Social class and (un)ethical behavior: Causal versus correlational evidence

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December 12, 2019

Abstract

Are upper class individuals less ethical? Highly popularized research findings support this notion. This paper provides a novel test to evaluate the relationship between social status and ethical behavior. We successfully prime a large heterogeneous sample of the German population as either high or low social status. We then elicit ethical behavior in an incentivized experimental task. Thus, our data allows us to study both correlation (using demographic data) and causality (using the priming). We find no evidence of higher social status individuals being less ethical as prominently suggested by the literature. This result holds both for a respondent's true social status and for her primed subjective social status. Our findings call for a re-interpretation of the existing evidence.

KEYWORDS: social class, ethics, cheating, mind game, priming

JEL CLASSIFICATIONS: D63, D31

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We thank seminar audiences at the Max-Planck Institute in Bonn, the WU Vienna, Renmin University of China, Beijing Information Science & Technology University, and participants of the Barcelona GSE Summer Forum, the 10th International Conference of the French Association of Experimental Economics (*ASFEE*) in Toulouse, the 17th eeecon Workshop at the University of Innsbruck and the 2nd Cherry Blossom Experimental Economics Workshop in Wuhan for very helpful comments.

In March 2019, a college admission scandal in the U.S. revealed extremes of unethical behavior by wealthy Americans, including numerous prominent CEOs, entrepreneurs, investors and celebrities. Desperate about getting their children into a top-drawer college, they paid millions in bribes for admission.[1] At the same time, the U.S. is suffering from huge wealth inequality and ever soaring fortunes of the rich and wealthy, amongst others, due to tax cuts disproportionally benefiting the most affluent Americans.[2] It should not come as a surprise that recent scandals and the growing gap between the rich and poor is fueling public opinion in America. For example, a study by the PEW Research Center found that many Americans believe the rich and upper-class individuals to be different from other people. They are viewed as more unethical, greedier and less honest.[3] Similar views are observed in other countries.[4]

In the context of such events uncovering questionable behavior by members of the elite, the relationship between social class and unethical behavior has received much public and scholarly attention by psychologists and economists alike (e.g., Andreoni et al., 2017; Manstead, 2018). Scientific support for unethical behavior of the elites has strong political ramifications. It implies, for example, that societies may want to more actively counteract and punish unethical behavior by the elites, as well as respond to the resulting misallocation of benefits and resources, for instance, in terms of wealth, access to education, or access to health services. But do the stereotypes about members of the upper class reflect actual behavior?

A surprising difference between causal studies on the one hand and correlational studies on the other hand has emerged in the context of the relationship between status and ethical behavior. While studies using a priming technique to establish causality have typically reported that individuals from higher social class are less ethical than individuals from lower social class (Piff et al., 2010; Piff et al., 2012; Guinote et al., 2014; Dubois et al., 2015; Côté et al., 2015), correlational studies using objective status indicators like income, wealth or education have typically reported that individuals from higher social class are equally or more ethical than individuals from lower social class (Trautmann et al., 2013; Korndörfer et al., 2015; Smeets et al., 2015; Minah et al., 2018; Schmukle et al., 2019). Importantly, both

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[2] Lydia DePillis, 2019. CNN, April 15. Retrieved September 19, 2019, from: https://edition.cnn.com/2019/04/15/economy/trump-tax-cuts-impact-economy/index.html

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results can simultaneously be valid. It is in principle conceivable that societal mechanisms work in a way that more ethical individuals are selected into higher status positions, but, when moving up the social ladder, give up their ethical standards to some degree. Unfortunately, controlled priming experiments are difficult to implement on large representative panels with substantial variation in status indicators. As a result, no study has been so far able to simultaneously look at primed and real status effects. We aim to provide such evidence by using a survey experiment.

The current study uses an experimental task that allows eliciting unethical behavior on a large and heterogeneous sample of the German population. Participants are randomly allocated to a high or a low status priming condition, using an established priming manipulation (Piff et al., 2010). Additionally, rich background information on participants is available that allows for an assessment of their real social status (we focus on income as a status indicator). The experimental task used here confronts participants with an individual decision in which they can increase their experimental earnings through non-detectable misreporting of a privately selected letter in a computerized Wheel of Fortune game. The game allows for a fine-grained degree of ethical violation. The individual nature of the game prevents confounding ethical behavior with social behavior, which depends on possible differences in equity norms among different social status groups. The large number of participants (especially compared to previous priming studies) ensures substantial statistical power and the opportunity to identify economically meaningful effects. Sufficient statistical power is especially important given the problematic interpretation of potentially failed priming attempts: it is then unclear whether the effect was not detected, whether the effect is absent, or whether the priming did not succeed in shifting individuals' self-perception of their social status. Employing the priming task on a heterogeneous population sample also allows assessing whether different socio-economic status groups are differently prone to the priming manipulation. It is not possible to study this question with homogenous student samples previously used in studies with subjective status priming.

In the experiment, panel participants were sequentially exposed to two tasks. The first task induces the subjective perception of a relatively low or a relatively high standing in society. This task had the form of a questionnaire regarding the lives of "the poor" or "the rich", and was concluded by the participants' self-assessment of their social position illustrated by 10 rungs of a "social ladder" representing society (from 1 indicating the lowest to 10 indicating the highest status). Table 1 shows that the priming manipulation was successful. Those who compared themselves to "the poor" and were thus primed to feel rich and advantaged (*Primed-Rich*), indeed, on average, reported significantly higher self-assessment of their standing in society than those primed poor and disadvantaged *(Primed-Poor)*: A Wilcoxon-Mann-

Whitney test displays a p-value <0.001. This result also holds true if we split the sample by the participants' true social status proxied by their personal income (*Real-Rich* versus *Real-Poor*), dividing the sample at the median income to distinguish between the richer and the poorer strata of the population. We conclude that the priming manipulation succeeded in shifting participants' subjective assessment of their social status irrespective of their actual social status. We are thus in a position to test claims that exogenous status differences induce differences in ethical behavior (Piff et al., 2010; Piff et al., 2012; Dubois et al., 2015; Côté et al., 2015).

Table 1. Manipulation check

	Real-Poor	Real-Rich	All
Primed-Poor	4.83 (N=831)	5.69$^{\#\#\#}$ (N=674)	5.27 (N=2,392)
Primed-Rich	5.54*** (N=844)	6.54$^{***,\#\#\#}$ (N=665)	6.04*** (N=2,393)
All	5.19 (N=1,675)	6.11$^{\#\#\#}$ (N=1,339)	5.65 (N=4,785)

Note: Average answer to manipulation check question on a one to ten scale by experimental priming condition. *** indicates significant difference at the 1% level of Primed-Rich from Primed-Poor; $^{\#\#\#}$ indicates significant difference at the 1% level of Real-Rich from Real-Poor; Wilcoxon rank sum test. Number of observations do not add up in rows because of missing values for income.

Table 1 is also informative about the relationship between subjective social status as measured by the ladder task and actual social status as proxied by income. For both priming conditions, we find that real high-status individuals also perceive a higher subjective social status. That is, both priming and real income differences influence perceived subjective status in the intended (in priming) and the expected (in actual status) directions. Multivariate analyses, provided in the supplementary information (see Table S2.1), confirm these results.

After the priming task, participants were exposed to a novel version of the "mind game" (Jiang, 2013), developed for the current setting. Participants had to choose, and keep in mind, 1 of 11 letters (A to K) arranged in a circular way around a "Wheel of Fortune". Next, the computer would randomly draw one letter. Only then, each participant entered the letter kept in her mind into an entry field on the computer screen. A perfect match of the two letters yields a prize of €20. The larger the distance on the circle between the letter kept in mind and the randomly selected letter of the computer in clockwise direction, the lower the payment is. By design, if participants truthfully report their selected letter, they would, in

expectation, realize a prize of €10. However, because nobody can validate this letter, participants may feel inclined to misreport and claim a letter closer to the one randomly selected by the computer, resulting in higher payments.

At the individual level, a high payment can result from a lucky draw of the computer letter. On average, however, within large groups, payments should not deviate systematically from the expected payment of €10. Significantly larger payments suggest that, on average, participants in this group behaved unethically and did misreport their letters in order to increase their payments. Figure 1 provides a histogram of realized individual payments and illustrates substantial unethical behavior in our subject pool. While one would expect 9.09% of participants in each of the 11 payment bins in case of complete honesty (this benchmark is illustrated by the dashed line in Fig. 1), we find a substantially higher percentage of participants in payment bins above €12, which indicates mis-reporting and therefore, unethical behavior. Statistical tests confirm this conclusion. First, a Kolmogorov-Smirnov test clearly rejects the null hypothesis that the data comes from a uniform distribution ($p<0.001$). Second, a series of binominal probability tests rejects the hypotheses that the frequency of payments equal to 9.09 for all ($p<0.01$) but the €14 bin ($p=0.20$). The distribution of payments also suggests that there is modest or incomplete mis-reporting. I.e., conditional on cheating, not all participants cheat to the fullest extent.

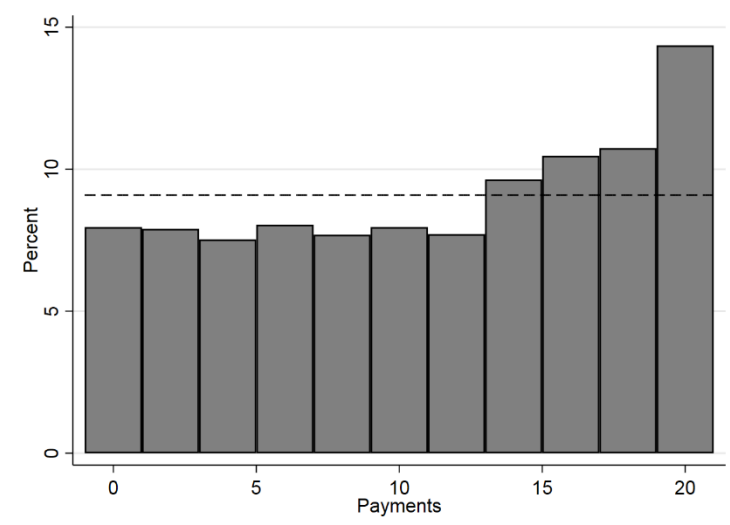

Figure 1. Histogram of individual payments (full sample).

Note: Dashed line indicates expected frequency (i.e., 9.09%) of participants per payment bin.

Having established both the success of the priming manipulation and the relevance of income for subjective status perceptions, as well as the existence of unethical behavior in our sample, we turn to our main result. Figure 2 presents average payments across the treatments and income subgroups. We observe that all participants, except those who were both primed rich and belonged to the richer group, report significantly larger payments than expected under truthful reporting, i.e., €10 ($p<0.01$ from a t-test, and $p=0.28$ for the *Primed-Rich* & *Real-Rich* group). Comparing the different groups, Table 2 suggests that the *Real-Rich* report significantly lower payments than the *Real-Poor*, and the *Primed-Rich* report marginally significantly lower payments than the *Primed-Poor*. Separating along both real and primed status groups, we find that the *Primed-Rich* & *Real-Rich* report significantly lower payments than either the *Primed-Rich* & *Real-Poor* or the *Primed-Poor* & *Real-Rich* groups.

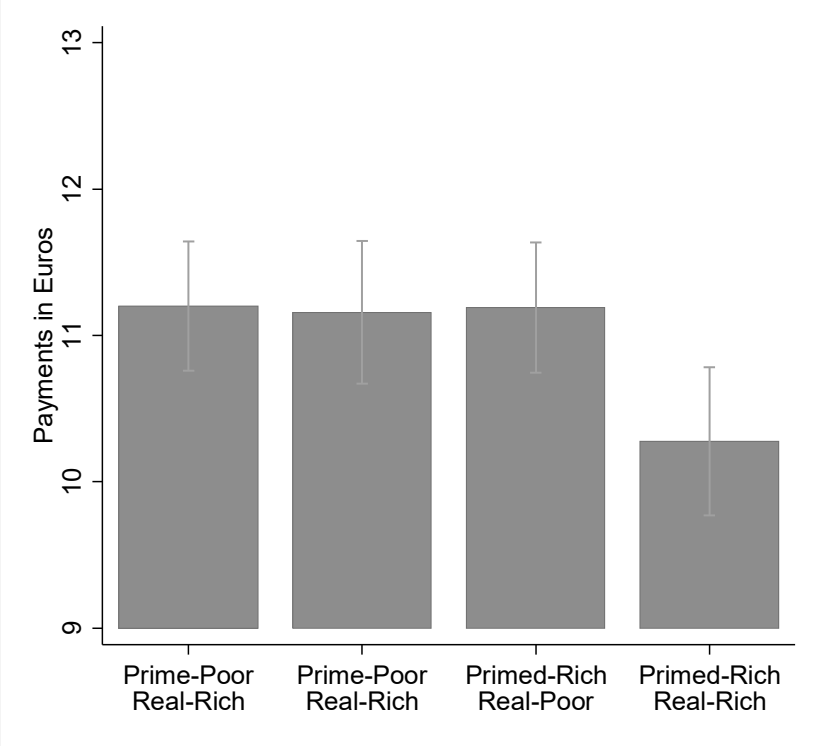

Figure 2. Average payments across treatments and income subgroups.

Note: *Real-Rich* is defined as above-median income and *Real-Poor* is defined as median income and below. Bars indicate 95% confidence intervals.

Table 2. Payments in Euro.

	Real-Poor	Real-Rich	All
Primed-Poor	11.20 (N=831)	11.16 (N=674)	11.28 (N=2,392)
Primed-Rich	11.19 (N=844)	$10.28^{**,###}$ (N=665)	10.93^{*} (N=2,393)
All	11.19 (N=1,675)	$10.71^{##}$ (N=1,339)	11.10 (N=4,785)

Note: Average payment ranging from €0 to €20. $^{***, **, *}$ indicates significant difference at the 1%, 5%, 10% level of Primed-Rich from Primed-Poor; $^{###,##,#}$ indicates significant difference at the 1%, 5%, 10% level of Real-Rich from Real-Poor; Wilcoxon rank sum test. Number of observations do not add up in rows because of missing values for income.

Table 3 presents a multivariate analysis of the realized payments. In the baseline specification (1), the coefficients of being primed rich and of having above-median income (*Real-Rich* dummy) point statistically significantly in the direction of lower realized payments for higher status groups. That is, the higher status individuals are less likely to misreport their payoff. These effects become insignificant once additional controls are included in specification (2). We observe that in contrast to the correlational demographic income variable, inclusion of further controls has little effect on the size of the treatment effect.

Further evidence comes from regressions (3) and (4) which employ dummies indicating the four groups shown in Figure 2. Testing for difference of the coefficients with controls (specification (4)) and without controls (specification (3)) shows that the coefficients for the *Real-Rich* & *Primed-Rich* group are significantly lower than the coefficients for the other three groups ($p<0.05$ for all comparisons, F-test, in both specifications). That is, the group which has high status according to their real income and has also been primed as upper class, makes the most modest payment claims, and does not seem to misreport (i.e., to claim more than €10 on average). Thus, the analysis shows that there is no indication of either primed or true social status being positively related to unethical behavior. If anything, our data supports the conclusion that higher social status leads to *more* ethical behavior.

Table 3. OLS regressions with payment in euros as dependent variable.

Payment	**(1)**	**(2)**	**(3)**	**(4)**
Primed-Rich	-0.396*	-0.344		
	(0.24)	(0.26)		
Real-Rich (dummy)	-0.479**	-0.098		
	(0.24)	(0.30)		
Primed-Rich x Real-Rich			10.277***	-0.242
			(0.26)	(0.36)
Primed-Rich x Real-Poor			11.192***	1.378***
			(0.23)	(0.33)
Primed-Poor x Real-Poor			11.201***	1.455***
			(0.22)	(0.33)
Primed-Poor x Real-Rich			11.157***	0.778**
			(0.25)	(0.36)
Controls	No	Yes	No	Yes
Constant	11.396***	13.295***	-	-
	(0.20)	(0.67)		
Observations	3014	2471	4785	3756
R-squared	0.002	0.011	0.458	0.702

Note: Primed-Rich x Real-Rich, Primed-Rich x Real-Poor, Primed-Poor x Real-Poor, and Primed-Poor x Real-Poor are all dummies. * ,** ,*** indicate significance at the 10%, 5%, and 1% levels, respectively. Heteroscedasticity-robust standard errors in brackets below. Controls include gender, age, education, East Germany dummy, marital status, student status, religion and political ideology.

Discussion

The current paper studies the causal effect of social status on ethical behavior as well as the correlational association between true social status proxied by income and ethical behavior. We use an established status-priming task, and find significant effects on perceived social status, confirming that the priming worked as intended. We measure ethical behavior with an innovative task in which participants can cheat to different degrees to receive higher payments. The task does not include a social component and does not involve deception of participants. Moreover, it does not depend on risk preferences, a possible

confounding factor when analyzing behavior of individuals with different income levels or status. We provide evidence that the primed high-status and the actual high-status participants are less likely to cheat in our task. According to our results, the group of both high-status primed and high-income participants is the only group that does not report payments that are significantly larger than the truth-telling benchmark, and reports significantly lower payments than the other groups. Thus, our data clearly rejects the claim that the primed or real poor are substantially more ethical than the rich, as suggested in the literature using priming tasks. On the other hand, we cannot reject the claim that the primed and the truly rich are more ethical: our data are consistent with positive effects.

Previous evidence from correlational studies shows that high status individuals are sometimes more ethical and social, while causal priming studies show that high status individuals are less ethical and social. Our study is the first to combine both approaches of the previous literature. In principle, both effects could coexist. However, our results do not suggest that this is the case. Instead, they indicate that higher social class participants may sometimes be more ethical (for unknown reasons, possibly including selection or habituation), and that findings of a negative causal effect of status on ethical behavior are not robust. Prior studies on the lack of ethics among the rich have received an unusual amount of scholarly interest and public attention. However, despite such popular rhetoric, we find no evidence to support such claims.

Methods

Sample

We make use of the German Internet Panel (GIP) which is an online survey based on a representative probability sample of the general German population providing us with a natural variation of people with different socio-economics status. The GIP is hosted and operated by the University of Mannheim, Germany, and is a longitudinal survey in which data collection takes place on a bimonthly basis. A typical survey wave includes questions specific to single waves. In addition, one wave every year collects and updates socio-demographic information about the participants (the "Core").

The survey experiment presented in this paper was embedded in Wave 39, which was fielded in January 2019 and included 4,932 participants. The data was released two months later. In addition, we make use of previous waves to complement our data with key socio-demographic information, collected in the Core by the GIP. To be precise, we make use of Wave 37 to obtain data on participants' income and update missing values of Wave 37 with data of Waves 31 and 25. Our experiment involved incentivized choices, and all participants were informed that 300 out of the roughly 5000 participants would receive an actual payment credited to their individual accounts at the end of the survey.

Personal net income was recorded in 15 different brackets. We use the mid-points (divided by 1,000) of these brackets to code income, except in the case of the highest bracket ("€7500 and above") which we code as 8,750.[5] The first five income brackets (up to a net income of €2,000) contain 56% of the 3,014 participants who provided income information. Brackets 6 to 15 contain 44%, accordingly. In order to define *Real-Rich* and *Real-Poor* groups, we split the sample at a net monthly income of €2,000, which provides the split closest to 50:50. Thus, *Real-Rich* is defined as above median income and *Real-Poor* as median and below median income.

Procedures

Manipulation of social class:

The first part of the survey experiment comprised the experimental manipulation of perceived social status (e.g. Hoff and Pandey, 2014; Afridi et al., 2015). We applied a priming technique that has already been successfully implemented by others (Piff et al., 2010; Kraus et al., 2009; Piff et al., 2012) and promised to provide variation in the subjective perception of relatively high or low social class. Within each income

[5] Only 30 participants (1% of our sample) report an income of 7,500 and above.

bracket (and within those who did not report income), participants were randomly allocated to one of two priming conditions. The priming manipulation presented participants with an image of a ladder with 10 rungs and participants in the *Primed-Poor* [*Primed-Rich*] conditions were instructed as follows:

> "Imagine the society as a ladder describing the social status of citizens. See also the graphic on the right side. The richest [poorest] and most [least] influential in our society are positioned at the top [bottom] of this ladder: they have the highest [lowest] wealth and income, and the most [least] respected professions in our society. The less [more] wealthy and influential are positioned further below [above].
> Most of us are further down [higher up] this ladder, and we have certain ideas about this perhaps rather unknown group of the rich [poor]. We want to get an overview of the ideas the less well-off [better-off] have about the rich [poor] and most [least] influential. Please, evaluate the following statements about the rich [poor] in our country."

Next, participants rated a total of 9 statements on a 4-point scale from 1 (strongly agree) to 4 (strongly disagree). Two example statements from the *Primed-Poor* condition are "The rich have nothing to worry about." and "The rich are successful." Full procedures and wording of all statements in both priming conditions are available in the Supplementary Information. In order to test if the priming manipulation was successful, we ask participants to classify themselves on the aforementioned social class ladder from 1 to 10 "relative to the people at the very top and the very bottom" of the ladder. This question is the same for all participants and serves us as a manipulation check. In particular, we test whether the priming was successful by testing whether the average answer to this question differs by treatment group.

Measurement of (un)ethical behavior:

In the second part of the survey experiment, we measure ethical behavior using a modified "mind game" (Jiang, 2013). In this game, participants are first asked to memorize one letter between A and K, and then the computer randomly draws one of those letters. Letters are arranged around a circle, which we refer to as a 'Wheel of Fortune' in the experimental instructions. Only after participants see the letter drawn by the computer, they have to reveal the letter they initially memorized (A to K) by typing it in. Payoffs are calculated as follows: if the revealed letter equals the computer letter, the participant's payoff equals €20. Otherwise, the computer counts clockwise the number of steps between the revealed and drawn letters.

For each step, €2 are deducted from the initial €20. As there is no way to verify the letter participants initially memorized, this game offers an opportunity to increase one's expected monetary payoff by misreporting the memorized letter. Expected payoffs of this game amount to €10. Payoffs above this threshold are indicative of cheating or unethical behavior at the group level, but not verifiable at the individual level. Figure 3 provides an illustration of the Wheel of Fortune used in the mind game. The advantage of this game is that it allows for fine-grained measure of cheating in 11 steps, and at the same time does not depend on risk attitudes. Moreover, the game introduces information asymmetry to the advantage of the participants: memorizing the letter allows them to make sure that the computer draw of the payoff is not rigged against them. At the same time, it introduces the temptation to make use of this asymmetry and misreport in order to increase payments.

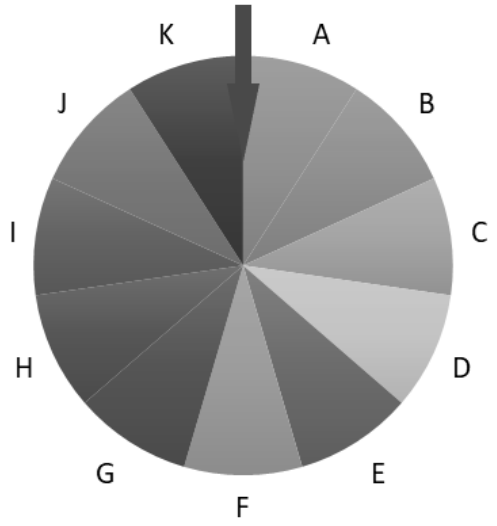

Figure 3. Illustration of the mind game as a "Wheel of Fortune".

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