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The Social Ladder: A Rank-Based Perspective on Social Class

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Scholars across the social sciences have studied social class for centuries. In this review, we suggest that social class is a fundamental means by which individuals are ranked on the social ladder of society. A rank-based perspective on social class shines light on several future areas of research: Specifically, understanding how social class ranks individuals vis-à-vis others leads to predictions about how class is signaled in interactions, influences social cognition and health, is shaped by global economic inequality trends, and changes across the life course. Importantly, our theory highlights the potential of experimental manipulations of social class rank for testing the causal role of social class in shaping basic patterns of cognition, emotion, and behavior. Future predictions regarding the channels of social class rank signals, along with how position on the social ladder shapes political attitudes and interacts with cultural values, are considered.

During the U.S. presidential election campaign of 2012, candidate Rick Santorum declared, "There are no classes in America. Middle income maybe, but we don't put people into classes. . . . We don't get into class warfare" (Daly, 2012). In some circles of American society, it is common for people to discourage the mere acknowledgment of social class because of its potential to incite intergroup conflict and division. To discuss social classes, in short, is to divide Americans. Despite these reservations, social scientists have waded into the class discussion for centuries. In this rich tradition of theory and research, the influence of social class on important everyday life outcomes was evident: Being at the top (or bottom) of the social class hierarchy shapes manners, tastes—for art, music, and culture (Bourdieu, 1979; Kohn & Schooler, 1969), the social and economic opportunities people have across the life course (Stephens, Markus, & Fryberg, 2012), and even the actual length of the life course itself (Adler et al., 1994).

Facing social class in this fashion leads to an important realization: If a ranking at the top (vs. bottom) of the class hierarchy has such a profound effect on one's daily cultural experiences, opportunities, and mortality, then it must fundamentally shape the ways in which people perceive and respond to their social environments on a daily basis. In this article, we build on previous theoretical work (Kraus, Piff, Mendoza-Denton, Rheinschmidt, & Keltner, 2012) to develop a theory of how social class influences basic social cognitive processes. In particular, this article examines perceptions of rank vis-à-vis others as a foundational aspect of the psychological experience of social class and considers how conceiving of social class as a rank-related construct provides a framework for testing the causal influence of social class on basic cognitive, emotional, and behavioral patterns.

Empirical Traditions in Social Class Research

The empirical tradition of social class research predates the birth of each of the authors of this manuscript by decades (Durkheim, 1802; Kohn & Schooler, 1969; Veblen, 1899). Thus, we do not presume to suggest that understanding the psychological experience of social class is a novel undertaking. In actuality, several clear theoretical traditions predate and inform our own predictions. The most prominent of these perspectives is a cultural perspective on social class (e.g., Markus & Kitayama, 2003; Snibbe & Markus, 2005; Stephens, Fryberg, & Markus, 2012; Stephens, Markus, & Townsend, 2007). In this research, social class is conceptualized as an immersive environment where individuals are socialized to take on particular conceptions of the self and models for how to relate to others (Markus & Kitayama, 1991, 2003). Thus, in relatively lower-class contexts, where individuals have fewer resources and reduced opportunities, individuals

develop conceptions of the self that focus on interdependence, social connection, and blending together. In contrast, relatively upper-class environments, where individual opportunities and resources are more abundant, lead individuals to develop conceptions of the self that focus on independence, freedom of choice, and standing out from others (e.g., Stephens, Markus, & Fryburg, 2012).

In more recent empirical work, social class has been examined in purely economic terms—that is, what are the psychological consequences of constructs closely related to the economic conditions of social class? One set of studies examined how priming the concept of money influences interpersonal judgments. The study found, for instance, that merely thinking about money increases self-sufficiency, independence, and social distance between people (Vohs, Mead, & Goode, 2006). In related work, economists have examined decisions under conditions of resource scarcity: Individuals who are made resource poor tend to exhibit lower cognitive control and, as a result, make less rational economic decisions than their resource rich counterparts (Shah, Mullainathan, & Shafir, 2012).

Researchers studying social class have also examined the construct in relation to health outcomes. This is a particularly important area of research, given that lower-class individuals tend to have higher rates of mortality by any cause than their more advantaged upper-class counterparts (Adler, Epel, Castellazzo, & Ickovics, 1994). In examinations of the psychological processes that underlie the poor health outcomes of lower-class individuals, researchers have focused on the perception of threat. In this research, reduced levels of material resources in relatively lower-class social environments increase perceptions of uncertainty (Chen & Matthews, 2001; Miller, Chen, & Cole, 2009). It is this uncertainty that engages physiological threat responses (e.g., activation of the sympathetic nervous system and the release of pro-inflammatory hormones) that, if experienced over time, can be detrimental to the health and longevity of lower-class individuals (Miller et al., 2009; Sapolsky, 2005).

Together, each of these rich empirical traditions brings into focus the varying psychological experiences—learned models of the self, resource availability, or threat vigilance—that shape how social class influences core social cognitive processes. One alternative perspective that we advocate, highlighted in one form or another by each of these theories, is that social class can be thought of as a foundational source of rank on the social ladder of society.

The Social Ladder: A Rank-Based Perspective on Social Class

In much of the prior research on social class (socioeconomic status), researchers have typically defined the construct in terms of the objective experience of contrasting levels of material resources and then used measures of educational attainment (e.g., Stephens et al., 2007), annual income or economic wealth (e.g., Drentea, 2000), and occupation status (e.g., Oakes & Rossi, 2003) as indices of social class position (cf. Kraus & Stephens, 2012). Together, these variables indicate a person's level of access to valuable materials—goods and services, social capital, social or economic opportunity—that shape the life course.

It is important to note that construals of the material conditions of one's social life are shaped by comparisons between one's own material resources and that of others (Boyce, Brown, & Moore, 2010; Fiske, 2011). This realization has led recent research to focus on a sometimes uncomfortable reality: Comparisons of material resources define an individual's rank in society vis-à-vis others. Thus, many of the psychological processes experienced by individuals of relatively upper or lower class backgrounds can be described in terms of experiences at the top or bottom of society's pecking order.

Rank is a fundamental process in mammalian social life. Among nonhuman animals, rank is well defined in display behavior (e.g., the large primary claw of the fiddler crab, the decorative nesting of bower birds), is negotiated in contests for social dominance, and has important outcomes for health and well-being (de Waal, 1986). In stable hierarchies within nonhuman species, low-ranking individuals tend to have reduced access to group resources and to show higher levels of chronic stress, measured by levels of blood plasma glucocorticoids. In contrast, high-ranking nonhumans tend to enjoy more grooming partners and increased reproductive opportunities (for a review, see Sapolsky, 2004, 2005).

The focus of this article is to describe the psychological experience of social class in terms of rank. Specifically, many of the everyday social contexts an individual inhabits are fundamentally shaped by perceptions of social class rank at a chronic level (e.g., perceptions of one's standing in society as a whole) and that are specific to a situation (e.g., perceptions within a friendship, at work, or within a team). In what follows, we argue that social class rank is communicated through social behavior both rapidly and accurately and that perceptions of social class rank are a primary psychological mechanism in the experience of social class, shaping the ways in which individuals perceive the social world and relate to others (see Figure 1).

Signs of Social Class Rank

Although there are wide cultural variations in the amount that societies discuss social class, Americans—perhaps because they place more hope in the

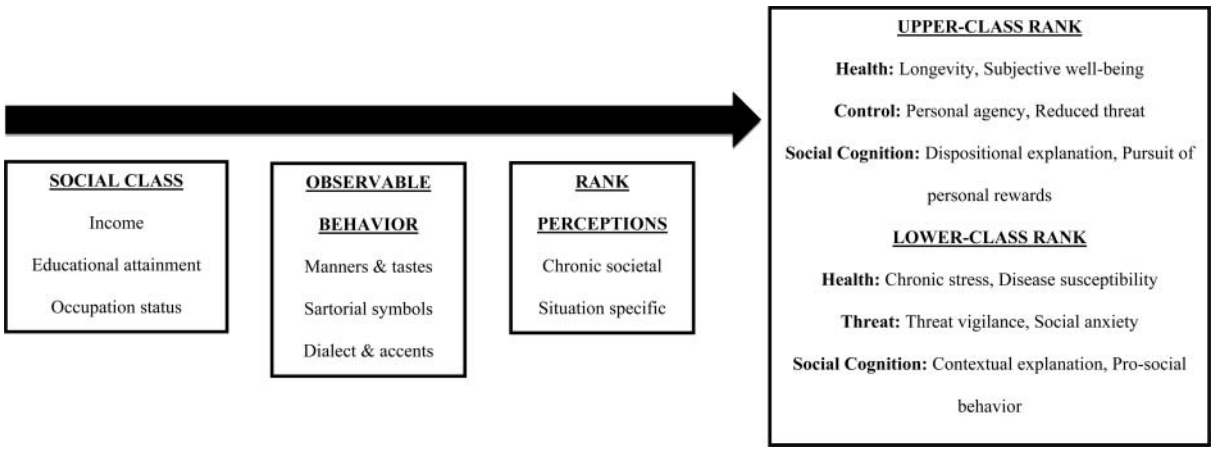

Figure 1. Theoretical model demonstrating the causal process in which signs of an individual's social class are transmitted in social interactions through observable behavior, leading to the experience of social class rank vis-à-vis others and to patterns of psychological experience.

American Dream or the promise of equal opportunity (e.g., Norton & Ariely, 2011)—are remarkably unwilling to talk about their own social class with others. Rarely do discussions shift to topics that include annual salary or financial wealth; well-educated individuals typically do not like their advanced degrees brought up as the first topic of conversation (Fiske, 2011); People do not readily display their bank statements, degrees, or occupation titles. Americans also have a hard time reaching agreement regarding the labels they use for their own social class position. For instance, nurses—despite their shared occupation status—tend to be divided in terms of whether they label themselves as working class or middle class (Hout, 2008). These examples suggest that social class is a fuzzy construct in American society, with unclear boundaries and concealable social signals.

Despite these apparent obscurities and the prevailing reticence to discuss social class, actual class boundaries are surprisingly concrete: The United States is faced with record levels of income inequality and one of the lowest rates of class mobility among modern industrialized countries (Fiske & Markus, 2012; Piketty & Saez, 2003). Social contexts are also suffused with class boundaries: Neighborhoods, K–12 schools, occupations, and social clubs all tend to be inhabited by people of similar class backgrounds (Domhoff, 1998). These concrete class boundaries decrease contact between individuals of different social class backgrounds and heighten experiences of threat during cross-class interactions. For instance, when female college students were told that they were about to have an interaction with a partner from a working-class background (e.g., a student with a parent holding a blue-collar job), they tended to exhibit physiological profiles consistent with feelings of threat (e.g., increased constriction of peripheral blood vessels) relative to when anticipating an interaction with a middle-class partner (Blascovich, Mendes, Hunter, Lickel, & Kowai-Bell, 2001).

Concrete class boundaries ensure that behavioral profiles, which likely arise from social learning processes that occur as a function of being raised in a relatively lower- or upper-class context (e.g., Markus & Kitayama, 2003; Stephens, Markus, & Fryburg, 2012), also become sorted largely in terms of social class, and as such provide a basis for judging one's own social class rank relative to others. Thus, every time a person engages in a behavior that is associated with working-class contexts (e.g., attends a blue-collar comedy show or uses the incorrect fork for their salad at dinner) or middle-class contexts (e.g., critiques the work of the director of a film or chooses chicken cordon bleu over fried chicken), that person is providing information about his or her own social class rank in society vis-à-vis others. In all these behaviors, and others, people send and receive information about their social class background, and in turn become aware of their rank in society on a chronic societal level, and within a specific group or situation.

The social class information that is sent and received within interactions is a reflection of the social selves of individuals (e.g., Snibbe & Markus, 2005; Stephens et al., 2012), and as such, communication of position on the social ladder of society is likely to occur both effortlessly and below conscious awareness. We contend that individuals engaging in their normal social behavior, within daily interactions with others, will transmit accurate information about their social class. These signs of social class rank are transmitted in brief periods of dynamic behavior (i.e., thin slices) as are signs of other aspects of one's social self, such as personality traits (Ambady & Rosenthal, 1992; Gosling, Ko, Mannarelli, & Morris, 2002) or social identities (e.g., sexual orientation; Rule & Ambady, 2008).

Table 1. *Evidence for the Accuracy of Social Class Rank Perceptions.*

	Student 60 s Video Interactions	Facebook.com Photographs	Laboratory Photograph
Parental income	.27*	.34*	—
Mother's education	.24*	.19*	—
Father's education	.12	.31*	—
Self-report income	—	.27*	.21*
Self-report education	—	–.06	.09
Subjective social class	.23*	.35*	.18*

Note. Numbers indicate intercorrelations between judge's estimates of social class rank and participant self-reports.
*$p < .05$.

The previous analysis suggests the possibility that social class rank is perceived in social interactions at rates that are above chance accuracy. In perhaps the first study to test this hypothesis, Kraus and Keltner (2009) had a sample of judges watch 60 s of a social interaction between two university students and then attempt to guess participants' social class using a measure of subjective social class rank—wherein people are ranked on a 10-rung ladder representing ascending levels of social class (e.g., income, education, and occupation status) in society (Adler et al., 2000). Despite only watching 60 s of these interactions, judges' ratings of social class rank were significantly correlated with participant self-reports of their family income, mother's education, and self-rated subjective social class rank (see Table 1, left column).

In more recent evidence of social class rank perceptions, Rheinschmidt, Zisman, Kraus, and Keltner (2013) asked a sample of judges to estimate the social class rank of university student and adult participants based on viewing photographs taken from profiles on a social networking website (i.e., Facebook.com). Recent evidence indicates that people communicate their personality traits online in an honest and consistent manner (Back et al., 2011). Based on this work, it was expected that social class rank would also be transmitted through profile photographs. Results were consistent with this expectation: After viewing profile photographs, judges' ratings of social class rank were significantly correlated with several self-report indices of participant social class (Rheinschmidt et al., 2013; Table 1, center column). In online social interactions, social class rank information is transmitted to others at levels of accuracy that are above chance.

Perhaps the most striking evidence for the surprising accuracy of social class rank perception comes from research examining single static images. In this study, 128 healthy adult participants (aged 18–34) had their photograph taken while they sat in an experiment room and had their resting physiological responses recorded. Participants were selected from diverse class backgrounds—six held workplace managerial positions and 28 were part-time or unemployed workers. When a separate sample of judges rated the social class rank of these participants, judge's ratings were significantly correlated with participant self-reports of family income and subjective social class rank (Kraus & Mendes, 2013a; see Table 1, right column). Of interest, whereas judges were accurate in their ratings of social class rank based on these photographs, they were inaccurate in their estimates of other rank-related constructs: Judges could not accurately discern dispositional power (e.g., "In my relationships with others, I feel that I have a great deal of power") or the resting testosterone levels of the participants, measured through saliva samples. Overall, this research suggests that social class is among the most accurately and rapidly perceivable aspects of rank in human social life (Kraus & Mendes, 2013a).

The aforementioned evidence suggests that social class rank is a core aspect of the first impressions individuals make during everyday social interactions. In particular, that social class was accurately perceived in static photographs (Kraus & Mendes, 2013a), in online social networking behavior (Rheinschmidt et al., 2013), and in constrained laboratory contexts where many signs that indicate social class (e.g., neighborhood) are largely invisible (e.g., Kraus & Keltner, 2009) indicates the ease with which information about one's own social class rank is perceived and interpreted by others. One important implication of this research is that individuals from both upper and lower class backgrounds regularly enter into social interactions in which their social class is known, even though it is never explicitly mentioned. For lower class individuals, these chronic rank perceptions may be especially likely to activate threat reactions and poor health trajectories. For upper-class individuals, chronic elevated rank perceptions may increase expectations of personal control, choice, and autonomy within interactions, even in the absence of actual control or autonomy. We consider these possibilities in what follows.

Rank Manifestations in the Experience of Social Class

Up to this point, we have argued that social life is suffused with social class and, as such, individuals

from relatively upper- or lower-class backgrounds will enter into social interactions where their position on the social ladder is known and understood by others. In what follows, we contend that this experience of social class rank influences the health trajectories of individuals as well as patterns of social cognition. In supporting this perspective, we review data examining associations between social class and measures of health and social cognition wherein individuals' social class rank in society is either measured (e.g., subjective perception of one's social class position in society in comparison to others; Adler et al., 2000) or manipulated (e.g., Kraus, Côté, & Keltner, 2010).

Social Class Rank and Health Outcomes

The largest body of evidence suggesting the importance of rank in the experience of social class arises from research examining physiological and self-rated health outcomes. There are likely many reasons why lower class individuals have poorer health outcomes than their more advantaged counterparts: Lower class individuals tend to have fewer resources (e.g., access to health care) to contend with serious illness, eat more unhealthy foods, make less educated decisions about their health, and feel increased uncertainty about the availability of future social opportunities, as just a few examples (for a review, see Adler et al., 1994). In the recent history of health psychology, researchers have started to understand the importance of perceptions of rank vis-à-vis others in the experience of health and disease (e.g., Hemingway, Nicholson, Stafford, Roberts, & Marmot, 1997).

Rank perceptions are theorized to be a remarkably powerful predictor of health outcomes because they closely covary with daily experiences of chronic psychological stress (Sapolsky, 2005). More specifically, individuals who perceive themselves as high rank feel an enhanced sense that they can predict, control, and influence their own social environments without external constraints (Keltner, Gruenfeld, & Anderson, 2003). In contrast, perceiving oneself as low in rank leads to expectations that one is lower in value relative to others and less able to influence the social environment. Thus, as high-ranking individuals feel autonomy, freedom, and control in their environment, low-ranking individuals experience social constraint, helplessness, and uncertainty—a recipe for the experience of chronic psychological stress (Hemingway et al., 1997; Sapolsky, 2005).

A growing body of empirical research indicates, consistent with this view of rank and psychological stress, that social class rank underlies the poorer health outcomes experienced by lower class individuals in relationship to their upper class counterparts. Perhaps the first evidence linking social class rank and health comes from the Whitehall II longitudinal study of London service workers (e.g., North et al., 1993; North, Syme, Feeney, Shipley, & Marmot, 1996). The Whitehall II study is a unique study to test associations between social class rank and health because occupations are tightly categorized in terms of rank within the London service sector, based on levels of annual salary and responsibility, and all service workers have access to the same health benefits. Thus, any health disparities between lower and upper class rank service workers cannot be attributed to differences in access to health care. In one of the studies, lower class rank London service workers reported less control and social support at their jobs, and had more short- and long-term absences from work relative to their high-ranking counterparts (North et al., 1996).

More recently, researchers have examined the association between perceptions of social class rank and health outcomes. In this research, individuals assess their own rank in society on the previously mentioned social ladder representing ascending levels of income, education, and occupation status (Adler et al., 2000). Studies using this measure of subjective social class rank have consistently shown reliable associations, in particular, with self-rated health. For instance, even after accounting for effects due to objective indicators of social class (e.g., education, income), social class rank perceptions uniquely predict self-rated global health (e.g., "In general, my health is good"; Adler et al., 2000; Franzini & Fernandez-Esquer, 2006; Hyde & Jones, 2007; Ostrove, Adler, Kuppermann, & Washington, 2000). Moreover, relationships between rank perceptions and self-rated health persist even following momentary fluctuations in negative mood—suggesting that transient mood swings do not spuriously enhance associations between these variables (Kraus, Adler, & Chen, 2013).

In research moving beyond estimates of health that are subject to self-report biases, lower-class rank perceptions—assessed using the same ladder measure—predict physiological profiles that are consistent with chronic psychological stress (e.g., high blood pressure; Adler et al., 2000; Wright & Steptoe, 2005), greater susceptibility to a common cold virus (Cohen et al., 2008), and at an ecological level, greater mortality (Kopp, Skrabski, Réthelyi, Kawachi, & Adler, 2004) relative to upper-class rank perceptions. Together, this emerging evidence suggests that social class rank perceptions activate chronic psychological stress pathways among lower-class individuals that, over time, contribute to their poor health outcomes across the life course above and beyond objective material resource-based measures of social class.

The study of relationships between social class rank and health is a fruitful avenue of future research. It is important to consider social class rank perceptions as a mechanism in the experience of poor health among lower-class individuals. Specifically, researchers might

consider studying how fluctuations in rank perceptions based on local community demographic characteristics might shift links between social class and chronic psychological stress. Perhaps lower-class individuals, living in regions or communities where their lower class rank is particularly visible to others, might be especially likely to experience poor health outcomes. In contrast, lower-class individuals living in communities with similarly lower-class families might be buffered from the experience of low rank in their social lives, and may receive health benefits as a result. That social class rank is a fundamental influence on long-term trajectories of health and chronic stress—theoretically produced by a wide network of thoughts, feelings, and behaviors—suggests the possibility that rank may also impact basic patterns of social cognition in daily life. This is a topic we turn to in the following sections of this article.

Social Class Rank and Social Cognition

Social environments are defined, in part, by perceptions of where one ranks on the social ladder in relation to others, and it is these rank-related perceptions that shape basic patterns of social cognition for upper and lower-class individuals. For individuals from relatively lower-class backgrounds, belonging to a lower rank in society indicates that the social environment is a primary determinant of social behavior, and that one's own capacity to marshal material and social resources to overcome external threats or to pursue opportunities is reduced relative to others. In contrast, individuals from relatively upper-class backgrounds perceive themselves as higher in rank relative to others, and these rank perceptions heighten the sense that one can manage threats and seek social opportunities freely, without being encumbered by the external environment (Kraus et al., 2012).

Over the last decade, social psychologists have capitalized on this realization—that rank is fundamental to the experience of social class—and have attempted to use experimental methods to show that rank perceptions explain class-based patterns in social cognition. This work is particularly important because an individual's social class covaries with a host of other demographic variables (e.g., neighborhood demographic characteristics, ethnic background, religious beliefs) that are potential confounds in correlational studies linking self-reports of social class to patterns of social cognition. In what follows, we detail some of the early experimental work that provides initial causal evidence suggesting that social class rank shapes patterns of threat vigilance and social perception.

Threat vigilance. As we mentioned earlier, a large body of research indicates that relatively lower-class individuals exhibit heightened threat vigilance in comparison to their upper-class counterparts. For instance, a meta-analytic review found that lower-class individuals, measured in terms of a variety of material-resource measures of social class, self-report more chronic levels of cynical mistrust and hostility relative to upper-class individuals, two constructs central to a heightened vigilance of social threats (Gallo & Matthews, 2003). The heightened threat vigilance of lower-class individuals has several causes: For instance, lower-class individuals tend to live in environments that are defined by increased violence and punitive responses from the criminal justice system (Sampson, Raudenbush, & Earls, 1997) along with increased social threats and ostracism (Williams, 2007). Recent research brings into focus the ways in which perceptions of lower rank can heighten the threat vigilance of lower-class individuals. Specifically, feeling lower in rank in society at large or in a local community can heighten judgments that one is not valued, respected, or trusted in social interactions. We propose that it is this salience of one's lower rank in society that engenders threat vigilance among relatively lower-class individuals. One implication of this proposal is that temporary fluctuations in perceptions of rank up or down may actually cause corresponding changes in the threat reactions of lower-class individuals.

Select evidence is suggestive of this possibility: In one experiment, adult participants were randomly assigned to think of an interaction with a person who was either at the very top or at the very bottom of society in terms of income, education, and occupation status (e.g., Kraus et al., 2010). Participants who thought of an interaction with a person at the bottom of society self-reported elevated social class rank relative to participants who thought of a person at the top of society. Participants were then asked to complete ambiguous stories in an ostensibly unrelated exercise involving a potentially threatening social interaction (e.g., "What would happen if you had to interact with a person who just rear-ended you in a car accident?"). Relative to upper-class participants, lower-class participants, measured in terms of income and education, completed the stories with more mentions of hostile or aggressive actions, thoughts, and feelings (e.g., "I yelled obscenities at the driver of the other car."). However, an interaction between measured and manipulated social class also emerged: Lower-class individuals were most likely to show enhanced threat reactivity when they were also manipulated to experience lower class rank (Kraus, Horberg, Goetz, & Keltner, 2011; see Figure 2). This research provides some of the first causal evidence suggesting that perceptions of lower rank heighten the threat reactivity of lower-class individuals.

In other experimental evidence, a second study examined how increasing the salience of the elevated rank of the highest achieving members of a private

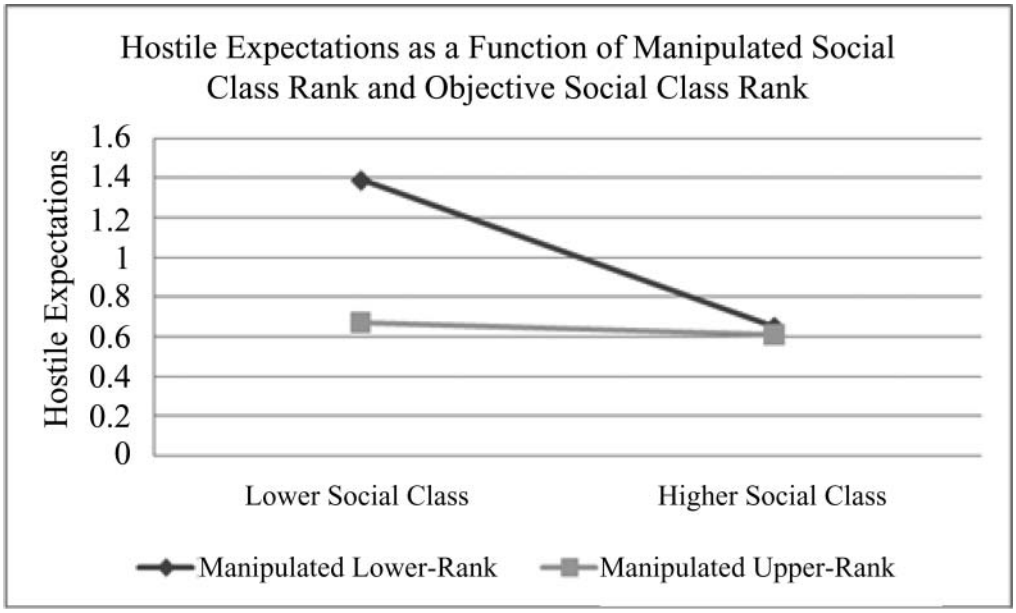

Figure 2. Future expectations for hostile or aggressive actions, thoughts, and feelings as a function of measured social class and manipulated social class rank. Data reprinted from Kraus, Horberg, Goetz, and Keltner (2011).

university would heighten threat for middle-class students at the university. In the study, students from middle-class or upper-class backgrounds, assessed in terms of family income, were randomly assigned to read about how their private university was either full of high-achieving individuals and prestigious award-winning thinkers, or located in the Midwest. Relative to upper-class students, students from middle-class families felt more anxious after reading about the high-achieving members of the university community and subsequently performed more poorly on attention control tasks (Johnson, Richeson, & Finkel, 2011). No differences in attention control were observed between middle- and upper-class students while reading about the school's location.

Together, these studies provide some of the first experimental evidence demonstrating the capacity of perceptions of lower class rank to heighten the threat vigilance of lower-class individuals. These findings are suggestive of a number of future avenues of research in this domain. For example, it is possible that chronic threat perceptions, theorized to underlie the chronic psychological stress of lower-class individuals (Marin, Chen, & Miller, 2008), may be dampened in contexts where observable signals of social class rank are less visible (e.g., a public primary school with uniform policies) or in countries where social class rank disparities are less evident (e.g., countries with low income inequality). We consider these possibilities and others in the sections that follow.

Social perception. Social class rank is also fundamental to class-based patterns in social perception. Specifically, having lower rank in society increases perceptions that social opportunities and threats will be determined by forces or individuals outside of one's own control and influence. Thus, individuals of lower class rank tend to be more vigilant of their external social environment, and perceptive of events or objects that happen outside the self. In contrast, high-ranking individuals tend to perceive that they have enhanced control and influence over social threats and opportunities, and as such focus more on internal goals, motivations, and emotions, and comparatively less on their external environments (cf. Grossmann & Varnum, 2011; Varnum, Na, Murata, & Kitayama, 2012; Kraus et al., 2012). Recent research highlights how social class rank elicits these class-based perceptual patterns.

In one set of correlational studies supporting this perspective, individuals reported their class rank on the 10-rung ladder measure of social class rank within their local community (Adler et al., 2000) and then were asked to explain broad societal level events (e.g., increasing economic inequality) and personal life outcomes (e.g., publishing a book) in terms of external, uncontrollable social forces. Lower-class rank individuals tended to endorse more contextual explanations relative to their upper-class rank counterparts (Kraus, Piff, & Keltner, 2009). It is important to note that these results were independent of material resource measures of social class (i.e., family income and parental education), suggesting that social class rank uniquely influences the ways in which upper- and lower-class individuals perceive their social environments.

In related experimental work, Kraus and colleagues (2009) had participants write about a time in their lives

when either they felt personal control over the outcome of a situation or they felt someone else had control over them. Following this manipulation, participants viewed a series of cartoon photographs showing four individuals posing basic emotion expressions (e.g., joy, sadness, anger) in the background while a target individual in the center displayed a different basic emotion. Participants were asked to judge the emotions of the target individual in each image. Given that personal control beliefs tend to covary with experiences of elevated upper class rank, it was predicted that this manipulation of perceptions of control would shift patterns of emotion perception.

Results were consistent with this expectation: Lower-class individuals, measured as a self-rated ranking on the social ladder, tended to fluctuate their target emotion ratings based on the changing expressions of the individuals in the background more than did upper-class individuals, reflecting lower-class individuals' tendency to take context into account in their judgments of others' emotions. However, a significant interaction emerged between the control manipulation and participants' social class rank ratings: Lower-class individuals' tendency to fluctuate emotion ratings based on the context was particularly likely when these individuals were manipulated to think about themselves as low in personal control (Kraus et al., 2009). In contrast, when lower-class individuals were manipulated to experience elevated control beliefs, their emotion ratings were similar to those of their upper-class counterparts. This experimental evidence suggests that personal control beliefs, which covary with elevated rank, explain the tendency of lower-class individuals to show increased perceptual awareness of others' emotions in the external environment.

Lower-class individuals' heightened focus on the external context allows these individuals to perceive threats in their social environment that can potentially harm themselves and others. In particular, the enhanced contextual focus of lower-class individuals may increase the capacity, among these individuals, to respond with greater compassion and prosocial behavior to others' suffering (Stellar, Manzo, Kraus, & Keltner, 2012). For instance, individuals with lower parental education and income reported experiencing more trait-level compassion—an emotion characterized by enhanced concern for others' suffering—relative to upper-class individuals (Stellar et al., 2012).

Recent experimental evidence indicates that social class rank perceptions explain, in part, lower-class individuals' tendency to exhibit prosocial behavior in response to others' needs. In one experiment, participants completed the same social class rank manipulation as in the prior research (Kraus et al., 2011), and were subsequently asked to estimate the percentage of a person's annual salary that should be divided between a number of spending categories (e.g., food, lodging, charitable donations). Participants manipulated to experience lower-class rank reported that individuals should give a higher percentage of their annual salary to charity relative to participants manipulated to experience upper-class rank (Piff, Kraus, Côté, Cheng, & Keltner, 2010).

Overall, the work we have reviewed thus far suggests that rank-related manipulations elicit patterns of social cognition that are consistent with those displayed by people who have grown and developed within upper- or lower-class social environments. It is important to note that these results highlight how perceptions of one's position on society's social ladder are among the primary mechanisms explaining social class influences on perceptions of the social environment and patterns of relating to others.

These findings also suggest some important avenues of future research in the realm of prosocial behavior. For instance, given that perceptions of upper-class rank lead individuals to be less aware of the external context (Kraus et al., 2009), it is possible that this lack of perceptual awareness, rather than the motivation to be callous or uncaring, underlies the tendency of upper-class individuals to show lower levels of prosocial behavior toward others in laboratory investigations and surveys (cf. Kraus et al., 2012). As well, it is important to investigate the role of salient social class rank cues in heightening class-based patterns in prosocial behavior. Specifically, would upper-class individuals be more likely to help a person in need if they felt more similar in rank to that person? Future investigations are necessary to test these predictions.

Climbing the Social Ladder

One implication highlighted by the aforementioned experimental research is that, given the importance of rank perceptions in the experience of social class, even random fluctuations in the appearance of one's own social class rank should be enough to shift behavior in class-specific ways. That is, elevating (or diminishing) a person's appearance of rank within an interaction—for example, by placing random individuals in business suits (vs. inexpensive sweatpants)—might temporarily shift the experience of social class rank and, as a result, yield an upturn in behaviors that are typical of an individual who has spent years living in upper-class social environments.

Kraus and Mendes (2013b) sought to directly test this prediction in an experiment. In this research, healthy male participants were instructed that they would be trying on experimental clothing used to measure physiological responses. Participants were then randomly assigned to wear their own clothing—a business suit, or sweats and a T-shirt. Capitalizing on the tendency of individuals to send and receive signals of social class rank within interactions, this

manipulation of sartorial symbols was expected to shift participants' behavior in class-specific ways.

Following this manipulation of sartorial symbols, participants then met an experiment partner—a stranger, always in his own clothing—to take part in a competitive interaction in which they were attempting to negotiate a favorable price for a specific product. Small monetary incentives were provided to increase effort in the task. As expected, participants who changed into the business suit behaved more like individuals from upper-class backgrounds: These manipulated upper-class rank participants compromised less—they tended not to budge away from their starting offer—relative to their manipulated lower-class rank counterparts (Kraus & Mendes, 2013b). Moreover, manipulated upper-class rank participants were worse at judging their partner's emotions during the interaction relative to their partner. In contrast, participants in the lower-class and neutral-class rank conditions showed levels of accuracy equal to their partner (Kraus & Mendes, 2013b; see Figure 3).

Together, the aforementioned research is consistent with the notion that social class rank perceptions, even those that result from temporary changes in one's appearance of social class, are causal in eliciting behavior that is consistent with behavioral profiles exhibited by individuals who have spent years growing and developing within a specific social class environment (see Kraus et al., 2012). These findings highlight the possibility that changes in social class rank over time—that is, movement up or down in income, education, or occupation status across relatively brief periods (e.g., winning the lottery)—may produce immediate changes in class-based patterns of behavior.

One important consideration in the study of individual changes in social class over time is that climbing the social ladder is not likely to be as simple as earning extra money or donning a business suit. Although exhibiting symbols of upper-class rank is likely to be effective in reducing others' perceptions of one's subordinate rank, there are likely to be other symbols of social class that will be more difficult to change because they require years of socialization and newly learned models of the social self (e.g., Markus & Kitayama, 2003; Stephens, Markus, & Fryburg, 2012). For these reasons, people who cross social class boundaries (e.g., the first-generation college student who attends an elite private university) may actually feel, at least at first, chronically lower in social class rank in their new surroundings (e.g., Johnson et al., 2011). This logic may partially explain why studies find that parental measures of income and education predict class-based social cognitive patterns better than do self-assessments of current income or education (Griskevicius, Tybur, Delton, & Robertson, 2011). In future research, it will be important to study the time course of changes in social class rank among individuals who are upwardly mobile. Perhaps these upwardly mobile individuals, despite their objective increases in social class rank, take several years before they start to engage in social

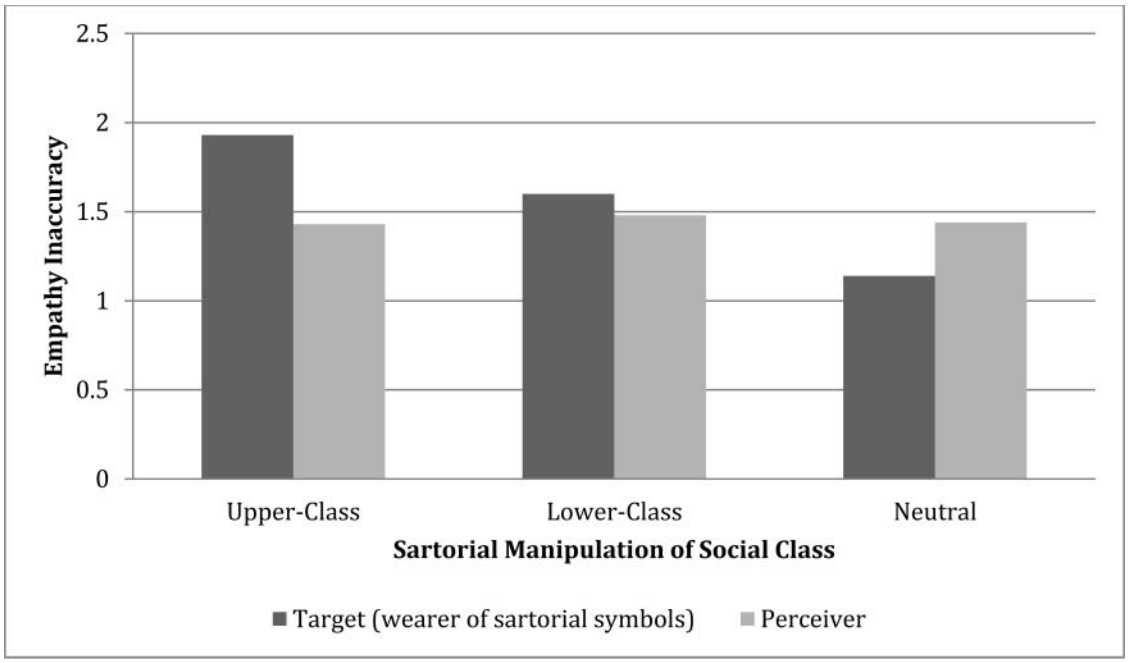

Figure 3. The influence of manipulated sartorial symbols of upper class (i.e., business suit), lower class (i.e., sweatpants), or neutral-class (i.e., participants' own clothing) rank on empathic accuracy during a negotiation interaction. *Note.* Lower numbers indicate greater accuracy in emotion judgments. Data from Kraus and Mendes (2013b).

cognitive patterns that are consistent with their newly elevated position on the social ladder.

The Social Ladder as a New Frontier of Research

In this article, we have attempted to highlight one important feature of social class: Class determines an individual's rank on the social ladder of society vis-à-vis others. Understanding the rank-based aspects of social class, particularly in the context of social interactions, has broad implications for expanding psychological inquiry into new domains of social life and novel areas of research. In what follows, we consider the specific predictions that are informed by our theory in the realms of social class signaling, perceptions of economic inequality, political attitudes, and culture.

Signs of Social Class Rank

As the research we have reviewed to this point illustrates, social class influences behavior and is transmitted in even the briefest of social encounters. One implication of this work is that signs of social class rank can shape the local contexts that we inhabit in our daily lives in somewhat unexpected ways. It will be important to determine how these signs change expectations for others' behavior, and enhance feelings of stigma, ostracism, or social anxiety among lower class individuals.

One of the primary social contexts where signs of social class rank may influence the life course is at major colleges and universities. University contexts are one of the few places in which cross-class interactions are common: One out of every six college students is the first from their family to attend college (Saenz, Hurtado, Barrera, Wolf, & Yeung, 2007). These first-generation students face unique challenges in the university context. For instance, the university is developed and maintained by individuals from relatively upper-class backgrounds, and so first-generation students may feel a lack of fluency in such a context—the environments in which first generation students grew up tend to socialize people using different models of the social self (Stephens, Fryberg, & Markus, 2011).

Given the visibility and ubiquity of social class signals, such signals may be particularly problematic for first-generation college students. Inhabiting social contexts in which one is constantly reminded of their chronic subordinate rank might be particularly uncomfortable, be anxiety provoking, and ultimately hinder academic performance. Initial research is suggestive of this possibility: For instance, in the aforementioned study conducted at a private Midwest university, when middle-class students were asked to think about the high-ranking individuals at their university, their executive cognitive control declined (Johnson et al., 2011). Perceptions of lower rank at a university can create extra cognitive burden for lower-class students, which can lead to reduced performance in classrooms and increased alienation from the larger academic community. The influence of lower-class rank perceptions may extend to reduced engagement with professors or administrators and trust in the university.

Capitalizing on the fact that signs of social class rank are everywhere, it is possible that implementing policies designed to dampen these rank signs may actually boost the performance of lower-class individuals in academic contexts. Given the power of sartorial symbols of status to shift behavior and perception during social interactions (Kraus & Mendes, 2013b), one potential policy that could be employed to reduce class boundaries in education involves the use of uniforms. Research indicates that school uniform policies tend to improve overall student academic performance (Bodine, 2003), and these studies tend to focus on the ability of uniforms to deemphasize social group divisions and increase social belonging among students. We suggest that uniforms should be particularly beneficial for lower-class students because they dampen sartorial symbols of lower-class rank. The dampening of sartorial symbols of rank may be one means by which lower-class students—through reducing visible reminders of their chronic subordinate status at school—can enhance their performance and involvement in academic contexts.

Just as emotions are displayed through different modalities (e.g., facial expression, touch), so too are signs of rank transmitted through different channels of behavior. It is interesting to speculate about the many potential channels by which social class rank can be accurately signaled during social interactions. In the verbal domain, regional accents are likely symbols of social class rank (e.g., Purnell, Raimey, & Salmons, 2009), in that some of these accents suggest reduced exposure to other cultures and regions (e.g., Clopper, Pisoni, & de Jong, 2005). Technology has also become a prominent symbol of social class, in that cutting-edge cell phones or tablets communicate both the availability of material resources and the technological education necessary to navigate sophisticated electronic equipment. Future research would do well to examine these and other means by which class is transmitted during everyday social life.

Finally, it is important to speculate about the potential costs of concealing one's social class rank during interactions. On one hand, preliminary research suggests "dressing the part" enhances behavioral patterns that are consistent with a particular class upbringing (Kraus & Mendes, 2013b), and so it might be beneficial for individuals to wear symbols of elevated status in social interactions. However, given that concealing other aspects of one's identity can cause poorer health

and work performance (e.g., Cole, Kemeny, Taylor, & Visscher, 1996), research would benefit from a full examination of the potential costs and benefits of allowing one's social class rank to be concealed (or not) during social interactions.

The Unequal Social Ladder

One important extension of a rank-based perspective on social class is that it highlights the potential role of the severity of rank disparities to heighten the way social class influences social cognition. Specifically, we predict that living in social contexts where wealth, affluence, and prosperity are concentrated in only a few individuals will heighten the extent that a person's lower-class rank is made salient in social interactions. Theoretically, economic inequality should heighten the salience of social class in interactions by stifling upward mobility and increasing the ease with which resources can be used to draw observable distinctions between the haves and have-nots. Thus, increases in social class rank disparities may lead to corresponding increases in concrete class boundaries and the subsequent influence of social class on behavior and perception.

Thinking of economic inequality as a measure of rank disparities in social class within a country has several applications. For instance, one might expect that social class exerts greater influence on psychological processes in contexts or countries where economic inequality is especially high (e.g., the United States) and less so in countries where inequality is lower (e.g., Norway). Initial research is suggestive of this possibility: In a comparison of associations between income and health between the United States—a country with high income inequality—and Canada—a country with moderate income inequality—researchers have found that health disparities (e.g., access to care, care quality, satisfaction with care) are more extreme in the United States than in Canada (Lasser, Himmelstein, & Woolhandler, 2006). Although some of these findings may be, at least in part, explained by differences in the structure of the health care systems between the two countries, the influence of economic inequality on the magnitude of class-based health and social cognitive patterns should not be overlooked.

Economic inequality might also intensify the experience of social class rank, and as such make being in a low position on the social ladder particularly unsatisfying. Research on life satisfaction provides some suggestive indirect evidence of this possibility: Decades of research show weak links between higher income levels and elevated life satisfaction (e.g., "I am satisfied with my life"; Diener & Diener, 1995; Diener & Lucas, 1999; Diener, Sandvik, Seidlitz, & Diener, 1993; Howell & Howell, 2008). Recently, researchers have examined the role of economic inequality changes in the United States as they relate to life satisfaction, finding that in years where economic inequality is higher, people report lower levels of life satisfaction (Oishi, Kesebir, & Diener, 2011). One possibility for this pattern is that wider income disparities heighten feelings of reduced respect and social value among those who are lower in position on the social ladder. People's reports of their own social class rank may polarize as a result of temporal changes in economic inequality, and these shifts may correspond to reductions in life satisfaction among lower class individuals.

Other work is suggestive of the possibility that the severity of economic inequality heightens cynical mistrust and hostility—two features of the heightened threat vigilance that characterizes individuals of lower class rank (e.g., Gallo & Matthews, 2003; Kraus et al., 2012). For instance, in one set of findings, research examined associations between rates of economic inequality in cities in the United States, and across different countries. In both instances, places where wealth is distributed less evenly among individuals tended to have higher incidence of violent crime, theft, and incarceration rates (Wilkinson, 1996). Whether these patterns of increased threat reactivity are caused by heightening perceptions of chronic lower position on the social ladder among lower-class individuals is an important topic for future research.

Our theory of social class rank posits that judgments about one's own rank are determined by local comparisons—that is, comparisons of observable symbols of others' income, education, and occupation status to one's own (e.g., Fiske, 2010). That judgments of social class rank occur at the local level suggests that local inequalities may be particularly powerful in shaping class-based patterns in social cognition. In this domain, research on life satisfaction is again suggestive of this possibility. For instance, people experience lower levels of life satisfaction when they earn less money than their neighbors (Luttmer, 2005), and lower levels of workplace satisfaction when earning lower salaries than coworkers (Brown, Gardner, Oswald, & Qian, 2008).

In perhaps the best empirical evidence for the importance of local comparisons of social class, Boyce et al. (2010) examined income and life satisfaction in a large nationally representative U.S. sample. They found that income rank within one's county zip code—that is, being higher (vs. lower) in social class rank in one's local community—was a significant predictor of elevated life satisfaction (Boyce et al., 2010). Moreover, after accounting for local income rank, raw income did not significantly predict life satisfaction (Boyce et al., 2010). Taken together, these findings highlight the importance of perceptions of disparities in rank on the social ladder of society in the experience of social class. It is interesting to speculate about the role that local social class rank plays in shifting patterns of

chronic psychological stress among lower-class individuals. Specifically, we predict that being of lower-class rank is less likely to activate patterns of chronic psychological stress when one is surrounded by others of similar social position. As well, it is intriguing to speculate about how other forms of status—such as respect and admiration among one's peers (Anderson, Kraus, Galinsky, & Keltner, 2012)—might buffer individuals from the negative health consequences of lower-class rank. That is, perhaps earning other forms of local high status may provide some of the psychological benefits (e.g., autonomy, perceived control) normally in absence at the bottom of the social ladder.

Politics and the Social Ladder

> There are 47% of the people who will vote for the president no matter what. All right, there are 47% who are with him, who are dependent upon government, who believe that they are victims, who believe the government has a responsibility to care for them, who believe that they are entitled to health care, to food, to housing, to you-name-it. That's an entitlement. And the government should give it to them.—Mitt Romney (Corn, 2012)

Issues related to social class are some of the most hotly debated in the political arena. In recent years, political party affiliations have had clear dividing lines on topics related to wealth and poverty—with U.S. Democrats and Republicans disagreeing on policy decisions that provide support for poor families or tax policies that impact the wealthiest Americans. As the importance of social class rises on the political stage, understanding its rank-based components can provide insight into how social class shapes political attitudes toward the distribution and sharing of economic resources across society.

How to fairly share economic resources has become an important political discussion over the last several years. When encountering economic unfairness—such as the unfair sharing of resources—position on the social ladder is likely to shape the specific emotions that people experience. On this topic, several potential predictions emerge. For instance, it could be the case that all individuals, regardless of social class, exhibit negative affect in response to economic unfairness, given that unfair treatment is likely to lead to feelings of social rejection (Williams, 2007). Alternatively, one might expect lower-class individuals to be particularly angry about economic unfairness, given that unfair sharing of resources would more negatively impact the less wealthy.

Our rank-based perspective on social class suggests that self-conscious emotions like shame or embarrassment may be the most likely emotions experienced by lower class individuals in response to the unfair sharing of resources. Both shame and embarrassment tend to be experienced by individuals in positions of low status (Gruenewald, Kemeny, Aziz, & Fahey, 2004; Keltner, 1995). Embarrassment is a self-conscious emotion typically expressed following a social transgression (Goldenthal, Johnston, & Kraut, 1981; Keltner, 1995). Theoretical accounts contend that expressions of embarrassment evolved to help individuals avoid conflict and to repair social relationships (Goffman, 1967; Keltner, 1995). Similarly, shame is an emotion that is experienced when one feels devalued or disrespected relative to other individuals (Gruenewald et al., 2004). Experiences of shame tend to occur when individuals have experienced defeat in competitive settings (Tracy & Matsumoto, 2008).

In response to unfairness, we expect self-conscious emotions to be particularly likely among lower class individuals given that such unfair sharing of resources highlights lower-class individuals' reduced value in the eyes of others. Initial evidence is supportive of this prediction: In one illustrative study, university students arrived at a laboratory in groups of three to five and were taken to a room full of computer cubicles. Participants entered the cubicles and were instructed that they would be playing an economic game with one other person in one of the cubicles next door. In the economic game, called the ultimatum game, participants received a share of a monetary reward (between \$0 and \$10) from a partner ostensibly in one of the adjoining computer cubicles. The partner was manipulated to provide either a fair share of resources (\$4 for the participant and \$6 for the self) or an unfair share (\$0 for the participant and \$10 for the self). Participants had the option to either accept or refuse this share of resources, and then subsequently rated their positive and negative emotions.

In response to the unfair (vs. fair) sharing of resources, all participants experienced more negative emotions than positive emotions. However in the unfairness condition, lower-class individuals, measured in terms of a composite of family education attainment and income, were particularly likely to experience increases in self-conscious emotions (e.g., shame, guilt, and embarrassment) relative to their upper-class counterparts (Kraus, Tan, & Tannenbaum, 2013; see Figure 4).

That lower class individuals experience self-conscious emotions in response to unfair sharing of resources provides a potentially important insight into the political domain. Given that anger tends to be associated with action tendencies, whereas self-conscious emotions do not motivate action (Smith & Ellsworth, 1985), perhaps patterns of self-conscious emotion explain why lower-class individuals are less likely to take

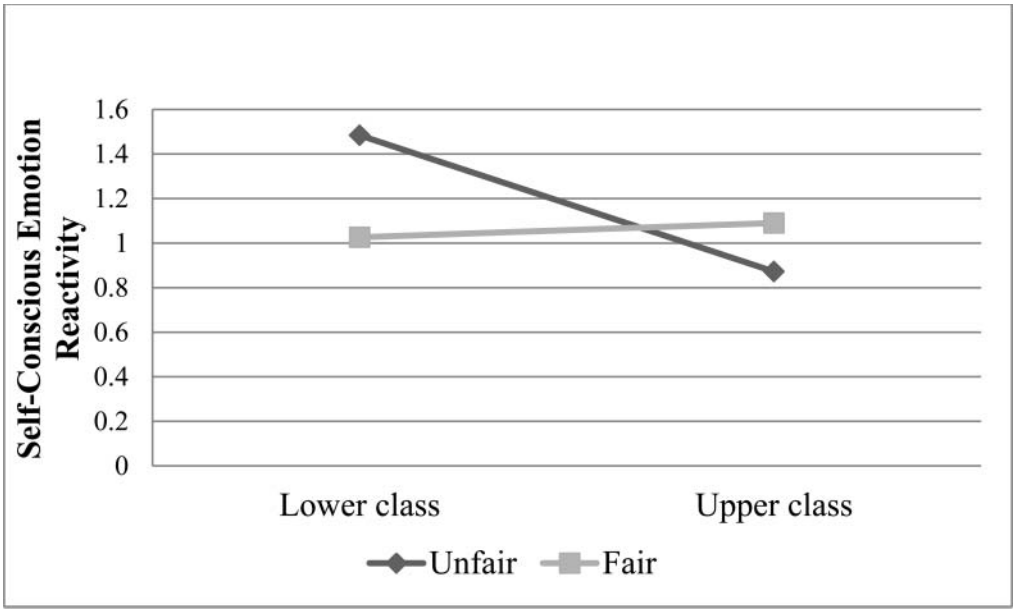

Figure 4. The relationship self-rated social class, indexed in terms of family income and parental education, and changes in self-conscious emotion following either a fair or unfair sharing of economic resources. Data from Kraus, Tan, and Tannenbaum (2013).

political action in support of reducing societal unfairness. In particular, heightened levels of self-conscious emotion may underlie why some lower-class individuals tend to support the status quo even when it involves their own distinct economic disadvantage relative to others (e.g., Jost, Pelham, & Carvallo, 2002).

Another important area of research in the political domain involves understanding the types of persuasive messages that are favored by people from differing social class backgrounds. In politics, persuasion takes a central role in drawing voting or economic support to a campaign, promoting a specific social cause, or communicating a policy in order to garner support. A rank-based account of social class generates specific predictions about the types of persuasive messages that will be supported more by upper-class individuals than their lower-class counterparts. Pride is an emotion experienced when one achieves socially valued success, and so it is common for individuals to experience pride when they are in positions of high status (Tracy, Weidman, Cheng, & Martens, in press). Pride is also an emotion that is evoked frequently in the political arena (e.g., Renshon, 2011). We expect that upper-class individuals, given their elevated rank in society relative to others, will be more likely to feel connected to candidates that express pride and more likely to be persuaded by messages delivered with pride than will their lower-class counterparts. As well, given that campaign donations are crucial for electoral success, we expect that campaigns using messages enhanced with pride expressions are likely to be more successful because of their ability to increase campaign donations from wealthier individuals.

The Social Ladder Across Cultures

Most of the predictions that we have reviewed in this article are derived from studies that have examined social class rank in Western cultural groups that share several features in common—including relatively high degrees of economic inequality (Domhoff, 1998) and attitudes supporting meritocracy (Kluegel & Smith, 1986). Understanding how social class influences psychological processes in societies with reduced economic inequality or greater support for egalitarianism represents an important area of future research.

It is important that our rank-based perspective suggests, as we have previously argued, that the influence of social class on core psychological processes is likely to be stronger in countries with higher levels of economic inequality. Similarly, our theory suggests that social class will have more impact on psychological processes in countries with reduced social mobility between classes (e.g., India; Mahalingam, 2003) where symbols of social class rank are likely to be both more pronounced and more entrenched across family generations.

It may also be useful to consider the influence of social class in countries where levels of economic inequality are increasing. China is one country that has seen recent expansion in production and heightened economic growth, along with an increase in economic

inequality (e.g., Smyth & Qian, 2008). Our theory predicts that as economic inequality increases, the corresponding increases in social class rank disparities should heighten the influence of social class on patterns of social cognition. Some initial evidence is suggestive of this possibility: Mean levels of self-reported narcissism have increased in China over the last few decades, and these self-reports are correlated with subjective perceptions of economic rank in society (Cai, Kwan, & Sedikides, 2011). New research examining longitudinal changes in mean levels of personality that vary along with corresponding changes in country-wide economic inequality represents an important area of future research.

It is important to note that cultures differ in their expressions of social status (Torrelli & Shavitt, 2010; Triandis, 1989), and these cultural conceptions no doubt shape patterns of social class rank in society. On this topic, it is possible that cultures high in vertical individualism—cultures, like the United States, that emphasize individual achievement (Torelli & Shavitt, 2010)—develop more easily observable symbols of social class rank over time, that then reinforce rank ordering on the social ladder of society. In contrast, more horizontal individualist cultures—cultures, like Sweden, that devalue hierarchical structures—may develop more subtle symbols of social class rank.

Within the United States, it may also be worth considering that other ways in which individuals are rank-ordered in society—such as by race or gender—moderates the experience of social class rank. For instance, it is likely that the observable symbols of social class rank depend upon an individual's ethnic background or gender. Research is suggestive of this possibility: Whereas men tend to be perceived as higher in status when they express anger, women do not receive the same increase in perceived status (Brescoll & Uhlmann, 2008). How social class rank is perceived and expressed across different racial and gender groups represents an important area of research (e.g., Ostrove et al., 2000).

The psychological study of social class is truly an emergent field of research. In particular, understanding social class as an individual's rank on the social ladder of society can provide a wealth of testable predictions regarding how social class is transmitted during interactions, changes over time, relates to broader trends in economic inequality, and shapes core social cognition. The study of social class has been an important area of research for centuries and promises to continue in the domain of psychological inquiry.

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Note

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