



Theories of Power: Perceived Strategies for Gaining and Maintaining Power

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What does it take to gain and maintain power? Aristotle believed that power was afforded to individuals that acted in virtuous ways that promote the greater good. Machiavelli, nearly 2,000 years later, argued to great effect that power could be taken through the use of manipulation, coercion, and strategic violence. With these historical perspectives as a conceptual foundation, we validate a 2-factor measure of theories of power (TOPS; Study 1), which captures lay theories of how power is gained and maintained among family members, at work, and in international politics (Study 2). We differentiate TOPS from other established measures of power, highlighting that these *beliefs* about power are conceptually distinct from widely used measures of dominance and prestige, and uniquely predict social outcomes. Turning to social class, we find that participants who make upward social comparisons perceive themselves to be of lower class and endorse less collaborative and more coercive theories of power, relative to those who make downward comparisons and report themselves to be higher in the class hierarchy (Studies 3a and 3b). Building upon these findings, we identify theory of power endorsement as a correlate of interpersonal trust, and a mediator of how lower class individuals, who endorse less collaborative views of power, report less trust of institutions and individuals (Study 4). Theories of power provide a novel construct for understanding power dynamics at multiple levels of analysis.

Keywords: power, social class, lay theories, trust

Influencing others is the crux of power. People rise to power to the extent that they influence others' thoughts, emotions, actions, and well-being (Boehm et al., 1993; Keltner, 2016; Simpson & Willer, 2015). The powerful—in interpersonal, organizational, and political arenas—regularly make decisions that impact the lives of others (Guinote & Chen, 2018; Guinote & Vescio, 2010; Keltner, Gruenfeld, & Anderson, 2003; Magee & Galinsky, 2008). How, then, do people gain and maintain power through influence?

As social theorists have grappled with the nature of power over the millennia, two contrasting theories have emerged. A first finds its origins in Aristotle, who defined the qualities of an ideal political leader in 350 B.C., emphasizing virtues such as courage, justice, and temperance. A second found its chief voice some 2,000 years later in Machiavelli, who countered in his influential book, *The Prince*, that power is found in force, fraud, manipulation, and strategic violence (King, 2007; Machiavelli, 1532/1961). Recent research and theorizing provide support for both perspectives

(Boehm, 1999; Cheng, Tracy, & Henrich, 2010). Acts of social coordination and collaboration in pursuit of the greater good do lead to increased social influence via freely conferred deference (Anderson & Kilduff, 2009; Barclay & Willer, 2007; Hardy & Van Vugt, 2006; Henrich & Gil-White, 2001; Keltner, 2016; Magee & Galinsky, 2008). However, dominance, force, threat, and manipulation can also lead to rises in power within groups of different kinds (Babiak & Hare, 2006; Machiavelli, 1532/1961; Re, DeBruine, Jones, & Perrett, 2013).

In this investigation, we translate these rich veins of political theory and the empirical literature on who gains influence to study people's lay theories of power. Distinct from one's personal sense of power (Anderson, John, & Keltner, 2012), dominance, and prestige (Cheng, Tracy, Foulsham, Kingstone, & Henrich, 2013), we present a new measure of core *beliefs* about how power is gained and maintained, and test a series of hypotheses concerning how it relates to social class and the decline of trust in modern society.

Measuring Power: A Multidimensional Domain

We define power as the capacity to influence other individuals' states (e.g., Arendt, 1951; Fiske, 1993; Keltner et al., 2003; Raven & French, 1958). This definition delineates social influence as the "what" of power, and relevant empirical studies have developed in systematic ways. Robust literatures have sought to address how power influences affect, behavior, and cognition (e.g., Guinote & Chen, 2018). As these studies of the consequences of power have matured, a second area of inquiry has begun to differentiate power

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All data are available at https://osf.io/9u6rt/?view_only=4bb14f31df7c480da04d7ff0c15f1a66, analyses are described in text, and the Theories of Power Scale (TOPS) is provided here, for use by future researchers.

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from related hierarchical constructs, most notably status (Anderson, Hildreth, & Howland, 2015) and social class (Kraus, Piff, Mendoza-Denton, Rheinschmidt, & Keltner, 2012).

Empirical work has also been focused on the “how” of attaining power. While power is commonly defined as influence rooted in the control over valuable resources (Magee & Galinsky, 2008), there is considerable evidence to suggest that influence can spring from many sources. Studies have highlighted identity-based sources of power, including wealth, knowledge, title, education, physical attributes, and social skills, to name a few (e.g., French & Raven, 1957; Keltner et al., 2003). For example, power is distinct from prestige—the esteem an individual receives from others, which is sometimes based on one’s occupation (e.g., Anderson et al., 2015; Cheng et al., 2013; Magee & Galinsky, 2008; Willer, Youngreen, Troyer, & Lovaglia, 2012). However, prestige affords the opportunity to influence others by sharing thoughts, opinions, and advice (Anderson & Kilduff, 2009; Henrich & Gil-White, 2001). In a similar vein, power is differentiated from social class, the mixture of prestige of work, family wealth, and education, which combines into the objective and subjective sense of one’s status in society (Kraus et al., 2012). Yet, the wealthy are often afforded social influence, either freely by others wishing to copy their path to success or more forcefully, via resource control (Cheng & Tracy, 2013). In short, gaining power—that is, social influence—can derive from a variety of facets of social identity.

More directly relevant to this investigation, power is also the end result of pursuing different social strategies. Within this area of inquiry, power is distinct from dominance, a set of interpersonal strategies by which the individual exerts coercive control over others (Griskevicius et al., 2009; Henrich & Gil-White, 2001). However, physically formidable men are often afforded power in cooperative groups (Lukaszewski, Simmons, Anderson, & Roney, 2016). Divergent strategies to achieving power lie at the heart of writings by Aristotle and Machiavelli, who famously wrote of their theories about how power is gained and maintained.

Lay Theories of Power

Lay theories are based on fundamental assumptions about the self and the social world—assumptions that can guide perception, action, and important outcomes (Molden & Dweck, 2006). For example, people’s theories about academic achievement—as essentialist or incremental—predict responses to failure and students’ grades in challenging courses (Dweck, 2006). Similarly, lay beliefs about emotions as changeable (or not) predict the use of different emotion regulation strategies (e.g., Ford & Gross, 2018; Kneeland, Dovidio, Joormann, & Clark, 2016). Here, we make the case for two lay theories of power: collaborative and coercive.

Collaborative theory of power. Aristotle reasoned that, above all, virtuous actions are the surest pathway to power (Aristotle, 350 B.C./1962). The virtuous leader was likely to gain and maintain social influence through acts of temperance, courage, humility, and magnanimity. Once occupying a position of power, he believed that a person of virtue would bear in mind the interests of all, rather than resorting to the gratification of narrow self-interest or catering to a privileged minority.

This early reasoning has found support in social scientific studies, guided by the central claim that groups, acting in their own collective self-interest, grant power to individuals who act in ways

that advance collective interests (Flynn, Reagans, Amanatullah, & Ames, 2006; Hardy & Van Vugt, 2006; Keltner, 2016; Magee & Galinsky, 2008). In a review of who rises to power in schools, organizations, and military units, it proved to be the individual with a more collaborative mixture of traits; the individual who is enthusiastic toward others, focused on goals and tasks, and open to new ideas (Judge, Bono, Ilies, & Gerhardt, 2002). That groups give power to individuals who advance the greater good through collaborative action is a social regularity in hunter gatherer societies. In a review of studies of 48 such societies living in the conditions of our social evolution, Christopher Boehm (1993, p. 233) describes the individual who rises in power as follows:

“generous, brave in combat, wise in making subsistence or military decisions, apt at resolving intragroup conflicts, a good speaker, fair, impartial, reliable, tactful, and morally upright,” and “strong and assertive” but “humble.”

Converging research on groups of different kinds and in different cultural contexts, then, lends credence to the claim that advancing the welfare of others is a means for gaining power.

We will call this the collaborative theory of power and note its resemblance to two recent theses about the acquisition of power. The first is prestige-based power. Rooted in evolutionary theorizing about social groups, Henrich and Gil-White (2001) proposed that power is based in social information transmission, such that prestige is freely given to individuals that possess superior knowledge or skill. Prestige-based power, like collaborative power, is freely conferred by subordinates. The original description of prestige-based power, as rooted in competence, does not emphasize social coordination, nor a concern for the welfare of subordinates and the greater good, which is central to the collaborative theory of power. That said, the conceptualization of prestige-based power has evolved in recent years to include virtue as a component of this route to attaining social influence (e.g., Cheng & Tracy, 2014) and recent research suggests that virtue alone can provide a third pathway to social influence in social groups (Bai, Ho, & Yan, 2020).

We also note the similarity between a collaborative theory of power and the “guilt-prone leader.” The latter is based on the assumption that individuals with a strong sense of responsibility to others gain power (Ames, Maissen, & Brockner, 2012; Cohen, Panter, Turan, Morse, & Kim, 2014; Flynn & Schaumberg, 2012; Wiltermuth & Cohen, 2014). These individuals do not grab power, but rather, are given power by others; they put the needs of others above their own and receive others’ respect in return (Schaumberg & Flynn, 2012). In this vein, a study of 161 employees in a large organization found that people rise in status to the extent that they are perceived as generous to others (Flynn, 2003; see also Flynn et al., 2006).

Thus, while contemporary conceptualizations of prestige-based power and guilt-prone leadership share virtuous characteristics with a collaborative theory of power, the former describe routes to achieving power. The collaborative theory of power, in contrast, refers to *beliefs* about power that favor social coordination and concern for the well-being of others, rather than one’s own pursuit, desire, or experience of power through these means.

Coercive theory of power. Machiavelli (1532/1961) was deeply hostile to Aristotle’s prescriptions for gaining power (King,

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2007). To Machiavelli, power was a resource to be grabbed—taken at will and ultimately without concern for others. He advised aspiring rulers to feign convictions, often of a religious kind, that would appeal to the masses and to cripple rivals with strategic violence. His views are summarized in one well-known Machiavellianism; that it is better to be feared than loved. Although he conceded that it might be useful to appear virtuous, he believed that to be genuinely kind would be unwise. And to maintain power, he advocated the use of force, fraud, manipulation, and strategic violence (Machiavelli, 1532/1961). Gaining power, this theory holds, requires coercion.

This coercive theory of power overlaps in important ways with the dominance-based route to power put forward by Cheng, Tracy, Foulsham, Kingstone, and Henrich (2013) and others (Buss & Duntley, 2006). This route to power is based in evoking fear and the use or threat of force. Through intimidation and coercion, individuals gain influence over others. Building on the dominance-based route to power, the coercive theory of power emphasizes the amoral nature of Machiavelli's strategy. Central to this theory of power is the utmost importance of gaining and maintaining the sole position of power in a group and the use of whatever tactics are necessary to do so.

In sum, while the dominance-based route to power overlaps conceptually with the coercive theory of power, the former describes actions that can be taken to achieve power. The coercive theory of power, in contrast, refers to *beliefs* about how power is gained and maintained. In short, while much empirical attention has been paid to studying power as a psychological state and to delineating the various actions that can cultivate power, theories of power are novel in that they pertain to cognitions about power that people develop and adhere to, perhaps at times independent of actions taken to gain power.

Theories of Power, Personality, and Moral Foundations

In addition to delineating lay theories of power from one's sense of power, dominance, and prestige, we establish the convergent validity of our measure. To do so, we examine how coercive and collaborative theories of power track different moral foundations systematically. Specifically, we tested hypotheses concerning the relationship between theory of power endorsement and moral foundations, moral sentiments, and personality traits rooted in moral tendencies (i.e., Dark Triad; Paulhus & Williams, 2002).

Moral foundations. Although Aristotle (350 B.C./1962) championed the idea that gaining and maintaining power is rooted in the pursuit of social good through moral action, Machiavelli (1532/1961) described power and morality as largely independent. Machiavelli advocated a pragmatic approach to moral behavior; that appearing virtuous can be valuable, but that deception, manipulation, and strategic violence should be deployed when necessary, as the context demands. Consistent with these early perspectives on power, the moral underpinnings of collaborative and coercive theories are likely to diverge significantly. Specifically, we expect that endorsing a collaborative theory of power will be positively associated with each of the five moral foundations: reducing harm, pursuing fairness, in-group loyalty, respect for authority, and purity (Haidt & Graham, 2007). In light of Machiavelli's pragmatic approach to morality, we did not expect coercive

theories of power to covary with moral foundations, with the exception of authority, which concerns the maintenance of strict hierarchies.

Moral sentiments. Certain emotions such as compassion, awe, and gratitude are moral as they promote prosocial actions including altruism, cooperation, the sharing of resources, and social coordination (Algoe, Fredrickson, & Gable, 2013; de Waal, 1996; Goetz, Keltner, & Simon-Thomas, 2010; Horberg, Oveis, & Keltner, 2011; McCullough, Kilpatrick, Emmons, & Larson, 2001; Piff, Dietze, Feinberg, Stancato, & Keltner, 2015). These actions are critical components of collaborative power and, consistent with our predictions about moral foundation endorsement, we expect that the experience of moral emotions will be associated with collaborative, but not coercive theories of power. Relatedly, Melwani, Mueller, and Overbeck (2012) found that individuals who expressed compassion and contempt were both ascribed leadership qualities. To the extent that compassionate individuals are enacting collaborative theories of power and contemptuous individuals are enacting coercive theories of power, the dispositional experience and expression of these sentiments may be part of dual routes to achieving social influence. Accordingly, we predicted that positive emotions would correlate positively with collaborative beliefs and negatively with coercive beliefs about power.

Personality. The Dark Triad of personality traits—comprised of Machiavellianism, psychopathy, and narcissism—is often attributed to a compromised or dysfunctional sense of morality (Campbell et al., 2009; Glenn, Iyer, Graham, Koleva, & Haidt, 2009). Specifically, Machiavellianism is characterized by manipulation and cynicism, psychopathy by callousness and aggression, and narcissism by vanity and grandiosity (Paulhus & Williams, 2002). Generally speaking, individuals with these traits tend to privilege their own interests strongly over others and act accordingly (Book & Quinsey, 2004; Jonason, Strosser, Kroll, Duineveld, & Baruffi, 2015). These traits are also reflected in their moral cognitions and sentiments. For example, psychopathic personality traits are characterized by a diminished capacity to experience empathy (Hare, 2006), and are associated with decreased endorsement of all moral foundations, with the exception of authority (Glenn et al., 2009). Psychopathic individuals also cheat, lie, and engage in instrumental aggression more than individuals without these traits (Jonason, Lyons, Baughman, & Vernon, 2014; Jones & Paulhus, 2017; Woodworth & Porter, 2002). In management positions, individuals with Dark Triad traits tend to bully subordinates, create social divisions, and misbehave in the workplace (Boddy, 2006; Mathieu, Neumann, Hare, & Babiak, 2014). These dominance-based actions may be complimented by a coercive theory of power. Indeed, psychopathic personality traits are associated with a competitive worldview, including the overperception of conflict in negotiation scenarios and the biased attribution of negative personality traits to others (Black, Woodworth, & Porter, 2014; ten Brinke, Black, Porter, & Carney, 2015). Consistent with these cognitions, we expect that psychopathy, and the related traits of Machiavellianism and narcissism (Paulhus & Williams, 2002), will be positively associated with coercive and negatively associated with collaborative theory of power endorsement.

Despite the obvious moral contrasts in Aristotelian and Machiavellian prescriptions for power, the relationship between moral beliefs and these dual theories of power have not yet been empirically tested. Here, we predict that coercive and collaborative

theories of power are associated with distinct cognitive, emotional, and dispositional moral components, providing convergent validity for our measure of lay theories of power.

Theories of Power: A Novel Construct

Thus far, we have identified how one's lay theory of power might reflect moral values and predict the pursuit of power via dominance or prestige-based strategies. However, one aim of this investigation is to differentiate lay theories of power—representing fundamental *beliefs* about how power is gained and maintained—from the individual's reported sense of power, pursuit of two pathways—dominance, and prestige—by which power (or rank) is gained, and their moral beliefs. Most clearly, the sense of power captures the individual's feelings of power within different contexts (Anderson et al., 2012). In this sense, it is a measure of the experience of power, whereas our interest here is in how people theorize about what leads to power and its sustainability.

The measures of prestige and dominance are based on reports of two classes of actions—those related to fear and coercion and those related to knowledge and task success (Cheng et al., 2013). Within this increasingly foveal area of study in power, studies focus on whether these kinds of action—measured with self-report or even nonverbal signaling (Witkower, Tracy, Cheng, & Henrich, 2020)—result in elevated power (or rank). By contrast, our interest here is in people's theories of what strategic tendencies lead to power. A careful study of the items that capture prestige and dominance (Cheng et al., 2010) versus our conceptualization of theories of power reveals several differences. First, the measures of dominance and prestige focus on people's self-assessments. We focus on people's theories about power in the abstract, or in specific contexts. Second, measures of prestige and dominance focus on actions and attributes of individuals. Our focus, by contrast, is on people's beliefs about the general strategies by which power is gained and maintained. It is also noteworthy that people's theories of power as coercive or collaborative could easily be independent of the dominant and prestige oriented actions they themselves engage in. For example, a community organizer might gain the respect of others through prestige-related actions precisely because they want to push back against powerful figures or institutions that they believe are coercive. In other words: As has long been known, beliefs are often distinct from actions (Ajzen, 1991). In their content, then, theories of coercive and collaborative power are distinct from the prestige and dominance-oriented actions people perceive in themselves and the moral beliefs that they hold. For these reasons, we expect the measures of theories of collaborative and coercive power we validate here to track individual's self-assessments of prestige and dominance, respectively, but at moderate levels that suggest the constructs are distinct.

Finally, we conceptualize theories of power as descriptive, rather than prescriptive—beliefs about how power *is* gained and maintained, rather than how it *ought* to be. Accordingly, one's theory of power is not simply a reflection of their moral beliefs, although these beliefs may sometimes parallel each other. Similarly then, we expect collaborative (not coercive) theories of power will be associated with the endorsement of moral foundations, but moderately so, indicating that beliefs about how people—including the powerful—should and do behave are also distinct.

Social Class and Theories of Power

Across measures, it is clear that individuals of lower social class backgrounds enjoy less power in the world (e.g., Kraus et al., 2012). A recent study Belmi and Laurin (2016) suggests that theories of power may in part be at play in this dynamic: Lower class individuals report being more reluctant to “play politics”—that is, enact Machiavelli's theory of power. Building on the findings of Belmi and Laurin (2016), we suggest that salient social experiences can predict theory of power endorsement. Social class, or socioeconomic status (SES), is a cultural lens through which people see and relate to their social world (Fiske & Markus, 2012; Kraus et al., 2012). It is defined by access to material resources and subjective rank in a social context (Adler, Epel, Castellazzo, & Ickovics, 2000; Kraus, Piff, & Keltner, 2011). Faced with continual resource constraints and threats (i.e., underresourced schools, “food deserts” in urban areas, mounting personal debt), lower class individuals in the United States tend to show an externally oriented cognitive and relational stance to the world (Kraus, Côté, & Keltner, 2010). They are more attuned to the emotions of others, behave more prosocially, and engage in more communal relationship strategies than higher class individuals, who have a more internally oriented perspective (Piff, Kraus, Côté, Cheng, & Keltner, 2010). Lower class individuals report more dispositional and situational compassion for others (Stellar, Manzo, Kraus, & Keltner, 2012), whereas higher class individuals are more likely to focus on their own emotions, needs, and desires (Kraus et al., 2010). Based on the behavior and experience of lower class individuals, we might expect them to hold more collaborative theories of power than higher class individuals, and vice versa for coercive strategies.

However, other research—particularly work that has focused on how lower class individuals perceive others—supports the opposite prediction. Lower class individuals experience greater vigilance to threat, relative to high status individuals, leading them to perceive greater hostility in their environment (Chen, Cohen, & Miller, 2010; Kraus, Côté, & Keltner, 2010). Research by Kraus, Horberg, Goetz, and Keltner (2011) finds that low SES individuals experience more hostile emotional reactions to ambiguous social scenarios, and when being teased by a friend. This increased threat vigilance may create a bias such that relatively low SES individuals perceive the powerful as dominant and threatening—endorsing a coercive theory of power.¹ Indeed, there is evidence that individuals of lower social class are more cynical than those occupying higher classes (Elgar, 2010; Gallo & Matthews, 2003), and that this cynicism is directed toward out-group members—that is, those that occupy higher classes (Fiske, Moya, Russell, &

¹ This possibility, that lower status individuals assume power is to be attained through coercive strategies, is echoed also in the recent political past. Donald Trump's coercive approach to gaining power in the 2016 Presidential Election was favored primarily by low SES voters, while high status individuals—even Republicans—denounced his tactics and candidacy (Graham, 2016; Silver, 2016). Moreover, Donald Trump often touted that he would “drain the swamp” in Washington, DC—presumably, playing on the perception of these same voters that powerful individuals in government were selfish, corrupt, and dishonest (Overby, 2017). Taken together, recent empirical findings and voting trends suggest that low (vs. high) status individuals will endorse a more coercive, and less collaborative, theory of power.

Bearns, 2012). Consistent with this prediction is recent work by Tan and Kraus (2018) finding that low (vs. high) class individuals report less trust and support for politicians that display interpersonal warmth, reflecting a cynicism of political leaders' authenticity. The notion that powerful people are likely to engage in manipulation is central to the coercive theory of power, and accordingly, would suggest that lower class individuals would hold a more coercive and less collaborative theory of power.

This latter prediction also lies at the intersection of motivated reasoning (Kunda, 1990), which suggests that people will engage in biased reasoning to maintain a positive self-image, and social dominance theories, which suggest that the powerful will harbor more hierarchy legitimizing beliefs while the powerless will harbor more delegitimizing beliefs (Sidanius & Pratto, 1999). Specifically, we predict that higher class individuals and those with a greater sense of power will be motivated to think positively of their position—as a station achieved by beneficent means, deserved, and legitimate. In contrast, lower class individuals and those who feel relatively powerless are likely to see the powerful and those occupying higher classes as having achieved their position illegitimately, through fear and manipulation. That is, higher class and powerful individuals are likely to hold Aristotelian beliefs about power, while lower class and powerless individuals will be more aligned with the views of Machiavelli. Indeed, it is among the lower class and relatively powerless that beliefs about how power *is* and *ought* to be achieved are likely to diverge, resulting in a loss of trust in the powerful.

Implications for Interpersonal Trust

Trust is defined as the willingness to be vulnerable to the actions of others—romantic partners, political leaders, social institutions—with the expectation that the trusted party will act in ways that benefit the trustee (Mayer, Davis, & Schoorman, 1995). Human societies are built on cooperation (Ostrom, 2000), with trust being the social glue that keeps us embedded in a social network of people we depend on, seek counsel from, and trade value with (Kramer, 1999). Americans' trust in powerful institutions, including the government, remain near record lows (Pew Research Center, 2019). Historical patterns of trust in institutions are linked to poverty rates (Twenge, Campbell, & Carter, 2012) and Elgar (2010) found that income inequality was negatively associated with interpersonal trust across 33 different countries. Similarly, a large-scale study using the World Values Survey found that interpersonal trust was positively associated with income and education level (Alesina & La Ferrara, 2002). Lower class individuals, then, trust others less. What is less well understood are possible mediators of the relation between class and trust. We propose that one is theories of power. Indeed, one's beliefs about power—as a collaborative or coercive endeavor—reflect perceptions about how powerful individuals and institutions are likely to act and whether those actions are guided by moral principles that favor collaboration or coercion in the pursuit of self-interest. Previously cited evidence that low SES individuals distrust politicians who present themselves as interpersonally warm is consistent with the notion that the relationship between social class and trust is mediated by the belief that power is attained through manipulation and deceit (Tan & Kraus, 2018). That is, we expect that lower class individ-

uals will endorse more coercive and less collaborative theories of power, leading to decreased trust.

Current Investigation

Guided by the preceding conceptual analysis of power, we develop and validate a measure of coercive and collaborative theories of power, named the Theories of Power Scale (TOPS). Having established this new measure, we pursue three aims of conceptual significance and novelty in the literature on power. We differentiate the TOPS from established measures of power, dominance, and prestige, and ascertain whether social class predicts theories of power in systematic fashion. We establish the generalizability of our measure, testing whether theories of power transcend context to similarly predict approaches to gaining and maintaining power in international politics, the workplace, and at home. And finally, we establish theory of power endorsement as a mediator of the relationship between SES and trust. Across studies, we report all manipulations and measures collected.

In total, we present five studies that test the following five hypotheses:

Hypothesis 1 (H1): A self-report theories of power scale (TOPS) will identify collaborative and coercive theories of power as inversely correlated factors (Study 1).

H2: The TOPS will be related to, but distinct from, established constructs measuring one's experience of human hierarchy. Specifically, one's experience of power, social class, dominance, and prestige are all expected to correlate positively. However, one's experience of power and social class are expected to correlate positively with coercive, and negatively with collaborative, beliefs about power (Study 1).

H3: Beliefs about effective tactics for gaining and maintaining power will be consistent across context. Specifically, coercive beliefs about power will be associated with hard power tactics in international politics, at work, and home, whereas collaborative beliefs about power will be associated with soft power tactics across each of these domains (Study 2).

H4: Social class will be a *causal* predictor of one's theory of power; people who compare themselves to someone higher (vs. lower) in social rank will hold a less collaborative and more coercive theory of power (Study 3a, Study 3b).

H5: Finally, lower social class will be correlated with decreased interpersonal trust. This relationship will be mediated by ascribing to a more coercive theory of power beliefs and fewer collaborative beliefs (Study 4).

Study 1: Theories of Power, Social Class, and Moral Foundations

Using three online samples, we gathered psychometric data on a large set of potential scale items to create a 20-item scale, including two distinct subscales measuring (a) coercive theories of power, and (b) collaborative theories of power (H1). To illustrate the distinction between TOPS—which measures *beliefs* about how power is gained and maintained—and existing measures of influence, we examined associations between TOPS subscales (coer-

cive and collaborative) and self-report measures of power, dominance, and prestige. Specifically, we expected that one's sense of power would be positively associated with self-reported dominance and prestige, but that power would be positively associated with collaborative theory of power endorsement and negatively associated with coercive theory of power endorsement (H2). In addition, we examined the convergent validity of the TOPS scale by analyzing associations between TOPS subscales and related constructs, including measures of group-based power, personal control, moral foundations, moral sentiments, and personality.

Method

Participants.

Sample 1. Five-hundred participants (257 female, 238 male, five other; $M_{\text{age}} = 34.91$, $SD = 10.24$) were recruited via Amazon's Mechanical Turk to complete an online questionnaire. This sample size, as well as those of Sample 2 and 3 described below, were chosen to meet or exceed guidelines set out by Tabachnick and Fidell (2007), who suggest at least 300 participants for conducting factor analyses. Participants all resided in the United States and completed the survey for cash compensation. Specifically, Sample 1 was used to create a 20-item TOPS measure from a larger set of possible items.

Sample 2. Using Amazon's Mechanical Turk, an additional 314 participants were recruited to complete an online questionnaire that included the 20-item TOPS and measures of moral beliefs, emotions, and personality traits. Participants (150 female, 160 male, four other) had a mean age of 32.33 ($SD = 10.48$). All participants resided in the United States and completed the survey for cash compensation.

Sample 3. An additional 296 participants were recruited on Mechanical Turk to complete an online questionnaire intended to focus on the relationship between TOPS and established measures

of experienced power, dominance, and prestige. One-hundred and 23 were male, 172 were female, and one identified as "other." Participants had a mean age of 37.20 ($SD = 11.96$) and all resided in the United States. Participants received cash compensation for completing the study.

Materials.

Sample 1. With this initial sample, our goal was to create a measure of coercive and collaborative theories of power. To ensure that participants conceptualized power as we intended, we provided them with the following instructions: "In this scale you will answer questions that capture your beliefs about power. By power, we mean the influence a person has on others. In the more general sense, you might think of an individual's power in terms of the impact that person has on the world. Please rate the extent to which you agree with each of the following items on the following 1 (*strongly disagree*) to 7 (*strongly agree*) scale." Specifically, participants completed a preliminary 44-item scale, designed to measure perceptions of how power is gained and maintained. Of these items, half (i.e., 22 items) described a coercive approach, and the remaining half described a collaborative approach. Using the scale construction method suggested by Clark and Watson (1995), we eliminated items that showed highly skewed or unbalanced response distributions. We then chose items that measured diverse aspects of theories of gaining power and had moderate interitem correlations with other items in the same subscale. Thus, on the basis of item reliability and face validity, the TOPS was reduced to 20 items, including 10 items tapping coercive theories of power and 10 items tapping collaborative theories (see Table 1). We included only these 20 items when measuring theory of power endorsement in the subsequent samples (Sample 2 and 3) and submitted the combined data from all three samples to factor analyses, which are reported below.

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Table 1
Factor Loadings for Coercive and Collaborative TOPS Subscales

Item	Coercive	Collaborative
1. Maintaining power requires ruthlessness.	.728	-.265
2. People keep power by being feared by others.	.726	-.206
3. People gain power through the use of manipulation and deception.	.700	-.213
4. People mainly gain power by force.	.681	-.217
5. To maintain power, a person must be willing to do whatever is necessary, including breaking the rules, using force, and coercion.	.656	-.263
6. People most typically gain power by reducing the status of other people.	.661	-.137
7. Often it requires aggression to gain power.	.634	-.164
8. An influential individual is typically intimidating.	.570	-.119
9. Having power means always having the "final say".	.562	-.094
10. Power is usually vertically arranged, with a few people at the top having most of the influence and many at the bottom having little to none.	.469	-.026
11. Maintaining power requires the ability to collaborate and compromise with others.	-.126	.683
12. Maintaining power requires compassion for others.	-.263	.681
13. People rise in power through virtue and respect.	-.279	.616
14. Having high ethical and moral standards is necessary to keep power.	-.216	.617
15. Powerful individuals focus on the needs of group members.	-.213	.615
16. Influential individuals need to be approachable and empathetic.	-.127	.611
17. Gaining power requires collaboration with other individuals.	-.051	.602
18. People most typically gain power by being given responsibilities and opportunities by others.	-.047	.543
19. In a group, there can be many influential people.	-.114	.535
20. Power is often shared by many individuals in a group.	-.144	.411

In Sample 1 we also examined relationships between theories of coercive and collaborative power and locus of control (LOC; Rotter, 1966), social dominance orientation (SDO; Pratto, Sidanius, Stallworth, & Malle, 1994) and sense of power (SOP; Anderson et al., 2012). Participants also rated their subjective SES on a 1 to 10 ladder scale, with 1 representing the lowest rung in society, and 10 representing the highest (Operario, Adler, & Williams, 2004). In addition, they provided demographic information (age, gender, education, income), identified their political party affiliation (i.e., Democratic, Republican, other) and rated their political ideology on a 1 (*very liberal*) to 7 (*very conservative*) scale.

Sample 2. Participants in the second Mechanical Turk sample completed the 20-item version of TOPS. In addition, participants completed the following measures: moral foundations questionnaire (MFQ20; Graham, Haidt, & Nosek, 2008), the dispositional positive emotions scale (DPES; Shiota, Keltner, & John, 2006), short Dark Triad (SD3; Jones & Paulhus, 2014), subjective SES (Operario et al., 2004); SOP (Anderson et al., 2012), social dominance orientation (SDO; Pratto et al., 1994), right wing authoritarianism (RWA; Altemeyer, 1996), modern sexism scale (MSS; Swim, Aikin, Hall, & Hunter, 1995), social value orientation (SVO; Van Lange, 1999), and achievement motivation subscales (AMS—dominance; AMS—respect and admiration; Cassidy & Lynn, 1989). The 10-item personality inventory (TIPI; Gosling, Rentfrow, & Swann, 2003) was also gathered to assess the extent to which TOPS subscale scores were related to basic dimensions of personality. In addition, participants provided demographic information, as well as political affiliation and ideology ratings, as in Sample 1.

Sample 3. Finally, participants in the third Mechanical Turk sample completed the 20-item TOPS, as well as the Dominance and Prestige Scale, recently revised by Cheng, Tracy, and Henrich (2010) and based on the Self-Perceived Social Status Scale (Buttermore, 2006). Participants also responded to the SOP (Anderson et al., 2012), subjective SES ladder measure (Operario et al., 2004), and provided demographic, political affiliation and ideology information.

Procedure. Participants were recruited on Mechanical Turk and, if interested in participating, were redirected to a survey link hosted by Qualtrics. Participants first provided informed consent and then proceeded to complete the measures described above and provide demographic information. All measures were de-identified and presented in randomized order. Further, items within each measure were randomly ordered.

Data treatment. All participants who completed the surveys were included in analyses; no data was removed. Where measures were collected in multiple samples, data sets were combined in analyses presented below, to achieve maximum statistical power.

Results and Discussion

Theories of power: A two-factor structure. We conducted a principal axis factor analysis with varimax rotation on the combined samples ($N = 1,110$) to test H1 and assess the factor structure of the 20-item TOPS measure. There was no evidence for a single, general factor; instead, examination of the eigenvalues and the scree plot point of inflection supported a two-factor solution, which mapped clearly onto (a) a coercive subscale (eigen-

value: 6.85); and (b) a collaborative subscale (eigenvalue: 2.65; see Table 1 for items and factor loadings). For each factor, intended loadings were all substantially higher than even the highest of all cross-loadings. In fact, all cross-loadings were in the negative direction, with a mean of $-.16$. After rotation, these two factors accounted for 41.86% of total variance. Reliability was high for both the coercive ($\alpha = .89$) and the collaborative factor ($\alpha = .86$). Subscales were inversely correlated, $r(1,110) = -.446$, $p < .001$, suggesting that individuals specialize in their theory of power, adopting one theory over the other.

A series of confirmatory factor analyses (CFA) tested the relationship between these factors more directly. We used the *lavaan* package in R (Rosseel, 2012) to generate four general models: (a) a one-factor model of theory of power endorsement; (b) a generalist model of two factors correlating at $.50$, which suggests that some individuals hold strong theories of power that combine both collaborative and coercive perspectives, while others have weak theories of power, endorsing neither collaborative or coercive views; (c) specialist model of two factors correlating at $-.50$, where individuals hold either a coercive or a collaborative theory of power; and (d) an independence model where there is no relation between one's endorsement of collaborative and coercive theories of power. The fit of these models can be compared with a two-factor model where the interfactor correlation is freely estimated. Fit statistics were most similar for the freely estimated and the specialist model (see Table 2). Further, only the fit statistics for the freely estimated and specialist models were deemed acceptable based on guidelines set out by Marsh, Hau, and Grayson (2005), such that CFI and TLI values were greater than or equal to 0.90, and RMSEA values were less than $.08$. These data are consistent with H1 and suggest that people generally specialize in their view of power, endorsing coercive but not collaborative items, or vice versa. All further analyses, in this and subsequent studies, use 10-item collaborative and coercive subscales as identified by these analyses.

Theories of power are distinct from the sense of power, dominance, and prestige. Our second hypothesis held that collaborative and coercive theories of power would be separate from other hierarchical constructs. As reported in Table 3, individuals who reported a greater sense of power, also reported greater dominance- and prestige-related actions and attributes, in keeping with theorizing about multiple routes to gaining power and influence (Cheng et al., 2013). However, relationships between one's

Table 2
Fit Indices for CFA Models, Indicating That the Freely-Estimated Model Most Closely Resembles the Specialist Model Wherein Collaborative and Coercive Factors Were Constrained to Correlate at $-.50$

	RMSEA	TLI	CFI
One factor	.117	.662	.698
Generalist	.088	.807	.828
Specialist	.062	.904	.914
Independent	.073	.869	.883
Freely-estimated	.062	.905	.915

Note. Gray background indicates that fit indices meet criteria set out by Marsh, Hau, and Grayson (2005).

Table 3
Pearson Correlations Between Feelings of Power, Dominance, Prestige, and TOPS (Coercive, Collaborative) Subscale Scores (Study 1)

	SES	Sense of power	Dominance	Prestige	TOPS: Coercive	TOPS: Collaborative
SES	(—)					
Sense of power	.310**	(.743)				
Dominance	.151*	.251**	(.849)			
Prestige	.269**	.610**	.150*	(.839)		
TOPS: Coercive	-.134**	-.200**	.348**	-.292**	(.855)	
TOPS: Collaborative	.126**	.262**	-.153*	.396**	-.415**	(.887)

Note. Alpha reliabilities appear on diagonal. — indicates that reliability could not be calculated as SES was measured using a single item. All *N*s = 1,110, except for correlations involving dominance and prestige, which include 296 participants.
* *p* < .05. ** *p* < .001.

sense of power and theory of power endorsement did not follow the same pattern; feeling powerful was associated with greater collaborative theory of power endorsement and less coercive theory of power endorsement. In other words, consistent with H2, people who feel powerful tend to believe that power is achieved and maintained through collaborative tendencies, whereas the relatively powerless believe that power is gained and maintained by dominating, threatening, and coercing others (see Table 3). The same pattern of findings occurs with respect to one's social class. Subjective SES was positively associated with both dominance and prestige, yet we found that subjective SES was positively correlated with collaborative, and negatively correlated with coercive, beliefs about power.

Although these findings suggest that one's sense of power is associated with more collaborative and less coercive theories on power, findings also indicate that people generally endorse the beliefs about power that are consistent with their personal experience of dominance- or prestige-based power. That is, coercive beliefs about power were positively associated with feelings of dominance and negatively associated with feelings of prestige while collaborative beliefs about power were positively associated with feelings of prestige and negatively associated with feelings of dominance.

Thus, while TOPS subscales are related to feelings of dominance and prestige, they are not redundant measures, and are related to one's sense of power in distinct ways. It is also notable that beliefs about power can exist in the relative absence of

feelings of power, and that those beliefs reflect a Machiavellian view of power.

Theories of power and measures of agency and group dominance. In Table 4 we show that people who held collaborative theories of power also reported a greater internal locus of control (Rotter, 1996), a weaker social dominance orientation (Pratto et al., 1994), and both dominance and respect/admiration-related achievement motivations (Cassidy & Lynn, 1989). There was also a small, but significant, positive correlation between collaborative theories of power and right-wing authoritarianism beliefs (Aletmeyer, 1996). In the context of findings that relatively high SES and powerful individuals endorse collaborative theories of power, it may be these same individuals who endorse the hierarchy-legitimizing beliefs captured by the RWA scale. People who endorsed a more coercive theory of power also reported a greater external locus of control and were more likely to endorse a social dominance orientation and modern sexist beliefs (Swim et al., 1995). Table 4 presents correlations and internal validities relevant to these findings.

Theories of power and moral foundations, sentiments, and personality traits. Consistent with Aristotle's (350 B.C./1962) belief that gaining and maintaining power is rooted in the pursuit of social good through moral action, we found that collaborative theories of power were positively associated with the endorsement of all five moral foundations, measured by the MFQ20: authority, fairness, harm, in-group, and purity. In contrast, only the moral foundation of authority was positively associated with coercive

Table 4
Pearson Correlations Between TOPS (Coercive, Collaborative) Subscale Scores and Related Constructs (Study 1)

	TOPS: Coercive	TOPS: Collaborative	LOC	SDO	AMS: Dominance	AMS: Respect	RWA	MSS
TOPS: Coercive	(.855)							
TOPS: Collaborative	-.415**	(.887)						
LOC	-.261**	.249**	(.778)					
SDO	.179**	-.183**	.153*	(.948)				
AMS: Dominance	.063	.217**	—	.143*	(.896)			
AMS: Respect/admiration	.062	.208**	—	.097	.757**	(.736)		
RWA	.098	.135*	—	.534**	.219**	.153*	(.920)	
MSS	.118*	-.018	—	.571**	.072	.002	.445**	(.907)

Note. Alpha reliabilities appear on diagonal. — indicates that no correlation is available as these two measures were not collected in the same sample. Most correlations include *N* = 314 participants, with some exceptions: Relationships between TOPS and SDO include 814 participants, relationships involving LOC include 500 participants, and the relationship between TOPS subscales includes all three samples: *N* = 1,110.
* *p* < .05. ** *p* < .001.

theories of power. These findings are consistent with Machiavelli (1532/1961) pragmatic approach to moral behavior; that appearing virtuous can be valuable, but that deception, manipulation, and strategic violence should be deployed when necessary.²

Beliefs about how power is gained and maintained were also associated with dispositional emotional experience. Consistent with the literature linking subjective well-being with concern for others (Aknin et al., 2013; Meier & Stutzer, 2008), holding a collaborative theory of power was associated with the experience of all positive emotions measured by the DPES (Shiota et al., 2006); coercive beliefs about power were related to the experience of fewer of these emotions (see Table 5).

As would be expected based on what is known about “successful psychopaths” (Babiak & Hare, 2006; Lilienfeld, Watts, & Smith, 2015), psychopathic and Machiavellian personality traits were positively associated with coercive theories of power, and negatively associated with collaborative theories. Narcissism was also positively associated with coercive theories of power, but unrelated to collaborative theories (see Table 6). Coercive theories of power were also more strongly held by less agreeable, and less conscientious individuals, whereas collaborative theories of power were held by more agreeable, more conscientious, and more extraverted individuals.

Study 2

Power shapes relationships of all kinds, including those between individuals, communities, organizations, institutions, and countries (Keltner, 2016; Magee & Galinsky, 2008). Power, as Bertrand Russell (1938) posited, is the basic medium in which people relate to one another across social contexts. In this next study, we test hypotheses concerning how theories of power shape people’s beliefs about power within international, work, and familial relations (H3).

With respect to international relations, we borrow insight from Nye’s (2004) conceptualization of hard and soft power. Hard power is the influence that comes from a country’s use, or threat to use, military or economic might. In contrast, soft power is based not in material resources, but in the values and culture of a nation, and the extent to which they are admired and emulated by others. Given this analysis, we predicted that hard power resources and tactics will be perceived as the root of American power for individuals holding coercive theories of power. In contrast, we expected that soft power resources and actions will be perceived as the root of American power to the extent that one holds collaborative beliefs about power.

In the workplace, we expect that coercive theories of power will be associated with the belief that power is gained and maintained by hard power tactics such as intimidating and bullying subordinates—much the same way that so-called “successful psychopaths” operate in organizational management positions (Babiak, Neumann, & Hare, 2010; Mathieu et al., 2014). In contrast, collaborative theorists are expected to perceive power as based in soft power behaviors, including the coordination of group effort and a concern for employee success—actions that parallel those of transformational or guilt-prone leaders (Schaumburg & Flynn, 2012).

At home, one’s theory of power is expected to be reflected in hard and soft power approaches to parenting and perceptions of hierarchy in the family system (Darling & Steinberg, 1993). In

particular, we expect that coercive theories of power will be associated with perceptions that power is held by parents—not children—and that this family hierarchy should be maintained by authoritarian parenting styles (Baumrind, 1971, 1996). Endorsing a collaborative theory of power, by contrast, is expected to be associated with a more authoritative view of parenting which posits a less hierarchical view of power in family systems that empowers both parents and children. In advancing H3, we predicted that collaborative beliefs about power would be positively associated with support of soft power tactics in international relations, the workplace, and at home. In contrast, we predicted that coercive beliefs about power would be positively associated with support of hard power tactics across domains.

Method

Participants. Two-hundred and 13 participants (106 female, 107 male) with a mean age of 34.85 ($SD = 10.72$) were recruited on Amazon’s Mechanical Turk. All participants were living in the United States at the time of study completion and received cash compensation for completing the study.

Materials.

TOPS. The 20-item TOPS (see Table 1) was administered to participants to measure endorsement of coercive and collaborative theories of power.

Additional measures of power. Participants also completed measures of their subjective SES (i.e., ladder scale; Operario et al., 2004), SOP (Anderson et al., 2012), and the Dominance and Prestige Scales (Cheng et al., 2010).

Power in context. To measure the perceived power of acts in international relations, at work, and at home, we created a list of example behaviors that reflect hard and soft power approaches in each context. For each, participants were told: “In this scale you will answer questions that capture your beliefs about power [among nations, in the workplace, in families]. Please rate the extent to which you agree with each of the following items on the following scale.” Scale options ranged from 1 (*strongly disagree*) to 7 (*strongly agree*). In total, participants provided ratings of 12 international actions, 10 actions at work, and 10 actions at home. All items are provided in the Appendix.

Procedure. Participants were recruited on Mechanical Turk and completed the online survey by navigating to a Qualtrics-hosted web link. Participants provided informed consent and then proceeded to complete ratings of hard and soft power approaches among nations, at work, and at home. Participants also completed additional measures of their subjective SES, sense of power,

² Although we find shared variance underlying the five moral foundations to be of interest, we also conducted a series of multiple regressions to determine whether each foundation was uniquely associated with theory of power endorsement. Coercive theory of power endorsement was only marginally associated with the moral foundation of authority, $\beta = .15, p = .084$; no other foundations approached significance, $ps > .408$. Collaborative theory of power endorsement was uniquely associated with the moral foundation of fairness, $\beta = .18, p = .007$. Purity also approached significance, $\beta = .13, p = .093$. No other foundations approached significance, $ps > .115$.

Table 5
Pearson Correlations Between TOPS (Coercive, Collaborative) Subscale Scores, Moral Foundations, and Dispositional Emotions (Study 1)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. TOPS: Coercive	(.855)													
2. TOPS: Collaborative	-.415**	(.887)												
3. Harm	-.047	.199**	(.699)											
4. Fairness	-.039	.232**	.557**	(.621)										
5. In-group	.038	.242**	.122*	.049	(.655)									
6. Authority	.123*	.218**	-.308	.018	.628**	(.744)								
7. Purity	.084	.241**	.048	.026	.565**	.678**	(.788)							
8. Joy	-.099	.318**	.184*	.162*	.365**	.334**	.290**	(.888)						
9. Content	-.078	.271**	.112*	.138*	.356**	.327**	.302**	.821**	(.921)					
10. Pride	-.125*	.309**	.201**	.133*	.352**	.301**	.254**	.763**	.796**	(.817)				
11. Love	-.167*	.348**	.349**	.228**	.237**	.109	.155*	.679**	.587**	.637**	(.818)			
12. Compassion	-.167*	.347**	.562**	.407**	.127*	.031	.098	.409**	.287**	.337**	.519**	(.854)		
13. Amuse	.116*	.155*	.146*	.140*	-.011	-.032	-.024	.378**	.244**	.254**	.363**	.240**	(.758)	
14. Awe	-.089	.241**	.337**	.248**	.162*	.078	.105	.687**	.549**	.584**	.538**	.478**	.391**	(.794)

Note. Alpha reliabilities appear on diagonal. $N = 314$.
* $p < .05$. ** $p < .001$.

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dominance, and prestige, and provided demographic information.³ Among the demographic items was an attention check question which assessed reading comprehension. Although participants were not excluded for failing this check ($n = 26$), it is worth noting that all results replicate when these individuals were removed from analyses. All measures, and items within each measure, were presented in randomized order. Upon completion, participants were thanked and provided compensation.

Results and Discussion

Theories of power in international politics, at work, and home. Consistent with predictions in H3, holding a collaborative theory of power was associated with a “soft” approach to gaining and maintaining social influence in international politics, at work, and at home. Collaborative theorists endorsed items such as “American power and influence is rooted in its’ willingness to engage in diplomatic negotiations,” “Power and influence at work is maintained by those who uphold high moral standards and values in the workplace,” and “Power and influence in families is held by those that put their family’s needs before their own.” In contrast, holding a coercive theory of power was related to support for ‘hard’ power approaches in each domain (see Table 7). Coercive theorists tended to agree with statements that “American power and influence is rooted in the strength of its’ military,” “Power and influence at work is often gained by manipulating and bullying coworkers,” and “Power and influence in families is maintained by parents when children’s privileges (e.g., allowance) are taken away for inappropriate behavior.” In short, findings suggest that theories of power transcend context to inform perceptions of how power is gained and maintained in very large (i.e., global) to very small (i.e., families) social groups.

With respect to establishing TOPS as a novel construct, it is also worth noting that correlational analyses replicated H2 predictions from Study 1. One’s sense of power was positively associated with feeling greater dominance and prestige. However, feeling powerful was associated with *greater* collaborative theory of power endorsement, and *less* coercive theory of power endorsement (see

Table 7). Important to our efforts in establishing theories of power as a construct distinct from prestige and dominance, we find that coercive and collaborative beliefs about power relate as expected with beliefs about hard and soft power tactics across context. However, prestige and dominance do not. For example, one’s sense of prestige was positively correlated with both hard and soft power tactics across contexts, while we predicted and found that collaborative theories of power would only be positively associated with soft power tactics. Further, a series of partial correlations that included feelings of dominance and prestige as covariates did not affect the results presented in Table 7. Specifically, coercive theory of power endorsement remained strongly correlated with hard power tactics in politics, at work and home, while collaborative theory of power endorsement remained strongly correlated with soft power tactics in each of these domains, $r_s = .264-.595$, $p_s < .001$. In short, findings suggest that theories of power transcend context to inform perceptions of how power is gained and maintained in ways that are not predicted by one’s sense of dominance and prestige.

Study 3a

Thus, far findings suggest that beliefs about how power is gained and maintained can be summarized as coercive or collaborative, generalize across context, and are distinct from one’s personal sense of power, dominance, and prestige. These findings, however, are all correlational in nature and do not provide direct insight into the factors that cause coercive or collaborative theories to emerge. In Study 3a, we examine the causal effect of social class on theory of power endorsement. Importantly, one’s subjective experience of socioeconomic status is malleable, and depends upon social referents. That is, social comparison can increase or decrease one’s subjective SES depending on whether the target of comparison is of lower or higher class, respectively. Specifically,

³ Demographic information, unfortunately, did not include a question about whether participants were parents which may affect ratings of hard versus soft power tactics in families, in particular.

Table 6
Pearson Correlations Between TOPS (Coercive, Collaborative) Subscale Scores and Personality Variables (Study 1)

	1	2	3	4	5	6	7	8	9	10
1. TOPS: Coercive	(.855)									
2. TOPS: Collaborative	-.415**	(.887)								
3. Openness	-.093	.079	(.545)							
4. Conscientiousness	-.180*	.194*	.157*	(.648)						
5. Extraversion	-.092	.151*	.247**	.065	(.768)					
6. Agreeableness	-.143*	.131*	.326**	.411**	.162*	(.391)				
7. Neuroticism	-.035	.020	.244**	.425**	.221*	.374**	(.409)			
8. Machiavellianism	.557**	-.253**	-.132*	-.177*	-.168*	-.326**	-.094	(.813)		
9. Psychopathy	.363**	-.208**	-.097	-.369**	.030	-.423**	-.140*	.610**	(.761)	
10. Narcissism	.157*	.040	.263**	.064	.423**	.056	.221**	.324**	.325**	(.742)

Note. Alpha reliabilities appear on diagonal. $N = 314$.
* $p < .05$. ** $p < .001$.

one's subjective SES decreases when people compare themselves upward to higher status individuals, leading to perceptions of unfairness, hostility, and aggression (Greitemeyer & Sagioglou, 2016; Smith, Pettigrew, Pippin, & Bialosiewicz, 2012). Similarly, social dominance theories would suggest that individuals occupying a lower class position will hold hierarchy delegitimizing beliefs while higher class individuals will perceive their position—and the means used to achieve it—in a positive, legitimizing light (Sidanius & Pratto, 1999). Consistent with the correlations reported in Study 1, and H4, we expected that making upward (vs. downward) social comparisons would decrease participants' subjective experience of social class, decrease collaborative, and increase coercive beliefs about power.

Method

Participants. An a priori power analysis suggested that a sample size of 260 would be required to detect a small to medium effect of communicative coherence on veracity judgments (Cohen's $d = .35$) when setting power at .80 and alpha at .05. Following a full quarter (10 weeks) of participant recruitment, two hundred and 45 undergraduate participants (187 females, 56 males, two other; $M_{age} = 19.33$, $SD = 1.51$) from a small, private university in the western U.S. completed the

online study for which they received course credit. Given the proximity to our recruitment goal, we proceeded to analysis; sensitivity power analyses suggest that this sample size would allow for detection of an effect size of $d = .36$ with 80% power. Participants predominantly identified as Caucasian (82.4%), with an additional 10.2% identifying as Asian, 4.1% Hispanic, 1.6% Black, and 1.6% identifying as an "other" race or ethnicity. Participants were randomly assigned to either the upward ($n = 123$) or downward ($n = 122$) social comparison condition.

Materials.

Social comparisons. In a slightly modified version of a social comparison manipulation by Greitemeyer and Sagioglou (2016), we had participants in each condition look at three pictures. In the upward social comparison condition, participants looked at an image of an expensive sports car, luxury home, and a gourmet dinner. In contrast, participants in the downward social comparison condition looked at an image of an old sedan, a mobile home, and a food bank. Participants were asked to compare themselves to individuals who drove the car, lived in the house, and ate the food in the images they were presented. As such, participants were asked to compare themselves with individuals at the very top or very bottom of the socioeconomic ladder. Participants were then

Table 7
Pearson Correlations Describing the Association Between TOPS Subscale Scores, Sense of Status, Power, Dominance, and Prestige, and the Endorsement of Hard and Soft Power Approaches in International Politics, Work, and at Home (Study 2)

	1	2	3	4	5	6	7	8	9	10	11	12
1. TOPS: Coercive	(.892)											
2. TOPS: Collaborative	-.413**	(.866)										
3. SES	-.150*	.195**	(—)									
4. Power	-.129^	.265**	.253**	(.911)								
5. Dominance	.350**	-.170*	.058	.245**	(.846)							
6. Prestige	-.124^	.328**	.310**	.738**	.039	(.874)						
7. Hard power: Politics	.264**	.038	-.011	.114	-.016	.271**	(.812)					
8. Hard power: Work	.595**	-.202*	-.126^	.004	.203*	.061	.529*	(.695)				
9. Hard power: Home	.524**	-.186*	-.076	.062	.172*	.151*	.336**	.435**	(.737)			
10. Soft power: Politics	.004	.267**	.123^	.205*	.060	.208*	.194*	.041	.042	(.735)		
11. Soft power: Work	-.200*	.572**	.192*	.155*	-.047	.210*	.001	-.239**	-.132	.440**	(.780)	
12. Soft power: Home	-.063	.492**	.231*	.118	.011	.228*	.229*	.126	-.129	.282**	.369**	(.585)

Note. Alpha reliabilities appear on diagonal. — indicates that reliability could not be calculated as SES was measured using a single item.
^ $p < .07$. * $p < .05$. ** $p < .001$.

asked to describe, in an open-ended response box, how their lives were different from those depicted in the images.

Manipulation checks. Consistent with the procedure used by Greitemeyer and Sagioglou (2016), participants were asked to rate their own SES on a ladder from 1 (*people who were worst off*) to 10 (*people who were best off*; Operario et al., 2004), in comparison with the individuals they had previously observed.⁴

TOPS. The 20-item TOPS, appearing in Table 1, was administered to participants to measure the extent to which they endorsed coercive ($\alpha = .83$) and collaborative theories of power ($\alpha = .82$).

Procedure. Participants first provided informed consent and then were randomly assigned to complete either the upward or downward social comparison condition. Following the social comparison procedure, participants completed the manipulation check. Then, participants completed the 20-item TOPS measure and demographic questions.⁵

Results and Discussion

Manipulation check. As expected, participants reported feeling higher SES in the downward comparison ($M = 7.06$, $SD = 1.34$) versus the upward comparison condition ($M = 6.07$, $SD = 1.66$), $t(243) = 5.11$, $p < .001$.

Causal relationship between social comparison and TOPS. Consistent with H4, participants in the upward comparison condition ($M = 4.07$, $SD = 0.97$) endorsed a more coercive theory of power relative to those in the downward comparison condition ($M = 3.82$, $SD = 0.95$), $t(243) = -2.00$, $p = .047$, $d = .26$. In contrast, participants in the downward comparison condition ($M = 5.22$, $SD = 0.88$) endorsed a collaborative theory of power more than participants in the upward comparison condition ($M = 4.96$, $SD = 0.87$), $t(243) = 2.34$, $p = .020$, $d = .30$ (see Figure 1, panel a). In short, findings indicate that the subjective experience of social class has a causal effect on beliefs about power.

Study 3b

Although Study 3a provided support for the causal link between one's sense of social status and theory of power endorsement, the undergraduate sample was predominantly female, young, and of

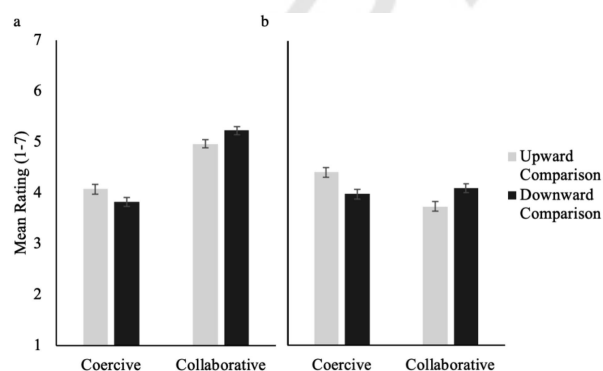


Figure 1. Upward (vs. downward) social comparisons decrease collaborative and increase coercive theory of power endorsement. Results from Study 3a appear in panel a; results from Study 3b appear in panel b. Error bars represent standard errors.

high SES. In order to test H4 in a larger, more representative sample, we replicated Study 3a on Amazon's Mechanical Turk.

Method

Participants. An a priori power analysis suggested that a sample size of 428 would be required to detect a small to medium effect of communicative coherence on veracity judgments (Cohen's $d = .35$) when setting power at .95 and alpha at .05. Power was increased in this study, relative to Study 3a, in an effort to produce more precise estimates and further reduce the possibility of accepting the null hypothesis.

Participants were recruited using Amazon's Mechanical Turk. A total of 395 participants (182 female, 211 male, two other; $M_{\text{age}} = 37.13$, $SD = 11.21$) completed the survey online for cash compensation. This sample size fell short of our initial power analysis due to participants who started but did not complete the study. However, sensitivity power analyses suggest that this sample size would still allow for detection of an effect size of $d = .36$ with 95% power and $d = .28$ at 80% power. The sample was predominantly Caucasian (73.4%), but also included Black (9.9%), Asian (6.8%), Hispanic (6.8%), and other race/ethnicity (3.0%) participants. Participants were randomly assigned to either the upward ($n = 195$) or downward ($n = 200$) social comparison condition. All participants were residents of the United States and completed the study for cash compensation.

Materials and procedure. This study was a replication of Study 3a, with one revision. Specifically, the TOPS was reduced to eight items (four collaborative, four coercive) to reduce the duration of the study and increase the likelihood that the effect of our social comparison manipulation would extend through participant responses to these questions.⁶ Subscales maintained acceptable reliabilities (collaborative: $\alpha = .85$; coercive: $\alpha = .82$). Otherwise, all materials and the procedure were identical to that described above.

Results and Discussion

Manipulation checks. As expected, participants in the downward comparison reported higher subjective SES ($M = 5.34$, $SD = 1.83$) relative to those in the upward comparison condition ($M = 4.16$, $SD = 1.91$), $t(393) = 6.23$, $p < .001$.

Causal relationship between social comparison and TOPS. Consistent with Study 3a and H4, participants in the upward comparison condition ($M = 4.62$, $SD = 1.33$) reported a more coercive theory of power relative to those in the downward comparison condition ($M = 4.16$, $SD = 1.37$), $t(393) = -3.41$, $p = .001$, $d = .34$. In contrast, participants in the downward comparison condition ($M = 4.28$, $SD = 1.29$) reported a more collabor-

⁴ On a 1 (*not at all*) to 7 (*highly*) scale, participants also rated the extent to which they felt dominant, in control, respected, and admired.

⁵ Prior to providing demographic information, but after completing the TOPS, participants also reported on their eligibility to vote in U.S. Federal Elections, their past voting behavior, and the likelihood that they would vote in the 2018 Midterm Elections. These questions were collected for another purpose and are not reported here.

⁶ Items were chosen to represent all of the major components of each subscale. Collaborative items were 2, 3, 5, and 7, in Table 1. Coercive items were 12, 13, 14, and 20.

ative theory of power than participants in the upward comparison condition ($M = 3.90$, $SD = 1.40$), $t(393) = 2.81$, $p = .005$, $d = .29$ (see Figure 1, panel b).

Combined with correlational findings reported in Study 1, these findings suggest that social class is an important causal predictor of lay theories of power. Feeling low (vs. high) in social class, following an upward (vs. downward) social comparison, was associated with a more coercive and less collaborative view of how power is gained and maintained.

Study 4

Finally, we test a novel negative outcome of low social status and holding a coercive theory of power: distrust. Trust is the willingness to be vulnerable to the actions of others, expecting that they will act in ways that benefit the trustee, and distrust—the opposite (Mayer, Davis, & Schoorman, 1995). Distrust, on the other hand, erodes relationships and social institutions (Fischbacher, Gächter, & Fehr, 2001). At present, trust in individuals and in institutions such as politics and the judicial system is on the decline. Rising levels of distrust in powerful institutions, in particular, appears to be tied to poverty levels with subjective SES being positively associated with trust in others (Alesina & La Ferrara, 2002; Twenge, Campbell, & Carter, 2014).

Subjective SES or social class, as we have demonstrated, is also associated with theory of power endorsement and the link between beliefs about power and trust is a relatively straightforward one. Aristotle's (350 B.C./1962) view of power, underpinning our collaborative theory of power, is rooted in moral actions in the service of the greater good. In this view, powerful individuals can be trusted to do what is right and best for others. In contrast, Machiavelli's (1532/1961) prescriptions—underpinning our coercive theory of power—is rooted in the manipulation and exploitation of others. Thus, we expect that low social class will be associated with decreased trust via increased endorsement of coercive and decreased endorsement of collaborative theories of power.

While social class is defined as distinct from resource control and the esteem of others (Kraus et al., 2012), previous research and our earlier findings suggest that one's subjective SES is modestly correlated with feelings of dominance and prestige. However, dominance and prestige—via their relationships with theory of power endorsement—are expected relate in opposing ways to interpersonal trust. Indeed, recent research by Blader and colleagues (Blader & Chen, 2012; Blader, Shirako, & Chen, 2016) highlights the diverging effects of these two types of power on behavioral outcomes. For example, while previous research has highlighted that feeling powerful—as manipulated by resource control (i.e., dominance)—decreases perspective taking (e.g., Galinsky, Magee, Inesi, & Gruenfeld, 2006), Blader, Shirako, and Chen (2016) demonstrated that feeling high in esteem improved perspective taking. With respect to trust, it might be expected that feelings of dominance would be associated with more coercive beliefs about power, leading to decreased trust. In contrast, feelings of prestige might be associated with more collaborative beliefs about power, leading to increased trust. As such, we also took the opportunity to (a) examine trust as a novel outcome that is differentially affected by feelings of dominance and prestige, and (b) test the mediating role of theories of power in those relationships.

Method

Participants. Using sample size guidelines set out by Fritz and MacKinnon (2007) for detecting an indirect effect with 80% power when a and b paths are small to medium in size, we recruited 300 participants (127 female, 173 male) with a mean age of 36.02 ($SD = 10.23$) on Amazon's Mechanical Turk. All participants were living in the United States at the time of study completion and received cash compensation for completing the study.

Materials.

TOPS. The 20-item TOPS (see Table 1) was administered to participants to measure endorsement of coercive and collaborative theories of power.

Additional measures of power. Participants also completed measures of their subjective SES (i.e., ladder scale; Operario et al., 2004), SOP (Anderson et al., 2012), and the Dominance and Prestige Scales (Cheng et al., 2010).

Rotter Trust Scale. To assess interpersonal trust, the Rotter Trust Scale (Rotter, 1967) was administered to participants. The scale consists of 25 statements that assess trust in individuals and institutions. The scale includes items such as “Most elected officials are really sincere in their campaign promises” and “Most people can be counted on to do what they say they will do.” Participants rate their agreement with each statement on a 1 (*strongly disagree*) to 5 (*strongly agree*) scale.

Procedure. Participants were recruited on Mechanical Turk and, if interested in participating, were redirected to a survey link hosted by Qualtrics. Participants provided informed consent and then proceeded to complete the measures described above and provide demographic information. All measures were de-identified and presented in randomized order. Items within each measure were also randomly ordered.

Results

As predicted, collaborative theories of power were positively associated with interpersonal trust, while coercive theories of power were negatively associated with interpersonal trust (see Table 8). Interpersonal trust was also positively associated with feelings of power and social class, but unrelated to feelings of dominance and prestige. Similarly, when partial correlations were conducted, which included dominance and prestige as covariates, collaborative theory of power endorsement remained positively associated with trust, $r(296) = .343$, $p < .001$, and coercive theory of power endorsement remained negatively associated with trust, $r(296) = -.359$, $p < .001$. In short, we find that theories of power make novel predictions about interpersonal trust that cannot be explained one's sense of dominance or prestige.

Theories of power as a mediator of interpersonal trust. Further, and consistent with H5, the positive relationship between subjective SES and interpersonal trust was mediated by one's theory of power (see Figure 2). Specifically, a multiple mediation model (PROCESS Model 4; Hayes, 2013) including both TOPS subscales as mediators revealed that subjective SES was positively related to collaborative beliefs about, which was associated with increased interpersonal trust, $ab = .0151$, $SE_{boot} = .0054$, 95% CI [.0063, .0289]. However, coercive beliefs about power did not also mediate the relationship between subjective SES and interpersonal trust, $ab = -.0068$, $SE_{boot} = .0058$, 95% CI [-.0195, .0040].

Table 8
Pearson Correlations Between Subjective Socioeconomic Status, Feelings of Power, Dominance, Prestige, TOPS (Coercive, Collaborative) Subscale Scores, and Interpersonal Trust (Study 4)

	SES	Sense of power	Dominance	Prestige	TOPS: Coercive	TOPS: Collaborative	Interpersonal trust
SES	—						
Sense of power	.158*	(.743)					
Dominance	.340**	.251**	(.849)				
Prestige	.244**	.610**	.150*	(.839)			
TOPS: Coercive	.075	-.200**	.348**	-.292**	(.855)		
TOPS: Collaborative	.250**	.262**	-.153*	.396**	-.415**	(.887)	
Interpersonal trust	.167*	.156*	-.067	.087	-.376**	.351**	(.863)

Note. Alpha reliabilities appear on diagonal.
* $p < .05$. ** $p < .001$.

Although direct effects were not significant, additional mediation analyses examined relationships of dominance and prestige on interpersonal trust, through theory of power endorsement. Specifically, a multiple mediation model that specified self-reported dominance as the predictor of interpersonal trust, with both TOPS subscales as mediators, revealed a significant indirect effect. Individuals who reported feeling more dominant, also endorsed a more coercive theory of power, which was associated with a decreased interpersonal trust, $ab = -.0428$, $SE_{boot} = .0132$, 95% CI $[-.0730, -.0200]$. However, collaborative beliefs about power did not also mediate this relationship (see Figure 3). Finally, a multiple mediation model that specified self-reported prestige as the predictor revealed that individuals who reported more prestige also held more collaborative theories of power, which was associated with increased interpersonal trust, $ab = .0324$, $SE_{boot} = .0106$, 95% CI $[.0156, .0625]$. Coercive beliefs about power did not also mediate this relationship (see Figure 4).

General Discussion

For centuries, political scholars have theorized about how to gain and maintain power, with two opposing accounts first established in the writings of Aristotle (350 B.C./1962) and Machiavelli (1532/1961). The findings presented here suggest that these theories live, not only in historical texts, but in the minds of ordinary citizens. Consistent with Aristotle’s writing, the collaborative theory of power presupposes that rising in hierarchies is rooted in human virtues, social coordination, and concern for the greater

good. In contrast, coercive theories of power hold that power is to be found in threat, force, and dominance over others.

Theories of Power: Coercive and Collaborative

Findings from three large online samples (Study 1) support the claim (H1) that people hold lay theories of power that can be defined as collaborative or coercive. A new measure of lay theories of power, the Theories of Power Scale (TOPS), yields two factors that map clearly onto collaborative and coercive beliefs about how power is gained and maintained. An inverse correlation between these factors suggests that people generally ascribe to one theory more than the other. Further, these theories appear to be pervasive and related to perceptions of how power is gained and maintained in human hierarchies—small and large (H3). Admittedly, this finding comes from correlational, self-report measures and would benefit from future work that manipulates these theories, for example through priming techniques, or looks at the longitudinal trajectories of adopting coercive or collaborative theories of power. However, these findings suggest that theories of power may be consistently associated with perceptions of how power is gained and maintained in international politics, at work, and in families.

Importantly, collaborative and coercive theory endorsement is distinct from, but relate in expected ways, with well-studied facets of power (H2). Consistent with the notion that power can be achieved by multiple social strategies (Cheng et al., 2013), one’s sense of power is positively associated with both self-appraisals of

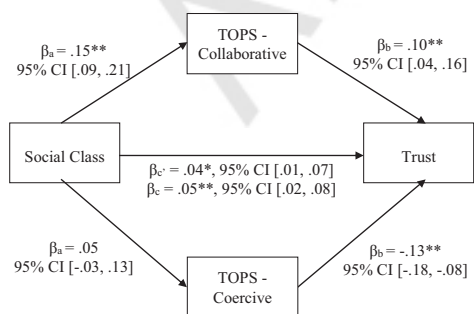


Figure 2. Mediation of the relationship between social class and trust through collaborative and coercive theories of power.

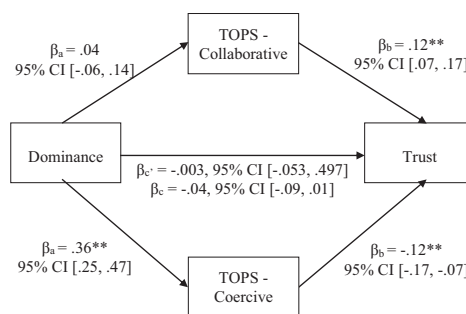


Figure 3. Mediation of the relationship between dominance and trust through collaborative and coercive theories of power.

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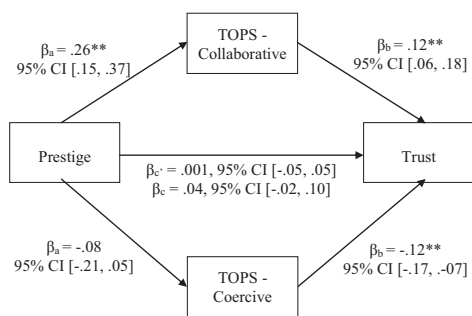


Figure 4. Mediation of the relationship between prestige and trust through collaborative and coercive theories of power.

dominance and prestige. However, the powerful are more likely to hold collaborative and less likely to hold coercive beliefs about power, relative to the powerless. Beliefs about how power is gained and maintained also relate to interpersonal trust in ways that cannot be explained by feelings of dominance or prestige. That is, one's beliefs about power—collaborative and coercive—are conceptually distinct from one's self assessments of tendencies toward dominance and prestige. Future research should also examine relationships between theories of power and other measures of beliefs or attitudes. For example, we would expect a positive relationship between coercive theories of power and beliefs that foster competition (e.g., zero-sum beliefs; ten Brinke et al., 2015). Such work would offer additional validation for the TOPS measure.

Collaborative and Coercive Theories of Power Have Distinct Moral Underpinnings

Consistent with an Aristotelian view that the most legitimate claim to power is rooted in human virtues and concern for others, the endorsement of collaborative theories of power were associated with each of the moral foundations identified by Haidt and Graham (2007): avoidance of harm, fairness, in-group loyalty, respect for authority, and purity. In particular, multiple regression revealed that concern for fairness was uniquely associated with collaborative theories of power, which is perhaps unsurprising given that Aristotle's writings—on which this theory of power is based—championed the leader who concerned themselves with the interests of all, rather than a privileged few. Further, collaborative theorists were more likely to report experiencing moral emotions, including compassion and awe—emotions that have been linked to prosocial behaviors (e.g., Algoe et al., 2013; Piff et al., 2015). In contrast, coercive theory of power endorsement was associated only with respect for authority and was unrelated to the experience of moral emotions. These findings very much converge with Machiavelli's (1532/1961) utilitarian approach to power wherein one's social position is to be gained and maintained by whatever means necessary. To our knowledge, these findings offer the first evidence that these dual theories of power are associated with distinct moral values. That said, one's moral compass is clearly not synonymous with their theory of power. Empirically, observed relationships are small by Cohen's (1994) standards, and conceptually, theories of power are descriptive in nature while

moral values are prescriptive. As such, one could hold a coercive theory of power while simultaneously believing that the powerful ought not to engage in manipulation, deception, and fear mongering. Indeed, those of relatively low social class are likely to experience such discordance in their beliefs about how power is and ought to be gained and maintained (Belmi & Laurin, 2016).

Social Class Predicts Lay Theory of Power

In their lived experience, people from different class backgrounds are presented with much to theorize about with respect to theories of power. How might class relate to coercive and collaborative theories of power? In Study 1, social class was negatively correlated with coercive theories of power and positively correlated with collaborative theories (H3). Further, Studies 3a and 3b revealed that making upward social comparisons led participants to feel lower class, increased coercive, and decreased collaborative beliefs about power (vs. participants making downward social comparisons). These findings are consistent with previous work on the social and emotional consequences of social class, finding that lower class individuals are more likely to perceive threat in the actions of others (Kraus et al., 2010; Kraus et al., 2011). Our work suggests that the threat sensitivity experienced by lower class individuals extends to their perceptions of the powerful and permeates their lay theories of how powerful people gain and maintain their position. As in many areas related to the study of social class, it would be fascinating to examine the longitudinal interplay between class and theories of power. Do new theories of power emerge, for example, if one rises in social class? Or falls? This kind of evidence would inform the question of whether our class findings are forms of motivated justifications of one's class position—that good people are rewarded by elevated social class, a set of beliefs endorsed by those higher in the class ladder, and that coercive, aggressive people run the world, a theory favored more by those who endure the conditions of being lower on the class ladder.

Theories of Power Mediate Effects of Social Class on Trust

Given that lower social class leads to a more coercive and less collaborative view of power, it is perhaps unsurprising that lower social class is also associated with distrust of others. Specifically, individuals of a lower social class report less trust in powerful individuals and institutions (Alesina & La Ferrara, 2002; Twenge et al., 2014), and theories of power offer a novel account of this relationship. We find that coercive theory of power endorsement was associated with decreased trust in others, and collaborative theory of power endorsement trust—increased trust. Importantly, controlling for feelings of dominance and prestige did not affect these results providing evidence that theories of power are conceptually distinct from the experience of dominance- and prestige-based power, and can provide novel insights for the study of human hierarchies. Further, we find that individuals of lower social class hold less collaborative theories of power and this mediates their reduced trust. Alternatively stated, individuals of higher social class hold more collaborative theories of power and trust more. We did not find, however, that holding a coercive theory of power mediated the relationship between social class and

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AQ: 13

trust. This is likely because, in Study 4, SES was unrelated to coercive theory of power endorsement, unlike the effects seen in all previous studies. Future research should seek to replicate this effect to determine if both coercive and collaborative theories of power mediate effects of SES on trust in other samples.

We also build on previous research by Blader et al. (2016) to show that feeling dominance and prestige—while both positively associated with power—have divergent effects on trust, and that theories of power that mediate these effects. Specifically, we find that feelings of prestige were positively associated with trust, via collaborative theories of power. However, feelings of dominance were negatively associated with trust, via coercive theories of power. In short, lay theories of power further our understanding of the mechanisms by which social class affects interpersonal trust, and also lend an explanation to the divergent effects of dominance and prestige on trust.

Future Research and Limitations

While we have focused here on social class as a determinant of theories of power, and how theories of power can help explain effects of class on interpersonal trust, how one *thinks* about power is also likely to impact how one *acts* when they are imbued with power in the lab (Hu, Rucker, & Galinsky, 2016). For example, Hu, Rucker, and Galinsky (2016) found that when people were primed to think of the powerful as unethical, they were more likely to cheat when imbued with power. In contrast, when primed to think that the powerful should act in ethical ways, power decreased cheating. These findings imply that lay theories of power could serve to constrain the abuses of power, once thought inevitable. Further, theories of power may moderate inconsistent findings in the power literature. For example, while some have found that feeling powerful decreases emotional recognition accuracy (Galinsky et al., 2006), others have found the opposite (Schmid Mast, Jonas, & Hall, 2009). It may be that coercive theorists will show decreased emotion recognition accuracy when given power, while collaborative theorists will show the opposite. That is, while coercive theorists will focus inward and decrease their attention to others when given power, collaborative theorists will become increasingly attuned to the emotions of others in an effort to understand and serve their needs (Côté et al., 2011). Future research should consider how the lay theories of power that participants carry with them may affect manipulations of power in the lab.

Theories of power may also affect whether people choose to pursue power. We, again, note findings by Belmi and Laurin (2016) which suggest that lower class individuals may not pursue powerful positions due to a reluctance to engage in the Machiavellian behaviors perceived as necessary to achieve power. In a pattern that is likely to maintain hierarchies, we build on these findings to show that low social class serves to create the beliefs about power that make it an unappealing endeavor. This highlights the descriptive—not prescriptive—nature of the theories of power scale. Specifically, we asked people to report on how, in their view, power *is* gained and maintained. This may diverge from beliefs about how power *ought* to be gained and maintained. Future research should directly measure the demotivating impact of holding a coercive theory of power while simultaneously believing that power should be pursued collaboratively by creating a prescriptive version of the TOPS to compare with the descriptive version that we offer here.

While we believe that coercive and collaborative theories of power have clear implications for understanding pervasive thoughts and assumptions about how power is gained and maintained in Western cultures like the United States, it is unclear to what extent these two opposing theories of power represent the lay theories of individuals in other cultures, times, or contexts. For example, coercive theories of power may be less prevalent and collaborative theories may be more normative in collectivist cultures, compared with the U.S. samples that we have studied here (House, Javidan, Hanges, & Dorfman, 2002). Relatedly, time and context may play a role in theory of power endorsement; Machiavelli (1532/1961) proposed his formula for gaining and maintaining power in a particularly turbulent time, characterized by war and overthrown, short-lived governments. Conflict also appears to influence more modern preferences for leadership; participants preferred more masculine faces in leadership judgments during simulated wartime versus peacetime contexts (Re et al., 2013). As such, theories of power may become increasingly coercive when faced with real or perceived threats. Future research should examine the malleability of theory of power endorsement, including threat and conflict as contextual factors.

Conclusion

Lay theories about how power is gained and maintained vary along two dimensions: coercive and collaborative. These theories define the traits and actions that are thought to produce social influence. Providing a novel lens through which to study the complexities of human hierarchy, theories of power are driven by social class and provide a novel explanation of why lower class individuals trust less. As inequality rises and trust in the powerful decreases, theories of power provide a theoretical framework for understanding growing societal fissures.

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Appendix

Measures of Hard and Soft Power

- Power and influence in families . . .
- . . . is usually arranged such that parents have most of the power and children have little to none.
 - . . . is maintained by parents when they are feared by their children.
 - . . . is maintained by parents when children’s privileges (e.g., allowance) are taken away for inappropriate behavior.
 - . . . is gained by parents when they use corporal punishment (e.g., spanking) to discipline their child.
 - . . . is rooted in parents’ unilateral control over important family resources (e.g., money, time).
 - . . . is a constant negotiation between parents and children.
 - . . . is grounded in parents’ actions to provide for the well-being of their children.
 - . . . can be held by both parents and children, simultaneously.
 - . . . is gained by children when given responsibility and opportunities by their parents.
 - . . . is held by those who put their family’s needs before their own.
- Power and influence at work . . .
- . . . is held by whomever can hire and fire people.
 - . . . is maintained by a boss when they are feared by their subordinates.
 - . . . is held by the person with the highest job title.
 - . . . is often gained by manipulating and bullying coworkers.
 - . . . is rooted in access and control over company resources.
 - . . . is given to the most respected individuals in the workplace.
- . . . is often held by people with the most experience and knowledge.
 - . . . is maintained by those who uphold high moral standards and values in the workplace.
 - . . . is maintained by those who act in the best interests of his or her coworkers.
 - . . . can be held by employees at any level of the organizational hierarchy.
- American power and influence is rooted in . . .
- . . . the strength of its military.
 - . . . its access to nuclear weapons.
 - . . . the size of its economy.
 - . . . its ability to impose economic sanctions on other nations.
 - . . . its ability to pay other nations for their cooperation.
 - . . . military alliances with other countries.
 - . . . the attractiveness of American culture and ideals.
 - . . . the reputations of American institutions (e.g., universities).
 - . . . the international interest and consumption of American art (e.g., movies, films).
 - . . . its willingness to engage in diplomatic negotiations.
 - . . . its credibility, which is maintained by acting in a manner consistent with American ideals.
 - . . . its ability to lead the world in scientific and technological innovation.

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