

For Whom Do the Ends Justify the Means? Social Class and Utilitarian Moral Judgment

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Though scholars have speculated for centuries on links between individuals' social class standing and approach to moral reasoning, little systematic research exists on how class and morality are associated. Here, we investigate whether the tendency of upper-class individuals to exhibit reduced empathy makes them more likely to resist intuitionist options in moral dilemmas, instead favoring utilitarian choices that maximize the greatest good for the greatest number. In Study 1, upper-class participants were more likely than lower-class participants to choose the utilitarian option in the footbridge dilemma, which evokes relatively strong moral intuitions, but not in the standard trolley dilemma, which evokes relatively weak moral intuitions. In Study 2, upper-class participants were more likely to take resources from one person to benefit several others in an allocation task, and this association was explained by their lower empathy for the person whose resources were taken. Finally, in Study 3, the association between social class and utilitarian judgment was reduced in a condition in which empathy was induced, but not in a control condition, suggesting that reduced empathy helps account for the utilitarianism of upper-class individuals.

Keywords: social class, empathy, utilitarian judgment, moral judgment, morality

For centuries, scholars have sought to establish a link between social class and moral reasoning. At least since Plato (380 B.C./1987), one line of thought in political philosophy views elites as possessing superior capacities for moral reasoning that uniquely qualify them for positions of leadership and governmental power. However, an opposing view associated with critical social theorists like Karl Marx (1867/1977) argues that the class hierarchy is a morally corrupting force, undermining the legitimacy of economic elites and justifying class conflict and revolution. But despite this long-standing debate, little research has investigated how the moral reasoning of individuals from different social classes might systematically diverge.

Here, we argue that social class shapes individuals' styles of moral reasoning in important ways. We propose that when confronted with moral dilemmas that pit visceral moral intuitions against consequentialist calculations, the tendency of upper-class

individuals to feel less empathy for those harmed renders them more likely to make utilitarian judgments that maximize the greatest good for the greatest number, relative to their lower-class counterparts.

In making this prediction, we draw on accumulating evidence showing that upper-class individuals react with reduced empathy to the suffering of others, compared with lower-class individuals (Piff, Kraus, Côté, Cheng, & Keltner, 2010; Stellar, Manzo, Kraus, & Keltner, 2012). We also draw from past work that finds that reduced empathy is associated with more utilitarian judgments in moral dilemmas in which visceral moral intuitions and utilitarianism are at odds (Kogut & Ritov, 2005; Small, Loewenstein, & Slovic, 2007). Together, these lines of work suggest that the lower levels of empathy observed among upper-class individuals may lead them to be more calculating in moral dilemmas, opting for utilitarian moral judgments to a greater extent than lower-class individuals.

Utilitarian Judgment in Moral Dilemmas

Utilitarian judgment maximizes the greatest good for the greatest number on the basis of "cost–benefit" analysis (Baron, 1993; Baron & Ritov, 2009; Bentham, 1948; Cushman & Greene, 2012). Examples of utilitarian judgments include decisions to donate resources to cure several sick children rather than a single sick child (Loewenstein & Small, 2007) and demote an employee whose performance is damaging to his or her team so that the team can attain better performance (Margolis & Molinsky, 2008). Utilitarian judgment often conflicts with deontological judgment, which gives priority to rights and duties (Kant, 1785/1959). Under a deontological approach, individuals make moral judgments on the basis of rules and what seems fair to the people involved, even

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when those judgments do not provide the greatest value for the most people.

Utilitarian judgment also differs in meaningful ways from prosocial behavior—actions that benefit others (Dovidio, Piliavin, Schroeder, & Penner, 2006). Although prosocial behavior and utilitarian judgment both relate to enhancing others' welfare, prosocial acts differ from utilitarian judgments in that the former does not necessarily provide the greatest good for the greatest number. For example, participation in intergroup conflict or acts of parochial altruism could be viewed as prosocial by fellow group members, but neither provides the greatest good for the largest number of people. Conversely, utilitarian acts do not necessarily benefit the target of the act. Incarcerating a criminal to prevent him or her from recidivating maximizes the greatest good by protecting society, but reduces the criminal's welfare. In support of the distinction between prosocial behavior and utilitarian judgment, past research finds that they have distinct correlates. For example, the personality trait of Machiavellianism is negatively associated with prosocial behavior (Wilson, Near, & Miller, 1996) but positively associated with utilitarian judgment (Bartels & Pizarro, 2011). These different associations likely owe to the fact that utilitarian judgment is more clearly based in calculation and consideration of different outcomes. Consistent with this notion, past research finds that cognitive load interferes with the formation of utilitarian judgments (Greene, Morelli, Lowenberg, Nystrom, & Cohen, 2008) but increases the likelihood of prosocial behavior (Rand, Greene, & Nowak, 2012).

Among the factors that influence the likelihood of forming utilitarian judgments is the presence of visceral moral intuitions—quick, automatic, evaluative feelings of what is right or wrong (Haidt, 2001; Zhong, 2011). In high-conflict moral dilemmas, in which individuals decide whether to cause harm to certain others to benefit the greater good (Greene, Nystrom, Engell, Darley, & Cohen, 2004; Koenigs et al., 2007), contemplating the utilitarian option typically elicits strong, aversive moral intuitions. In neural imaging studies, regions of the brain involved in emotion (e.g., the ventral medial prefrontal cortex and the amygdala) became activated when individuals formed decisions in high-conflict moral dilemmas (Greene, Sommerville, Nystrom, Darley, & Cohen, 2001; Greene et al., 2004). This pattern of findings suggests that visceral moral intuitions may shape whether an individual will make a utilitarian judgment or not.

Along these lines, research finds that the more strongly individuals experience visceral moral intuitions in high-conflict moral dilemmas, the less likely they are to make utilitarian judgments (Loewenstein & Small, 2007; Slovic, 2007). In one study, higher levels of distress led participants to donate more money to help a single identified sick child (the least utilitarian option) than a group of sick children (the most utilitarian option; Kogut & Ritov, 2005, Study 3). In another study, encouraging participants to adopt a feelings-based approach (by asking them to answer some unrelated questions on the basis of how they felt) decreased utilitarian decisions about who should receive monetary donations, compared with encouraging participants to adopt a calculative approach (by asking them to work carefully and deliberatively to answer mathematical questions; Small et al., 2007, Study 4). In addition, manipulations that suppress or override moral intuitions, such as inductions of mirth (the emotion associated with humor; Strohminger, Lewis, & Meyer, 2011; Valdesolo & DeSteno, 2006) and

cognitive reappraisal (Feinberg, Willer, Antonenko, & John, 2012) increased utilitarian judgments. Other studies found that patients with emotional deficits due to ventromedial prefrontal lesions (Ciaramelli, Muccioli, Lavadas, & di Pellegrino, 2007; Koenigs et al., 2007) or frontotemporal dementia (Mendez, Anderson, & Shapira, 2005) also favor utilitarian options. These findings suggest that factors that reduce the strength of moral intuitions, such as higher social class, as we argue below, should increase utilitarian judgment in high-conflict moral dilemmas.

By contrast, in low-conflict moral dilemmas—in which a person decides whether to cause harm to others to benefit the greater good, but the harm is less direct and often caused by deflecting an existing threat to a third party (Greene et al., 2004)—considering the utilitarian option typically elicits relatively weak moral intuitions. In past research, areas of the brain involved in emotion showed relatively weak activation when individuals formed decisions in low-conflict moral dilemmas (Greene et al., 2004, 2001). As a result, moral intuitions do not play a pivotal role in moral judgments in these types of dilemmas (Koenigs et al., 2007). Thus, factors that systematically influence the strength of moral intuitions should have weaker influences on utilitarian judgment in low-conflict moral dilemmas that do not strongly engage such intuitions.

Social Class, Empathy, and Utilitarianism in Moral Dilemmas

Past theory and research on the psychological manifestations of social class suggest that higher-class standing could reduce visceral moral intuitions and, in turn, increase utilitarian judgment in high-conflict moral dilemmas. Psychologists view social class as a relatively stable individual-level characteristic that is rooted in objective, socially valued resources (e.g., income, education, and occupational prestige) and corresponding subjective perceptions of rank vis-à-vis others (Kraus, Piff, Mendoza-Denton, Rheinschmidt, & Keltner, 2012; Snibbe & Markus, 2005; Stephens, Markus, & Townsend, 2007). Differences between lower- and upper-class individuals in the environments that they inhabit and in the resources that they possess lead them to develop unique mindsets and to perceive, interpret, and react to various situations differently (Côté, 2011; Kraus et al., 2012).

Past theory and evidence suggest that lower-class individuals exhibit different patterns of emotional reactivity than their upper-class counterparts. In particular, lower-class individuals are exposed to more of the sort of threats to health and well-being that are common in resource-poor environments (e.g., poorly funded schools, a higher incidence of crime), threats that upper-class individuals are typically more insulated from (Chen & Matthews, 2001; Kraus et al., 2012; Stellar et al., 2012). Furthermore, lower-class individuals possess fewer resources (e.g., money, insurance) to cope with these threats. Given their more threatening environments and relative lack of material resources, lower-class individuals engage in a variety of adaptive social-cognitive processes. One such process is heightened vigilance, which can cause lower-class individuals to have stronger negative emotional reactions to stressors than their upper-class counterparts. In past studies, lower-class respondents reacted more strongly to stressors such as threatening and ambiguous written social scenarios (Chen & Matthews,

2001) and undesirable life events and health problems (Kessler & Cleary, 1980), compared with upper-class respondents.

Lower-class individuals also respond adaptively to threats in their environments by building supportive, interdependent networks that they can draw on to confront threats when they arise (Stellar et al., 2012). In support of this reasoning, in one investigation, lower-class individuals described a larger proportion of their relationships as close and performed better on a Stroop test of sensitivity to socioemotional cues than upper-class individuals (Na et al., 2010). In another investigation, lower-class students endorsed more interdependent motives (e.g., helping their families, giving back to their communities) for attending university than upper-class students (Stephens, Fryberg, Markus, Johnson, & Covarrubias, 2012). Sociological research has found spontaneous resource sharing among the urban poor as a collectivistic strategy to manage unemployment (e.g., Uehara, 1990).

To facilitate the development of supportive, interdependent bonds, lower-class individuals exhibit stronger empathic responses to others in the social environment. By contrast, greater independence and reduced reliance on others lead upper-class individuals to feel relatively lower levels of *empathy*, defined as “a set of congruent vicarious emotions . . . that are more other-focused than self-focused, including feelings of sympathy, compassion, tenderness, and the like” (Batson, 1991, p. 86). In one investigation, lower-class individuals reported feeling more compassion and exhibited stronger physiological signs of compassion after watching a video of a child suffering from cancer, relative to upper-class participants (Stellar et al., 2012). In another study, upper-class participants were less likely to help a stranger in need relative to lower-class participants, and this tendency was driven by lower levels of compassion (Piff et al., 2010, Study 4).

In sum, past theory and evidence suggest that upper-class individuals feel less empathy for others than their lower-class counterparts and also that empathy reduces utilitarian judgment. Thus, we hypothesize that upper-class individuals should be more likely to choose utilitarian options that maximize the greatest good for the greatest number in high-conflict moral dilemmas that pit moral intuitions against consequentialist calculations, relative to lower-class individuals. We further hypothesize that this association is driven, in part, by reduced empathy for those harmed by utilitarian judgments.

The Present Investigation

In three studies, we tested these hypotheses. In Study 1, we tested how social class predicts utilitarian judgment in a high-conflict moral dilemma (the footbridge dilemma) versus a low-conflict moral dilemma (the standard trolley dilemma). In Study 2, we examined whether empathy mediates the association between social class and utilitarian judgment. In Study 3, to further explore our claims regarding the underlying process, we examined whether inducing empathy reduces the relation of social class to utilitarian judgment. In these studies, we indexed social class with income, because this facet of social class most directly reflects the differences in the objective resources that give rise to class differences in empathic reactivity. Throughout this investigation, we controlled for gender, age, ethnicity, religiosity, and political orientation to rule out alternative explanations of any findings.

Study 1: Social Class Is Associated With Utilitarian Judgment in a High-Conflict but Not a Low-Conflict Moral Dilemma

Our first goal in Study 1 was to test the association between social class and utilitarian judgment in a high-conflict moral dilemma and to verify that this association was not spuriously caused by demographic variables that might be related to social class and utilitarian judgment. We specifically examined whether social class is related to responses to the footbridge dilemma, a classic high-conflict dilemma in research on moral reasoning that has been shown to evoke relatively strong moral intuitions (e.g., Greene et al., 2001; Valdesolo & DeSteno, 2006).

Our second goal was to contrast the associations between social class and utilitarian judgment in a high-conflict versus a low-conflict moral dilemma. Our theoretical reasoning suggests that upper-class individuals will be more utilitarian in high-conflict moral dilemmas in which visceral moral intuitions clash with consequentialist calculations (Greene et al., 2004), because they feel less empathy for those harmed than lower-class individuals. This reasoning also suggests that there should be a weak or no association between social class and utilitarian judgment in low-conflict moral dilemmas that do not involve strong moral intuitions. As such, we expected that social class would not relate to utilitarian judgment in the low-conflict standard trolley dilemma, another classic dilemma that has been shown to evoke weaker moral intuitions (Greene et al., 2001), and is thus unlikely to trigger feelings of empathy.

Method

Participants. A total of 277 participants (147 men and 130 women) were recruited from Mechanical Turk (MTurk), a platform hosted by Amazon.com that includes over 100,000 potential participants for research studies. We chose to recruit participants from this pool because samples from MTurk are more demographically diverse, and thus likely more diverse with respect to social class, than both typical college student samples and standard Internet samples (Burhmester, Kwang, & Gosling, 2011). Participants were United States residents between the ages of 18 and 69 ($M = 30.48$ years, $SD = 10.87$). Two hundred four participants (74%) were Caucasian, 28 (10%) were Asian American, 16 (6%) were African American, seven (3%) were Latino, and 22 (8%) selected another category.

Procedure. Participants were informed that they would solve problems and complete demographic questionnaires for about 10 min. Participants filled out demographic questions, including a measure of social class. They also read the instructions and indicated their responses to the two moral dilemmas, which were counterbalanced. The order of presentation of the demographic variables and the moral dilemmas was also counterbalanced. Finally, participants were debriefed.

Measures

Social class. We administered a measure of social class developed by Griskevicius, Tybur, Delton, and Robertson (2011). Participants indicated their agreement with six statements on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*)

($M = 3.60$, $SD = 1.21$; $\alpha = .78$): “I have enough money to buy things I want,” “I don’t need to worry too much about paying my bills,” “I don’t think I’ll have to worry about money too much in the future,” “My family usually had enough money for things when I was growing up,” “I grew up in a relatively wealthy neighborhood,” and “I felt relatively wealthy compared to the other kids in my school.” Scores on this measure spanned almost the entire range of the scale (from 1 to 6.50). Thus, our sample was representative of various social class levels.

Moral dilemmas. In the instructions for the footbridge dilemma, a trolley is heading down train tracks toward five workers who will be killed if it proceeds on its course. The respondent is described as being on a footbridge over the tracks, between the trolley and the five workers. The respondent can save the lives of the five workers by pushing a large stranger off the bridge and onto the tracks, where the stranger’s large body will stop the trolley. The stranger will die if pushed onto the tracks, but the five workers will be saved.

After reading this description, participants indicated whether it would be appropriate for them to push the stranger onto the tracks in order to save the five workers by choosing one of the following options: “Yes, it is appropriate” or “No, it is not appropriate.” Deeming it appropriate to push the stranger is the more utilitarian choice because it maximizes the number of lives saved (i.e., five lives are saved rather than one). Past research has shown that the footbridge dilemma is a high-conflict moral dilemma that evokes strong moral intuitions that reduce utilitarian choices (Greene et al., 2004, 2001). As in past research (e.g., Greene et al., 2008; Valdesolo & DeSteno, 2006), a minority of participants (88 participants, or 32%) chose the utilitarian option (three unreported).

In the instructions for the standard trolley dilemma, the respondent is described as being at the wheel of a runaway trolley that is approaching a fork in the tracks. There is a group of five workers on the tracks that extend to the left, and a single railway worker on the tracks that extend to the right. If the respondent does nothing, the trolley will proceed to the left and cause the deaths of the five workers. The respondent can avoid the deaths of these workers by hitting a switch on the dashboard that will cause the trolley to proceed to the right and cause the death of the single worker.

Participants indicated whether it would be appropriate for them to hit the switch to avoid the deaths of the five workers by choosing “Yes, it is appropriate” or “No, it is not appropriate.” Past research has shown that the standard trolley dilemma is a low-

conflict moral dilemma that evokes relatively weak moral intuitions because the harm is relatively indirect and caused by deflecting an existing threat to a third party (Greene et al., 2004, 2001). As in past research (e.g., Greene et al., 2008), a majority of participants (192 participants, or 69%) chose the utilitarian option.

Control variables. We controlled for age, gender (1 = female, 0 = male), and ethnicity (1 = Caucasian, 0 = other) because past research has linked these demographic variables to income (Ng, Eby, Sorensen, & Feldman, 2005) and moral reasoning (Haidt, Koller, & Dias, 1993). We also controlled for religiosity because it was related to social class (Ostrove, Adler, Kuppermann, & Washington, 2000) and moral reasoning (Skitka, Bauman, & Lytle, 2009) in past research. Respondents indicated the degree to which they considered themselves a religious person on a scale ranging from 1 (*not at all religious*) to 7 (*very religious*) ($M = 2.84$, $SD = 2.09$). Finally, we controlled for political orientation because evidence suggests that it is also related to social class (Nelson, 1979) and moral reasoning (Graham, Haidt, & Nosek, 2009). Respondents reported their political orientation on a scale ranging from 1 (*very liberal*) to 7 (*very conservative*) ($M = 3.31$, $SD = 1.62$).

Results

We tested the predictions using a generalized linear model, examining the interaction between social class (as a between-person variable) and dilemma (as a within-person variable), as well as the main effects of each variable, in predicting the moral judgments. This analysis directly tested whether social class was associated with utilitarian judgment in the high-conflict footbridge dilemma and in the low-conflict standard trolley dilemma, and whether these associations differed from each other.

The results reported under Model 1 in Table 1 reveal that upper-class participants generally made more utilitarian choices than lower-class participants. In addition, participants generally made more utilitarian choices in the standard trolley dilemma than in the footbridge dilemma, as in past research (Greene et al., 2004, 2001). More important, there was a significant interaction between social class and dilemma. The simple slopes, calculated using the procedures described by Aiken and West (1991), revealed that higher social class was associated with more utilitarian judgment in the footbridge dilemma ($B = .40$, $SE = .11$, $Wald = 13.07$, $p < .001$). Upper-class individuals were more likely to indicate that it

Table 1
Generalized Linear Model Results Predicting Utilitarian Judgments in the Footbridge and Standard Trolley Dilemmas (Study 1)

Variable	Model 1			Model 2		
	<i>B</i>	<i>SE</i>	<i>Wald</i>	<i>B</i>	<i>SE</i>	<i>Wald</i>
Gender (1 = female, 0 = male)				-.49	.23	4.67*
Age				-.01	.01	1.23
Ethnicity (1 = Caucasian, 0 = “other”)				.18	.27	.47
Religiosity				-.11	.06	2.83†
Conservative political orientation				-.01	.08	.01
Social class	.40	.11	13.07***	.39	.12	11.14***
Dilemma (1 = Standard trolley, 0 = Footbridge)	2.50	.48	26.66***	2.66	.50	28.11***
Social Class × Dilemma	-.25	.12	3.93*	-.27	.13	4.53*

Note. For the judgments, 1 (“Yes, it is appropriate”) is the response, and 0 (“No, it is not appropriate”) is the reference category.

† $p < .10$. * $p < .05$. *** $p < .001$.

would be appropriate to push a stranger onto the tracks to save the lives of five workers—a judgment shown in past research to involve overriding relatively strong moral intuitions (Greene et al., 2004, 2001)—than their lower-class counterparts. By contrast, higher social class was not associated with more utilitarian judgment in the standard trolley dilemma ($B = .15$, $SE = .11$, $Wald = 1.75$, $p = .19$). Higher social class individuals did not differ from their lower-class counterparts in their judgments of the appropriateness of hitting a switch that will cause the death of a single worker rather than five workers, a judgment that evoked weaker moral intuitions in past research because the harm is caused less directly by deflecting an existing threat to a third party (Greene et al., 2004, 2001).

This pattern held with the control variables, as shown under Model 2 in Table 1. The simple slopes calculated with the controls revealed, again, that social class predicted utilitarian judgment in the footbridge dilemma ($B = .39$, $SE = .12$, $Wald = 11.14$, $p < .001$), but not in the standard trolley dilemma ($B = .11$, $SE = .11$, $Wald = .99$, $p = .32$).

Subsidiary analysis of the order of presentation of the social class measure and the dilemmas. We examined whether the associations between social class and utilitarian judgment varied depending on the order in which the measure of social class and the dilemmas were presented. This analysis is theoretically important to identify whether individuals must be made aware of their social class standing (by being asked to report their social class) for social class to influence their moral judgments. We did not expect that such awareness was necessary, because social class is a relatively stable attribute of individuals that should chronically shape their beliefs (Côté, 2011; Kraus et al., 2012; Stephens et al., 2007). We thus expected that higher social class would be associated with more utilitarian judgment in high-conflict dilemmas irrespective of whether social class was measured before or after the dilemmas.

In logistic regression, we regressed utilitarian judgment in the footbridge dilemma on social class, the order of presentation of the social class measure (before vs. after the dilemmas), and their interaction. There was no interaction ($B = -.18$, $SE = .23$, $Wald = .60$, $p = .44$), indicating that social class relates to utilitarian judgment in a high-conflict moral dilemma when one's social class standing is salient (because it has just been measured) and when it is not salient (because it is measured after the judgment). An additional analysis showed no interaction between social class and the order of presentation of the social class measure predicting utilitarian judgment in the low-conflict standard trolley dilemma ($B = -.31$, $SE = .23$, $Wald = 1.80$, $p = .18$). Thus, the associations between social class and utilitarian judgment in a high-conflict and a low-conflict moral dilemma did not vary as a function of whether respondents had been made aware of their social class standing. This conclusion squares with the results of multistudy investigations that yielded consistent results when social class was measured before or after criteria such as empathic accuracy (Kraus, Côté, & Keltner, 2010) and ethical behavior (Piff, Stancato, Côté, Mendoza-Denton, & Keltner, 2012).

Discussion

Study 1 provided initial evidence for an association between higher social class and more utilitarian judgment in a high-conflict

moral dilemma, the footbridge dilemma, even after taking into account age, gender, ethnicity, religiosity, and political orientation. Social class, however, was not related to utilitarian judgment in the low-conflict standard trolley dilemma. This pattern is consistent with our emphasis on the potential role of reduced empathy in driving the increased utilitarian judgment of upper-class individuals. We investigated this process more directly in Studies 2 and 3.

Study 2: Empathy Mediates the Association Between Social Class and Utilitarian Judgment in a Resource Allocation Task

We next sought to establish more direct evidence for the mechanism we theorize drives the association between social class and utilitarian moral judgment. Our reasoning suggests that upper-class individuals are more likely to make utilitarian judgments in high-conflict dilemmas because they feel less empathy for those harmed by this type of judgment than lower-class individuals. Thus, in Study 2, we examined the possible mediating role of feelings of empathy.

In addition, we extended the previous findings by moving beyond responses to hypothetical scenarios (the footbridge and standard trolley dilemmas) and using a measure of utilitarian judgment that consisted of a behavior with (ostensibly) real consequences for others. Specifically, we examined judgment in an allocation task adapted from past research (Small & Loewenstein, 2003; see also Hsu, Anen, & Quartz, 2008) in which participants believed they could take resources from one member of a group to benefit several other members of the group. This real-stakes dilemma asked participants whether they would choose an option that would cause a participant direct harm, by potentially reducing his or her pay for taking part in the study, to provide a greater total benefit to several other participants. We expected that upper-class individuals would exhibit more utilitarian judgment in the task, taking more resources from one member of a group to benefit the others, as compared with their lower-class peers. Furthermore, we expected that this tendency would be mediated by participants' reported levels of empathy for the member of the group who would be harmed by the utilitarian judgment.

Method

Participants. A total of 229 U.S. residents (130 women, 98 men, one unreported) were recruited through MTurk. Participants were between the ages of 18 and 82 ($M = 33.82$ years, $SD = 11.93$). One hundred sixty-three participants (71%) were Caucasian, 15 (7%) were Asian American, nine (4%) were African American, six (3%) were Latino, and 35 (15%) selected another category (one unreported).

Procedure. Participants were informed that they would solve problems and complete demographic questionnaires for about 10 min. They first provided basic demographic information, including social class, before being presented with instructions for the allocation task. They were told that after reading the instructions for the task, they would be asked questions about their reactions to the task, and then give their decision.

We adapted a task developed by Small and Loewenstein (2003) to create an emotionally evocative allocation task that assessed utilitarian judgment. Participants were informed that they had been

to take more resources from the target, an action that had the effect of maximizing the greater good, though at the expense of one of the participants, supporting our hypothesis.

Mediation via empathy. We next tested our prediction that empathy mediates the association between social class and utilitarian judgment in the allocation task. The results of this mediation analysis are displayed in Figure 1. First, social class was positively associated with utilitarian judgment, as described above. Social class was negatively related to empathy, consistent with past research (Piff et al., 2010; Stellar et al., 2012). In addition, the results of an analysis in which utilitarian judgment was regressed on both empathy and social class revealed that empathy was negatively associated with utilitarian judgment; this finding is also consistent with past research (Kogut & Ritov, 2005; Small et al., 2007). In that model, social class became a marginally significant predictor of utilitarian judgment after taking into account the role of empathy. Thus, the criteria for mediation (Kenny, Kashy, & Bolger, 1998) were met. A bootstrapping procedure provided additional evidence for an indirect association between social class and utilitarian judgment operating through (reduced) empathy ($B = .046$, $SE = .024$; 95% CI [.002, .096]). These results support our hypothesis that empathy accounts in part for the association between social class and utilitarian judgment.

The results were the same with the controls. Social class remained positively associated with utilitarian judgment, as described above, and it remained negatively associated with empathy ($B = -.11$, $SE = .05$, $\beta = -.14$, $p < .05$). In addition, the results reported under Model 2 in Table 2 reveal that, with the controls, empathy remained negatively associated with utilitarian judgment, and social class became a marginally significant predictor of utilitarian judgment after taking into account the role of empathy. A bootstrapping procedure supported an indirect association between social class and utilitarian judgment operating through (reduced) empathy with the controls ($B = .039$, $SE = .021$; 95% CI [.003, .085]).

Discussion

Study 2 extended our understanding of class differences in utilitarian judgments by showing that reduced empathy for individuals who could be harmed by these judgments explains, in part, why upper-class individuals are more utilitarian than their lower-class counterparts. Using mediation analysis, we found that the association between social class and utilitarian judgment was reduced after entering empathy as a predictor and that the mediated path from social class to utilitarian judgment through empathy was significant, even when age, gender, ethnicity, religiosity, and po-

litical orientation were held constant. In Study 2, we also extended the previous findings by showing that social class is associated with a utilitarian judgment that (ostensibly) had real as opposed to hypothetical consequences for the outcomes of others.

Our theoretical reasoning about social class and utilitarian judgment applies and extends past theory and evidence that upper-class individuals react with reduced empathy to the suffering of others (Piff et al., 2010; Stellar et al., 2012). Relative to their upper-class counterparts, the stronger empathic responding of lower-class individuals strengthens social connections that can subsequently help them deal with the threats posed by resource-poor environments. Consistent with these arguments, we found in Study 2 that upper-class individuals felt less empathy for the person whose resources could be taken, and this reduced empathy explained, in part, why they were more likely to make a utilitarian judgment by taking resources from that person.

An alternative account of the association between social class and empathy is that lower-class individuals are generally more emotionally reactive than their upper-class counterparts. According to this general emotional reactivity account, lower-class individuals feel more empathy because they react more intensely to all emotional stimuli. To examine the viability of this account, we conducted a follow-up study that pitted the specific and the general emotional reactivity accounts against each other by examining whether social class predicts reactions to stimuli that elicit empathy, pride, and amusement.

Under a general emotional reactivity account, higher social class should be associated with reduced reactivity to the elicitation of all three emotions. By contrast, under a specific emotional reactivity account, higher social class should only predict reduced reactivity to the elicitation of empathy, whereas we would not expect to see similar class differences in reactivity to the elicitation of pride or amusement, as neither emotion would likely play a strong role in the creation and maintenance of interpersonal bonds useful for managing the day-to-day threats that are more common in resource-poor environments. In particular, pride should be uniquely problematic for developing peer bonds, as it tends to highlight and increase differences in rank between individuals (Tracy & Robins, 2004; Tracy, Shariff, Zhao, & Henrich, in press).

To test these predictions, we randomly assigned 227 participants (122 women and 105 men; $M_{age} = 31.75$ years, $SD_{age} = 11.64$ years) recruited through MTurk to one of three conditions: empathy, pride, or amusement elicitation. Participants reported their household income (using the measure from Study 2), age, and gender. They then viewed 15 pictures that elicit one of the emotions. We used pictures because they represent one of the most

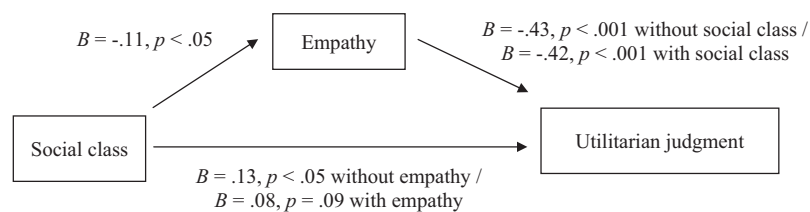


Figure 1. Results from Study 2: Model displaying the association between social class and utilitarian judgment as mediated by empathy.

potent ways to elicit emotions (Lench, Flores, & Bench, 2011), and validated sets of pictures were available for each emotion of interest. We used sets of slides developed by Oveis, Horberg, and Keltner (2010) to elicit empathy and pride, but, given our sample population, replaced seven pride slides depicting the University of California with pictures of U.S. symbols such as the Statue of Liberty. We also used the set of slides from the International Affective Picture System (IAPS; Lang, Bradley, & Cuthbert, 1999) that elicit amusement (Mikels et al., 2005).¹

After viewing the slides, participants reported how they felt several emotions on a scale ranging from 1 (*none*) to 8 (*a great deal*). The emotions were presented to participants in random order. The items for empathy (compassion, moved, sympathy; $\alpha = .86$), pride (proud, confident, bold; $\alpha = .86$), and amusement (amused, fun-loving, silly; $\alpha = .88$) were taken from past research (Fredrickson, Tugade, Waugh, & Larkin, 2003; Oveis et al., 2010; Watson & Clark, 1994). Participants then reported their ethnicity, religiosity ($M = 3.00$, $SD = 2.15$), and political orientation ($M = 3.46$, $SD = 1.58$), using the same measures as in Study 2.

We examined the role of social class by conducting three separate analyses. We regressed each of the emotions on the emotion-elicitation condition (the condition in which participants viewed pictures that elicit the targeted emotion, coded as 1, vs. the other two collapsed conditions, coded as 0), social class, and their interaction. There was a main effect of condition for the empathy condition ($B = 3.11$, $SE = .22$, $\beta = .70$, $p < .001$) so that participants who viewed empathy-eliciting pictures felt more empathy than those in the other two collapsed condition. In addition, there was a significant interaction between condition and social class ($B = -.23$, $SE = .11$, $\beta = -.13$, $p < .05$). To interpret this interaction, we tested simple slopes for the associations between social class and empathy in the condition in which empathy was elicited and in the two collapsed conditions in which other emotions were elicited. Consistent with the results of Study 2, viewing pictures of others in need elicited more empathy in lower- as compared with upper-class participants ($B = -.22$, $SE = .09$, $\beta = -.20$, $p < .05$). There were no class difference in empathic reactions to viewing pictures that elicit other emotions ($B = .01$, $SE = .07$, $\beta = .01$, $p = .88$).

By contrast, although there was a main effect of condition for the pride induction ($B = 2.23$, $SE = .25$, $\beta = .51$, $p < .001$), there was no significant interaction between condition and social class ($B = .12$, $SE = .13$, $\beta = .07$, $p = .36$). Upper- and lower-class individuals felt similar degrees of pride after viewing pride-eliciting pictures ($B = .05$, $SE = .11$, $\beta = .05$, $p = .61$), or other pictures ($B = -.07$, $SE = .07$, $\beta = -.06$, $p = .38$). In addition, there was a main effect of condition for the amusement induction ($B = 3.27$, $SE = .22$, $\beta = .70$, $p < .001$), but no significant interaction between condition and social class ($B = .11$, $SE = .12$, $\beta = .05$, $p = .37$). Upper- and lower-class individuals felt similar degrees of amusement after viewing amusing pictures ($B = .03$, $SE = .10$, $\beta = .02$, $p = .80$), or other pictures ($B = -.08$, $SE = .06$, $\beta = -.07$, $p = .20$). Results were the same when controlling for age, gender, ethnicity, religiosity, and political orientation (see Models 1, 2, and 3 in Table 3).²

These results suggest that higher social class is not associated with reduced reactivity to stimuli that elicit any emotion. Rather, higher social class was associated with lesser reactivity to pictures eliciting empathy, an emotion strongly implicated in the building

and maintenance of social connections that lower-class individuals can rely on to deal with the threats that recur in resource-poor environments (Chen & Matthews, 2001; Stellar et al., 2012), but not with lesser reactivity to pictures eliciting pride or amusement. Together, these findings bolster our theoretical framework stating that class differences in empathic responding specifically help explain the association between social class and utilitarian judgment.

Study 3: Eliciting Empathy Reduces the Association Between Social Class and Utilitarian Judgment in a Resource Allocation Task

In Study 3, we used a different strategy to further examine the process by which social class is associated with utilitarian judgment. Specifically, to provide additional evidence that empathy helps account for the utilitarianism of upper-class individuals, we adopted a “moderation-of-process” design (Spencer, Zanna, & Fong, 2005) by comparing the association between social class and utilitarian judgment in a condition in which empathy is elicited versus a control condition in which it is not. If the association between social class and utilitarian judgment is reduced when empathy is elicited, then it suggests that differences in the degree of empathic reactivity at least partially explain why social classes differ in their utilitarian judgment. We expected that in a control condition, there would be a positive association between social class and utilitarian judgment, as in Studies 1 and 2, and that this association would be reduced or eliminated in a condition in which empathy is elicited.

¹ In subsidiary analyses, we explored the possibility of curvilinear associations between social class and utilitarian judgment. We regressed utilitarian judgment on social class and a squared term for social class (Aiken & West, 1991). In Study 1, there was no curvilinear association between social class and utilitarian judgment in the footbridge dilemma ($B = -.12$, $SE = .09$, $Wald = 2.14$, $p = .14$), or the standard trolley dilemma ($B = -.11$, $SE = .07$, $Wald = 2.09$, $p = .15$). There was also no curvilinear association between social class and utilitarian judgment in the allocation task in Study 2 ($B = .04$, $SE = .03$, $\beta = .43$, $p = .14$) or Study 3 ($B = .04$, $SE = .06$, $\beta = .49$, $p = .45$, in the empathy-induction condition; $B = -.01$, $SE = .08$, $\beta = -.14$, $p = .85$, in the control condition; and $B = .04$, $SE = .05$, $\beta = .41$, $p = .38$, across the control and empathy-inductions conditions).

² In addition, we verified that the nonsignificant associations between social class and reactivity to inductions of pride and amusement were not statistical artifacts caused by ceiling or floor effects. Adapting procedures described by Aiken and West (1991), we calculated the predicted means for upper- and lower-class participants on each emotion (empathy, pride, and amusement) for each targeted emotion (empathy, pride, and amusement) to verify that these means were not either too high or too low. When empathy was the targeted emotion, the predicted means for upper- and lower-class participants were, respectively, 6.37 and 7.22 for empathy, 2.29 and 1.94 for pride, and 1.59 and 1.42 for amusement. When pride was the targeted emotion, the predicted means for upper- and lower-class participants were, respectively, 5.05 and 4.84 for pride, 3.74 and 3.70 for empathy, and 3.13 and 3.43 for amusement. Finally, when amusement was the targeted emotion, the predicted means for upper- and lower-class participants were, respectively, 5.71 and 5.61 for amusement, 3.67 and 3.63 for empathy, and 2.96 and 3.63 for pride. These results indicate that the inductions of pride and amusement were not overly strong or overly weak because the means were not too close to the highest possible value or the lowest possible value on the scale. Thus, it is unlikely that ceiling or floor effects caused the lack of observed association between social class and reactivity to inductions of pride and amusement.

Table 3
Regression Results Predicting Reactivity to Emotion Elicitations (Study 2 Follow-Up)

Variable	Empathy				Pride				Amusement			
	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>B</i>	<i>SE</i>	β	<i>t</i>
Gender (1 = female, 0 = male)	-.29	.21	-.07	-1.38	-.58	.24	-.14	-2.42*	-.36	.21	-.08	-1.70†
Age	.02	.01	.08	1.71	.01	.01	.05	.85	-.01	.01	-.05	-1.04
Ethnicity (1 = Caucasian, 0 = "other")	-.14	.22	-.03	-.64	-.02	.25	-.01	-.10	.16	.22	.04	.73
Religiosity	.12	.06	.12	2.05*	.18	.06	.19	2.82**	-.02	.06	-.02	-.27
Conservative political orientation	.02	.08	.01	.26	.03	.09	.02	.33	.03	.08	.02	.43
Social class	.01	.07	.01	.20	-.07	.07	-.07	-.96	-.09	.06	-.08	-1.37
Condition	3.10	.22	.69	14.01***	2.23	.25	.51	8.96***	3.25	.22	.70	14.47***
Social Class \times Condition	-.23	.11	-.13	-2.04*	.15	.13	.08	1.16	.12	.12	.06	1.01
	$R^2 = .50$ $F(8, 218) = 27.26^{***}$				$R^2 = .31$ $F(8, 218) = 12.39^{***}$				$R^2 = .51$ $F(8, 218) = 28.07^{***}$			

Note. Condition was coded so that 1 denotes the condition in which participants viewed pictures that elicited the targeted emotion that appears in the heading of the column, and 0 denotes the other two collapsed conditions.

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Method

Participants and design. Ninety-one U.S. residents (55 women, 35 men, one unreported) were recruited from MTurk. Participants were between the ages of 18 and 67 ($M = 34.65$ years, $SD = 12.29$). Sixty-five participants (71%) were Caucasian, four (4%) were Asian American, four (4%) were African American, two (2%) were Latino, and 15 (17%) selected another category (one unreported). Participants were randomly assigned to one of two experimental conditions: empathy induction ($n = 46$) versus control ($n = 45$).

Procedure. Participants were informed that they would solve problems and complete demographic questionnaires for about 20 min. They first completed a demographic questionnaire, including a measure of social class. Then, they were given instructions for the same allocation task as in Study 2. Participants in the empathy-induction condition received the following additional instructions (adapted from Batson et al., 1997):

As you make your decision, think about the feelings and the well-being of the 'lose member' of the group. Concentrate on trying to imagine how the 'lose member' feels and how your decision will influence him or her. Try to feel the impact of your decision on how the 'lose member' of your group will feel.

Participants in the empathy-induction condition were also asked to write at least three sentences describing the feelings and well-being of the "lose member." Participants in the control condition did not receive any additional instructions after the instructions for the allocation task. Participants then completed a measure of empathy (described below) and gave their decision on the allocation task. Finally, they were debriefed.

Measures.

Social class. We used the same measure of household annual income as in Study 2. The median value was 4 ($SD = 1.98$), corresponding to the \$35,001–\$50,000 range. As in Study 2, this range included the median household income of \$49,445 in the United States in 2010 (DeNavas-Walt et al., 2011), and all categories of household income were represented.

Utilitarian judgment. As in Study 2, participants indicated how many experiment dollars (between 0 and 5) they wished to take away from the lose member of their group to benefit the other

members ($M = 2.23$, $SD = 1.65$). Higher numbers reflected more utilitarian judgment. Forty-eight participants (53%) took at least one experiment dollar from the target.

Empathy. To verify that empathy was manipulated as intended, we administered a three-item scale (Oveis et al., 2010). Participants indicated how much they felt compassionate, moved, and sympathy about the target (the "lose member" of the group) on a scale ranging from 1 (*not at all*) to 7 (*very much*) ($M = 4.29$, $SD = 1.43$; $\alpha = .77$).

Control variables. We controlled for age, gender (1 = female, 0 = male), ethnicity (1 = Caucasian, 0 = other), religiosity ($M = 3.21$, $SD = 2.02$), and political orientation ($M = 3.18$, $SD = 1.55$). Religiosity and political orientation were assessed using the same scales as in Study 2.

Results

Manipulation check. As expected, participants in the empathy-induction condition felt more empathy for the target (the "lose member" of the group) ($M = 4.59$, $SD = 1.33$) than participants in the control condition ($M = 3.99$, $SD = 1.47$), $t(89) = 2.03$, $p < .05$.

Test of interaction. We expected that experimental condition would moderate the association between social class and utilitarian judgment such that higher social class would be associated with more utilitarian judgment in the control condition, but not in the empathy-induction condition. To test this prediction, we regressed utilitarian judgment on social class, experimental condition (empathy-induction vs. control), and the interaction between social class and experimental condition. To aid in the interpretation of the results, we centered social class prior to analysis because it is a continuous variable (Aiken & West, 1991).

The results are presented under Model 1 in Table 4. Social class was positively associated with utilitarian judgment. This association was qualified by a marginally significant interaction between social class and experimental condition, displayed graphically in Figure 2. To interpret the interaction, we tested the simple slopes using the procedures described by Aiken and West (1991). In the control condition, higher social class was associated with higher utilitarianism ($B = .27$, $SE = .12$, $\beta = .33$, $p < .05$), consistent

conflict moral dilemmas that pit relatively strong visceral reactions toward those harmed against consequentialist calculations. This finding is consistent with our theoretical analysis emphasizing the role of empathy in driving class differences in utilitarian judgment. In Study 2, we extended our investigation to examine the underlying psychological process and found that empathy for individuals harmed by utilitarian choices mediates the association between social class and utilitarian judgment. In Study 3, we used a different strategy to examine the underlying process, finding an association between social class and utilitarian judgment in a control condition, but not in a condition in which empathy was experimentally induced. These studies converge to show that social class shapes moral reasoning in high-conflict moral dilemmas through levels of empathy for those harmed by utilitarian judgments.

Social Class and Moral Reasoning

Although interest in the psychological effects of social class is increasing (Côté, 2011; Kraus et al., 2012; Na et al., 2010), previous research has not studied the association between social class and utilitarian judgment. The present findings offer a unique perspective on the process by which upper-class individuals make ethical decisions and provide an important complement to the portrayal of upper-class individuals in past research. Recent findings depict upper-class individuals as socially disengaged (Kraus & Keltner, 2009), poor perceivers of what others feel (Kraus et al., 2010), hesitant to help and donate to others (Piff et al., 2010), and more inclined to harm others for personal gain (Piff et al., 2012). These findings paint a picture of upper-class individuals as somewhat asocial—cold, aloof, and uncaring about others in their social environment.

The present investigation suggests that this portrayal is incomplete. Our research indicates that when making moral judgments, upper-class individuals are oriented toward maximizing gains for a group by expressing a willingness to take action that harms some but benefits many. As such, this investigation extends past findings by showing that upper-class individuals' tendencies to feel less empathy (Stellar et al., 2012) contributes not only to reduced prosocial behavior (Piff et al., 2010) but also to increased utilitarian judgment. These findings suggest that the decision making of higher social class individuals can be beneficial to social groups because these individuals more readily make dispassionate choices to serve the greater good that others might find quite difficult.

The results also have implications for the cultural specificity of moral reasoning. Our findings are consistent with the perspective that styles and approaches to moral reasoning are culturally bounded rather than universal. Some researchers have argued that the conceptions of morality in research on ethical decision making emphasize the concerns of middle-class Westerners and that these concerns differ from those held by people from different cultures and social classes (Graham et al., 2009; Haidt & Graham, 2007; Haidt & Joseph, 2004). The present research is consistent with that view, suggesting that individuals from different class backgrounds may have very different approaches to moral judgment and reasoning.

Other preliminary evidence exists for this assertion. In one investigation, higher- and lower-class children and adults in Porto Alegre, a relatively wealthy city in Brazil; Recife, a poor city in Brazil; and Philadelphia in the United States were asked to rate the

permissibility of actions that were impure, but harmless, such as cooking and eating a family dog that had been killed by a car in front of the house (Haidt et al., 1993). Upper-class participants from Porto Alegre were more similar to upper-class participants from Philadelphia, but quite different from lower-class citizens of their own country, in their permissiveness of impure yet harmless actions. Other studies found that impurity is a less important moral concern to upper- than lower-class individuals (Horberg, Oveis, Keltner, & Cohen, 2009; McAdams et al., 2008). The results of the present investigation complement these findings, revealing an additional way in which social class guides moral reasoning.

Social Class and Emotional Reactivity

The results of the Study 2 follow-up offer further insights on how social class relates to utilitarian judgment. Upper-class individuals were less reactive to an induction of empathy, but not to inductions of pride and amusement, arguing against the notion that upper-class individuals have more moderate emotional reactions in general. Instead, the evidence suggests that lower-class individuals react more strongly to inductions of a certain set of emotions, including empathy, that help them cope with the threats that are present in the environments they inhabit.

These results also have implications for the interpretation of past investigations of social class and prosocial emotions. For instance, although past research found that higher social class is associated with weaker reactivity to empathy-eliciting events (Piff et al., 2010; Stellar et al., 2012), it did not determine whether these class differences were unique to empathy. Our results suggest that prior findings about heightened reactivity concern a specific set of emotions that are particularly useful to lower-class individuals, rather than any emotion. Nonetheless, how social class might be linked with individuals' likelihoods of experiencing other specific emotions remains unknown, and future research should pursue a more complete understanding of the link between social class and emotional reactivity.

Caveats and Limitations

Three notable limitations of the present studies are the size of the effects, the characteristics of the sample, and our focus on a single mediating process. First, the effects were small to moderate according to the standards set by Cohen (1988). Several other factors, including other emotions (Choe & Min, 2011; Strohminger et al., 2011; Valdesolo & DeSteno, 2006) and traits of personality (Bartels & Pizarro, 2011), are associated with utilitarian judgment. The present investigation reveals that social class complements several other factors in potentially shaping tendencies toward utilitarianism.

Second, participants were recruited from a nationwide online pool of adult participants (MTurk), inviting concerns about the generalizability of the findings to the general population. We believe the results are generalizable because the participants came from a diversity of social class backgrounds (with household incomes ranging from under \$15,000 to over \$150,001). Furthermore, the percentage of participants who made utilitarian choices in the footbridge and standard trolley dilemmas in Study 1, and the reliabilities of the measures across the studies, were comparable to past research.

Third, with respect to process, we found evidence that one reason why upper-class individuals made more utilitarian judgments is that they felt less empathy for those harmed by this type of judgment. Even so, empathy is likely not the only process that explains this association. Future research could examine other mechanisms that may carry this association. Sociocultural factors present in the lives of upper-class individuals, such as increased privacy and freedom, could reduce concern for causing harm when making utilitarian judgments. In addition, upper-class individuals may be better able to deal with the social costs of causing harm to some individuals when making utilitarian judgments. Possible class-based differences in calculative mindsets that facilitate deliberative decision making (Wang, Malhotra, & Murnighan, 2011; Zhong, 2011) could also help explain upper-class individuals' tendency to make utilitarian judgments.

Conclusion

Guided by recent research on social class and moral psychology, we investigated a long-standing question: Do individuals from different social class backgrounds vary in their approaches to moral reasoning? We found that upper-class individuals were more likely to make calculated, dispassionate moral judgments in dilemmas in which utilitarian choices were at odds with visceral moral intuitions. In this way, the lower empathy of upper-class individuals ironically led them to make moral decisions that were more likely to maximize the greatest good for the greatest number. This research shows how individuals' relative levels of economic well-being in the larger society shape not only their opportunities, experiences, and standards of living but also their fundamental beliefs about what is right and wrong.

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