

Social Class, Contextualism, and Empathic Accuracy

Michael W. Kraus¹, Stéphane Côté², and Dacher Keltner³

¹University of California, San Francisco; ²University of Toronto; and ³University of California, Berkeley

Psychological Science

XX(X) 1–8

© The Author(s) 2010

Reprints and permission:

sagepub.com/journalsPermissions.nav

DOI: 10.1177/0956797610387613

http://pss.sagepub.com



Abstract

Recent research suggests that lower-class individuals favor explanations of personal and political outcomes that are oriented to features of the external environment. We extended this work by testing the hypothesis that, as a result, individuals of a lower social class are more empathically accurate in judging the emotions of other people. In three studies, lower-class individuals (compared with upper-class individuals) received higher scores on a test of empathic accuracy (Study 1), judged the emotions of an interaction partner more accurately (Study 2), and made more accurate inferences about emotion from static images of muscle movements in the eyes (Study 3). Moreover, the association between social class and empathic accuracy was explained by the tendency for lower-class individuals to explain social events in terms of features of the external environment. The implications of class-based patterns in empathic accuracy for well-being and relationship outcomes are discussed.

Keywords

social class, empathic accuracy, emotion, socioeconomic status, social power

Received 2/1/10; Revision accepted 5/18/10

Social class (socioeconomic status, or SES) permeates social life, determining participation in social institutions (Oakes & Rossi, 2003), preferences for artistic and cultural symbols (Bourdieu, 1985), and vulnerability to health and mood-related problems (Adler et al., 1994). So pervasive are the influences of social class that it is emerging as a cultural variable of interest to social scientists (e.g., Mahalingam, 2003; Nisbett, 2009). Despite these developments, little is known about how social class shapes interpersonal interactions—and, in particular, emotion processes. Examining how social class shapes emotion is important for uncovering the psychological processes that underlie the differential life circumstances of lower- and upper-class individuals.

In three studies, we examined how social class influences empathic accuracy—the ability to accurately infer the emotions of other individuals (Ickes, Stinson, Bissonnette, & Garcia, 1990). Relative to upper-class individuals, lower-class individuals are more engaged with others in their social environments (Kraus & Keltner, 2009) and focus to a greater extent on the external, contextual forces that influence their life outcomes (Kraus, Piff, & Keltner, 2009; Snibbe & Markus, 2005). In light of these findings, we predicted that lower-class individuals would demonstrate greater empathic accuracy than upper-class individuals.

Social Class and Contextualism

Social class arises from the social and monetary resources that an individual possesses. Thus, social class is measured by indicators of material wealth, including a person's educational attainment (Snibbe & Markus, 2005), income (e.g., Kraus & Keltner, 2009), or occupational prestige (Oakes & Rossi, 2003).

Material possessions are the objective substance of social class and signal one's social class to other people (Bourdieu, 1985; Kraus & Keltner, 2009). Via this signaling process, individuals develop subjective perceptions of rank vis-à-vis others in the social hierarchy (e.g., Adler, Epel, Castellazzo, & Ickovics, 2000; Kraus et al., 2009). Subjective SES captures the psychological experience of rank underlying a person's social class (Kraus et al., 2009) and predicts psychological and physical ailments associated with lower-class status, just as more objective measures of social class do (Adler et al., 2000). In the present investigation, we studied how objective and subjective SES influence empathic accuracy.

Corresponding Author:

Michael W. Kraus, University of California, San Francisco, 3333 California St., Suite 465, San Francisco, CA 94143
 E-mail: michael.kraus@ucsf.edu

Social class shapes how people perceive and respond to their social environments. Lower-class individuals' life outcomes—shaped by reduced material wealth and perceptions of lower rank—are more dependent on forces in the external social context than are the life outcomes of upper-class individuals (e.g., Keltner, Gruenfeld, & Anderson, 2003; Kraus & Keltner, 2009). Because of this increased dependence, lower-class individuals tend to focus their attention disproportionately on the context and, in particular, on other people, relative to their upper-class counterparts. For example, lower-class individuals are more aware of and exhibit heightened cardiovascular reactions to potential social threats in their environments relative to upper-class individuals (Chen & Matthews, 2001). Because they have a lower sense of control, lower-subjective-SES individuals tend to explain personal and social outcomes (e.g., receiving a failing grade in school) in terms of external, contextual forces (Kraus et al., 2009).

In contrast, the elevated rank and resources of upper-class individuals leads them to be relatively self-focused. For instance, in addition to having an elevated personal sense of control (e.g., Johnson & Krueger, 2006), upper-class individuals—identified through assessments of income and education—place greater value on their own idiosyncratic choices and preferences than lower-class individuals do. For example, upper-class individuals are more likely to acquire products that are unique looking and help them stand out from other people, relative to lower-class individuals (Snibbe & Markus, 2005; Stephens, Markus, & Townsend, 2007).

These class-based perceptual tendencies should have pronounced effects on emotion processes. One such process is empathic accuracy, which we think is enhanced in lower-class individuals as a result of their greater attention to the external social context.

Social Class and Empathic Accuracy

Empathic accuracy reflects the ability to judge the emotions of other individuals (Ickes et al., 1990). It is captured with well-validated standard tests (Mayer, Salovey, & Caruso, 2002), as well as in the accuracy with which individuals judge the spontaneous emotions of others (Ickes et al., 1990; Levenson & Ruef, 1992). Empathic accuracy tends to rise with greater interdependence (Stinson & Ickes, 1992) and is an important predictor of relationship outcomes and social adjustment (e.g., Côté & Miners, 2006).

Empathic accuracy is shaped by many features of the social context, including social roles and cultural dimensions (Ickes, Gesn, & Graham, 2005; Schmid Mast, Jonas, & Hall, 2009). We contend that one of these features is a person's social class. We predicted that lower-class individuals would demonstrate chronically higher levels of empathic accuracy than their upper-class counterparts for two complementary reasons: First, whereas upper-class individuals tend to focus inward on their own unique qualities and characteristics, lower-class individuals are more oriented to features of the social context,

and presumably should be more aware of the emotions and actions of other people. Second, given that empathic accuracy is enhanced in more interdependent relationships (Stinson & Ickes, 1992), the elevated social engagement and interdependence exhibited by lower-class individuals in their relationships (e.g., Argyle, 1994) should also engender greater empathic accuracy among these individuals. We hypothesized that, as a result of these tendencies, lower-class individuals would be more attentive of the emotions of others and judge these emotions more accurately than upper-class individuals.

Research supporting these theoretical arguments is limited but suggestive. Compared with upper-class individuals, lower-class individuals demonstrate more socially engaged behaviors (e.g., head nods, laughs) that are oriented to other people (Kraus & Keltner, 2009). In a study of emotion, lower- and upper-class participants rated the emotions of cartoon figures displaying specific emotions while figures in the background displayed the same or different emotions (Kraus et al., 2009). In these emotion ratings for the target figures, lower-class individuals took the faces of the background figures into greater account than did upper-class individuals. To the extent that they take in more contextual information when judging other people's emotions, lower-class individuals should exhibit higher empathic accuracy than their upper-class counterparts.

The Present Research

In three studies, we tested this hypothesis. Specifically, we predicted that, compared with upper-class individuals, lower-class individuals would perform better on a standard test of empathic accuracy (Study 1), would judge the emotions of an interaction partner more accurately (Study 2), and would make more accurate inferences about emotion from photographs of different muscle movements in the eyes (Study 3). We also expected class-based empathic accuracy to be explained by lower-class individuals' tendency to be contextual in their explanations for social events (Study 2). We tested these predictions with objective and subjective measures of social class (Studies 1 and 2) and with an experimental manipulation of subjective social class (Study 3). We also controlled for two constructs previously shown to covary with empathic accuracy: gender (e.g., Ickes et al., 2005) and trait agreeableness (Graziano, Habashi, Sheese, & Tobin, 2007).

Study 1

In Study 1, we tested whether lower social class was associated with elevated empathic accuracy in a sample of full-time employees of an organization.

Method

Participants were 200 full-time employees of a public university in a large city. They were recruited by e-mail messages.

The mean age of the participants (67.7% female, 32.3% male) was 42 ($SD = 11$). They had an average of 21 years of work experience ($SD = 11$) and 11 years of tenure in the organization ($SD = 10$). Participants held a variety of jobs, including jobs in office and administrative support (28% of the sample), education and training (23%), and management (21%). Participants completed self-reports of educational attainment and measures of empathic accuracy and agreeableness.

Social class. As in previous research (Snibbe & Markus, 2005), we operationalized social class as the educational attainment of participants. As a measure of social class, educational attainment has shown associations with all-cause mortality (Elo & Preston, 1996) and cardiovascular disease (Winkleby, Jatulis, Frank, & Fortmann, 1992). We divided participants according to whether they had or had not received a 4-year college degree because high-school- and college-educated individuals differ considerably in life outcomes such as job stability and occupational prestige (Pascarella & Terenzini, 1991). Forty-eight participants were high-school educated, and 152 participants had a bachelor's degree or higher.

Empathic accuracy. We administered the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT; Mayer et al., 2002) and used the 20-item subscale score for the ability to identify emotions in photographs of human faces. For this subscale, respondents indicate the degree to which five different emotions are expressed by a person in each of 20 photographs. Raw scores are converted to interpretable normalized standard scores with a mean of 100 and a standard deviation of 15. Participants' average score of 100.89 ($SD = 17.45$; $\alpha = .88$) was similar to the population average of the scale. The MSCEIT exhibits high reliability (Brackett & Mayer, 2003), discriminant validity with personality traits (Brackett & Mayer, 2003) and criterion validity with outcomes such as the quality of social interactions (Lopes et al., 2004).

Agreeableness. We administered the 10-item agreeableness scale from the International Personality Item Pool (Goldberg, 1999). A sample item is, "I make people feel at ease." Responses were made using 5-point Likert scales (1 = *very inaccurate*, 5 = *very accurate*; $M = 4.27$, $SD = 0.49$; $\alpha = .75$).

Results and discussion

As in previous research (Ickes et al., 2005), women ($M = 103.73$) exhibited significantly higher empathic accuracy than men ($M = 95.08$), $t(198) = 3.49$, $p < .05$. Also as expected, greater agreeableness was associated with greater empathic accuracy, $r(198) = .21$, $p < .01$. Moreover, initial analyses revealed that, in line with our hypothesis, high-school-educated participants ($M = 106.02$) had higher empathic-accuracy scores than college-educated participants ($M = 99.40$), $t(198) = 2.35$, $p < .05$.

In light of these findings, we tested our hypothesis that high-school-educated participants would show higher empathic accuracy than their college-educated counterparts in an analysis of covariance (ANCOVA) with education as a between-participants factor and gender and agreeableness as covariates. As shown in Figure 1, high-school-educated participants scored higher in empathic accuracy than their college-educated counterparts, $F(1, 196) = 5.18$, $p < .05$. This result provides initial evidence for our central hypothesis that lower-class individuals have greater empathic accuracy than upper-class individuals.

Study 2

In Study 2, we extended the findings from Study 1 in several ways. First, we tested whether social class predicts accuracy in judging emotions during interactions. Second, we examined whether a more pronounced focus on the context explains the association between social class and empathic accuracy. Finally, we relied on subjective SES—perceptions of one's socioeconomic rank in society—to measure social class.

Method

Participants. One hundred six university students (58 female, 48 male) took part in the study. Each session included 2 participants, who sat directly across from one another in a room. Gender and social class were allowed to vary freely for each session (12 all-male, 18 all-female, and 23 mixed-gender dyads). On a question assessing ethnic identity, 42.9% of participants indicated they were European American, 44.8% said they were Asian American, 7.6% identified themselves as Latino or Latin, and 2.9% said they were African American; the remaining 1.9% of participants came from other or multiple ethnic backgrounds.

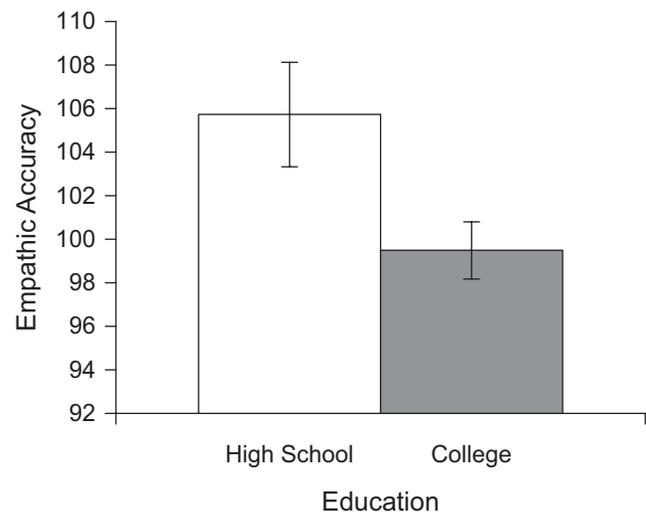


Fig. 1. Results from Study 1: participants' empathic-accuracy scores as a function of their highest level of education, controlling for gender and agreeableness. Error bars indicate standard errors of the mean.

Procedure. After the 2 participants in a session got acquainted, they took part in a hypothetical job interview. They were provided with a job description that outlined the responsibilities and required skills for a lab manager in a psychology department. The experimenter interviewed both participants using six common interview questions (e.g., “What do you consider to be your greatest strengths and weaknesses?”). Participants answered all questions. To increase motivation, the experimenter explained that cash prizes would be distributed to the 3 best interviewees.

Following the interview, participants performed a resource-allocation task at separate tables. Each participant divided a hypothetical reward of \$5,000 between him- or herself and the other participant, using their performance during the interview as a basis for the allocation. The participants then wrote explanations for their allocation decisions. To motivate careful thinking during the allocation task, the experimenter told participants that the accuracy of their explanations would factor into the selection of the participants who would receive the cash prizes. We used these explanations to assess participants’ focus on the context. Participants then answered demographic questions, rated their own emotions during the interview, and estimated the emotions of their partner during the interview.

Social class. Subjective SES was assessed as in previous research (Adler et al., 2000; Kraus et al., 2009). Participants rated themselves on a ladder that had 10 rungs representing where people stood in the university community. Participants were instructed that the people at the top of the ladder were “those who are the best off, have the most education, most money, and most respected jobs,” whereas the people at the bottom of the ladder were “those who are the worst off, have the least education, least money, and least respected jobs or no job.” In this sample, subjective-SES ratings accounted for participants’ perceptions of their family’s social class. Supporting the validity of this inference, participants’ ratings of subjective SES were significantly correlated with their self-reports of their mother’s education, $r(103) = .30, p < .05$; their father’s education, $r(103) = .33, p < .05$; and their estimated family income, $r(103) = .49, p < .05$.

Empathic accuracy. Participants rated their own emotions and estimated their partner’s emotions during the hypothetical job interview. Ratings on 20 positive and negative emotions (amusement, anger, compassion, contempt, contentment, disgust, embarrassment, excitement, fear, guilt, happiness, hope, inspiration, interest, jealousy, love, relaxation, sadness, surprise, and worry) were made using 10-point Likert scales (0 = *no emotion*, 9 = *a great deal of emotion*). To index empathic accuracy, we subtracted participants’ mean estimates of their partner’s emotions from the mean of their partner’s self-reported emotions. We multiplied the absolute value of that difference by -1 so that higher scores indicated greater empathic accuracy ($M = -2.01, SD = 0.88; \alpha = .84$).

Agreeableness. At the end of the experiment, we assessed agreeableness using two items from the Ten Item Personality Inventory (Gosling, Rentfrow, & Swann, 2003). Items (e.g., “I am sympathetic, warm”) were rated on 7-point Likert scales (1 = *strongly disagree*, 7 = *strongly agree*; $M = 5.26, SD = 1.01$).

Content coding of explanations. To generate an index of the degree to which participants focused on the context, two judges independently coded participants’ written explanations of their allocation decisions. Using coding methods validated previously (Morris & Peng, 1994), they divided explanations into grammatical clauses and gave each clause one of two codes: Contextual explanations involved a property tied to a particular time or place (e.g., discomfort due to the interview environment). Dispositional explanations involved a property that a person carries across time and place (e.g., traits of personality). In total, 669 clauses were coded. Correlations between the two coders were significant for both contextual explanations, $r(103) = .76, p < .001$, and dispositional explanations, $r(103) = .79, p < .001$. Our index of contextual explanations was the proportion of each individual’s explanations that were contextual ($M = .77, SD = .28$).

Coding of emotional expression. Within interactions, lower-class individuals may judge emotions more accurately than upper-class individuals because the latter are more expressive (Hall, Rosip, Smith LeBeau, Horgan, & Carter, 2006). Complementarily, upper-class individuals may have reduced empathic accuracy because their lower-class counterparts express emotions in a more ambiguous fashion. To address this possibility, we measured participants’ emotional expressivity. Five coders watched a video recording of each participant during the job interview while the participant’s partner was obstructed from view and rated the participant’s emotional expressivity on a 4-point Likert scale (0 = *not at all expressive*, 3 = *extremely expressive*). The coders were instructed to let both the verbal and the nonverbal behavior of participants guide their expressivity codes. Coders’ expressivity codes were internally consistent, average $r(103) = .33, p < .01$ ($\alpha = .70$). Emotional expressivity was indexed as the average of the coders’ ratings ($M = 1.37, SD = 0.48$).

Results and discussion

Initial correlational analyses revealed that lower class, as measured by subjective SES, was associated with greater empathic accuracy, $r(104) = -.20, p < .05$. To more formally test our hypothesis that lower-class individuals perceive the emotions of others more accurately than upper-class individuals do, we used an actor-partner interdependence model (APIM; Kenny, Kashy, & Cook, 2006) predicting empathic accuracy with actor and partner social class and ethnicity (coded as 0 for non-European American and 1 for European American) and the interaction between actor and partner social

class. We also entered actor and partner agreeableness, gender, and emotional expressivity, as controls. As hypothesized, lower-class actors were more accurate than their upper-class counterparts in judging the spontaneous emotions of their interaction partner, $b = -0.21$, $t(64.25) = -2.61$, $p < .05$.

Unexpectedly, partner ethnicity was related to empathic accuracy, $b = 0.38$, $t(70.42) = 2.47$, $p < .05$: Participants were more accurate in judging the emotions of European American partners than in judging the emotions of non-European American partners. Perhaps this effect reflects participants' frequency of interaction with European Americans relative to other ethnic groups. In addition, actor agreeableness, $b = 0.16$, $t(64.75) = 2.06$, $p < .05$, and partner agreeableness, $b = 0.18$, $t(64.77) = 2.28$, $p < .05$, were both positively associated with empathic accuracy. More agreeable participants perceived their partners' emotions more accurately, and it was easier for participants to accurately perceive the emotions of more agreeable partners. No other effects were significant.

Finally, we tested the mediating role of focus on the context using analyses adapted for the APIM (West, Popp, & Kenny, 2008). As Figure 2 illustrates, lower-class individuals showed an elevated propensity to focus on the external social context, $t(89.15) = -3.08$, $p < .01$, as in previous research (Kraus et al., 2009). Moreover, when we added actor and partner contextual explanations to the original model predicting empathic accuracy, the tendency to use contextual explanations was significantly associated with elevated empathic accuracy, $t(80.01) = 2.90$, $p < .01$. In addition, adding actor contextual explanations rendered nonsignificant the originally significant relationship between actor social class and empathic accuracy, $t(71.52) = -1.45$, $p = .15$. The indirect effect of social class on empathic accuracy through contextual explanations was significant (Sobel's $Z = 2.05$, $p < .05$). Overall, these results suggest that relative to upper-class people, lower-class individuals are more accurate at perceiving emotions during social interactions, and that this tendency is

explained by lower-class individuals' greater focus on the external social context.

Study 3

As a dimension of social identity, social class is intertwined with many complex factors—the neighborhood one grows up in or the historical legacies of class background—that are difficult to control in correlational approaches. In light of these concerns, in our final study, we manipulated participants' temporary perceptions of their social-class rank. We predicted that inducing participants to momentarily experience a lower sense of social-class rank would increase their empathic accuracy, assessed in this case by the ability to accurately infer emotion from configurations of muscle movements around the eyes.

Method

Eighty-one university students (59 female, 22 male) completed our manipulation of relative social class, which was followed by a number of filler measures, a measure of empathic accuracy, and demographic questions. The sample was 15.3% European American, 56.5% Asian American, 7.1% Latino or Latina, and 4.7% African American; the remaining 16.5% of participants represented other or multiple ethnicities.

Social class. The manipulation of social class was adapted from measures of subjective perceptions of socioeconomic rank (Adler et al., 2000; Kraus et al., 2009) and was conceptually similar to manipulations of cultural-identity constructs (e.g., individualism-collectivism; Oyserman & Lee, 2008). Participants were presented with an image of a ladder with 10 rungs. They were instructed to think of the ladder "as representing where people stand in the United States." They were then randomly assigned to experience either high or low relative social class and received the following instructions:

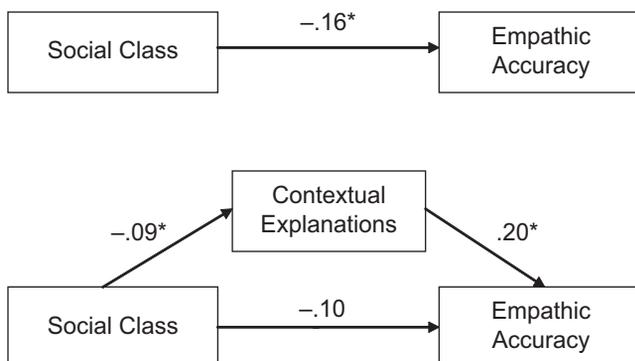


Fig. 2. Results from Study 2: models displaying the relationship between actor social class and empathic accuracy (top model) and the relationship between actor social class and empathic accuracy as mediated by actor contextual explanations for behavior during the allocation task (bottom model). All analyses controlled for actor and partner effects of ethnicity, gender, agreeableness, and emotional expressivity. Numbers are unstandardized mixed-model coefficients. Asterisks indicate statistical significance ($p < .05$).

Now, please compare yourself to the people at the very bottom [top] of the ladder. These are people who are the worst [best] off—those who have the least [most] money, least [most] education, and the least [most] respected jobs. In particular, we'd like you to think about how you are different from these people in terms of your own income, educational history, and job status. Where would you place yourself on this ladder relative to these people at the very bottom [top]?

To strengthen the manipulation, we instructed participants to write about a hypothetical interaction with a person from the bottom or top of the ladder. Participants then indicated their own standing on the ladder; the bottom rung was coded as "1," and the top rung was coded as "10." Participants in the upper-class rank condition ($M = 6.56$) placed themselves significantly higher up on the ladder than participants in the lower-class rank condition ($M = 5.71$), $t(79) = 2.39$, $p < .05$.

Thus, the manipulation shifted participants' perceptions of their subjective SES.

Empathic accuracy. Participants performed the Mind in the Eyes task (Baron-Cohen, Wheelwright, Hill, Raste, & Plumb, 2001). They viewed 36 pictures portraying the expression of different emotions (e.g., nervous, hostile, playful) solely through muscle configurations surrounding the eyes and chose from four options the emotion word that best described each picture. The number of correct answers was tallied for each participant. Thus, higher scores indicate greater empathic accuracy ($M = 26.18$, $SD = 3.87$).

Agreeableness. Agreeableness was assessed using the average rating for nine items from the Big Five Personality Inventory (John & Srivastava, 1999). An example item is, "likes to cooperate with others." Participants made ratings using 7-point Likert scales (1 = *disagree strongly*, 7 = *agree strongly*; $M = 4.32$, $SD = 0.42$).

Results and discussion

Our central prediction was that participants with manipulated lower-class rank would discern the emotions of other people better than participants with manipulated upper-class rank. Initial analyses revealed that participants in the lower-class-rank condition ($M = 27.08$) showed greater empathic accuracy than participants in the upper-class-rank condition ($M = 25.23$), $F(1, 77) = 4.64$, $p < .05$. To further test our hypothesis, we conducted an ANCOVA with our social-class manipulation as a between-participants factor, gender and agreeableness as covariates, and empathic accuracy as the dependent variable. As Figure 3 shows, participants experimentally induced to experience lower-class rank were better able than their upper-class-rank counterparts to discern emotions from subtle expressions in the eyes, $F(1, 74) = 4.48$, $p < .05$.

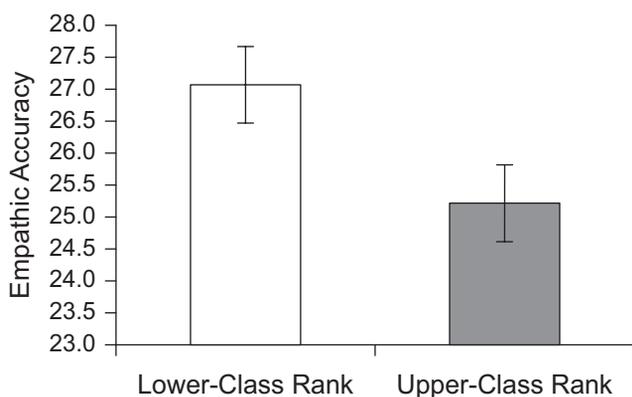


Fig. 3. Results from Study 3: participants' empathic-accuracy scores as a function of manipulated social-class rank, controlling for gender and agreeableness. Error bars indicate standard errors of the mean.

General Discussion

Lacking resources and control, lower-class individuals tend to focus on the external, social context to understand events in their lives. As a result, they orient to other people to navigate their social environments. One prediction that follows from these tendencies is that lower-class individuals should be more accurate judges of the emotions of others than upper-class individuals are. In three studies that tested this hypothesis using measures of both objective and subjective SES, lower-class individuals, relative to their upper-class counterparts, scored higher on a measure of empathic accuracy (Study 1), judged the emotions of a stranger more accurately (Study 2), and inferred emotions more accurately from subtle expressions in the eyes (Study 3). Throughout our investigation, these associations held after accounting for two constructs shown in previous research to correlate with empathic accuracy: gender and trait agreeableness. Moreover, we found in Study 2 that a focus on the external context explains the association between social class and empathic accuracy.

These findings point to several areas worthy of future empirical inquiry. One question concerns potential moderators of the influence of social class on empathic accuracy. For example, research on social power—a construct closely related to social class—and empathic accuracy has yielded inconsistent findings (see Hall, Halberstadt, & O'Brien, 1997). In some studies, high-power individuals have shown less empathic accuracy than low-power individuals (e.g., Galinsky, Gruenfeld, & Magee, 2003), but in other studies, this effect has been moderated by factors such as self-focus and egotism (e.g., Schmid Mast et al., 2009). Given these findings, it would be important to examine how features that moderate power's influences on empathic accuracy may influence the observed link between social class and empathic accuracy. For instance, the presence of clear social rewards or explicit goals for understanding other individuals' emotions may enhance the empathic accuracy of upper-class individuals (e.g., see Guinote, 2007). Contexts that enhance social power may also moderate social-class influences on empathic accuracy. In one study, lower-class individuals who thought about a situation in which they had elevated control over other people's outcomes tended to ignore contextual information in their emotion perceptions—just as upper-class individuals do—relative to lower-class individuals who thought about a low-control situation (Kraus et al., 2009). These findings strongly suggest that in contexts where lower-class individuals enjoy elevated power or control, their tendencies toward enhanced empathic accuracy will be diminished.

Study 3 is among the first to manipulate temporary perceptions of relative social class. This experimental manipulation is important because it allows for causal interpretations of the link between social class and empathic accuracy. This approach should also be applied to validate potential causal links between social class and other constructs, such as sense of control (Johnson & Krueger, 2006), self-reported health (Adler

et al., 2000), and experience of negative emotion (e.g., Gallo & Matthews, 2003).

The current results were observed among university students or employees, and these samples likely underrepresent individuals from the richest and poorest sectors of society. Therefore, our findings will be bolstered by research in samples that reflect the most robust upper and lower socioeconomic conditions. In addition, future work is needed to study social class in more ethnically homogeneous samples to further separate effects of class and ethnicity.

Finally, the findings relating social class to empathic accuracy have potentially profound implications for how social inequality affects close relationships. In fact, the greater social engagement exhibited by lower-class individuals in past research (Kraus & Keltner, 2009) may spring from a similar need to perceive the external environment accurately in order to be responsive to it. Empathic accuracy may mediate influences of class on relationship quality, commitment, and satisfaction. It is also interesting to speculate about the costs of heightened empathic accuracy for overall health and well-being, particularly because lower-class individuals tend to experience chronically elevated levels of negative emotion and negative mood disorders (e.g., Gallo & Matthews, 2003). Future research should investigate whether being able to identify other people's negative emotions contributes to relationship turmoil among lower-class individuals (Argyle, 1994; Levenson & Ruef, 1992).

Social class affects many aspects of social life—and, in particular, the emotions that people perceive and express in social interactions. Therefore, social class is an important variable in understanding how people relate to one another and may provide insights into the role that emotions play in relationship stability and overall well-being.

Acknowledgments

The authors wish to thank the members of the Berkeley Social Interaction Laboratory for their helpful comments on an earlier version of this manuscript.

Declaration of Conflicting Interests

The authors declared that they had no conflicts of interest with respect to their authorship or the publication of this article.

Funding

Study 1 was supported by a grant from the Social Sciences and Humanities Research Council of Canada to the second author.

References

- Adler, N.E., Boyce, T., Chesney, M.A., Cohen, S., Folkman, S., Kahn, R.L., & Syme, S.L. (1994). Socioeconomic status and health: The challenge of the gradient. *American Psychologist, 49*, 15–24.
- Adler, N.E., Epel, E.S., Castellazzo, G., & Ickovics, J.R. (2000). Relationship of subjective and objective social status with psychological and physiological functioning: Preliminary data in healthy, White women. *Health Psychology, 19*, 586–592.
- Argyle, M. (1994). *The psychology of social class*. London, England: Routledge.
- Baron-Cohen, S., Wheelwright, S., Hill, J., Raste, Y., & Plumb, I. (2001). The “Reading the Mind in the Eyes” Test revised version: A study with normal adults, and adults with Asperger syndrome or high-functioning autism. *Journal of Child Psychology and Psychiatry and Allied Disciplines, 42*, 241–252.
- Bourdieu, P. (1985). The social space and the genesis of groups. *Theory and Society, 14*, 723–744.
- Brackett, M.A., & Mayer, J.D. (2003). Convergent, discriminant, and incremental validity of competing measures of emotional intelligence. *Personality and Social Psychology Bulletin, 29*, 1147–1158.
- Chen, E., & Matthews, K.A. (2001). Cognitive appraisal biases: An approach to understanding the relation between socioeconomic status and cardiovascular reactivity in children. *Annals of Behavioral Medicine, 23*, 101–111.
- Côté, S., & Miners, C.T.H. (2006). Emotional intelligence, cognitive intelligence, and job performance. *Administrative Science Quarterly, 51*, 1–28.
- Elo, I.T., & Preston, S.H. (1996). Educational differentials in mortality: United States, 1979–1985. *Social Science & Medicine, 42*, 47–57.
- Galinsky, A.D., Gruenfeld, D.H., & Magee, J.C. (2003). From power to action. *Journal of Personality and Social Psychology, 85*, 453–466.
- Gallo, L.C., & Matthews, K.A. (2003). Understanding the association between socioeconomic status and physical health: Do negative emotions play a role? *Psychological Bulletin, 129*, 10–51.
- Goldberg, L.R. (1999). A broad-bandwidth, public domain, personality inventory measuring the lower-level facets of several five-factor models. In I. Mervielde, I. Deary, F. De Fruyt, & F. Ostendorf (Eds.), *Personality psychology in Europe* (Vol. 7, pp. 7–28). Tilburg, The Netherlands: Tilburg University Press.
- Gosling, S.D., Rentfrow, P.J., & Swann, W.B., Jr. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in Personality, 37*, 504–528.
- Graziano, W.G., Habashi, M., Sheese, B., & Tobin, R.M. (2007). Agreeableness, empathy, and helping: A person × situation perspective. *Journal of Personality and Social Psychology, 93*, 583–599.
- Guinote, A. (2007). Power and goal pursuit. *Personality and Social Psychology Bulletin, 33*, 1076–1087.
- Hall, J.A., Halberstadt, A.G., & O'Brien, C.E. (1997). “Subordination” and nonverbal sensitivity: A study and synthesis of findings based on trait measures. *Sex Roles, 37*, 295–317.
- Hall, J.A., Rosip, J.C., Smith LeBeau, L., Horgan, T.G., & Carter, J.D. (2006). Attributing the sources of accuracy in unequal-power dyadic communication: Who is better and why? *Journal of Experimental Social Psychology, 42*, 18–27.
- Ickes, W., Gesn, P.R., & Graham, T. (2005). Gender differences in empathic accuracy: Differential ability or differential motivation? *Personal Relationships, 7*, 95–109.
- Ickes, W., Stinson, L., Bissonnette, V., & Garcia, S. (1990). Naturalistic social cognition: Empathic accuracy in mixed-sex dyads. *Journal of Personality and Social Psychology, 59*, 730–742.

- John, O.P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L.A. Pervin & O.P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 102–138). New York, NY: Guilford Press.
- Johnson, W., & Krueger, R.F. (2006). How money buys happiness: Genetic and environmental processes linking finances and life satisfaction. *Journal of Personality and Social Psychology, 90*, 680–691.
- Keltner, D., Gruenfeld, D.H., & Anderson, C. (2003). Power, approach, and inhibition. *Psychological Review, 110*, 265–284.
- Kenny, D.A., Kashy, D.A., & Cook, W.L. (2006). *Dyadic data analysis*. New York, NY: Guilford Press.
- Kraus, M.W., & Keltner, D. (2009). Signs of socioeconomic status: A thin-slicing approach. *Psychological Science, 20*, 99–106.
- Kraus, M.W., Piff, P.K., & Keltner, D. (2009). Social class, sense of control, and social explanation. *Journal of Personality and Social Psychology, 97*, 992–1004.
- Levenson, R.W., & Ruef, A.M. (1992). Empathy: A physiological substrate. *Journal of Personality and Social Psychology, 63*, 234–246.
- Lopes, P.N., Brackett, M.A., Nezlek, J.B., Schütz, A., Sellin, I., & Salovey, P. (2004). Emotional intelligence and daily social interactions. *Personality and Social Psychology Bulletin, 30*, 1018–1034.
- Mahalingam, R. (2003). Essentialism, power and culture: Representations of social class. *Journal of Social Issues, 59*, 733–749.
- Mayer, J.D., Salovey, P., & Caruso, D.R. (2002). *Manual for the MSCEIT (Mayer-Salovey-Caruso Emotional Intelligence Test)*. Toronto, Ontario, Canada: MultiHealth Systems.
- Morris, M., & Peng, K. (1994). Culture and cause: American and Chinese attributions for social and physical events. *Journal of Personality and Social Psychology, 67*, 949–971.
- Nisbett, R.E. (2009). *Intelligence and how to get it: Why schools and cultures count*. New York, NY: W.W. Norton.
- Oakes, J.M., & Rossi, P.H. (2003). The measurement of SES in health research: Current practice and steps toward a new approach. *Social Science and Medicine, 56*, 796–784.
- Oyserman, D., & Lee, S.W.S. (2008). Does culture influence what and how we think? Effects of priming individualism and collectivism. *Psychological Bulletin, 134*, 311–342.
- Pascarella, E.T., & Terenzini, P.T. (1991). *How college affects students: Findings and insights from twenty years of research*. San Francisco, CA: Jossey-Bass.
- Schmid Mast, M., Jonas, K., & Hall, J.A. (2009). Give a person power and he or she will show interpersonal sensitivity: The phenomenon and its why and when. *Journal of Personality and Social Psychology, 97*, 835–850.
- Snibbe, A.C., & Markus, H.R. (2005). You can't always get what you want: Educational attainment, agency, and choice. *Journal of Personality and Social Psychology, 88*, 703–720.
- Stephens, N.M., Markus, H.R., & Townsend, S.M. (2007). Choice as an act of meaning: The case of social class. *Journal of Personality and Social Psychology, 93*, 814–830.
- Stinson, L., & Ickes, W. (1992). Empathic accuracy in the interactions of male friends versus male strangers. *Journal of Personality and Social Psychology, 62*, 787–797.
- West, T.V., Popp, D., & Kenny, D.A. (2008). A guide for the estimation of gender and sexual orientation effects in dyadic data: An actor-partner interdependence model approach. *Personality and Social Psychology Bulletin, 34*, 321–336.
- Winkleby, M.A., Jatulis, D.E., Frank, E., & Fortmann, S.P. (1992). Socioeconomic status and health: How education, income, and occupation contribute to risk factors for cardiovascular disease. *American Journal of Public Health, 82*, 816–820.