Research Paper No. 1669

POWER, APPROACH, AND INHIBITION

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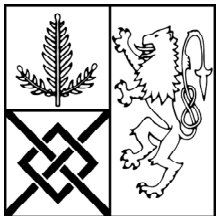

GRADUATE SCHOOL OF BUSINESS

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POWER, APPROACH, AND INHIBITION

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Abstract

This paper examines how power influences human behavior. We consider evidence from diverse literatures relating elevated power to approach and reduced power to inhibition. Specifically, power is associated with (a) positive affect, (b) attention to rewards and to features of others that satisfy personal goals, (c) automatic information processing and snap judgments, and (d) disinhibited social behavior. In contrast, reduced power is associated with (a) negative affect, (b) attention to threat and punishment, to others' interests, and to those features of the self that are relevant to others' goals, (c) controlled information processing and deliberative reasoning, and (d) inhibited social behavior. The potential moderators and consequences of these power-related behavioral patterns are discussed.

Power, Approach, and Inhibition

The fundamental concept in social science is Power, in the same sense that Energy is the fundamental concept in physics... The laws of social dynamics are laws which can only be stated in terms of power (Russell, 1938, p. 10)

What do exhilaration, stereotyping, and poor table manners have in common? Or embarrassment, the advantage younger siblings enjoy over older ones in understanding others' mental states, and the complexity of Supreme Court justices' decisions? Our answer is simple: power. Power is a basic force in social relationships (Fiske, 1993; Kemper, 1991), the press of situations (Emerson, 1962; Thibaut & Kelley, 1959), and the dynamics and structure of personality (Moskowitz, 1994; Wiggins & Broughton, 1985). As central as power is to social life and to theoretical inquiries in the social sciences, it has received only sporadic attention from psychologists.

Recently intellectual tides have changed (e.g., Kipnis, 1976; Frieze, 1999; Lee-Chai & Bargh, 2001). Some psychologists have begun to illuminate how power influences cognitive processes, such as stereotyping (Fiske, 1993; Jost & Banaji, 1994; Keltner & Robinson, 1996, 1997; Sidanius, 1993), social reasoning (Gruenfeld, 1995; Gruenfeld & Preston, 1999; Kipnis, 1972; Nemeth, 1986; Woike, 1994), and the interpretation of nonverbal behavior (Hall & Halberstadt, 1994; La France & Banaji, 1992; Snodgrass, Hecht, & Ploutz-Snyder, 1998). Others have examined how power

influences social behavior, including emotional display (Clark, 1990; Kemper, 1991), behavioral confirmation (Copeland, 1994), familial aggression (Blunt Bugental, Blue, & Cruzcosa, 1989), hate crime (Green, Wong, & Strolovitch, 1996), sexual aggression (Malamuth, 1996), and teasing (Keltner, Young, Heerey, Oemig, & Monarch, 1998).

Is there an integrative account of how power influences human behavior? We think so, and present such a theory in this paper. To set the stage for our theory, we first define power and related constructs. We then discuss how human behavior reflects a dynamic tension in the relative activity of behavioral approach and inhibition systems. Whereas the behavioral approach system involves positive affect, perceptual attunement to rewards, and goal-directed motor behavior, the behavioral inhibition system involves avoidance-related affect (e.g., anxiety, fear), heightened vigilance toward social threat, and threat-avoidant behavior. Elevated power is associated with more reward rich environments and the freedom to pursue rewards, and as a consequence, should trigger approach-related affect, cognition, and behavior. In contrast, reduced power is associated with increased threat and punishment and social constraint, and should thereby activate inhibition-related affect, cognition, and behavior. This analysis generates a variety of specific predictions that help organize diverse literatures on power and human behavior.

Definitions of Power and Related Constructs

As pervasive as power is, it is as difficult to define, and some contend that overarching definitions of power inevitably fail (Lukes, 1986). Definitions of power vary according to the question of interest (How is it produced? Where is it located? How is it

distributed?) and unit of analysis (e.g., institutions, groups, dyads, the individual). Some definitions focus on the actor (e.g., power as motive) or the actor's actions (e.g., power as dominance). Other definitions emphasize the target's response to the actor (e.g., power as influence).

We define power as an individual's relative capacity to modify others' states by providing or withholding resources or administering punishments.[1] Resources can be both material (food, money, economic opportunity) or social (knowledge, affection, friendship, decision-making opportunities), and punishments can be material (job termination, physical harm) or social (verbal abuse, ostracism). This definition is consistent with other materialistic conceptions of power in that it emphasizes control over resources, goods, and rewards (Emerson, 1962; Fiske, 1993; Thibaut & Kelley, 1959). It is also based on definitions of power that rely not on the absolute value of resources possessed but on the resource dependence that is a quality of social relations (Thibaut & Kelley, 1959).

Our definition diverges from previous definitions of power in important ways. Whereas many scholars define power in terms of the practices of the individual (e.g., coercion, dominance, control) or the target's response to the powerful actor (e.g., influence), we focus on the individual's capacity to change others' states. We emphasize capacity rather than practice for numerous reasons. Power can be experienced in the absence of observable behavior. The practices of power (e.g., influence tactics, dominance, coercion, control) and the target's response to the powerful actor have many

determinants in addition to the power discrepancy itself (e.g., Lukes, 1986).

The advantages of defining power as the capacity to change others' states through rewards and punishments are several. Such a definition applies to individuals, dyads, and groups across contexts and cultures. It generalizes to formal and informal contexts. It does not restrictively focus on one kind of resource (e.g., decision-making, money). Finally, it avoids pitfalls of treating power as a categorical variable that generalizes across situations, and instead suggests that power varies significantly according to social context.

Our definition also distinguishes power from related constructs (see also Emerson, 1962; French & Raven, 1959; Thibaut & Kelley, 1959; Weber, 1947). Status is the evaluation of attributes that produces differences in respect and prominence, which in part determines the allocation of resources within groups and by implication, each individual's power (Blieszner & Adams, 1992; French & Raven, 1959; Kemper, 1991). However, it is possible to have power without status (e.g., the corrupt politician), and status without relative power (e.g., nurses vis-à-vis medical doctors). Authority is power that derives from institutionalized roles or arrangements (Weber, 1947), but power can exist in the absence of formal roles (e.g., within informal groups). Dominance is the interpersonal behavior that has the acquisition of power as its end, yet power can be attained without performing acts of dominance (e.g., leaders who attain their positions through their cooperative and fair-minded style). Thus status, authority, and dominance are all potential determinants of power as we define it.

Empirical Traditions in the Study of Power

The empirical literature on power can be organized around three questions (for reviews, see Kipnis, 1976; Ng, 1980; Raven, 1999). First, what are the origins of power? French and Raven, in their now classic article, addressed how coercion, expertise, authority, charisma, and rewards serve as bases of power (e.g., French & Raven, 1959). Several studies have identified specific behaviors that influence the distribution of power, ranging from the pragmatics of turn taking to gossip and teasing. This emphasis is evident in studies of hierarchy formation in children (e.g., Savin-Williams, 1977), status moves in organizations (Owens & Sutton, 2000) and informal hierarchies (Buss & Craik, 1991), and the emergence of leaders (Eagly & Johnson, 1990). Finally, individuals derive power from the groups to which they belong (Berger, Cohen, & Zelditch, 1972). Membership in opinion majorities (Nemeth, 1986) and high SES sub-groups (Domhoff, 1998), and the assumption of authority based roles (French & Raven, 1959) are all group-based determinants of power.

A second question concerns the concomitants of power. What are the correlates of different levels of power? Researchers have begun to explore this issue at multiple levels of analysis. Different levels of power appear to have certain biological correlates, including variation in levels of cortisol (Ray & Sapolsky, 1992; Sapolsky & Ray, 1989) and testosterone (Bernhardt, 1997; Mazur & Booth, 1998), although these correlations vary according to the stability of power (e.g., Sapolsky & Ray, 1989). Researchers influenced by ethological traditions have documented how individuals communicate

power with facial displays (submissive smiles vs. furrowed brows), gaze patterns (eye contact or avoidance while speaking), and postural displays (expansion versus constriction) (e.g., for review, see Ellyson & Dovidio, 1985). Power (or lack thereof) is also associated with perceptions of personal efficacy, dependence, freedom, and control (Haidt & Rodin, 1999; Kipnis, 1972; Ng, 1980). Finally, social perceivers assume the powerful have a variety of positive characteristics (e.g., Clark, 1991; Tiedens, Ellsworth, & Mesquita, in press).

A third question in the literature on power has to do with its consequences (see Kipnis, 1972; Reid & Ng, 1999). Much of this work has emphasized how power affects the targets of powerful individuals' actions. For example, individuals are more likely to obey powerful authority figures (Milgram, 1963) and accept the persuasive attempts of powerful individuals (Petty & Cacioppo, 1998). This kind of research holds constant the behavior of the actor and assesses variation in the target's response. Our own interest lies in how power produces variation in the behavior of the actor. This issue has been the focus of select literatures, which set the stage for our own theory.

Consequences of Power

Our interest in power centers on its consequences for those who possess it and those who do not. Two programs of research inform our formulation. One comprehensive statement is found in Kipnis' examination of the thesis that power corrupts (e.g., Kipnis, 1972, 1976; Rind & Kipnis, 1999, see also Chen, 2000). Kipnis (1972) showed that in a manager-subordinate simulation, participants given control over

managerial resources (e.g., pay increases or deductions, transfer and termination orders) made more attempts to influence their subordinates. As a consequence, they valued subordinates' performance less, attributed subordinates' efforts to their own control rather than subordinates' motivations, and desired greater psychological distance from their subordinates than participants who were placed in a supervisory role and had to rely on persuasion to influence the workers.

This study laid the groundwork for a "metamorphic" model of power (Kipnis, 1976), which asserts that through the repeated exercise of power, individuals come to adopt more vainglorious and self-righteous self-concepts, and as a consequence, denigrate and avoid the less powerful. Kipnis' model inspires ours in that it attempts to explain how the possession of power changes the powerholder. However, Kipnis assumes a degree of social awareness and mindfulness in those affected by power that we do not. In particular, Kipnis argues that the ability to control others' resources tempts the powerholder to exert influence as a way of satisfying latent desires. In contrast, we assume that power activates the behavioral approach system without conscious awareness of its effects. In fact, those with power are less likely to analyze or even notice the actions of subordinates than vice-versa.

Our assumption about how power affects social attention is drawn from another important tradition in the study of the consequences of power. Early studies, largely of naturalistic variety, documented that low power individuals attend to others more carefully, in order to navigate more threatening social environments, whereas high power

individuals are attended to more carefully by others (e.g., Chance, 1967; Ellyson & Dovidio, 1985; Emory, 1988).

This vigilance hypothesis has been elaborated upon in several domains. Henley and La France's "subordination hypothesis" holds that women are less powerful and more vigilant than men. As a consequence, women judge others' nonverbal behavior more accurately and express themselves more clearly (see Henley & LaFrance, 1984; Snodgrass et al., 1998). Fiske's power-as-control account of stereotyping (Fiske, 1993) posits that high power individuals are more likely to stereotype others than low power individuals, in part because they are less motivated to attend to others carefully (she posits other reasons as well). Fiske's work is also a source of inspiration, in that it highlights the inattentiveness of those with power to others in the social environment.

These traditions lay one foundation for our theory, and we will return to many of their arguments, insights, and findings. They highlight striking differences in how the powerful and less powerful perceive the social environment. They point to the role that attentional processes play in producing power-related differences in behavior. They anticipate our interest in the potentially antisocial consequences of power.

These traditions likewise present the opportunity for theoretical expansion. These approaches are largely local enterprises, focusing on how power affects some relatively narrow class of behaviors (e.g., self-perception, attributions, the decoding of nonverbal behavior, stereotyping). They say less about how power influences emotion or social interaction. And often the theories concentrate their energies on explaining the

psychology of the powerful (e.g., Kipnis, 1972) or powerless (e.g., Henley & LaFrance, 1984), with less to say about varying levels of power. Drawing upon these seminal insights, we now develop a more comprehensive account of how power influences affect, cognition, and behavior.

Power, Approach, and Inhibition

Figure 1 represents an overview of our theory. Our analysis begins by specifying the determinants of power – i.e., the capacity to alter others' states by providing or withholding resources and administering punishments. Individuals can provide resources or administer punishments informally in the context of ongoing interactions (e.g., by providing others with affection, knowledge, humor, or praise, or by criticizing, verbally abusing, or ignoring them) or by formal means, as a function of their roles and positions within groups (e.g., by providing others with financial opportunities, contacts and referrals, or access to decision-making processes, or by demoting them or terminating their employment). A cursory review of the literature suggests that four classes of variables afford certain individuals greater power vis-à-vis others.

At the individual level of analysis, certain traits and physical attributes endow some people with the capacity to alter others' states, which we define as elevated social power. Elevated power is associated with Extraversion (Anderson, John, Keltner, & Kring, 2000), dominance (Buss & Craik, 1981; Gough & Bradley, 1996; Megargee, 1969), increased social skills (Coats & Feldman, 1996), charisma (Hogan, Raskin, & Fazzini, 1990), and in some cases, Machiavellianism (see Wilson, Near, & Miller, 1996).

Certain physical characteristics, including height and muscle mass for males (Savin-Williams, 1977), physical attractiveness (Anderson et al., 2000), and even facial characteristics such as the prominent jaw (Mueller & Mazur, 1997) are also associated with elevated power. More obviously, financial resources afford the capacity to withhold or give it to others.

At the dyadic level the aforementioned attributes determine individuals' power in conjunction with other factors, such as others' interest, investment, and commitment to the relationship (Moreland & Levine, 1982). For example, the capacity to provide or withhold affection only increases power if the other person values that affection highly. Further, even if individuals have control over resources, their power depends on whether the other person can attain those resources by alternative means (Emerson, 1962).

Within groups, power is determined by a number of specific group dynamics in addition to many of the processes already discussed. Thus, specific roles govern the extent to which group members can provide resources to others (Emerson, 1962; Merton, 1957; Carter, Haythorn & Howell, 1950). This is true in formal hierarchies such as organizations (Hickson et al., 1971; Pfeffer, 1992), as well as informal authority structures such as sibling hierarchies (Sulloway, 1996).

Finally, factors that distinguish groups from one another, including socioeconomic status and class (Domhoff, 1998), majority or minority group affiliation (Brewer, 1979; Ng, 1980), and ethnicity (Sidanius, 1993) provide certain individuals with the greater control over resources and punishments (e.g., money, decision-making power). For

example, it is often argued that group membership affords power to men over women, given the privileged access men have to resources and political decision-making (Henley & La France, 1984; although see Hall & Halberstadt, 1994).

Together, these factors determine the ability to provide resources and administer punishments to others, thus determining the individual's power. Researchers have yet to elucidate how these different determinants combine, and how they vary across different contexts (e.g., erudition matters more in the halls of the academy than on the dance floor). Researchers are just beginning to document the consequences of when factors contradict one another (see Blunt Bugental et al., 1989; Bugental & Lewis, 1999). For our purposes, this review identifies our independent variables of interest, which we will soon argue shape behavior in systematic ways.

The second part of our theory pertains to the effects of power upon affect, cognition, and behavior. We claim that power triggers activation in what have been called the behavioral approach and inhibition[2] systems, which we characterize in Table 1 (see also DePue, 1995; Fowles, 1980; Gray, 1982, 1987, 1991; Higgins, 1999; Newman, 1997; Sutton & Davidson, 1997). The behavioral approach system regulates behavior related to sex, food, safety, achievement, aggression, and social attachment. Rewards and opportunities trigger approach-related processes that help the individual pursue and obtain goals related to these rewards. These include affective states that motivate approach-related behavior, cognitive assessments of reward contingencies in the environment, and forward locomotion. The behavioral inhibition system is equivalent to

an alarm, threat system. It is activated by punishment, threat, the lack of rewards, and uncertainty. The behavioral inhibition system involves affective states such as anxiety, heightened vigilance and inspection of punishment contingencies in the environment, and avoidance and response inhibition.

Elevated power activates approach-related processes, we propose, for two reasons. First, power is correlated with increased resources. Powerful individuals live in environments with abundant rewards[3], ranging from financial resources, food, physical comforts and beauty, health, as well as social resources, such as the flattery, esteem, attraction, and praise. Second, the experience of power involves the awareness that one can act at will without interference or serious social consequences (Weber, 1947). Acting within reward rich environments and unconstrained by others' evaluations or the consequences of one's actions, people with elevated power should be disposed to elevated levels of approach-related affect, cognition, and behavior.

For complementary reasons, the lack of power should be associated with increased inhibition. Less powerful individuals tend to have less access to material, social, and cultural resources (Domhoff, 1998), and are more subject to social threats and punishments. Thus, they are more sensitive to the evaluations and potential constraints of others (e.g., Fiske, 1993; Steele & Aronson, 1995). For example, less powerful individuals are more likely to be victimized by aggression. This is evident in childhood bullying, which is directed at low status children (Whitney & Smith, 1993), racism and discrimination against minority groups (Sidanius, 1993), in violence against women

(Reeves-Sanday, 1997), and violent crime perpetrated against members of lower classes (Gottfredson & Hindelang, 1981), to cite a few of many relevant findings. Acting in environments with increased punishment, threat, and the lack of resources, and aware of the social constraints placed upon their behavior, people with reduced power should be disposed to elevated levels of inhibition-related affect, cognition, and behavior.

The preceding arguments suggest that more powerful individuals should show elevated activity of processes that are part of the approach system (e.g., see Table 1). In the realm of affect, elevated power should be associated with positive and approach-related moods and emotions that facilitate the pursuit and attainment of goals and rewards (Sutton & Davidson, 1997). Disposed to feel positive affect and to approach goals and incentives, individuals with power should exhibit increased attentiveness to rewards, and to those features of other individuals that are relevant to goal and reward attainment. Because approach tendencies favor movement toward desired goals and less concern for social consequences, elevated power should also be associated with automatic social cognition rather than controlled or deliberative reasoning. Finally, these processes in combination should increase the tendency for high power individuals to behave in ways that might otherwise be inhibited in social situations.

The absence of power, in contrast, should be associated with heightened activity of inhibition-related processes. Reduced power should heighten the experience of negative affect, increase attention to punishments, to others' interests, and to those features of the self that are relevant to others' goals. Reduced power should increase

efforts to process information systematically, to engage in controlled social cognition, and to deliberate when making social judgments. These processes, in combination, should lead low power individuals to inhibit a wide array of social behaviors, from sexual response to the expression of political attitudes.

We now develop more specific predictions that follow from this reasoning. We first discuss affect, then cognition, then behavior, in part relying upon what is known in one domain (e.g., affect) to justify predictions in the next (e.g., cognition). For expository purposes, we will often refer to high and low power individuals, or to individuals with and without power, noting that an individual's power should be characterized not in absolute terms but as falling on a continuum relative to the power of others in the same social context.

Power and Affect

The question of how power relates to affect has attracted increasing attention in the study of emotion (Clark, 1990; Collins, 1991; Kemper, 1991; Tiedens et al., 1999). In general, theorists argue that specific roles, such as that of a parent, priest, or political pundit, have socially determined levels of power. The power of these roles dictates the specific emotions individuals spontaneously and strategically experience and express. An important contribution of this work is in connecting broad sociological constructs, such as role and hierarchy, to individual experience. Yet the proximal processes by which power shapes individual experience have not been thoroughly articulated (although see Tiedens et al., 1999, on the relationship between status and emotion-related appraisal). Our

formulation attempts to fill this gap by showing how power-related approach and inhibition lead to different patterns of mood and emotion. We represent relevant predictions in Table 2, many of which are elaborated below.

Proposition 1: Elevated Power Increases the Experience and Expression of Positive Affect

Positive affect is believed to facilitate the pursuit of approach-related goals (e.g., Davidson, 1992). Consistent with this view, markers of the approach system, including left frontal activity and dopamine, correlate with increased positive affect (Carver & White, 1994; Davidson, 1992; DePue, 1995; Ashby, Isen, & Turken, 1999; Sutton & Davidson, 1997).

Based on this treatment of approach and affect, we predict that elevated power will be associated with the increased experience and expression of positive mood (H1). A recent study by Anderson, Langner, & Keltner (2000) bears on this hypothesis, showing that high power individuals experience elevated positive mood in their resting state. In a study of power in informal groups (dormitory members), high power males, as nominated by college peers, self-reported elevated baseline positive mood prior to completing experimental tasks ($r = .32$, $p < .05$). Watson and Clark (1997) have documented that self-reports of dominance, assertiveness, social potency, and assumed leadership roles all correlate with the self-reported experience of elevated positive mood.

We also predict that elevated power will increase the likelihood of more positive emotion (H2). Table 3 presents data from a study that examined Hypothesis 2 (Anderson

et al., 2000). In this study, individuals reported their general sense of power (e.g., "I experience power in my day to day life"), their trait dominance (Wiggins, Trapnell, & Phillips, 1988), and their tendency to experience different positive and negative emotions (Anderson & Keltner, 2000). As expected, the sense of power and trait dominance correlated with the increased experience of many approach-related positive emotions, such as desire, enthusiasm, and love.

This pattern of results has been replicated in studies of adolescents. In a recent study of boys (9 to 14 years old) at a basketball camp, we observed boys taunting each other in the context of an experimentally designed exercise that was part of the camp's morning drills (Young, Keltner, Londahl, Capps, & Tauer, 1999). Consistent with Proposition 1, boys of high sociometric status (i.e., peer nominated) reported more pleasure ($r = .34$, $p < .05$) associated with taunting and being taunted.

These correlations between power and affect suffer from obvious problems of interpretation (e.g., does elevated power lead to increased positive affect or vice-versa?). Recent studies allay concerns related to this problem. In one study, fraternity members teased each other in foursomes comprised of two low and two high power members (Keltner et al., 1998). The individual's power was defined according to his position in the fraternity (as an "active" or recent "pledge"). Facial expressions of were coded with the use of the Facial Action Coding System of Ekman and Friesen (FACS; Ekman & Friesen, 1978), which identifies emotion-relevant facial muscle movements. Table 4 shows that high power members were more likely to display smiles of pleasure than low

power members.

Proposition 2: Reduced Power Increases the Experience and Expression of Negative Affect

Self-report measures of behavioral inhibition and negative mood are highly correlated (Carver & White, 1994), as are central nervous system markers of inhibition and avoidance (e.g., increased activity in the right frontal cortex) and self-reports of baseline negative mood (DePue, 1995; Sutton & Davidson, 1997). This evidence leads to the prediction that reduced power will be associated with the experience and expression of negative mood (H3).

In support of this prediction, children of low sociometric status report higher levels of negative moods, guilt, and depression (e.g., Hecht, Inderbitzen, & Bukowski, 1998; Kupersmidt & Patterson, 1991; Upmanyu, 1974). Lower SES also relates to increased negative mood in adults (e.g., Link, Lennon, & Dohrenwend, 1993). Members of minority groups such as Asian and African-Americans, who are stereotypically associated with reduced power (and often in terms of actual resources), often report increased anxiety and mild depression relative to European-Americans (e.g., Sasao, Toshiaki, Duval, & Sadamura, 1986; Warren, 1997).

Importantly, manipulation studies have replicated these correlational findings, lending additional credence to our first two propositions. After having initially expressed their views vis-a-vis school busing, participants were assigned to either a unanimous group or to a non-unanimous group in which they belonged to a majority or a minority

(Gruenfeld, 1993). After a group decision task, subjects reported their general feelings. As seen in Table 5 and consistent with Proposition 2, minority members reported feeling more negative affect (M = 4.51) than majority members (M = 4.19), F (5, 14) = 3.39, p < .03, and members of unanimous groups (M = 4.08), F (5 32) = 5.92, p < .001, who did not differ from one another, F (5, 32) = 1.12, p > .10.

A related prediction is that low power individuals will be more likely to experience and express negative, inhibition-related emotions, such as embarrassment and fear (H4). In studies reported earlier, a self-report measure of subjective power correlated with self-reports of negative emotions (see Table 3), and low power teasers in a fraternity were more likely to display fear, embarrassment, and pain (see Table 4), and to report feeling embarrassment (Keltner et al., 1998). In a recent study, male college students who were rated by their peers as having lower status reported increased embarrassment (r = .45, p < .05), guilt (r = .39, p < .05), sadness (r = .52, p < .01), and shame (r = .42, p < .05), and facially displayed more negative emotion (r = .37, p < .10) in response to three stressful tasks (Anderson & Keltner, 1999). College students whose attitudes were in the numerical minority on campus (which, in the context of ideological debate, typically translates to reduced power) reported more negative emotions such as distress and anxiety vis-a-vis the ideological conflict than students in the majority (Ebenbach & Keltner, 1998). In a study that manipulated status, low status individuals reported more guilt and sadness in response to negative events, whereas high status individuals reported more anger (Tiedens et al.,1999).

Finally, to the extent that people's representation of emotion reflects actual patterns of emotional response, we would predict that cognitive representations of emotion involve systematic associations to power (H5). Consistent with this general assertion, social observers rate facial displays of anger and happiness as dominant, and embarrassment, fear, sadness, and shame as submissive (Keltner, 1995; Keltner, Young, & Buswell, 1997; Knutson, 1996). Tiedens and colleagues have found that individuals assume that high power individuals will respond to failure with anger and that low power individuals will respond to the same failure with guilt or sadness (Tiedens et al., in press). In a study of gender stereotypes, people indicated the belief that men experience and express anger, contempt, and pride (clearly high power emotions) more frequently than women, who are believed to experience and express more of the submissive emotions, such as embarrassment, fear, guilt, sadness, shame, and shyness (Plant, Hyde, Keltner, & Devine, 2000; see also LaFrance & Banaji, 1992).

In this section we have seen that diffuse moods and specific emotions vary greatly according to the individual's power. High power individuals more frequently experience and express positive mood and emotion. Low power individuals more frequently experience and express negative mood and emotion. Many of the relevant studies found this pattern, even though they varied greatly in the eliciting stimulus or event, the social context, and the measure of power used.

The studies that we have reviewed, as suggestive as they are, call for further

research. Importantly, this literature has examined only select emotions, and only a few measures of emotion (few studies have looked at expressive behavior; no study has looked at autonomic response). The correlational findings (e.g., sociometric status correlates with self-reports of emotion) can be accounted for by alternative explanations. For example, Extraversion predicts both elevated sociometric status (Anderson et al., 2000) and positive emotion (Keltner, 1996), and may account for the links between sociometric status and emotion. Possible mediators (e.g., selective exposure to different events or environments) need to be examined. The relation between power and anger needs further attention. Our literature review found that facial displays of anger were associated with increased power (see Table 4), whereas the self-reports of chronic anger were correlated with lower status (see Table 3). Differences in the object of anger (e.g., self or others), context, and display rules may account for these apparent contradictions. For example, anger might be more related to high power only when it facilitates approach-related behavior (e.g., aggression) or is expressed to others. Notwithstanding these concerns, our literature review indicates that the power that derives from multiple sources (peers' ratings, ethnicity, socioeconomic status) profoundly shapes the emotional life of the individual.

Power and Social Attention

Of the many objects of social attention, we will focus on three: rewards or punishments, other individuals, and the self. We propose that high power individuals will direct attention toward potential rewards rather than threats, and as a consequence will

construe others through a lens of self-interest. In contrast, low power individuals will be more sensitive to potential threats than rewards, and will therefore construe themselves vis-a-vis others' interests. These predictions are summarized in Table 6.

Proposition 3: Elevated Power Increases the Sensitivity to Rewards

Approach is facilitated by the direction of attention to sources of rewards and means for obtaining those rewards. A number of correlates of behavioral approach are associated with attention to rewards, including increased dopamine (DePue, 1995), extraversion (Larsen & Ketelaar, 1991), and impulsivity and psychopathy (Newman, 1997). Based on this literature, we posit in Proposition 3 that power will be associated with the increased attention to rewards.

A first prediction that derives from Proposition 3 is that powerful people will be quicker to detect opportunities for material rewards, such as food, social rewards, such as attention, sex, and approval, and conditioned stimuli, such as money (H6). One supportive line of evidence is found in the literature on the need to approach success, which reflects the sensitivity to rewards as assessed by Thematic Apperception Tests (TAT; Atkinson, 1964). Individuals in group leadership roles (Zander & Forward, 1968), children from higher status social groups (Nygard, 1969), and White Americans, as compared to African Americans (Adkins, Payne, & Ballif, 1972; Cooper & Tom, 1984; Graham, 1984) as well as Native Americans and Hispanics (Ramirez & Price-Williams, 1976; Sanders, Scholz, & Kagan, 1976), all exhibit high levels of the need to approach success.

A related prediction is that elevated power will increase the tendency to perceive rewards and opportunities in ambiguous acts and interactions (H7). One suggestive line of studies finds that men perceive sexual interest in females' ambiguous behavior (Abbey, 1982; Keltner et al., 1998; Simpson, Gangestad, & Nations, 1996). These studies did not directly measure power, and one might argue that in interactions that revolve around mate selection, females have equal or elevated power. Clearly, the predicted relation between power and the sensitivity to rewards warrants empirical attention that uses direct measures of power and various measures of reward sensitivity.

Proposition 4: Reduced Power Increases the Sensitivity to Threat and Punishment

We further expect low power individuals to selectively attend to punishments and threats (H8). The literature on anxiety lends indirect support to this hypothesis. Namely, studies using dichotic listening tasks, lexical decisions, and the Stroop task have found that dispositional anxiety, which correlates with reduced power, relates to the selective attention to punishments and threat (Eysenck, 1992; MacLeod & Mathews, 1988; Mathews & MacLeod, 1985). Of course, correlations between two variables (power, anxiety) do not guarantee common correlations with a third variable (attention to threats); relevant empirical work is needed.

Several kinds of evidence indicate that individuals with less power interpret ambiguous events as more threatening (H9). For example, children of low sociometric status tend to perceive threat in ambiguous social situations (Schwartz, Dodge, & Coie, 1993). Lower SES adults tend to report higher levels of mistrust in others (Mirowsky &

Ross, 1983; Dohrenwend & Dohrenwend, 1969) and higher levels of worry about crime (Riger et al., 1981). And compared to dominant males, submissive males (as measured by a self-report adjective checklist) showed threat-related elevated heart rate when challenged by a female confederate (Rejeski, Gagne, Parker, & Korinik, 1989).

A related and perhaps more unsettling literature supports the prediction that social threat disrupts the cognitive performance of low power individuals (H10). Students who were in the minority in their group in terms of gender remembered less of their group's discussion, suggesting that subordinate status disrupts memory processes (Lord & Saenz, 1985). Stereotype-related threat interferes with the performance of minority group members on intellectual tests (Steele & Aronson, 1995). Thus, on GRE-like exams, the performance of African American students equals that of European Americans until they are prompted to think of their race. Similarly, women perform at similar levels as men on math exams unless the exam is portrayed as one that produces gender differences, which markedly reduces their performance. Power may in part account for these findings (Croizet & Claire, 1998). Exams that have status, class, or power-related connotations may direct the attention of individuals of low power groups away from the substance of the test to its social implications, thus worsening performance. A power-based explanation posits that reduced power would hinder intellectual performance in contexts in which stereotypes are either salient nor endowed with performance-based expectations (e.g., in interactions amongst ingroup members). This assertion awaits empirical attention.

Proposition 5: Elevated Power Increases the Tendency to Construe Others Through a Lens of Self-interest

Turning to the attention that individuals direct toward others, we predict that high power individuals will be sensitive to those features of others that potentially satisfy current goals and desires, and construe social interactions according to the rewards they potentially offer (H11). This prediction has not been addressed directly, but work by Kipnis described earlier is suggestive. Kipnis (1972) showed that individuals who were endowed with institutional power made more attempts to influence others for the achievement of personal goals; their actions towards others were driven primarily by their own goals. These power holders also attributed others' achievements to their own power rather than others' efforts. This finding is closer to the spirit of Hypothesis 11: namely, these powerholders interpreted others' actions according to their own powerful standing.

Proposition 6: Reduced Power Increases the Tendency to View the Self as a Means to Others' Ends

A complementary prediction is that low power individuals will perceive themselves as a means to the ends of high power individuals, the instrument of their goals and desires (H12). This assertion closely resembles recent analyses of gender-related experiences of self-objectification (e.g., Fredrickson & Roberts, 1997; Hall, 1984). These researchers argue that women construct their identities in part according to how their physical self is sexualized by others. As a consequence, women feel objectified, or judged according to how they serve particular needs of others. Interestingly, self-

objectification has many of the consequences of reduced social power, including elevated anxiety and shame, the dissociation from internal states, and interference on the performance of intellectual tasks (Fredrickson & Roberts, 1997). For example, in one study self-objectification was heightened in women by having them wear a swimsuit. Compared to women asked to wear a sweater, women wearing swimsuits reported more shame about their bodies, experienced more self-conscious emotions, ate less food given to them by the experimenter, and performed poorly on a number of math problems (Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998). Our framework suggests more generally that low power individuals, whether it be workplace subordinates, adolescents vis-a-vis their parents, or low status group members, will construe themselves as means to the ends of powerful individuals (and in a well-known formulation of Marx, this is a primary source of alienation).

In this section, we have posited that high power individuals are more attentive to rewards and construe others through a lens of self-interest. Low power individuals, in contrast, are more attentive to punishment and threat and construe the self through a lens of others' interests. For the most part the studies we reviewed only indirectly assessed the various hypotheses. Empirical research has yet to settle important issues. For example, we have argued that power affects attention, directing it to rewards or threats, independent of external reality. Yet these differences in attention may simply reflect the different social environments of high and low power individuals, rather than some perceptual bias that operates independent of external reality. In this vein, most studies

have focused on the power of the social perceiver while neglecting the power of the target of social perception (although see Snodgrass et al., 1998). Thus, it is not known whether the effects of power upon social attention hold regardless of the target's power, or whether there are interesting interactions. Notwithstanding these limitations, our attention-related hypotheses lay one foundation for a variety of predictions concerning power and social cognition, which we now consider.

Power and Social Cognition

Recent theorizing has organized a variety of social cognitive processes according to their automatic or controlled nature (Bargh & Chartrand, 1999; Chaiken, Liberman, & Eagly, 1989; Wegner & Bargh, 1998). Automatic social cognition is relatively rapid, effortless, and associated with the use of cognitive heuristics and simple evaluative rules to make judgments. Controlled social cognition is deliberate, effortful, and involves the consideration of multiple response options and stimulus characteristics. This dual-process analysis of social cognition has been applied to the study of stereotyping (Devine, 1989), attribution (Gilbert, 1998), attitudes (Fazio et al., 1986), and persuasion (Chaiken, et al., 1989), among other widely studied topics.

Fiske and colleagues (e.g., Fiske, 1993; Neuberg & Fiske, 1987) were the first to posit that elevated power is associated with automatic social cognition. They reasoned that people with power are less motivated to attend carefully to the consequences of their actions, and less able to attend to others carefully, due to the cognitive demands associated with responsibility for important tasks and large numbers of subordinates.

Findings we have encountered thus far provide further justification for this claim. Elevated power is associated with positive mood and happiness, which increase the likelihood of automatic social cognition (Bodenhausen, Sheppard, & Kramer, 1994; Lerner & Keltner, 2000). Reduced power is associated with depressive mood and anxiety, which increase the likelihood of more deliberate, controlled social cognition (see Bodenhausen et al., 1994; Lerner & Keltner, 2000). These different lines of reasoning converge on predictions laid out in Table 7 and the propositions that ensue.

Proposition 7: Elevated Power Increases the Automaticity of Social Cognition

Following Fiske and Neuberg, we posit that elevated power will be associated with automatic social cognition. A first prediction that follows from this proposition is that high power individuals will be more prone to stereotype others (H13; see Fiske, 1993, for comprehensive statement). Stereotypes consist of culturally encoded beliefs about groups that individuals apply in relatively thoughtless ways (Devine, 1989). Fiske and colleagues first documented that high power individuals are more likely to use stereotypes and less likely to attend to individuating information in making judgments about others (Fiske, 1993). In one illustrative study (Goodwin & Fiske, 1993), college undergraduates were instructed to evaluate high school students' summer job applications. As participants' power in the decision increased, they became less attentive to information about the applicants. In contrast, in another study participants were more attentive to stereotype-disconfirming information about powerful evaluators than participants whose evaluators had less power (Depret & Fiske, 1993). Most recently,

Goodwin, Gubin, Fiske, and Yzerbyt (2000) showed that power increases stereotyping both through increased attention to stereotype-consistent information (stereotyping by design) – which corresponds to automatic, top-down processing -- as well as through decreased attention to stereotype-inconsistent information (stereotyping by default).

Evidence suggests that group-based power increases the tendency to stereotype as well. Sidanius, Pratto and colleagues have found that social dominance orientation -- the desire to see one's own group dominate other groups -- is more strongly endorsed by individuals associated with more powerful groups, including men as compared with women, European Americans compared to African Americans, and individuals in hierarchy enhancing (e.g., the police) as opposed to hierarchy attenuating careers (social services) (for reviews, see Pratto, 1996; Sidanius, 1993). Consistent with the idea that high power individuals are more likely to stereotype others, measures of social-dominance orientation correlate highly with increased stereotyping and prejudice.

Other studies of intergroup conflict similarly suggest that power increases the tendency to judge others unsystematically. Group representatives on the offensive in social disputes, those who represent legitimate (i.e., orthodox) positions, and those who have defeated opposing groups, all have elevated power within social disputes. Members from these groups tend to demonstrate higher levels of ingroup favoritism, which is the preferential allocation of resources towards one's own group, and outgroup discrimination, both of which reflect more unsystematic, heuristic judgments of others (Brewer, 1979; Mullen, Brown, & Smith, 1992; Sachdev & Bourhis, 1991; Ng & Cram,

1988).

To the extent that high power individuals are less attentive to others and rely more heavily on social heuristics, such as stereotypes, we would further expect high power individuals to judge others' attitudes, interests, and positions less accurately (H14). Several lines of evidence support this prediction. In recent research we have focused on how group-based power influences the accuracy of social judgment (e.g., Ebenbach & Keltner, 1998; Keltner & Robinson, 1996, 1997). One study focused on the judgments of 273 "Traditionalist" and "Revisionist" English professors throughout California, who were embroiled in the highly contentious Western Canon debate, which revolves around the content of the English curriculum. In a survey these professors indicated their own attitudes towards literature and they estimated the average attitudes of the Traditionalists and Revisionists in English departments throughout California (Keltner & Robinson, 1997). Traditionalists were more powerful in that they were more likely to be tenured, male, and interested in preserving the literary status quo (e.g., Homer, Shakespeare), instead of incorporating the works of women and minorities (e.g., Toni Morrison), which the Revisionists advocated.

Figure 2 represents the actual attitudes of Traditionalists and Revisionists as well as their estimates of the two sides. Consistent with Proposition 7, the more powerful Traditionalists were more prone to stereotype both sides as extremists, and thereby misperceive their opponents' views. Both sides made more accurate estimates of the views of the status quo Traditionalists. A subsequent study of partisans whose attitudes

were either in the numerical majority (high power) or numerical minority (low power) replicated this pattern of observer effects (low power individuals are more accurate) and target effects (high power individuals are more accurately judged) (Ebenbach & Keltner, 1998).

One problem with the preceding studies of judgmental accuracy is that participants judged abstract social categories (e.g., "average Revisionsists in California") rather than real individuals. Studies in which participants judge actual social actors, however, lend support to the prediction that high power individuals are less accurate social judges. In the negotiation literature, high power disputants tend to be less aware of their opponents' underlying interests than low power disputants, who are more likely to discover integrative solutions that benefit both parties (Mannix & Neale, 1993; see also Kim, 1997; Sondak & Bazerman, 1991). Power differences may account for the tendency for males to be slightly less accurate than females in their judgments of others' emotions, intentions, and nonverbal behaviors (Henley & La France, 1984; LaFrance, Henley, Hall, & Halberstadt, 1997; although see Hall, 1984). Power may also be at work in the striking finding that younger siblings, who experience reduced power vis-à-vis older siblings, perform better on theory of mind tasks, which assess the ability to imagine the intentions and beliefs of others (Jenkins & Asington, 1996; Perner, Ruffman, & Leekam, 1994).

Proposition 8: Reduced Power Increases Controlled Social Cognition.

Whereas elevated power is associated with more automatic social cognition, for complementary reasons we posit that reduced power increases the likelihood of

controlled, deliberate social cognition. At the behavioral level, we would expect low power individuals to more carefully scrutinize the actions of others (H15). Components of the behavioral inhibition system, most notably fear and anxiety, narrow attention upon potential threats (MacLeod & Mathews, 1988; Mathews & MacLeod, 1985; Mineka & Sutton, 1992). Because power-related threats are often social in nature, reduced power should be associated with increased attention to the intentions and actions of others (Chance, 1984; Emory, 1988; Fiske, 1993; de Waal, 1986).

Consistent with this expectation, studies of children (Anderson & Willis, 1976; La Freniere & Charlesworth, 1983; Montagner, Restoin, Rodriguez, Ullman, Viala, Laurent, & Godard, 1988), adults (Ellyson, Dovidio, & Fehr, 1981), and nonhuman primates (Chance, 1969) find that low power individuals concentrate their gaze more on others (particularly of elevated status) than individuals with elevated power.

These power-related patterns of social attention are likely to contribute to the greater accuracy low power individuals demonstrate in judging others (see Proposition 7). Studies by Snodgrass suggest that reduced power may motivate attention toward specific kinds of social information. They assigned college students to low (e.g., student, employee) or high power roles (e.g., teacher, business owner). Low power individuals proved to be more adept at judging what high power individuals think of themselves, the low power persons. High power individuals, in contrast, were more accurate judges of what the low power individuals thought of themselves, the low power individuals (Snodgrass, 1985, 1992; Snodgrass, et al., 1998). These findings fit our formulation

nicely: subordinates are highly attuned to others' evaluations of their own actions. Powerful individuals more reliably detect how subordinates evaluate themselves, we suspect, because subordinates display self-evaluative emotions more readily (e.g., embarrassment, shame; see Proposition 2).

Low power individuals' more concentrated attention upon the actions of others should lead them to be more susceptible to social influence (H16). In one test of this hypothesis, we predicted that the emotional experience of low power individuals would be more profoundly shaped by that of high power individuals than the converse (Anderson & Keltner, 2000). Pairs of roommates and two confederates completed several emotion inducing tasks together, such as mental arithmetic and making embarrassing faces, at the beginning and end of an academic year (Anderson & Keltner, 1999). Power was defined according to roommates' own rating of relative power vis-a-vis their roommate. Low power roommates showed higher correlations between their estimate of their roommate's experience at time 1 and their own emotional responses to the same tasks at time 2 than did high power roommates (see Table 8). We would expect similar differences to emerge in the extent to which high power and low power individuals shape each other's habits, attitudes, and thought processes. This kind of power-related contagion may in part account the dissemination of ideas and practices in social groups.

Another prediction that derives from Proposition 8 is that low power individuals will reason in more cognitively complex ways (H17). Whereas high levels of complexity

reflect careful consideration of stimulus characteristics and the trade-offs among response options, low levels of complexity reflect the use of a single evaluative dimension to distinguish good and bad alternatives (Suedfeld, Tetlock & Streufert, 1992). Increased concern about the consequences of one's actions -- which correlates with low power -- tends to lead to high levels of cognitive complexity (Lerner & Tetlock, 1999; Tetlock, 1992).

To test the hypothesis that low power individuals reason in more cognitively complex ways, a recent study compared the decisions of U.S. Supreme Court justices when they endorsed opinions of coalitions of different sizes (Gruenfeld & Kim, 1998). All opinions in the sample were single authored, but each opinion was written on behalf of a coalition of other justices who collectively endorsed it. As in other democratic decision groups that use a "majority wins" rule (Davis, 1973; Jost, 1998), the size of the coalition endorsing the author's opinion was equated with the author's power. As expected, coalition size and justices' complexity were negatively correlated (see Figure 3), indicating that justices writing from positions of less power crafted more complex arguments in their opinions.

The relationship between power and cognitive complexity has been documented using other manipulations of power and other objects of judgment. Authors of majority opinions are less cognitively complex when the group is unanimous (and therefore more powerful) and their actions are more unconstrained than when they encounter resistance in the form of a vocal minority (Gruenfeld, 1995; see also Janis, 1972; Janis & Mann,

1991; Nemeth, 1986). Experimental work has found that participants' public and private statements become less complex when assigned to unanimous as opposed to non-unanimous decision groups (Gruenfeld, Thomas-Hunt & Kim, 1998). A recent study found that highly dominant individuals described a social target with lower levels of cognitive integration than more communally oriented individuals (Woike, 1994).

Given these differences in the direction of social attention and complexity of social reasoning, one would expect high and low power individuals to arrive at different attributions for social behavior (e.g., Brewer, 1986; Kipnis, 1976). In terms of collective actions, one would expect high power individuals to attribute joint outcomes to their own actions, which are particularly salient in their phenomenal field, and low power individuals to attribute the same outcomes to the actions of others (H18). Kipnis' study referred to earlier lends indirect support to this hypothesis: high power individuals attributed low power individuals' behavior to their own power.

In a more direct test of this hypothesis, equal numbers of high and low power participants collaborated on a group task that involved assembling a complex puzzle in as little time as possible (Gruenfeld & Fan, 1998). High power participants were given control over how the work was to be accomplished and a blueprint of the puzzle, which they could not show to low power subjects. After completing the task, group members were separated and asked to explain their group's performance. Although power did not influence the actual contributions of group members, high power individuals were more likely to discuss their own motivations and abilities, whereas low power individuals were

more likely to mention the actions of other group participants (see Figure 4).

Power-related attributions for others' actions are likely to follow a different pattern, and one that is consistent with our analysis thus far. Attributions of others' actions involve a more automatic dispositional inference as well as more deliberate considerations of situational constraints upon behavior (Gilbert, 1998). More prone to automatic social judgment, high power individuals should be more likely to make dispositional attributions about others' behavior, whereas low power individuals should be more likely to make situational attributions (H19; Gilbert, Krull, & Pelham, 1988). This hypothesis awaits empirical attention. It will also be important to consider the status or power of the target of the attribution, given that high power individuals appear to attract more careful social attention.

In sum, relevant empirical studies indicate that high and low power individuals construe their social worlds quite differently, even when presented with the same object of judgment. Studies using varied measures of power and social judgment consistently show that elevated power is associated with more automatic, less complex styles of reasoning, whereas reduced power increases controlled information processing, deliberation, and the complexity of thought. Many of these hypotheses need to be fleshed out, as do their boundary conditions. In particular, it will be important to pay heed to the object of the social judgment. As objects of social judgment, high power individuals appear to receive more careful social attention, pointing to likely interactions between the power of the social judge and person being judged. To the extent that the judgment is

about a source of rewards, one might expect high power individuals to demonstrate more systematic, accurate judgment.

Power and Social Behavior

Cultural aphorisms ("Power corrupts") and observations (Henry Kissinger: "Power is the ultimate aphrodisiac") have long recognized that power influences social behavior in noteworthy and at times disturbing ways. This basic notion motivated Kipnis' work on how power corrupts, which we reviewed earlier. In this section, we present a more complex view. We propose that elevated power disinhibits a wide array of behaviors, both bad and good. Subordinate status, in contrast, is associated with the tendency to inhibit behaviors. We further posit that the determinants of high and low power people's behavior should differ: whereas high power individuals' behavior should correspond to their internal traits and states, low power individuals' behavior should be more closely driven by situational factors, in particular by the individuals with whom they are interacting. These predictions are represented in Table 9.

Proposition 9: Elevated Power Increases the Likelihood of Approach-related Behavior

The approach system is believed to modulate processes related to eating, offensive aggression, and sexual behavior (see DePue, 1995). Power should therefore increase the performance of approach-related behaviors, from the consumption of resources to prosocial acts. A first prediction, therefore, is that elevated power should increase the performance of simple approach behaviors (H20), such as entering the social space of others and initiating physical contact. Indeed, high levels of touching behavior have been

found to correlate with being male, older, and higher SES (Goffman, 1967; Henley, 1977; Heslin & Boss, 1980; Major & Heslin, 1992). Studies of adults (Dean, Willis, & Hewitt, 1975; Lott & Sommer, 1967) and children (King, 1966) indicate that high status, powerful individuals are more likely to approach subordinates at interpersonal distances that indicate intimacy.

These considerations suggest that elevated power will also disinhibit sexual behavior (H21). Bargh and colleagues found that the simple priming of power-related concepts made sexual concepts more accessible, and in a second study, increased feelings of attraction towards a confederate in those individuals who scored high on a likelihood of sexual harassment scale (Bargh, Raymond, Prior, & Strack, 1995). The simple idea of power, independent of whether it is assumed, appears to increase sexual ideation and feeling, especially in some people.

A more recent study has addressed whether the assumption of power influences sexual behavior (Gonzaga et al., 1999). Unacquainted, female-male dyads teased each other either in an equal power condition or a condition in which one participant, the high power individual, was given control over the allocation of experimental points. Following the ethological literature (Eibl-Eibesfeldt, 1989; Grammer, 1990), two kinds of behavior were coded: disinhibited flirtatious behaviors (e.g., forward leans, provocative eye contact, touches), and more inhibited flirtatious behaviors (e.g., coy glances, neck presentations). Consistent with prediction, high power men and women flirted in more disinhibited fashion, and men were more disinhibited in their flirtation than women (see

Figure 5). It will be important to determine whether power heightens other facets of sexual response, including sexual phenomenology and physiology.

Proposition 10: Reduced Power Increases Behavioral Inhibition

In contrast, we predict that reduced power will lead to the inhibition of social behavior (H22). For example, studies in several domains demonstrate that low power individuals inhibit the direct expression of ideas through nonverbal and verbal behavior (as any first year graduate student will lament). The nonverbal behavior of subordinates is highly inhibited, as evident in postural constriction and reduced gestural activity (Ellyson & Dovidio, 1985). Low power individuals tend to inhibit their speech, as evident in associations between low power and increased hesitations (Holtgraves & Lasky, 1999; Hosman, 1989). Low status individuals are more likely to show facial muscle actions that inhibit emotional displays, such as lip presses and lip sucks (Keltner et al., 1998). Research on small group dynamics has documented that high power group members tend to be more actively and physically engaged in group projects, whereas low power members are often observed to be passive, withdrawn, and less physically active (Moreland & Levine, 1989). At the group level, individuals who espouse minority attitudes, and therefore represent less powerful positions, tend to speak out less in public debate (Noelle-Newmann, 1991; although see Shamir, 1997). We would expect reduced power to lead to inhibition in almost all domains of social behavior (e.g., resource consumption, sex, aggression, affiliation).

Proposition 11: Elevated Power Increases the Consistency and Coherence of Social

Behavior

We have seen that high power individuals devote less attention to others' evaluations and are predisposed to approach. Although attentive to some properties of the situation (e.g., rewards), we predict high power individuals will behave in ways that correspond to internal traits and states, and will behave in consistent ways across situations (H23). The first researchers to address this hypothesis were LaFrance and colleagues, who documented that the expressive behavior of high power individuals is more highly correlated with underlying states than that of low power individuals. Thus, in one study individuals were assigned to the role of interviewer (high power) or interviewee (low power) or an equal status condition, and asked to engage in a discussion about career interests (Hecht & LaFrance, 1998). Consistent with expectation, high power individuals' smiles of pleasure were significantly correlated with reports of the underlying experience of pleasure, whereas this correlation was nonsignificant for the subordinate individuals, and differed statistically from that of high power individuals. La France and Banaji (1992) also found a stronger correlation between certain kinds of emotion (e.g., anger) and behavior in men than women.

One would also expect the personality traits of high power individuals to be more predictive of their social behavior. To address this prediction, we examined the correlations between fraternity members' self-reports of Neuroticism gathered two weeks prior to the teasing interaction and responses to the teasing (Keltner & Anderson, 1999). Whereas high status members' levels of Neuroticism predicted both their reports of

negative emotion ($r = .45$, $p < .05$), and their pleasurable smiles ($r = -.48$, $p < .05$), these correlations were not significant for low status members ($rs = .13$ and $.16$, ns). More generally, the preceding reasoning and findings suggest that personality traits may predict behavior more strongly in contexts in which the individual feels powerful.

Low power individuals, in contrast, devote more attention to others and inhibit their behavior. We argue therefore that the behavior of low power individuals should be more situationally contingent (H24). Consistent with this prediction, we have already seen that low power individuals are more susceptible to certain kinds of social influence than high power individuals. Low-power college roommates, for example, were more likely to shape their emotional experiences according to their roommates' emotions (Anderson & Keltner, 1999). Findings from the fraternity teasing study further reveal how low power individuals shape their behavior according to an important part of the situation – their interaction partners. Figure 6 portrays the aggressive versus prosocial content of low and high power fraternity members' teasing of low and high power targets. As shown, low power fraternity members altered their teasing according to the target of the tease more than high power members, who were consistently hostile (Keltner et al., 1998). Low power targets also disinhibited the teasing of teasers of both levels of status, consistent with the idea that individuals engage in more disinhibited behavior when experiencing power (i.e., when interacting with low power individuals).

Power-related differences in the correspondence between internal states and traits and behavior lead to several corollary predictions that await empirical attention. We

suspect that the states and traits of high power individuals should be judged more reliably by others because they are associated with more observable behavior. Individuals with less power should also be more responsive to the internal states, traits, beliefs, and attitudes of high power individuals. In stark contrast, low power individuals should find that others are less aware of and responsive to their internal states and traits, which may contribute to the alienation often attributed to those without power (e.g., Weber, 1947).

Proposition 12: Elevated Power Increases the Likelihood of Socially Inappropriate Behavior

History is replete with memorable examples of Proposition 12, from the love affairs and capricious executions of the British, French, and Russian monarchies to the now prosaic violations of the law and interpersonal ethics of current political, business, and religious leaders. This tendency is all the more provocative given that the actions of high power individuals are typically more consequential and subject to close scrutiny. Our formulation suggests that this historical trend is not restricted to aristocracies or particular historical periods, but instead is something general about the nature of power. Namely, high power individuals are less likely to carefully attend to others and more likely to approach potential rewards, and should therefore tend to more frequently act in socially inappropriate ways (H25).

Research by Winter and colleagues has most thoroughly examined this hypothesis. They investigated the correlates of the need for power, which is measured from people's interpretations of the ambiguous social situations portrayed in Thematic

Apperception Test scenes (Winter, 1973; Winter, 1988; Winter & Barenbaum, 1985). Although the need for power does not correspond directly to our definition of power, it does correlate with indices of actual power in college students, such as office holding and the pursuit of and entry into high power careers (Winter, 1988). In a number of samples, Winter and colleagues documented that the need for power is positively correlated with a variety of profligate behaviors in men, including gambling, drinking, and sexual licentiousness.

In a less dramatic test of this hypothesis, we asked 187 participants to rate their subjective power and trait dominance (Wiggins, Trapnell, & Phillips, 1998), their disposition to approach and inhibit (BIS/BAS: Carver & White, 1994), and their inclination to engage in specific approach-related behaviors relating to sexual contact and aggression (Anderson & Keltner, 1999). As seen in Table 10, the measures of subjective power and trait dominance were positively and significantly correlated with the tendency to approach and inhibition, consistent with Propositions 9 and 10. Germane to Proposition 12, the two self-report measures of power correlated with preferences for multiple sexual partners and aggressive encounters.

High power individuals are also more likely to violate politeness-related communication norms (Brown & Levinson, 1987). Empirical studies have documented that high power individuals talk more, interrupt others more, are more likely to speak out of turn, and are more directive of others' verbal contributions than low power individuals (DePaulo & Friedman, 1998). In a recent survey of 775 employees, individuals reported

that rude, uncivil behaviors were three times as likely to come from individuals higher up in the organization than from peers or subordinates (Pearson & Porath, 1999), although one could attribute these findings to the heightened social sensitivity of subordinates.

Ward and Keltner (1998) examined the possibility that high power individuals would violate norms governing the consumption of resources. Inspired by historical analyses of power, greed, and manners (e.g., Elias, 1978), they examined whether power would produce socially inappropriate styles of eating. In same-sex groups of three individuals, one randomly chosen individual (the high power person) was given the role of assigning experimental points to the other two based on their performance on a task in which they drafted written policy recommendations concerning contentious social issues. After group members discussed a long and rather tedious list of social issues for 30 minutes, the experimenter arrived with a plate of five cookies. This allowed each participant to take one cookie, and at least one participant to comfortably take a second cookie, thus leaving one cookie on the plate. Of interest was the number of cookies participants took, and how they ate their refreshments (coding of the videotapes of the interactions identified whether participants ate with their mouths open and got crumbs on their faces and desk). Consistent with prediction, high power individuals were more likely to take a second cookie. They were also more likely to chew with their mouths open, and to get crumbs on their faces and on the table (see Figure 7). Male participants ate in more disinhibited ways as well, lending further support to our power based hypothesis, to the extent that gender is equated with power.

We further predict that high power individuals will be more likely to engage in aggressive acts (H26), which are believed to be modulated by the approach system (e.g., DePue, 1995; Gray, 1991). Several research literatures lend support to this prediction. Across contexts (e.g., school playgrounds, hospital settings, summer camps), high status individuals are more likely to tease (rather than avoid the potentially offensive behavior in the first place), and when they tease, they do so in more hostile ways (Keltner, Capps, Kring, Young, & Heerey, in press). Consistent with this pattern of results, in one study of heterosexual and homosexual relationships, the partner who was less committed to the relationship, and therefore more powerful, was more likely to bully the partner (Howard, Blumstein, & Schwartz, 1986).

Power has been shown to disinhibit more pernicious forms of aggression as well. For example, power asymmetries predict the increased likelihood of sexual harassment (Studd, 1996). Green, Wong & Strolovich (1996) found that the incidence of hate crimes against disliked minority groups (i.e., non-whites) was highest when the proportion of demographic majority members (i.e., whites) in a particular neighborhood was largest relative to that of the minority. As the power distance between groups approached equilibrium however, the incidence of hate crime dropped off. A cross-cultural and transhistorical analysis of rape found that one predictor of increased rape was the cultural acceptance of male dominance and the relative absence of female power (Reeves-Sanday, 1997). [4]

Thus far in this section, we have not portrayed power in a flattering light. High

power individuals tend to engage in approach-related behavior that is consistent with internal traits and states, and often that disregards conventions, morals, and the effects of actions upon others. Yet approach-related behavior can be of a more prosocial nature, and our analysis does suggest that high power individuals would engage in behavior that violates social norms in prosocial ways. Interesting candidates include: intervening in emergencies or helping others in distress, mediating conflicts (e.g., Aureli & deWaal, 2000), and expressing approval and disclosing affection.

Moderators of the Effects of Power on Affect, Cognition, and Behavior

The astute reader will no doubt have generated numerous counterexamples to our various predictions. People with power can be anxious and paranoid, intensely sensitive to the actions and intentions of others, and scrupulous and restrained in action. Subordinates or challengers of the status quo can be euphoric and exhilarated, naive to others' intentions, and impulsive. These and other counterexamples highlight how our treatment of power has simplified its effects. We often treated power independent of social variables that might produce more complex outcomes. Power is not static, but interacts with contextual factors, culture, and individual difference variables of those who hold power and those who seek change.

What variables might moderate the effects of power upon affect, cognition, and behavior? Our theory points to a few simple predictions. Conditions or events that trigger inhibition (e.g., threat, uncertainty, constraint) should shift the affect, cognition, and behavior of powerful individuals in predictable ways. Conditions or events that

trigger approach (e.g., rewards, control, freedom), should alter the affect, cognition, and behavior of less powerful individuals. Evidence from three literatures supports these predictions.

Stability of Power Relations and Perceived Threat

Social systems vary in the extent to which power relations are stable. Group hierarchies tend to be the least stable during initial group formation or following changes to the composition of the group (e.g., Anderson et al., 1999; Savin-Williams, 1977). In certain systems, power can be revoked; in other systems, power is nonnegotiable. Events that threaten the legitimacy of those in power, or enhance the legitimacy of the less powerful, destabilize social hierarchies.

We hypothesize that threat to social hierarchies and social instability will activate the behavioral inhibition system in powerful individuals, leading to more negative feelings, careful attention to others, systematic cognition, and inhibited behavior (H27). Findings from the hate-crime study just described (Green et al., 1996) lend support to this prediction. Namely, the incidence of hate crimes against minority members was highest (i.e., disinhibited behavior was greatest) when the power distance between majority and minority groups was greatest (and therefore the threat posed by the minority group was most reduced), and dropped off as the balance of power approached equilibrium. Increased balance in power between majority and minority group members more generally should lead to the powerful to experience more negative affect, engage in more careful attention to others and more systematic social cognition, and act in less

disinhibited fashion.

Preliminary evidence further suggests that when high power individuals experience threat-related emotions, they show different patterns of attention, cognition, and social behavior, as one would expect from our analysis. Thus, one study examined the attitudes of Gay and Christian college students, who were embroiled in a conflict over a reported beating of one group member (a gay) by the other group (Ebenbach & Keltner, 1998). Within the controversy, the Gay students reported higher levels of power than Christians, because of the support of students and the university administration. Figure 8 shows that high power partisans (the Gays in this study) who felt threat-related negative emotions, such as fear and anxiety, judged their opponents' attitudes more accurately (and were less likely to stereotype them as extremists) than high power partisans who did not feel these emotions.

Perceived threat has also been shown to alter the social cognition of Supreme Court justices who overturned or upheld legal precedent (Gruenfeld & Preston, 2000). When precedent is overturned, new powerholders are liberated from the burden of legitimation; their position goes unchallenged, they face no immediate threat. In contrast, majority members who uphold precedent must defend the status quo against challenges to the legitimacy of their position. Consistent with our prediction, Supreme Court justices who overturned legal precedent, and therefore were momentarily without challenge to their position, were less cognitively complex in their written opinions than those who upheld precedent.

Threats to the stability of power structures should have equally important effects upon low power individuals, and this is an important issue for future research. For example, we have already mentioned that individuals who espouse minority views (and therefore tend to be less powerful) tend to be less willing to speak out on social issues (Noelle-Newman, 1991). When the dominant view is threatened (for example by legislative events or changes in public opinion), or political events afford legitimacy to the minority view, minority partisans should be more likely to speak out. We would predict that this shift in minority group behavior occurs because threats to the power structure give legitimacy and esteem to minority group positions, thus encouraging speaking out, as well as other politically relevant approach behaviors (H28).

Accountability

Accountability -- the sense that one's actions are personally identifiable and subject to the evaluation of others -- often accompanies structural power, and in ideal fashion, acts as a constraint upon unchecked power. Individuals in power who know they will be held accountable are more likely to consider social consequences and take others' interests into account (Tetlock, 1992; Lerner & Tetlock, 2000). This explains why U.S. Presidents exhibit greater cognitive complexity after they are elected, when they are accountable to a diverse array of constituents, than prior to election (Tetlock, 1981). From our perspective, accountability is implicit in the psychology of low power individuals -- they carefully consider how their actions will be evaluated by and influence

others. To the extent that high power individuals are accountable for specific actions, we predict that their affect, cognition, and behavior will shift towards a pattern of increased inhibition (H29).

Accountability may play a role in several paradoxes suggested by our review. The apparent inconsistency exhibited by powerful leaders who are deliberative in their policy making but impulsive in their personal lives may in part be due to context-related variation in accountability. Individuals may behave in strikingly different fashion as they acquire power, and are accountable to others, than when their power is firmly entrenched (e.g., Gruenfeld & Preston, 2000).

Winter and colleagues have generated evidence that lends credence to these speculations (e.g., Winter & Barenbaum, 1985). Specifically, they showed that individuals high in need for power engaged in profligate gambling, drinking, and sexual licentiousness less often when two kinds of life events enhanced their accountability: having younger siblings, and the arrival of children. In fact, the social responsibilities tied to having a younger sibling or parenthood led high power individuals to engage in more prosocial, approach-related behaviors, such as involvement in voluntary organizations. More generally, we would predict that accountability would lead to less approach-related emotion, more attention to others, and more careful cognition in high power individuals.

Individual and Cultural Differences

Thus far we have not attended to whether power will have different effects when

different kinds of people are involved or in different cultural contexts. Clearly this is likely to be the case. People vary in their levels of dominance (Moskowitz, 1994), in whether they rise in status (e.g., Anderson et al., 1999), and in how they lead (e.g., Eagly & Johnson, 1987). Culture predicates the extent to which power differences are accepted and consensually reinforced (e.g., in high power-distance cultures) or disputed, challenged, and consensually negotiated (e.g., in low power-distance cultures). How might one think about how individual differences and cultural factors moderate the effects of power upon affect, cognition, and behavior?

In terms of individual differences, we predict that individuals who are predisposed to approach-related behavior will especially conform to the pattern of power-related affect, cognition, and behavior upon gaining power (H30). Thus, one might make this prediction about highly extraverted or dominant individuals, already predisposed to approach. Consistent with this possibility, Goodwin et al. (2000) found that individuals who were high in trait dominance exhibited the same tendency to use stereotypes as those who were placed in a high-power experimental condition. Ironically, it is the extraverted, dominant individual who is more likely to gain power, and, by implication, act in disinhibited fashion (for review, see Anderson et al., 1999). In contrast, one would expect different effects of power for highly introverted, inhibited individuals: they would likely be less vulnerable to the disinhibiting effects of power. Power may even enhance their introverted tendencies.

A similar logic applies to culture. We would expect cultures defined by high

power distance (i.e., those cultures who endorse power differences) to facilitate disinhibition in the powerful, as well as inhibition in the powerless (H31). Low power distance, in contrast, should moderate these effects by placing constraints upon the behavior of high power individuals and introducing incentives for low power individuals to challenge power-related expectations. For example, when power distance is low and social mobility is high, low power individuals might be more likely to challenge the existing power structure by modeling high power behavior (e.g., Kipnis, 1972).

Summary, Limitations and Extensions

We have presented arguments and evidence that indicate high and low power individuals inhabit and, through their own actions, create strikingly different worlds. People feeling powerful experience approach-related moods and emotions, are more attentive to social rewards and to those features of others that satisfy their own goals and needs, and they cognize their social environment in more automatic fashion. They also act in a more disinhibited and at times counternormative fashion. People feeling powerless are more likely to feel negative moods and emotions, to attend to punishment and threat, to make more careful, controlled judgments about others' intentions, attitudes, and actions, and to inhibit their own behaviors and act contingently upon others.

Throughout this review we have taken pains to point out the various gaps and limitations of the evidence with regards to each specific proposition. This body of evidence suffers from more general problems. First, we have relied extensively on studies of proxies of power, most notably gender, ethnicity, and SES, and minority or

majority status of group. There is ample conceptual argument to claim that these variables determine different levels of power. Nevertheless, it will be important for future research to directly assess power-related differences associated with these and other variables.

The reliance upon college student samples is also potentially problematic. Although status and power are quite salient to college students (Anderson et al., 2000; Winter, 1974), university life and its prevailing egalitarian ethos are likely to level the effects of power. Studies that give power to college students may amplify the disinhibiting effects of power because of the participants' relative lack of experience in this domain.

In most of the studies that we have reviewed, researchers have isolated select determinants of power (e.g., resource control), holding constant other potential determinants (e.g., expertise), or they have ensured that determinants (e.g., expertise, reward control) are consistent. The real world is often more complex, and, as always, more interesting. There are leaders in low status groups and subordinates in powerful groups. Some enjoy the ability to provide abundant informal resources to others (e.g., humor, pleasure) but have little in the way of material resources. We have had little to say about how the determinants of power combine, how they conflict, and what consequences ensue (see Blunt Bugental et al., 1989; Bugental & Lewis, 1999). This cluster of questions may be the most pressing issue in the study of power.

We have also been relatively silent with respect to potential mediators of the links

between power and various outcomes. The simple effects of power upon affect, cognition, and behavior point to several interesting mediating links that warrant attention. Power-related moods and emotions, such as happiness or anger, are known to lead to different kinds of social cognition (e.g., Lerner & Keltner, 2000), and may in part account, for example, for why powerful individuals are more prone to judge others in relatively unsystematic fashion. The tendency for high power individuals to misperceive others' intentions and attitudes may account for their increased tendencies to be aggressive and sexually forward (see Kipnis, 1976). People may judge high power individuals more accurately because high power individuals behave according to motives and dispositions, and therefore provide more reliable cues of their attitudes, emotions, and personalities (see Henley & La France, 1984; Snodgrass et al., 1998). High power individuals may be more likely to stereotype others or view their social worlds in more homogeneous fashion because those others inhibit the expression of their actual attitudes (see Kelley & Stahelski, 1970, for comparable analysis of highly competitive people). These and other observations highlight the promise of exploring the different routes by which power influences affect, cognition, and behavior.

Conclusion: Power as the interface between macro- and micro- levels of anlaysis

In this paper, we began with a simple question: How does power influence affect, cognition, and behavior? Drawing upon what is known about the underpinnings and consequences of behavioral approach and inhibition, we have reviewed a series of hypotheses and relevant evidence that specify how high and low power individuals

behave in strikingly different ways. Perhaps what is most promising about power as an object of study is its interface between macro and micro processes. Students of social structure, institutions, class, ethnicity and race, and groups have long viewed power as an organizing force. So have students of cardiovascular response, neuroendocrinology, and neurotransmitters. We hope that the theory that we have offered here acts as an interface for scholars working on the more macro and micro levels of human social life.

For example, several more macro variables have been linked to important physiological outcomes. Certain diseases become increasingly less likely as one rises in SES (Adler et al., 1994), just as certain mental health problems, such as anxiety disorders, rise in prevalence amongst individuals in certain minority groups and women (see also our citations under Proposition 2). We would suggest that the effects of power upon affect, social cognition, and behavior may in part account for how these macro variables impinge upon health-related outcomes. Even if one were to control for the privations of low power individuals, we believe these factors would exert unfortunate influences upon health and well-being of those individuals unfortunate not to experience power in their daily lives.

Complementarily, social psychology is witnessing an emergent interest in brain structure and process (e.g., refs). The challenge for that line of inquiry will be to link physiological processes to conceptualizations of the social context – long the strong suit of social psychology. Again, power is a variable that can accomplish this task, for we have shown that the power that derives from social environment, group membership, and

social status, influences the inner workings of the mind and body.

The study of power is rising in prominence in psychology (perhaps not so ironically, often due to the thinking of people from traditionally low status groups -- women and ethnic minorities). Power is the nexus between the macro conditions and processes of social existence (e.g., culture, class, ideological and group identity) to the internal processes of the individual. It is hard to imagine a domain of human behavior to which power it is not relevant. Understanding how power shapes situations, groups, and cultures, ultimately rests on a formulation of how power, and powerlessness, shape the psychology of the individual.

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Footnotes

Footnote 1: Individuals' power varies according to the importance of these rewards and punishments to others. For example, an individual's capacity to provide money increases her power only if others want or need money.

Footnote 2. Addressing theoretical tensions and ambiguities in Gray's model is beyond the ken of this paper. For example, Gray's systems are conceptual in nature; they are organized by psychological constructs that will certainly be subject to theoretical revision. Understanding about the biological correlates of these systems is likely to be refined and revised by future research. Any one behavior (e.g., approaching a new acquaintance), is the likely product of varying activity in Gray's systems, and other factors as well. For our concerns, the utility of Gray's theorizing is twofold. First, Gray's theory identifies processes (i.e., approach, inhibition) that are likely to be influenced by the myriad determinants of power, and therefore is more general in its explanatory scope than accounts that emphasize processes that are more closely linked to certain classes of variables (e.g., testosterone). Second, Gray's theory provides a basis for advancing cogent hypotheses related to a broad array of behaviors in the domains of affect, cognition, and behavior.

Footnote 3: It would be obvious, profound, and bordering on the tautological to demonstrate empirically that people in power live lives surrounded by more abundant rewards. Power is associated with more resources, and by implication, increased rewards. One interesting example is the work of Domhoff on the social lives of the "ruling class"

(Domhoff, 1998).

Footnote 4: Malamuth (1996) also discusses the hypothesis that men use sexual aggression to assert or maintain their greater power over women.

Author notes

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Table 1
Characteristics, Components, and Biological Markers of the Behavioral Approach and Inhibition Systems

	Approach	Inhibition
Evocative stimuli	Rewards	Punishment, uncertainty
Motivational-emotional state	Positive emotion, Affective aggression	Negative emotion, Anxiety
Cognitive process	Incentive cognition, flexible strategies	Vigilant inspection, Narrow Focus
Behavioral tendency	Approach goals	Interrupt behavior, Inhibit
CNS structures	Left frontal cortex, Mesolimbic, meso-corticol	Right frontal cortex, Septohippocampal system, Locus Ceruleus
Neuroendocrine	Dopamine	Norepinephrine Cortisol
ANS	Heart rate	Electrodermal
Related constructs	Extraversion, Impulsivity	Neuroticism, Shyness

Table 2
Predicted Relations Between Power and Affect

	High Power	Low Power
Mood	Positive, Irritable	Negative, Anxious, Depressive
Discrete emotion	Desire, Enthusiasm, Pride	Awe, Embarrassment, Fear Guilt, Gratitude, Shame
Emotional disorders	Mania	Anxiety, Depression

Table 3
Correlations Between Two Measures of Power and the Tendency to Experience Different Emotions

	Subjective power	Trait Dominance
Positive states		
Amusement	.38***	.24**
Desire	.14a	.15*
Enthusiasm	.26**	.29**
Happiness	.35***	.19**
Love	.24**	.19**
Negative States		
Anger	-.21**	.06
Anxiety	-.19**	-.13a
Embarrassment	-.22**	-.25**
Fear	-.22**	-.20**
Guilt	-.22**	-.26**
Sadness	-.25**	-.22**
Shame	-.23**	-.24**

Note: *** = p < .001, ** = p < .01, * = p <. 05, a = p < .10.

Table 4
Influence of Power upon Facial Expressions of Emotion during Teasing Interactions

	High Power (HP)		Low Power (LP)	
	Teasing LP	Teased by LP	Teasing HP	Teased by HP
Duchenne smiles	83.3	95.8	56.5	95.8
Facial Anger	8.3	25.0	0.0	0.0
Facial Contempt	4.2	16.7	0.0	0.0
Facial Fear	0.0	0.0	16.7	8.3
Facial Pain	4.2	4.2	12.3	25.0

Note: Duchenne smiles involve the action of the *zygomatic* major muscle, which pulls the lip corners up, and the *orbicularis oculi* muscle surrounding the eye, and are closely tied to the experience of positive emotion.

Table 5
Reported Affect as a Function of Group Status

	Group Condition		
	Unanimous	Majority	Minority
Scale Item			
Good : Bad	4.05	3.90	4.50
Calm : Aroused	2.91	3.27	3.26
Pleased : Angry	4.47	4.73	5.35
Weak : Powerful	4.68	4.73	4.25
Liked : Disliked	4.30	4.25	5.13
Overall	4.08	4.19	4.51

Table 6
Predicted Differences in Patterns of Social Attention for High and Low Power Individuals.

	High Power	Low Power
Valence of stimuli	Rewards, Opportunities	Punishment, Threats
Attention to self and others	Others as Means to Own Ends	Self as Means to Others' Ends

Table 7
Predicted Patterns of Social Cognition of High and Low Power Individuals

	High Power	Low Power
Perception of Individuals	Stereotypes, Inaccurate inferences	Individuating information, Accurate inferences
Perception of Groups	Outgroup discrimination, Ingroup favoritism	Ingroup discrimination, Outgroup favoritism
Attribution		
Collective tasks	Self focus	Other focus
Others' actions	Dispositional	Situational

Table 8
Correlations Between Estimates of Roommates' Emotions and Self-Reports of Own Emotions 8 Months Later.

	Low Power Influenced by High Power	High Power Influenced by Low Power
Overall emotion	.91**	.26
Positive emotion	.86**	.49**
Amusement	.53**	.51**
Happiness	.84**	.52**
Pride	.92**	.43**
Negative emotion	.92**	.26
Anger	.78**	.26
Contempt	.59*	.33
Discomfort	.85**	.35
Disgust	.41	.12
Embarrassment	.49	.50
Fear	.63*	.30
Guilt	.55a	.17
Sadness	.33	.32
Shame	.33	.32
Sympathy	.76**	.29

Note: *** = p < .001, ** = p < .01, * = p <. 05, a = p < .10.

Table 9
Predicted Patterns of Behavior of High and Low Power Individuals

	High Power	Low Power
Content of Behavior	Approach-related	Inhibited
Determinants of Behavior	Internal States, traits	Context
Relation to Social Norms	Counternormative	Constrained by Norms

Table 10
Correlations Between Measures of Power and Approach and Inhibition

	Subjective Power	Trait Dominance
Behavioral Approach	.22**	.36***
Behavioral Inhibition	-.15a	-.26**
Prefer multiple sexual relationships	.23*	.25*
Aggressive Confrontations in last 2 years	.15*	.15*

Note: *** = p < .001, ** = p < .01, * = p <. 05, a = p < .10.

Figure Captions

Figure 1: Determinants and Consequences of Power

Figure 2: Influence of Ideological Power upon Accuracy of Social Judgment

Figure 3: Influence of Majority and Minority Status on the Complexity of Supreme Court Justices' Decisions

Figure 4: Influence of Power upon Content of Attributions

Figure 5: Influence of Power upon Disinhibited Flirtation

Figure 6: Influence of Power upon Fraternity Members' Teasing

Figure 7: Influence of Power upon Disinhibited Eating

Figure 8: Negative Emotion Moderates the Influence of Power upon Judgmental Accuracy

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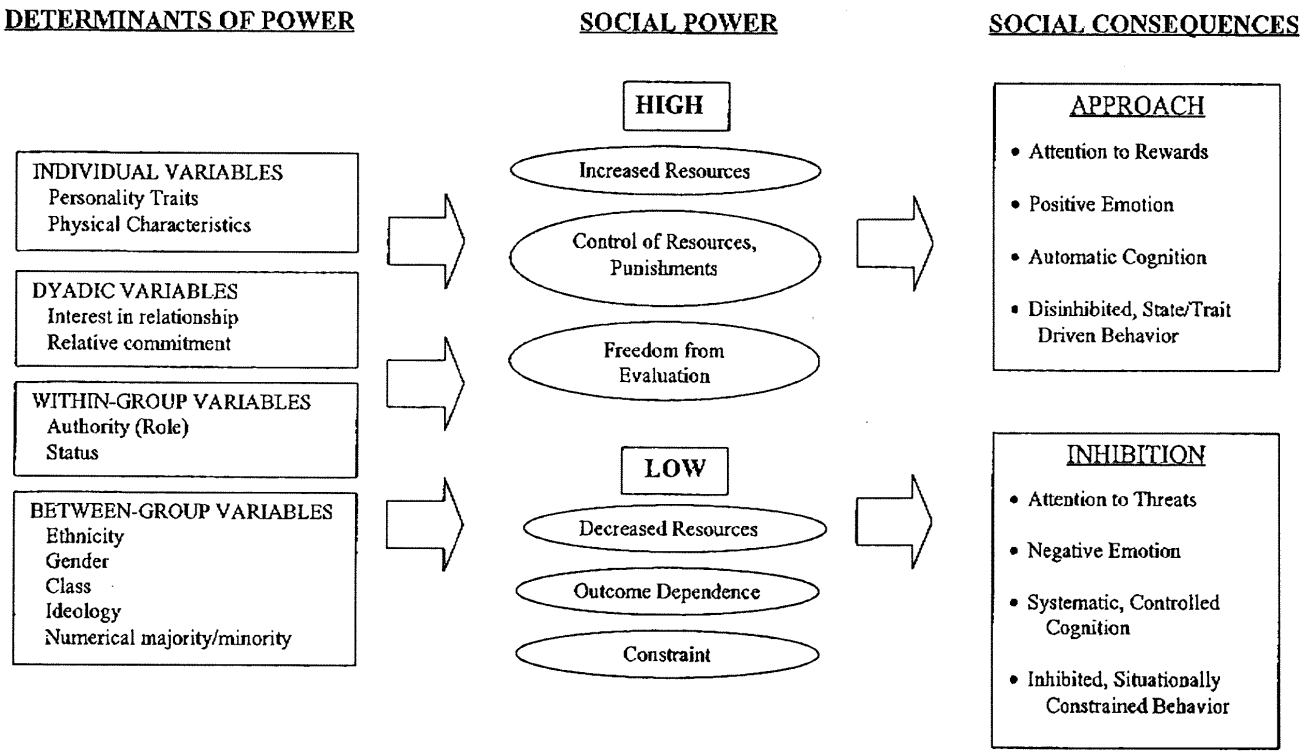
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Physical Characteristics
DYADIC VARIABLES
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Relative commitment
WITHIN-GROUP VARIABLES
Authority (Role)
Status
BETWEEN-GROUP VARIABLES
Ethnicity
Gender
Class
Ideology
Numerical majority/minority
HIGH
Increased Resources
Control of Resources, Punishments
Freedom from Evaluation
LOW
Decreased Resources
Outcome Dependence
Constraint
APPROACH
• Attention to Rewards
• Positive Emotion
• Automatic Cognition
• Disinhibited, State/Trait Driven Behavior
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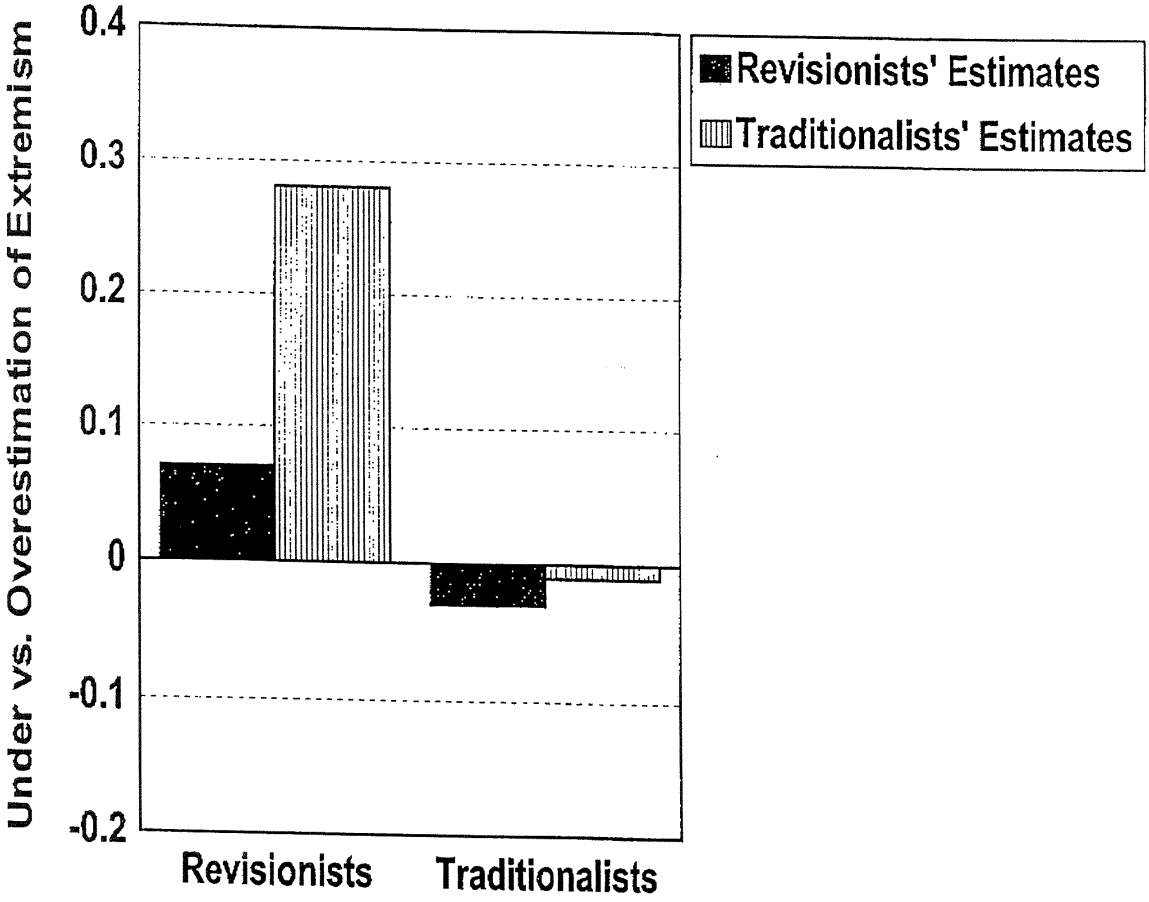
• Attention to Threats
• Negative Emotion
• Systematic, Controlled Cognition
• Inhibited, Situationally Constrained Behavior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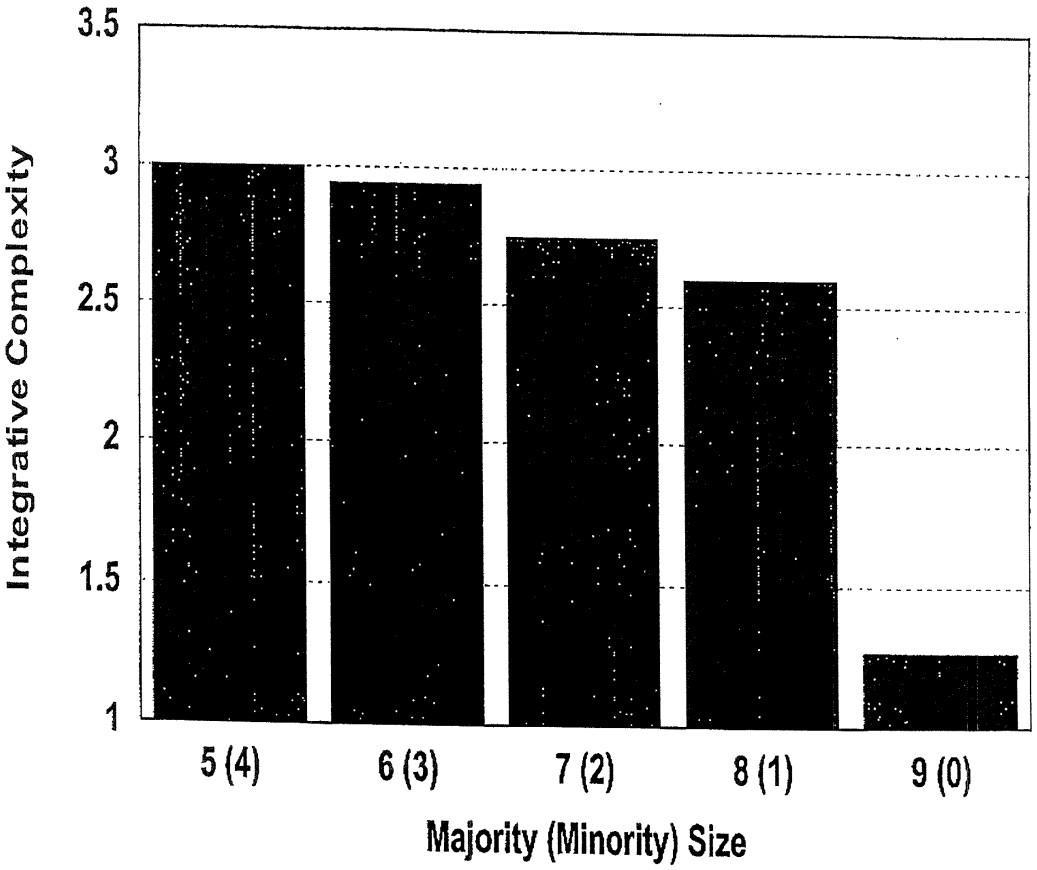
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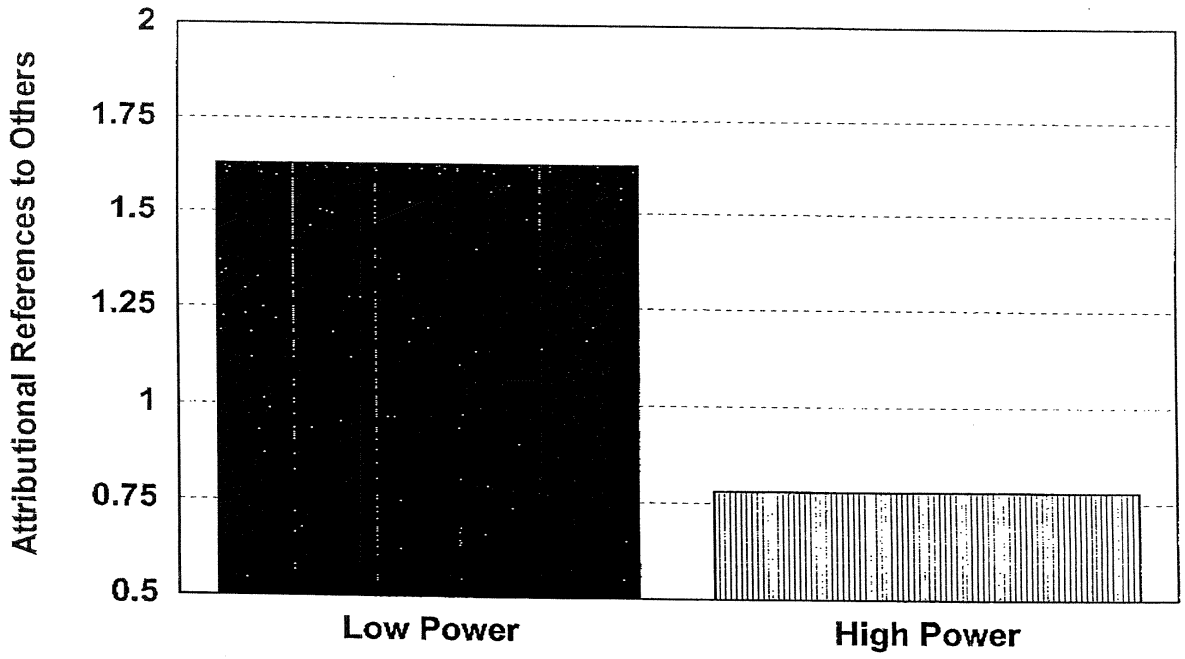
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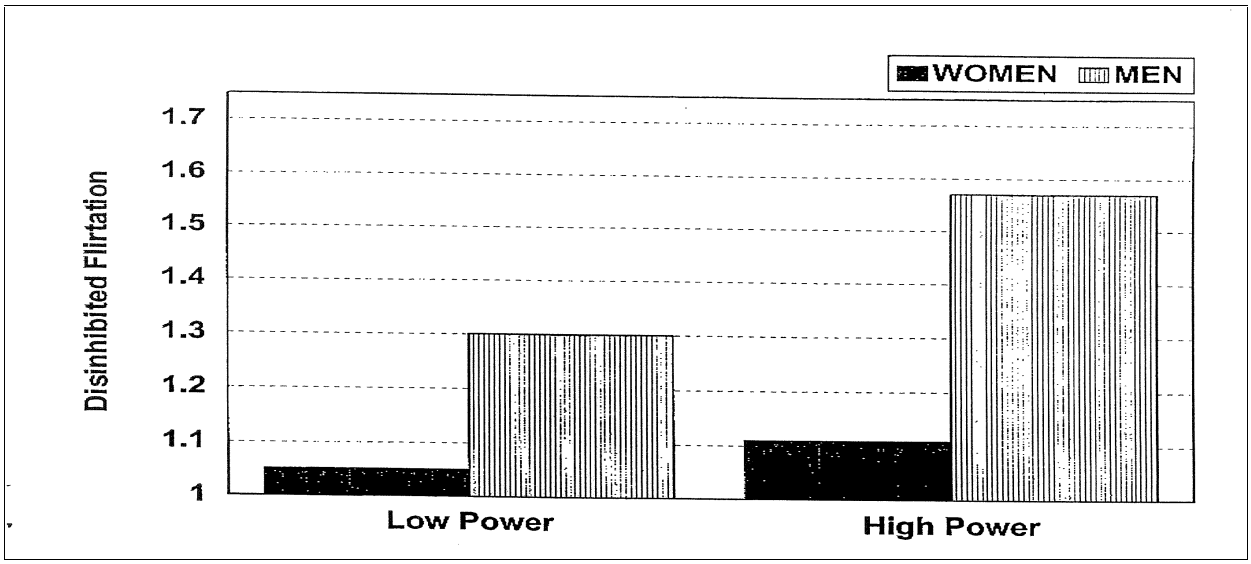
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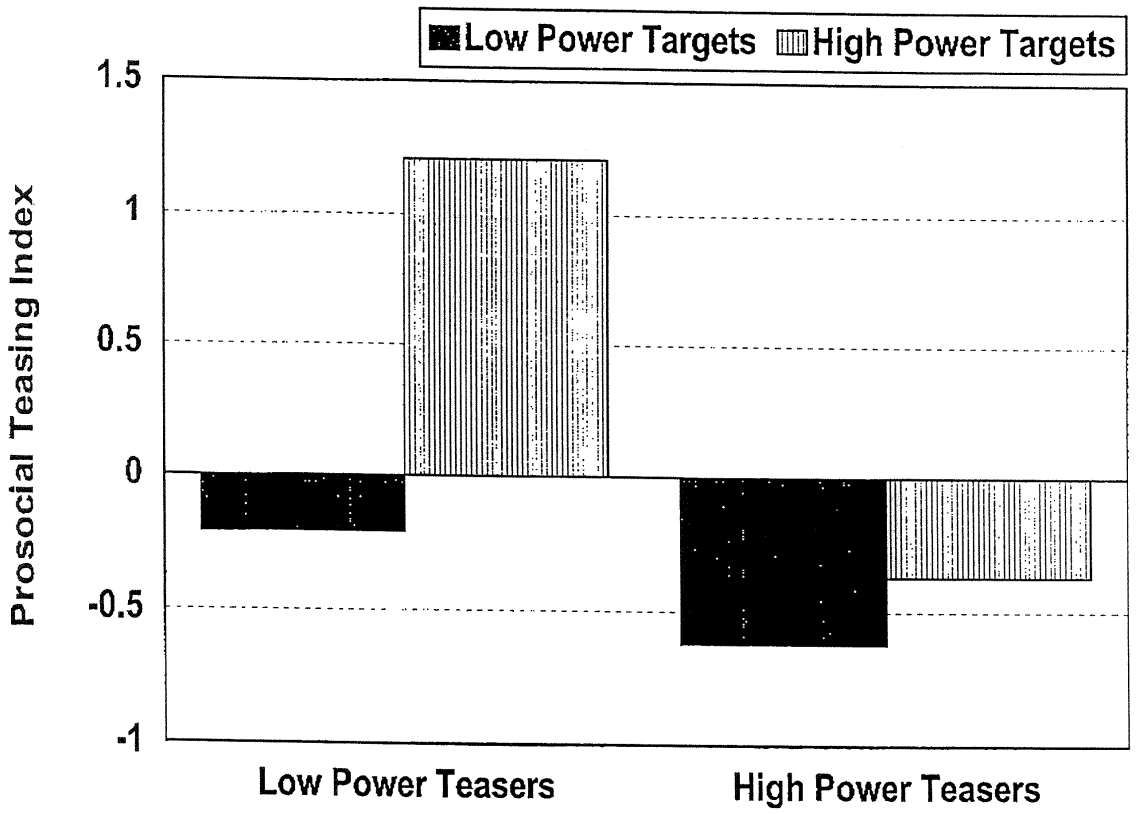
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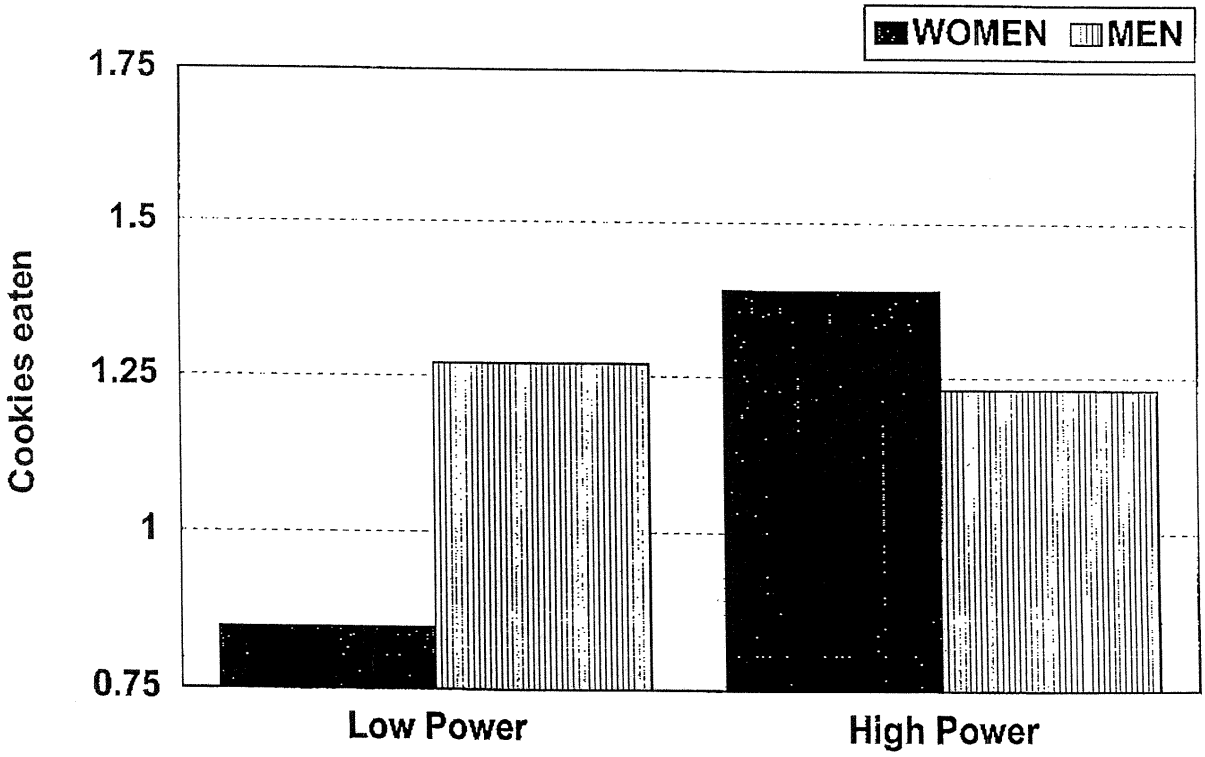
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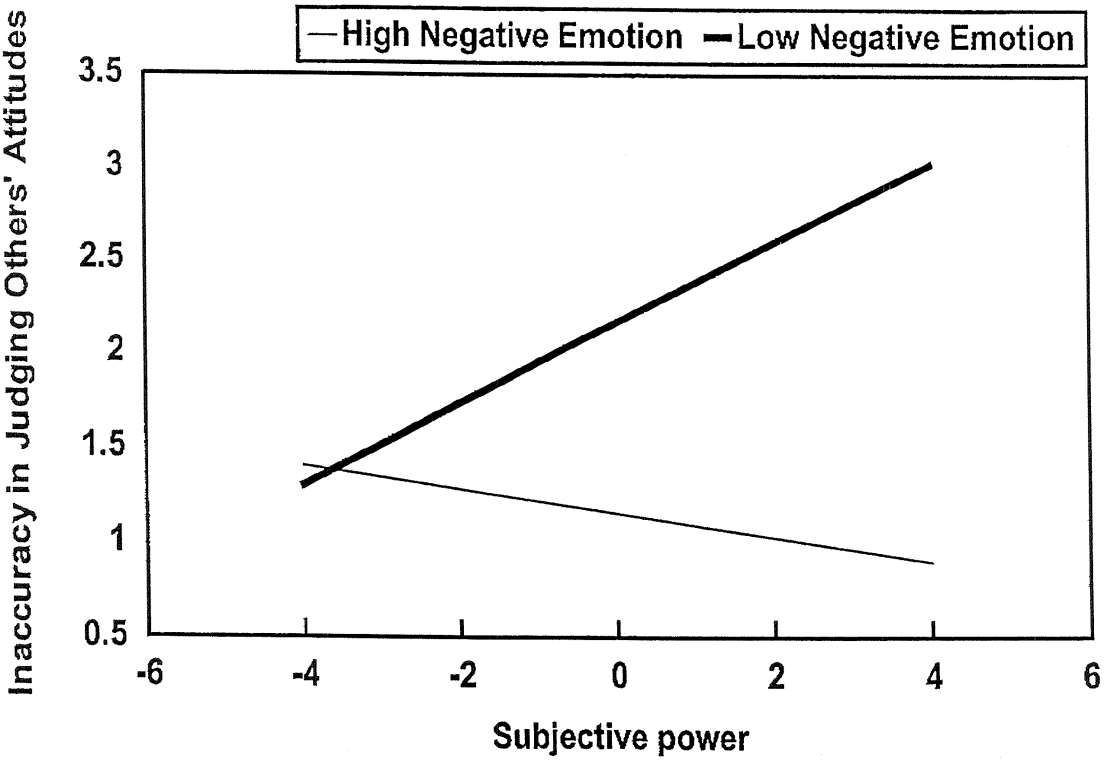
Low Power
High Power


High Negative Emotion
Low Negative Emotion
Inaccuracy in Judging Others' Attitudes
3.5
3
2.5
2
1.5
1
0.5
-6
-4
-2
0
2
4
6
Subjective power