Legitimacy Crisis? Behavioral Approach and Inhibition When Power Differences are Left Unexplained

Pamela K. Smith · John T. Jost · Ranjini Vijay

Abstract Possessing social power leads to approach-related affect and behavior, whereas lacking power leads to inhibition (Keltner, Gruenfeld, & Anderson, Psychol Rev 110:265–284, 2003). However, such effects should be moderated by whether an explanation is given for these power differences. Participants were assigned to a low-power or high-power role and then interacted with a confederate in the opposite role. Participants were told these role assignments were made for legitimate (expertise) or illegitimate (nepotism) reasons, or were given no explanation. High-power participants showed more approach-related affect and behavior and reported less dissonance than low-power participants, but many of these effects were moderated by the presence versus absence of an explanation. When no explanation for power differences was provided, high-power participants exhibited more approach-related behavior than low-power participants but also felt more guilt and unease. Implications for system justification theory and the literature on social power are discussed.

Keywords Social power · Approach · Inhibition · Legitimacy · Explanations · System justification

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For 36 days in 2000, the United States waited to learn the identity of its next president. The decisive issue was whether Al Gore or George W. Bush had received the majority of Florida's votes. Claims regarding the fairness of "butterfly ballots" and recount requests abounded, and pundits worried that the authority of the new president would not be accepted as legitimate, especially if the final decision seemed arbitrary.

In fact, the American people were far more willing to grant legitimacy than expected. In one Gallup poll, 79% of respondents believed an accurate Florida recount was impossible, yet most also indicated they would accept either candidate as the legitimate winner (Kohut, 2000). Immediately after a Supreme Court decision handed the presidency to Bush, only 48% of Americans polled believed that he won "fair and square." However, 83% accepted him as their legitimate president ("Poll: Most Americans," 2000). Bush's favorability ratings debuted at 64% after his inauguration and remained at 60% or higher for the next 3 years (Saad, 2004).

Theories of power and influence have long assumed that leaders can exert control only to the extent that they are seen as having legitimate authority (see Jost & Major, 2001, for a review). However, recent work indicates that legitimacy may be conferred upon authorities almost as a default, requiring substantially less than a full and fair explanation for power differences (Haines & Jost, 2000; Tyler, 1997). In the present research, we explore whether explanations of *any* kind are sufficient to confer legitimacy onto power differences between individuals by investigating how these different kinds of explanations affect the emotional experience and actions of low- versus high-power people. Is it more important for people to know *why* they are high or low in power, or for that reason to be fair? For example, does a powerholder who does not know why she has power feel or behave any differently than another powerholder who is certain that his role is either legitimate or illegitimate?

Power and Approach/Inhibition

Before discussing how legitimacy moderates the effects of power, it is necessary to review these basic effects. Power may be defined as control over outcomes (Fiske, 1993; Keltner, Gruenfeld, & Anderson, 2003; Overbeck & Park, 2001); those with power can affect the rewards and punishments of others (e.g., French & Raven, 1959; Keltner et al., 2003; Thibaut & Kelley, 1959). Whether people have power or not has various psychological consequences due to activation of the behavioral approach system and behavioral inhibition system, respectively (see Keltner et al., 2003, for a review). In general, people with power experience more positive and less negative affect than those lacking power (Berdahl & Martorana, 2006; Keltner et al., 2003). For example, low-status individuals who tease someone of higher status display more negative, inhibition-related emotion (e.g., embarrassment) than do high-status individuals who tease someone below them (Keltner, Young, Heerey, Oemig, & Monarch, 1998). Due to their heightened sensitivity to threat, those without dominant personalities also perceive others as experiencing more negative, threatening emotions (e.g., aggression: Anderson & Berdahl, 2002).

According to system justification theory (Jost, Banaji, & Nosek, 2004; Jost & Hunyady, 2002), low-power individuals should experience not only increased

general negative affect, but also (more specifically) increased dissonance, due to their complicity in unequal social arrangements. Both high- and low-power actors tend to engage in system justification by imbuing the status quo with some degree of legitimacy. For low-power individuals, these system justification motives often conflict with motives to favor their own group, and this conflict produces dissonance (Jost & Burgess, 2000; Jost, Pelham, Sheldon, & Sullivan, 2003) and thus psychological discomfort. For high-power individuals, justifying the system also means supporting their own group, so they do not experience such conflict.

Those with power are less inhibited in their behavior than are those without power (e.g., Anderson & Berdahl, 2002; Ellyson & Dovidio, 1985; Keltner et al., 1998). Power leads to increased action (Galinsky, Gruenfeld, & Magee, 2003) and approach behavior (Smith & Bargh, 2008), even if it is socially inappropriate. For example, in an unpublished experiment by Ward and Keltner (1998), participants assigned to a high-power position ate more cookies than their low-power counterparts. Those with power also tend to behave less politely compared to those without power (DePaulo & Friedman, 1998; Keltner et al., 1998), possibly due to decreased concern for social norms.

Effects of Power Explanations on the Powerful and the Powerless

Scientific understanding of the effects of social power is based on experiments that varied widely in how power roles were assigned. In fact, most previous experiments either offered no explanation for role assignments (e.g., Dépret & Fiske, 1999; Georgesen & Harris, 2000; Goodwin, Gubin, Fiske, & Yzerbyt, 2000, Studies 1–3; Kipnis, 1972; Richeson & Ambady, 2003; Stevens & Fiske, 2000) or assigned roles on an explicitly random basis (e.g., Anderson & Berdahl, 2002, Study 1; Bruins, Ellemers, & De Gilder, 1999; Copeland, 1994; Guimond, Dambrun, Michinov, & Duarte, 2003, Study 4; Sachdev & Bourhis, 1985, 1991). But, to properly understand power's effects, it is important not only to consider whether a person or group has power, but also to consider what *explanation*, if any, was given for their situation.

Most theories reasonably assume that for power differences to be considered legitimate, they must be justified—that is, an explanation must be given for these differences—and this justification must be accepted as fair (e.g., Caddick, 1982; Tajfel & Turner, 1986; Turner & Brown, 1978). As the procedural justice literature shows (e.g., Tyler, 2001), the type of procedures used to distribute power is critical. When people think that procedures are fair, they are more willing to accept a subordinate position. Fairness often involves the existence of "real" differences; power distinctions are legitimate if those in power are considered more competent or worthy than those lacking power (e.g., Bruins et al., 1999; French & Raven, 1959; Rodríguez-Bailón, Moya, & Yzerbyt, 2000).

The defining characteristics of illegitimacy are less clear. In the power and justice literatures, illegitimacy often involves role assignments that are overtly inappropriate, perhaps contrary to actual abilities (Bruins et al., 1999; Ellemers, Wilke, & Van Knippenberg, 1993) or based on nepotism (Haines & Jost, 2000). Illegitimacy occurs when a clearly unjust explanation is offered for power differences.

It is well established that providing a legitimate basis for power differences not only makes individuals feel better about the inequality, but it also increases overall acceptance of and compliance with the existing social structure (e.g., French & Raven, 1959). It would then seem to make sense to assume the opposite, namely that providing illegitimate reasons for power differences would lead to rejection of the inequality and defiance. However, we propose that sometimes the sheer *presence* of an explanation is enough for people to accept power differences. Past research has shown that people tend to accept even weak or placebic explanations for negative outcomes (e.g., Haines & Jost, 2000; Kappen & Branscombe, 2001; Langer, Blank, & Chanowitz, 1978; Slugoski, 1995). In one of Langer and colleagues' classic studies, a person about to use a copying machine was asked to let someone else use it first. Providing an uninformative, placebic explanation for a small request ("I have to make copies") produced as much compliance as providing an informative, legitimate explanation ("I'm in a rush"). Kappen and Branscombe (2001) found that participants were more willing to accept being ineligible to attend an event and were less angry about it when an explanation was given, even though that explanation was weak. Similarly, we propose that having any explanation for power differences, even a relatively illegitimate one, may be sufficient for people to accept these differences.

Why would people be willing to accept an explanation for power differences even if it was illegitimate? This makes sense when one considers the basic motive people have to defend and justify the status quo. People have a need to believe in a "just world" that is orderly and predictable and in which people get what they deserve (Lerner, 1980). According to system justification theory, people are motivated to view existing social arrangements as legitimate, even when this justifies their own disadvantaged position (e.g., Jost et al., 2004; Jost & Hunyady, 2002). In fact, those with the least power in a system are sometimes the most likely to support and defend that system (Henry & Saul, 2006; Jost et al., 2003). Research reveals that people actively perform their own cognitive and ideological work to preserve their sense that the status quo is desirable and just (e.g., Haines & Jost, 2000; Kay, Jimenez, & Jost, 2002).

There are psychological benefits to accepting the status quo. System-justifying beliefs and ideologies are palliative in that they decrease negative affect and increase positive affect as well as satisfaction with one's situation (Jost & Hunyady, 2002; Jost et al., 2003). Wakslak and colleagues (2007) demonstrated that system justification leads to a significant reduction in emotional distress, both in general and with regard to moral outrage, guilt, and frustration.

Given that people are generally motivated to defend the status quo, accepting even weak explanations for present circumstances as legitimate, and because such system justification also provides psychological benefits, people may be motivated to consider even an invalid or inappropriate reason for power distinctions as legitimate. In line with this reasoning, Haines and Jost (2000) found that an illegitimate explanation was just as effective as a legitimate explanation in justifying power differences. Members of a powerless group felt better and viewed a powerful outgroup more positively when even an *illegitimate* explanation, rather than none at all, was provided for these power differences. In fact, participants tended to misremember the illegitimate explanation as a legitimate one.

How does (il)legitimacy affect low- and high-power individuals? Most prior theorizing on the effects of illegitimate power has addressed intergroup relations (e.g., Hornsey, Spears, Cremers, & Hogg, 2003; Jost, Burgess, & Mosso, 2001; Jost & Hunyady, 2002; Spears, Jetten, & Doosje, 2001; Turner & Brown, 1978). In the present research we focus instead on interpersonal power differences of the kind emphasized by Keltner et al. (2003). It is far from obvious that research on illegitimate power differences between groups would be directly applicable to interpersonal contexts. For one thing, individuals perceive other people, including powerful others, differently depending on whether they are seen as separate individuals or as members of a group (Abelson, Dasgupta, Park, & Banaji, 1998; Dépret & Fiske, 1999). The discontinuities between interpersonal and intergroup relations make it especially important to investigate the role of legitimacy in both types of situations.

Evidence that legitimacy affects interpersonal power relations comes from research by Rodríguez-Bailón et al. (2000). Individuals placed in powerful roles tend to pay more attention to stereotype-consistent information about their subordinates (Goodwin et al., 2000), possibly to justify and maintain their position. Rodríguez-Bailón and colleagues found that this effect was moderated by whether an explanation was provided for role assignments. When participants were given no reason for being assigned to a high-power role, they exhibited significantly more attentional bias than when assignments were allegedly based on leadership ability (i.e., a legitimate reason). That is, high-power participants showed a stereotype-related attentional bias only when there was ambiguity concerning the legitimacy of their position.

Such results reflect the importance of justification needs in understanding powerholders' behavior (Fiske, 2004; Jost & Hunyady, 2002). When people can justify the status quo, such as when an explanation has been provided, they accept the present situation as legitimate and, importantly, they do not try to change it (Wakslak et al., 2007). That is, providing an explanation for power differences should make those differences more stable and secure: the powerless accept the way things are, and powerholders do not need to fear that those below them will agitate for change. However, when no explanation is provided, the position of the powerful becomes more tenuous and insecure.

Having insecure or unstable power is threatening. For example, high-status individuals who anticipate that they could lose their privileged position show a physiological threat response (i.e., elevated blood pressure: Scheepers & Ellemers, 2005). Under these circumstances, those with power may feel vulnerable on some level, but they will want to maintain and defend their position. After all, powerful individuals are generally motivated to retain their power (e.g., Tetlock, 1981). One method of maintaining power in the face of threat is to assert one's dominance and otherwise demonstrate that one is indeed powerful and suited for a powerful position. Georgesen and Harris (2006) found that high-power participants whose position was unstable asserted more strongly that they deserved to be boss and reported stronger intentions to exert control. Similarly, parents whose power over a child is threatened or otherwise made insecure tend to assert their control through aggressive acts (Bugental & Happaney, 2000). The present research expands upon such findings by exploring whether any kind of explanation is sufficient to justify power differences. We predict that the legitimacy of power assignments will be

determined more by whether an explanation is given than by the quality of that explanation. We thus expect that differences in affect and behavior between low- and high-power participants will be much greater when no explanation is provided. Under such circumstances those with power should try to "lay claim" to their power via assertive, approach-related behavior. Of course, this comes at a cost: the powerful should also feel significantly more guilt and discomfort because of their relatively unjustified position (see also Chen & Tyler, 2001; Jost & Hunyady, 2002).

Our first hypothesis may seem counterintuitive initially. If an individual receives power without any explanation for it, it makes sense that he or she would feel somewhat threatened, insofar as unjustified power is assumed to be tenuous. What requires greater understanding is why the individual would behave in a less rather than more inhibited fashion. We think that the answer lies in a combination of guilt reduction and structural support for approach-related behavior. That is, the power position itself may be self-perpetuating in that people who are placed in power assume that they are permitted—and perhaps even expected—to behave in a power-appropriate manner. This form of "structural permission," we theorize, leads people to convert the psychological threat associated with unjustified power into approach-related, assertive behavior.

What about the role of perceived legitimacy for individuals without power? Haines and Jost (2000) found that low-power group members justified their position less when it was not explained. A lack of explanation might lead low-power individuals to assert themselves and behave in a more powerful, approach-oriented manner, perhaps challenging the existing power hierarchy. However, the motivation to assume power distinctions are legitimate may be especially high among those low in power, given their need to reduce dissonance (Jost et al., 2003). The presence or absence of an explanation for power roles should thus have less of an effect on low-power (vs. high-power) individuals.

Overview

Our experiment explored the moderating role of the presence or absence of an explanation, as well as the type of explanation itself, on the affect and behavior of individuals in low- and high-power roles. Participants were assigned to either a low- or high-power role and participated in a discussion with a confederate in the opposite role. Some participants were told that these role assignments were legitimately based on differences in expertise. Other participants were given an illegitimate explanation, namely that the roles were assigned in direct opposition to the degree of expertise because of nepotism on the part of the experimenter (who possessed the authority to assign roles). A third group of participants was given no explanation, leaving the reason for the role assignments ambiguous.

During the social interaction, the number of cookies each participant ate was recorded as an indirect measure of approach behavior. Participants also rated how polite and assertive they and their partner were during the discussion and how much guilt and dissonance they felt. Both high- and low-power participants were also required to tease their partners and report on their emotional reactions. In line with

past research, we predicted that high-power participants would eat more cookies, be less polite and more assertive, perceive their partner more positively, report more positive and less negative affect, and feel less dissonance than would low-power participants. However, we expected these differences to be stronger in the no-explanation condition than in the other conditions, insofar as ambiguity concerning the legitimacy of their position should lead them to worry about and therefore to assert their dominance more strenuously.

To distinguish between effects of the fairness of the explanation provided, and the presence versus absence of any explanation, interactions between power role and explanation condition were followed up with two separate analyses. The first analysis examined only the legitimate versus illegitimate explanation conditions, to explore the impact of the fairness of explanation. The second analysis collapsed across the two explanation conditions and compared them to the no-explanation condition, to explore the impact of having any explanation versus no explanation at all. We predict that significant differences are especially likely to emerge in the latter analysis.

Method

Participants and Design

Male students recruited at a American West Coast university ($N = 79$) took part in the experiment for \$12. Participants were randomly assigned either to a high- or low-power role. They were given either legitimate reasons (performance on a questionnaire), illegitimate reasons (nepotism), or no explanation at all for this role assignment. The experimental design was a 2 (Role: low power vs. high power) $\times$ 3 (Explanation for Role: legitimate vs. illegitimate vs. none) between-subject factorial.

Procedure

Upon arrival, a female experimenter (the third author) told each participant that he would participate in a discussion with a partner (actually a confederate). During the discussion, one of them would be a Policy Clerk (low-power role) and make policy recommendations as part of a job interview, and the other would be a Policy Analyst (high-power role) who would evaluate the Clerk and determine his outcomes (i.e., whether he would be hired, how much he would be paid if hired).

In the no-explanation condition, the participant was told that he and his partner would first complete a questionnaire on opinions about social issues, and then the experimenter would assign roles. Participants in both the legitimate and illegitimate conditions were instead told that the experimenter would assign roles based on their expertise in social issues and public policy, as assessed with a questionnaire. Participants in the illegitimate condition were additionally informed that the experimenter's boyfriend would be acting as the participant's partner because the person who had signed up did not show.

Participants then completed the questionnaire, adapted from the Study of Values (Allport, Vernon, & Lindzey, 1951), on a computer. After a brief delay, participants

in the legitimate and illegitimate conditions were given false feedback indicating they were suited to be either a Policy Clerk (because they scored lower than the typical successful Analyst) or a Policy Analyst (because they scored higher). They were asked to show the feedback to the experimenter so she could record the scores and assign roles. In the legitimate condition, the experimenter looked at the scores of both the participant and his partner and assigned the participant to the recommended role. Participants with a "low" score were made Clerks, and participants with a "high" score were made Analysts.

In the illegitimate condition, the experimenter looked at both scores and then assigned roles *contrary* to performance. That is, she stated that either (a) although the participant scored higher than his partner, the participant would be the Clerk, or (b) although the participant scored lower than his partner, the participant would be the Analyst. In both cases, the experimenter stated that this role switching occurred because the partner was her boyfriend and explicitly acknowledged that this was unfair. In the no-explanation condition, the experimenter made role assignments without offering any explanation.

The Clerk and Analyst then prepared for a policy discussion (adapted from Ward & Keltner, 1998). The Clerk was allegedly seeking employment. The Analyst was a company representative who would evaluate whether the Clerk should be hired and, if so, what salary he should be given. In other words, the Analyst controlled the Clerk's outcomes. The Analyst's ratings and decision were to be based on the Clerk's performance during the discussion. The Clerk had to select and defend a policy for each of four issues. The Analyst could also question the Clerk during this discussion.

The 20-min discussion was held in a separate room. The Analyst's chair was larger, higher, and of better quality than the Clerk's chair (Chen, Lee Chai, & Bargh, 2001). The Analyst was given an evaluation sheet to complete, and the Clerk was given a copy of this sheet for reference, further emphasizing the Clerk's outcome dependence. During the discussion, the experimenter left some cookies for the discussants to eat.

At the end of the discussion, the experimenter led the participant into a different room to fill out some questionnaires. The questionnaires included power and legitimacy manipulation checks, measures of politeness and aggression during the discussion, and measures of positive and negative affect, guilt, and dissonance felt after the discussion.

Next, the participant and his partner learned they would take turns teasing each other (adapted from Keltner et al., 1998). After 5 min of making nicknames for each other, the participant teased the partner. The experimenter ended the teasing task after 2 min, supposedly due to time constraints, so the partner never teased the participant. Afterward, the participant indicated his emotional reactions during teasing.

Dependent Measures

Manipulation Checks

On 7-point scales (1 = *not at all*, 7 = *very much*), participants indicated how powerful they felt during the discussion, how powerful they thought their partner

was during the discussion, and how legitimate they thought their own role assignment and their partner's role assignment were.

Cookie Eating

The experimenter brought in three chocolate chip cookies during the discussion. The confederate immediately took one cookie, then surreptitiously recorded the number of remaining cookies (0 to 2) the participant ate. Seven participants who cited specific dietary reasons (e.g., allergies) for not eating any cookies were excluded from these analyses.

Concern for Social Norms

On 7-point scales (1 = *not at all*, 7 = *very much*), participants indicated how politely they and their partners behaved during the discussion.

Perception and Experience of Threatening Emotion

On the same scale, participants indicated how aggressive they and their partners were during the discussion.

Positive and Negative Affect

Positive and negative affect were measured using the Positive Affect Negative Affect Scale or PANAS (Watson, Clark, & Tellegen, 1988). It consists of 10 positive and 10 negative emotions. Participants rated on a 5-point scale how much they felt each emotion at that moment.

Guilt

Two emotions from the PANAS, *guilty* and *ashamed*, were used to measure the guilt participants felt after the discussion.

Dissonance

Dissonance was defined as psychological discomfort (Elliot & Devine, 1994) and was measured with three items: *bothered*, *uneasy*, and *uncomfortable*.

Emotions Felt When Teasing Confederate

Participants rated on 9-point scales (0 = *none of the emotion*, 8 = *all of the emotion*) how much *amusement*, *sympathy* for the confederate, *discomfort*, and *embarrassment* they felt when teasing the confederate.

Results

Manipulation Checks

Perceptions of relative power were analyzed according to a 2 (Target: self vs. partner) × 2 (Role: low power vs. high power) × 3 (Explanation: legitimate vs. illegitimate vs. none) mixed-model ANOVA, with the first factor manipulated within participants. Only the Target by Role interaction effect attained significance, $F(1, 72) = 109.65$, $p < .001$. As expected, participants in the low-power role ($M = 3.59$, $SD = 1.43$) thought they were much less powerful than their (high-power) partners ($M = 5.26$, $SD = 1.09$), $F(1, 38) = 40.89$, $p < .001$, and participants in the high-power role ($M = 5.64$, $SD = 0.84$) thought they were much more powerful than their (low-power) partners ($M = 3.74$, $SD = 1.09$), $F(1, 38) = 74.53$, $p < .001$. The differences between self and partner power ratings for all six cells of the design are listed in Table 1. In all combinations of Role and Explanation, ratings of self-power significantly differed from ratings of partner power, $ps < .05$. Thus, although the outcomes that the high-power participant controlled were hypothetical, low- and high-power participants clearly felt that they differed in power.

A similar analysis was conducted on ratings of the legitimacy of role assignments. There was a main effect of legitimacy condition, $F(2, 71) = 14.39$, $p < .001$, indicating that participants assigned to the illegitimate conditions ($M = 2.28$, $SD = 1.30$) felt that role assignments were less legitimate than participants in the other two conditions, $ps < .001$. Ratings of legitimacy by participants in the no-explanation ($M = 4.02$, $SD = 1.51$) and legitimate conditions ($M = 4.19$, $SD = 1.38$) did not differ, $p = .90$. As in Haines and Jost (2000), when no basis was given for the role assignments, participants rated them as legitimate.

A significant Target by Role interaction also emerged, $F(1, 71) = 4.35$, $p = .04$. High-power participants perceived their own role assignment ($M = 3.62$, $SD = 1.76$) to be more legitimate than their (low-power) partner's role assignment ($M = 3.28$, $SD = 1.49$), $F(1, 38) = 5.37$, $p = .03$. Low-power participants did not make this distinction, rating their own role assignment ($M = 3.50$, $SD = 1.90$) and their (high-power) partner's role assignment ($M = 3.66$, $SD = 1.76$) as equally legitimate, $F < 1$. That is, high-power participants felt that their low-power partner's position was relatively less justified, but low-power participants felt their and their partner's positions were equally justified, perhaps reflecting enhanced system justification on the part of low-power participants (Jost et al., 2003).

Table 1 Relative sense of power (self-power minus partner power) by role and explanation for role

Explanation	Low power	High power
Illegitimate	−1.25 (1.82)	1.54 (1.51)
None	−1.50 (1.56)	2.31 (1.11)
Legitimate	−2.23 (1.48)	1.85 (1.46)

Note: Standard deviations are listed in parentheses following cell means

Cookie Eating

Replicating Ward and Keltner (1998), high-power participants ($M = 1.03$, $SD = 0.61$) ate more cookies than did low-power participants ($M = 0.68$, $SD = 0.75$), $F(1, 65) = 5.00$, $p = .03$. There was also a marginal main effect of explanation condition, $F(2, 65) = 2.56$, $p = .08$. Illegitimate condition participants ($M = 1.04$, $SD = 0.72$) ate the most cookies, legitimate condition participants ($M = 0.61$, $SD = 0.64$) ate the least, and no-explanation condition participants ($M = 0.91$, $SD = 0.69$) came in between. These effects were qualified by a marginal Role by Explanation interaction, $F(2, 65) = 2.47$, $p = .09$. The means are graphed in Fig. 1.

Was this effect driven by the fairness of the explanation, or the mere presence versus absence of one? We first ran a 2 (Role: low power vs. high power) × 2 (Explanation: illegitimate vs. legitimate) ANOVA to look at the effect of the fairness of the explanation. Only a main effect of Explanation was significant, $F(1, 44) = 4.53$, $p = .04$: as already reported, participants given an illegitimate explanation ate more cookies than those given a legitimate explanation.

Then we ran a 2 (Role: low power vs. high power) × 2 (Justification: no explanation vs. explanation) ANOVA to look at the effect of providing any explanation. A significant interaction emerged, $F(1, 67) = 4.13$, $p < .05$. When no explanation for the power differences was provided, high-power participants ($M = 1.27$, $SD = 0.44$) ate more cookies than low-power participants ($M = 0.45$, $SD = 0.69$), $F(1, 21) = 12.19$, $p = .002$. When there was an explanation, high-power ($M = 0.90$, $SD = 0.66$) and low-power participants ($M = 0.77$, $SD = 0.77$) did not differ, $F < 1$. This effect was driven by the high-power participants, who tended to eat somewhat more cookies in the no-explanation condition than the explanation condition, $F(1, 35) = 3.35$, $p = .08$. Low-power participants, on the other hand, ate similar amounts of cookies in the two conditions, $p > .25$. High-power participants behaved in a disinhibited fashion when no explanation was provided for the power role assignments, and only in this condition did high-power participants eat more cookies than low-power participants.
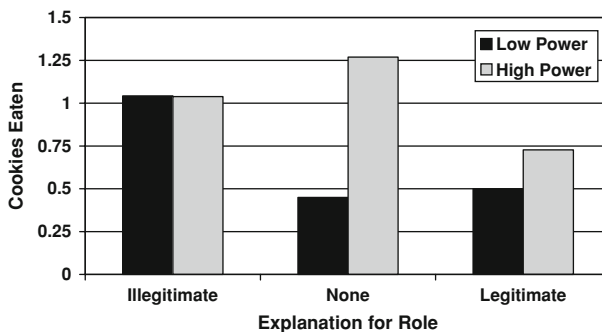

Fig. 1 Mean number of cookies eaten as a function of participants' role assignment and explanation condition

Concern for Social Norms

Perceptions of the politeness of the participant and the confederate were analyzed using a 2 (Target: self vs. partner) × 2 (Role: low power vs. high power) × 3 (Explanation: legitimate vs. illegitimate vs. none) mixed-model ANOVA, with the first factor manipulated within participants. Low-power participants ($M = 5.01$, $SD = 1.35$) rated everyone as being less polite than high-power participants did ($M = 5.88$, $SD = 0.81$), $F(1, 72) = 12.02$, $p = .001$. However, this was qualified by a Target by Power Role interaction, $F(1, 72) = 23.60$, $p < .001$. In line with the approach/inhibition theory of power, low-power participants felt they ($M = 5.44$, $SD = 1.33$) were more polite than their (high-power) partners ($M = 4.59$, $SD = 1.71$), $F(1, 38) = 13.42$, $p < .001$, whereas high-power participants felt they ($M = 5.67$, $SD = 0.96$) were less polite than their (low-power) partners ($M = 6.10$, $SD = 0.88$), $F(1, 38) = 10.21$, $p = .003$.

Threatening Emotions

A similar analysis was conducted on ratings of aggressiveness. Low-power participants ($M = 4.18$, $SD = 1.11$) rated themselves and their partners as being more aggressive than did high-power participants ($M = 3.15$, $SD = 1.18$), $F(1, 72) = 15.16$, $p < .001$. That is, low-power participants perceived more aggression in the situation.

Positive and Negative Affect

There were no significant effects on positive affect, Fs < 1.24. As predicted, high-power participants ($M = 1.40$, $SD = 0.46$) tended to report less negative affect than did low-power participants ($M = 1.63$, $SD = 0.58$), $F(1, 72) = 3.61$, $p = .06$.

Guilt

Ratings of *guilty* and *ashamed* ($\alpha = .73$) were averaged for a measure of guilt, as suggested by Watson et al. (1988). A significant Power Role by Explanation Condition interaction emerged, $F(2, 72) = 3.34$, $p = .04$. Means are graphed in Fig. 2.

   Looking at legitimacy of explanation alone yielded no significant effects, Fs < 1. Looking at the effect of providing any explanation yielded a main effect of Power Role, $F(1, 74) = 4.15$, $p < .05$, moderated by a Power Role by Justification interaction, $F(1, 74) = 6.66$, $p = .01$. When no explanation for the power differences was provided, high-power participants ($M = 1.65$, $SD = 0.72$) felt more guilt after the discussion than did low-power participants ($M = 1.07$, $SD = 0.18$), $F(1, 25) = 8.63$, $p = .007$. When there was an explanation, high-power ($M = 1.21$, $SD = 0.47$) and low-power participants ($M = 1.28$, $SD = 0.60$) did not differ, $F < 1$. Again, this effect was driven by high-power participants, who felt more guilt in the no-explanation condition than in the explanation condition,
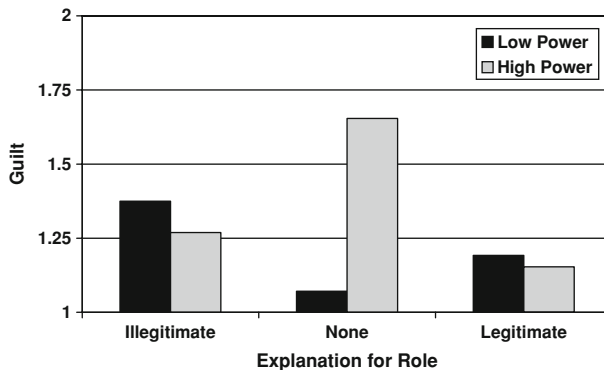
Fig. 2 Reported guilt felt after discussion as a function of participants' role assignment and explanation condition

$F(1, 37) = 5.33$, $p = .03$. Low-power participants, on the other hand, reported similar amounts of guilt in the two conditions, $p > .21$. In other words, high-power participants felt the most guilt when no explanation was provided for the power role assignments, and only in this condition did high-power participants feel more guilt than low-power participants.

Dissonance

Ratings of *bothered*, *uneasy*, and *uncomfortable* ($\alpha = .83$) were averaged to measure dissonance (Elliot & Devine, 1994). As predicted, low-power participants ($M = 2.03$, $SD = 0.81$) felt more dissonance than did high-power participants ($M = 1.50$, $SD = 0.72$), $F(1, 72) = 8.99$, $p = .004$. This supports the analysis of Jost et al. (2003) in explaining why the disadvantaged might have heightened needs to justify the status quo, at least under some circumstances.

Emotions Felt When Teasing Confederate

There were no significant effects on reported amusement or sympathy during teasing, $ps > .19$. Ratings of embarrassment and discomfort were highly correlated ($r[75] = .75$) and were averaged to create an index of unease. A significant Power Role by Explanation Condition interaction emerged, $F(2, 70) = 3.50$, $p = .04$. The means are graphed in Fig. 3.

An analysis involving legitimacy of the explanation yielded no significant effects, $ps > .21$. Looking at the effect of providing any explanation yielded a significant Power Role by Justification interaction, $F(1, 72) = 6.14$, $p = .02$. When no explanation for the power differences was provided, high-power participants ($M = 4.69$, $SD = 1.60$) felt more unease while teasing their partner compared to low-power participants ($M = 3.07$, $SD = 2.21$), $F(1, 25) = 4.70$, $p = .04$. When there was an explanation, high-power ($M = 3.44$, $SD = 2.04$) and low-power participants ($M = 4.25$, $SD = 2.16$) did not differ, $p > .18$. Again, this effect was
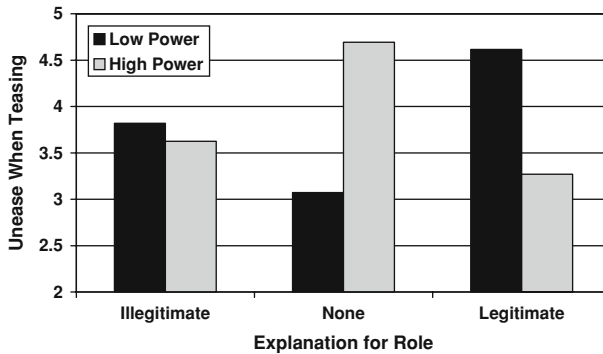
Fig. 3 Reported unease felt when teasing partner as a function of participants' role assignment and explanation condition

driven by high-power participants, who felt somewhat more unease in the no-explanation condition than in the explanation condition, $F(1, 36) = 3.70$, $p = .06$. Low-power participants, on the other hand, felt similar amounts of unease in the two conditions, $F(1, 36) = 2.59$, $p = .12$. Providing an explanation for power differences increased the unease high-power participants felt during teasing, so that they felt more unease than low-power participants.

Discussion

In the present experiment we replicated several classic effects of power on approach and inhibition (e.g., Keltner et al., 2003). Participants placed in a high-power role ate more cookies, were less polite, perceived and experienced less threat (aggression), experienced less negative affect, and reported less dissonance than did participants assigned to a low-power role, though not all effects reached conventional levels of statistical significance.

Furthermore, these effects of power were frequently moderated by the explanation provided for power role assignments. Focusing on those dependent variables for which a Role by Explanation interaction was observed, only cookie eating showed any sign of a difference between legitimate and illegitimate conditions. In general, participants were more affected by the lack of an explanation for the power differences than by the contents of any particular explanation they received.

The lack of explanation most affected participants placed in a high-power role, who displayed conflicting tendencies when they did not know why they had power. They tended to eat more cookies during the discussion. This may have reflected a conscious or unconscious attempt to assert power by taking control of a limited resource—or perhaps even a desire to appear confident and comfortable. However, these participants also felt more guilt after the discussion, suggesting that on some level they realized that their power was not justified. This internal conflict between the need to assert power and the realization that their power was

not "legitimate" was exemplified also in their reactions to teasing their partners. Because they had power over their partner in the preceding discussion, teasing their partner—another form of power assertion—should have led them to feel relatively comfortable (Keltner et al., 1998). Indeed, when roles were assigned legitimately, high-power participants felt somewhat less uneasy during teasing than did low-power participants (see Fig. 3). However, when role assignments were unexplained, high-power participants felt significantly *more* uneasy than low-power participants—even though low-power participants were teasing a high-power partner!

Such effects of the no-explanation condition may seem odd, considering that participants in this condition explicitly judged their power roles to be just as legitimate as did participants in the legitimate explanation condition. Such a discrepancy between participants' overt evaluations of legitimacy and their actual behavior may reflect a dissociation between implicit and explicit attitudes, or it may reflect participants' responses to the strong nature of our illegitimate explanation condition. Interestingly, prior research suggests that people do not always subjectively distinguish between situations that are assumed by researchers to be objectively legitimate and illegitimate (e.g., Haines & Jost, 2000; Rodríguez-Bailón et al., 2000). Furthermore, conditions that lead to increased acceptance of the situation are not necessarily rated as more legitimate (e.g., Kappen & Branscombe, 2001), suggesting perhaps that legitimacy appraisals should be assessed indirectly.

In line with our expectations, the legitimacy manipulation had different effects on low- and high-power participants. Low-power participants were generally less affected by the legitimacy manipulations than were high-power participants. High-power participants had more to lose when the power roles were left unjustified (see also Chen & Tyler, 2001). After all, if their low-power partner were to decide that the role assignments were illegitimate and to refuse to cooperate with instructions, high-power participants would not only face a socially awkward situation, they would lose their elevated position and greater degree of control over the interaction. Furthermore, individuals and groups without power should be motivated to defend and justify the existing power structure, at least when the salience of personal and group self-interest is relatively low (Jost et al., 2003).

Our illegitimacy condition affected people less than our no-explanation condition, contrary to the findings of Hornsey et al. (2003), but their experiment involved intergroup power differences and ours involved interpersonal power differences. Additionally, in our experiment, participants in the illegitimate condition were given an *explanation* for being assigned a role contrary to their abilities: namely, that their partner was the experimenter's boyfriend. In contrast, Hornsey and colleagues told participants that their group had disproportionate (and thus illegitimate representation) in a governing body without giving a reason why the representation was disproportionate. Consistent with system justification theory, explanations for illegitimacy—even relatively placebic ones—may be sufficient to override the effects of illegitimacy itself (Haines & Jost, 2000).

One limitation of the present research is that we do not yet know precisely why unexplained power differences seem to affect people more than legitimately vs. illegitimately explained power differences. We suspect that the lack of an

explanation renders the power differences open to question or debate (at least in the mind of the powerful), and that these effects are especially threatening to individual powerholders. However, we did not directly measure feelings of threat or personal vulnerability, nor did we measure how stable or secure participants perceived the power differences to be. Such mediators should be assessed in future research. An additional limitation is that this study does not allow us to distinguish completely between a tendency to justify power differences between individuals and the tendency to justify the power of the experimenter. It seems plausible that the illegitimate explanation raised no objections because people tended to accept the experimenter's authority as legitimate.

The general empirical impression of the powerful is that they are a largely destructive force, engaging in self-serving and ingroup-serving behaviors such as discrimination, stereotyping, and prejudice (e.g., Goodwin et al., 2000; Guimond et al., 2003; Richeson & Ambady, 2003; Sachdev & Bourhis, 1985). However, this impression comes mainly from experiments in which participants did not know whether they *deserved* their assigned levels of power. Extrapolating from the present experiment, these effects on cognition, affect, and behavior may have been partially caused by the explanatory ambiguity surrounding their possession of power. Power that is truly earned or justified, even if the justification is relatively specious, may differ from power that is thrust upon someone for unknown reasons and therefore potentially open to question.

People put into positions of power typically know why. The supervisor has asked for a promotion, the teacher has had years of training, the new CEO was promised the job by his father, the former CEO. To understand all dimensions of the effects of power, we need to consider *why* people think they have received powerful or powerless positions. In some ways, not being certain about the reasons for one's situation may be worse than knowing that it is undeserved.

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