fourth, and a 4 on their fifth (totaling a score of 12, or two extra credits, with two leftover points). Our measure of cheating was the extent to which a participant's reported total exceeded 12. In the present study, 31 participants reported total rolls exceeding 12. The average amount of cheating was M=0.85 (SD = 2.78). Participants then completed various self-report measures, including measures of religiosity (1 = not at all religious, 7 = 1.5 + 1.5 = 1

Study 7. Participants. Ninety participants (53 female, 1 unreported; age 15-79, M = 34.97, SD = 13.58) completed an on-line study via Amazon's Mechanical Turk (MTurk). Seventy participants selected European American as comprising their ethnic background, five selected African American, three selected Latino, seven selected Asian American, six selected Native American, and six selected Other. Procedure. Participants were randomly assigned to one of two priming conditions. In the greed-is-good priming condition, participants were instructed to think about and list three ways in which greed could be beneficial. In the neutral-prime condition, participants were instructed to think about and list three activities they did during an average day (complete instructions for the manipulation are shown in SI Text). Participants then answered five items assessing their positive beliefs about greed (1 = strongly disagree, 7 = strongly agree; M = 2.74, SD = 1.26, α = 0.92; the list of items is shown in SI Text). Participants then responded to a 12-item subset of the Propensity to Engage in Unethical Behavior scale (21), indicating how likely they would be to engage in a variety of unethical behaviors at work (1 = very unlikely, 7 = very likely; M = 2.26, SD = 0.97, $\alpha = 0.89$; all items are presented in *SI Text*). Participants then completed demographics, including measures of religiosity (1 = not at all religious, 7 = deeply religious; M = 3.56, SD = 1.09) and political orientation (1 = extremely liberal, 7 = extremely conservative; M = 3.48, SD = 1.73), and the MacArthur scale of subjective SES to index social class (M = 5.40, SD = 1.77).

ACKNOWLEDGMENTS. We thank Pia Dietze, Nicholas Durant, Mikhaella Hodges, Sharon Hou, Nadine Lueras-Tramma, Matthew Lupoli, and Stacy Zhong for their help with data collection. P.K.P. was supported by a National Science Foundation Graduate Research Fellowship.

- Detert JR, Treviño LK, Sweitzer VL (2008) Moral disengagement in ethical decision making: A study of antecedents and outcomes. J Appl Psychol 93:374–391.
- Campbell WK, Bonacci AM, Shelton J, Exline JJ, Bushman BJ (2004) Psychological entitlement: Interpersonal consequences and validation of a self-report measure. J Pers Assess 83:29–45.
- Yamagishi T, Sato K (1986) Motivational bases of the public goods problem. J Pers Soc Psychol 50:67–73.
- Kennedy EJ, Lawton L (1998) Religiousness and business ethics. J Bus Ethics 17: 163–175.
- Preacher KJ, Hayes AF (2008) Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. Behav Res Methods 40:879–891.
- Chen YJ, Tang TLP (2006) Attitude toward and propensity to engage in unethical behavior: Measurement invariance across major among university students. J Bus Ethics 69:77–93.
- Snibbe AC, Markus HR (2005) You can't always get what you want: Educational attainment, agency, and choice. J Pers Soc Psychol 88:703–720.
- Fiske ST (1993) Controlling other people: The impact of power on stereotyping. Am Psychol 48:621–628.
- Galinsky AD, Magee JC, Gruenfeld DH, Whitson JA, Liljenquist KA (2008) Power reduces the press of the situation: Implications for creativity, conformity, and dissonance. J Pers Soc Psychol 95:1450–1466.
- 25. Guinote A (2007) Power and goal pursuit. Pers Soc Psychol Bull 33:1076–1087.
- Frank RH, Gilovich T, Regan D (1993) Does studying economics inhibit cooperation? J Econ Perspect 7:159–171.
- Wang L, Malhotra D, Murnighan JK (2011) Economics education and greed. Acad Manag Learn Educ 10:643
 –660.
- Sampson RJ, Raudenbush SW, Earls F (1997) Neighborhoods and violent crime: A multilevel study of collective efficacy. Science 277:918–924.
- 29. Durkheim E (1951) Suicide: A Study in Sociology (Free Press, New York, NY).
- California DMV (2012) California Vehicle Code. Retrieved from http://www.dmv.ca. gov/pubs/veh_code.pdfAccessed January 1, 2012.