Provided for non-commercial research and education use. Not for reproduction, distribution or commercial use.



This article appeared in a journal published by Elsevier. The attached copy is furnished to the author for internal non-commercial research and education use, including for instruction at the authors institution and sharing with colleagues.

Other uses, including reproduction and distribution, or selling or licensing copies, or posting to personal, institutional or third party websites are prohibited.

In most cases authors are permitted to post their version of the article (e.g. in Word or Tex form) to their personal website or institutional repository. Authors requiring further information regarding Elsevier's archiving and manuscript policies are encouraged to visit:

http://www.elsevier.com/copyright

# Author's personal copy

Journal of Experimental Social Psychology 47 (2011) 767-775



Contents lists available at ScienceDirect

# Journal of Experimental Social Psychology

journal homepage: www.elsevier.com/locate/jesp



# Resources versus respect: Social judgments based on targets' power and status positions

Alison R. Fragale <sup>a,\*</sup>, Jennifer R. Overbeck <sup>b</sup>, Margaret A. Neale <sup>c</sup>

- <sup>a</sup> University of North Carolina, CB #3490, Chapel Hill, NC 27599-3490, USA
- <sup>b</sup> University of Southern California, Los Angeles, CA 90089-0808, USA
- <sup>c</sup> Stanford University, Stanford, CA 94305-5015, USA

#### ARTICLE INFO

Article history: Received 13 July 2010 Revised 7 March 2011 Available online 11 March 2011

Keywords: Power Status Dominance Warmth Social judgment

#### ABSTRACT

In two experiments, we investigate how individuals' levels of power and status interact to determine how they are perceived by others. We find that power and status have similar, positive, effects on judged dominance. We also find that power has a negative effect on perceived warmth, but status moderates this "power penalty": high power without status is associated with low warmth, but power with status is judged warm. Consequently, we find high status individuals, regardless of power level, are perceived positively – dominant and warm – whereas high power–low status individuals are judged most negatively – dominant and cold (Experiments 1 and 2). As a result, perceivers expect positive interactions with high status individuals, but negative interactions with high power, low status individuals (Experiment 2). These findings provide insight into power and status social judgments, and further our understanding of similarities and differences between these distinct, yet related, constructs.

© 2011 Elsevier Inc. All rights reserved.

From the rise and fall of ancient empires to modern-day employees climbing the "corporate ladder," history, writ large and small, is replete with examples of individuals attempting to gain power and status. Attempts to gain social standing are so commonplace in every society, both past and present, that quests for power and status have been described as fundamental human motives (Frank, 1985; McClelland, 1975; Winter, 1973).

Although the desires for power and status may be nearly ubiquitous, their attainment is not. Social hierarchy, or the unequal distribution of power and status among individuals, is a defining feature of many task and social collectives (e.g., A. P. Fiske, 1991; Magee & Galinsky, 2008). In any given social hierarchy, there may be some individuals who possess both high power and status, and other individuals who possess neither. Yet, other distributions of power and status are also possible: In particular, individuals may have high status, but lack power, or possess high power without equivalent status. For example, a rabbi may have substantial status in his or her synagogue, but little power over the worshippers, whereas a Transportation Safety Administration (TSA) employee may have a great deal of power over airline passengers, but relatively low status in their eyes. It is social judgments of these individuals - those who possess equivalently high (or low) levels of power and status, and those who are high on one dimension but not the other - that are of particular interest in the present investigation.

E-mail addresses: afragale@unc.edu (A.R. Fragale), overbeck@marshall.usc.edu (J.R. Overbeck), neale\_margaret@gsb.stanford.edu (M.A. Neale).

Status versus power: Similarities and distinctions

The notion that power and status are theoretically distinct constructs has been proposed by many. Although these terms have not always been used consistently across researchers, a consensus is emerging as to how these constructs are defined and differentiated (Fiske & Berdahl, 2007; Magee & Galinsky, 2008; Overbeck, 2010; Sachdev & Bourhis, 1991). Consistent with prior work, we define *status* as the extent to which an individual is respected, admired, and highly regarded by others (e.g., Anderson, Srivastava, Beer, Spataro, & Chatman, 2006; Fragale, 2006; Tiedens, 2001). We define *power* as the extent to which an individual can control others' outcomes by granting or withholding valued resources. As with status, this definition is consistent with how other scholars have defined the power construct (Anderson & Berdahl, 2002; Galinsky, Gruenfeld, & Magee, 2003; Keltner, Gruenfeld, & Anderson, 2003; Yukl & Falbe, 1991).

These definitions highlight important similarities and differences between the two constructs. Power and status are similar in that they are both sources of potential influence over others (French & Raven, 1959): Individuals are more likely to comply with the wishes of those whom they highly regard or who control valued resources. Further, both power and status are commonly bestowed upon individuals who can make the most valued contributions to a group, reflecting processes of social exchange (Berger, Cohen, & Zelditch, 1972; Blau, 1964; Lenski, 1966; Van Vugt, Hogan, & Kaiser, 2008). Power and status are also both domain-specific: one can have high power (or status) in one group, and low power (or status) in another. For example, by controlling final grades, a professor may have high power

<sup>\*</sup> Corresponding author.

over his or her students, but this form of power would not extend to interactions with other faculty, as a professor can't give grades to his or her colleagues.

However, power and status differ in important ways, as well. First, although both power and status are both domain-specific forms of influence, power-based influence, by definition, may often be more limited in scope than influence deriving from status. Although some forms of status apply only to very limited domains (e.g., a car mechanic may have great status in your eyes only when your engine is smoking), other forms of status are much more diffuse (Frank, 1985) — they generalize to a large number of domains (e.g., the President of the U.S. may have high status almost anywhere he goes, except, perhaps, when meeting with leaders of the opposite political party). In contrast, if power is influence that derives from control over resources, as we define it, then a powerholder's influence only extends to those domains in which he or she controls the resources. Thus, in many cases influence deriving from one's power may be more limited in scope than influence deriving from one's status.

Second, the outcomes that power-holders and status-holders can bestow upon others differ. The resources that a power-holder controls are often tangible (e.g., a speeding ticket or a promotion), whereas status-holders have mainly intangible outcomes to give (e.g., liking, acceptance; Fiske & Berdahl, 2007). Third, the degree to which power and status are willingly bestowed to their bearers by their subordinates differs. Individuals do not always get to choose who controls valued resources, and thus who has power over them. Status, however, is granted voluntarily by others, because of the statusholder's desirable attributes and skills (Blau, 1964; Van Vugt et al., 2008). Thus, one can possess power in the face of public opposition, but one only holds as much status as others are willing to grant. Together, these differences imply that power is more tied to objective resource control, whereas status reflects subjective, consensual processes. Thus, power and status both affect the magnitude of one's influence, but differ in the source and breadth of the influence.

Despite frequent acknowledgement of these conceptual differences, little prior empirical work has attempted to study power and status as separate constructs. For example, a growing literature has explored intrapersonal consequences of power and status for the possessor - how power and status affect how individuals think, feel, and behave. Individuals' levels of power or status have been shown to affect the information they use to make judgments (Weick & Guinote, 2008), their tendencies for action (Galinsky et al., 2003), their susceptibility to influence (Galinsky, Magee, Gruenfeld, Whitson, & Liljenquist, 2008), their expressed emotions (Tiedens, Ellsworth, & Mesquita, 2000), and their tendencies to stereotype or individuate others (Fiske, 1993; Overbeck & Park, 2001), to name a few. However, these studies often treat power and status as if the distinctions between them do not matter. Scholars often use these terms interchangeably (e.g., Conway, Pizzamiglio, & Mount, 1996; Hall, Coats, & LeBeau, 2005; Smith, Jost, & Vijay, 2008), suggesting that they may simply be different terms for labeling a single construct. In other cases, researchers have conceptually distinguished power and status, but empirically focused on comparisons within one dimension, without measuring the other (e.g., Fragale, Rosen, Xu, & Merideth, 2009; Weick & Guinote, 2008), or have compared individuals who are high in both power and status to those who are low on both dimensions (e.g., Anderson & Berdahl, 2002; Galinsky et al., 2003). Thus, one implicit message from prior research is that what ultimately affects individuals is the amount of influence they possess, and power and status are simply different paths to the same end state.

Although prior research has advanced our understanding of the intrapersonal consequences of social hierarchies, little is known about how targets' levels of power and status interact to affect the outcomes they experience. Empirically separating power and status, and then examining how they interact, are important for two reasons. First, although power and status are often positively correlated – such that

groups often award power to those individuals whom they view as high status (or withhold power from those seen as low status) - this correlation is undoubtedly imperfect. Individuals may be highly regarded by others, but lack control of any tangible resources, such as a popular peer in a social group (Anderson, John, Keltner, & Kring, 2001). Alternatively, an individual may control valued resources, but lack respect from others, such as an employee controlling the fate of would-be drivers at the DMV. Because many individuals experience status without power, or power without status, it is important to understand power and status' distinct consequences. Second, empirically separating power and status can shed light on whether, or when, the conceptual differences between power and status matter. For example, if power and status were simply two different routes to influence, we would expect that high status-low power and low status-high power individuals should think, feel, behave, and be judged similarly, as both groups of individuals would be moderately influential due to possessing one source of influence, power or status, and lacking the other. However, if differences in the source of the influence are of practical importance, we would expect these two groups to experience very different outcomes, as power and status are quite different sources of influence. Thus, by examining the outcomes of those who possess (or lack) both power and status, and comparing their outcomes to those who possess more of one dimension than the other, we can develop a fuller understanding of the practical significance of the theoretical distinctions between these constructs.

Our research begins to address these fundamental gaps. We complement past research on intrapersonal consequences of power and status by examining how targets' power and status positions interact to influence an important *interpersonal* consequence — observers' social judgments.

# Effects of power and status on perceived dominance and warmth

Understanding social judgments - the characteristics that perceivers attribute to a target – is important, as they have the power to shape social interactions and relationships by affecting how the targets will be treated by others (Cuddy, Fiske, & Glick, 2007), and the targets' reciprocal responses (Snyder, Tanke, & Berscheid, 1977). For example, a judgment that TSA agents are forceful and rude may cause a passenger to approach airport security anticipating frustration and mistreatment. Passengers may then interpret an agent's ambiguous or innocuous behavior, such as a request for identification, as malevolent ("He ripped it out of my hand!"). A passenger may even act negatively in anticipation (e.g., glaring eyes and curt responses), potentially prompting a reciprocal response from the agent (e.g., a thrown bag and an invasive search). Likewise, a belief that a rabbi is kind and moral may lead perceivers to make benevolent attributions for the rabbi's behavior, or even act in ways that bring about "self-fulfilling" kind and moral behavior from the rabbi.

We focus on the two fundamental dimensions of social judgment, dominance and warmth (Abele, Cuddy, Judd, & Yzerbyt, 2008; Abele & Wojciszke, 2007; Wiggins, 1979). Dominance refers to one's abilities and desire to advance interests of the *self*, encompassing characteristics like ambition and forcefulness. Warmth refers to one's intentions toward, and relationships with, others, encompassing characteristics like cooperativeness and respectfulness. Judgments of warmth also capture the extent to which an individual is "liked" or "disliked," following the logic that individuals generally like those who benefit them (Wojciszke, Abele, & Baryla, 2009).

# Dominance

First, we suggest that power and status both positively predict perceived target dominance. As mentioned above, both resource control (power) and respect and regard (status) are sources of potential influence over others (French & Raven, 1959). Prior research

suggests a reciprocal relationship between influence and dominance displays. Individuals high in trait dominance (Anderson & Kilduff, 2009), or who express dominant behaviors, such as speaking assertively and frequently (Bales, 1950), gain more influence in groups than their submissive counterparts. Conversely, individuals who have the potential for influence often realize this potential by behaving more assertively and dominantly in their interactions. For example, powerful negotiators act dominantly toward their counterparts by making more extreme, self-interested, offers and conceding less than low power negotiators (Morris, Larrick, & Su, 1999). This frequently observed covariance between influence and dominance suggests that individuals who possess potential influence will be judged dominant, regardless of whether that influence derives from their power or their status: Individuals who possess high power, status, or both, should be perceived as more dominant than individuals who lack both power and status (Hypothesis 1).

#### Warmth

We suggest that perceptions of warmth will not only be affected by an individual's level of influence, but also the specific source of this influence. We predict that low power will be associated with perceptions of high warmth, and high power associated with low warmth, but only when the power-holder lacks status.

Individuals like autonomy, control, and choice, and they dislike having these liberties constrained (Leotti, Iyengar, & Ochsner, 2010). When an individual can reward or punish others by granting or withholding resources (i.e., exercising power), this restricts the target's autonomy and free choice — the target feels obligated to comply with the wishes of the power-holder, or risks incurring a punishment or forgoing a reward. A dislike of being "controlled" may spill over to dislike of the person doing the controlling (the power-holder).

Past studies have found that subordinates are less satisfied with their relationships with supervisors when their supervisor exerts power over them (e.g., Bachman, 1968; Bachman, Smith, & Slesinger, 1966; Bruins, Ellemers, & De Gilder, 1999). Furthermore, power possession and use have been linked to cold characteristics. Bruins et al. (1999) found that subordinates saw supervisors as less cooperative and likeable when the supervisor used power over the target. Similarly, Ng (1980) found that targets described as having a strong desire for power were perceived to be highly self-centered and ruthless. Extending the logic of these findings about power use to our present investigation leads us to suggest that, on average, individuals who possess high power, and thus have the ability to constrain free choice, will be judged cold. In contrast, low power individuals should be judged warm — they are no threat to one's desire for control and autonomy, so there is no need to dislike them. In fact, because low power individuals are likely to submit to the wishes of others, they may even bolster observers' feelings of control, furthering the positive perceptions of these low ranking individuals (Hypothesis 2).

Although status is also a source of potential influence over others, we suggest that status-based influence will not engender the same negative reaction as power-based influence. As with power, individuals will often comply with the wishes of the status-holder. However, because status, by definition, must be granted willingly to others, an individual can only have status if a target allows it to be so. Thus, compliance with the wishes of a status-holder is unlikely to be perceived as constraining autonomy and free choice — the target "chooses" to whom to confer status, and consequently gets to choose whether this person has influence.

Rather, we propose that status will moderate the above-mentioned warmth consequences of possessing *high* power. Specifically, we suggest that power may be associated with *positive* attributions of warmth, not negative, when it is accompanied by high status. Functional theories of status conferral (e.g., Van Vugt et al., 2008;

Berger, Conner, & Fisek, 1974) suggest that status is willingly awarded to those group members who will contribute most to the group's success and functioning. Thus, status is a signal that other group members view the status-holder as possessing superior skills and abilities, and believe that the status-holder will use these talents to benefit the group. Although subordinates may generally value autonomy, they may be content with relinquishing control to a person who is perceived to have greater task expertise and knowledge, as well as a desire to help the group. Consistent with this argument, Bruins et al. (1999) found that not only did subordinates tolerate power use from a highly competent superior, but they also actually desired it. Subordinates reported lesser intention to "take over" the superior's position, and exerted more effort on the task when a highly competent superior did use power, in comparison to competent superiors who refrained from displaying power. Given a substantial literature arguing that status is often granted on the basis of a target's perceived competence (Berger et al., 1972; Berger et al., 1974; Fragale, 2006; Ridgeway, 1987; Tiedens, 2001), one way of interpreting these findings is that individuals tolerate, and even value, displays of power from high status actors. We extend this logic to predict that observers will like and appreciate (i.e., judge warm) high status power-holders (Hypothesis 3).

In contrast, following our abovementioned reasoning, powerholders who lack status should be judged cold. These power-holders constrain the autonomy of their subordinates, but they do not possess any superior attributes to justify their possession of power, nor to signal that it will be used to benefit others (i.e., high status). Consistent with this argument, Bruins et al. (1999) also found that subordinates perceived the use of power by a superior as particularly unjust and illegitimate when the power-holder was less competent than the subordinate at the task at hand. We build on these findings to suggest that merely possessing potential power without high status, even if the power has not been used, will be disliked by perceivers. Thus, we predict that high power-low status targets will be perceived as cold, and will be seen as significantly less warm than targets who possess any other power-status combination (Hypothesis 4).

These predictions may reconcile past findings exploring dominance and warmth judgments resulting from target power and status positions. Consistent with our prediction, both Conway et al. (1996) and Russell and Fiske (2008) found that target status was positively associated with judgments of target dominance. However, these studies found conflicting results regarding target warmth. Whereas Conway et al. (1996) found that status was negatively associated with perceptions of target warmth, Russell and Fiske (2008) found no relationship between target status and warmth. However, these studies did not measure inferences of target power resulting from their manipulations, and, at least in some cases, the manipulations did result in differences in resource control (i.e., power) across conditions. In line with our arguments, these inconsistencies across studies on the warmth dimension may have been driven by unexamined interactions of the targets' power and status levels.

#### Social judgments of the four power-status combinations

Putting the above rationales together allows us to make specific predictions about the dominance and warmth judgments of targets with specific combinations of power and status. Although levels of power and status undoubtedly vary on a continuum, for clarity we discuss predictions in terms of four discrete power–status combinations, in which both power and status can be classified as either high or low.

<sup>&</sup>lt;sup>1</sup> Related research has explored the perceived legitimacy of power positions on *intrapersonal* consequences — how legitimacy moderates the thoughts, feelings and actions of the powerful (or powerless) (e.g., Lammers, Galinsky, Gordijn, & Otten, 2008; Lammers, Stapel, & Galinsky, 2010; Smith et al., 2008).

A.R. Fragale et al. / Journal of Experimental Social Psychology 47 (2011) 767-775

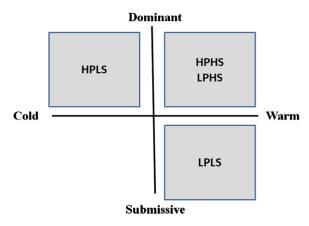


Fig. 1. Illustration of dominance and warmth predictions.

Low Power, Low Status (LPLS): LPLS individuals should be judged submissive, as they lack any source of influence over others. However, because they lack power and thus are not a threat to perceivers' desire for control and autonomy, they should also be judged warm (Hypothesis 5).

Low Power, High Status (LPHS): As a result of their status-based influence, LPHS individuals should be judged dominant. At the same time, LPHS individuals should also be judged warm, as they, too, lack power and consequently pose no threat to perceivers' autonomy (Hypothesis 6).

High Power, Low Status (HPLS): HPLS individuals should also be judged dominant, as they have influence deriving from their power. However, because their power constrains the freedom of others, and this power is not accompanied by consensual endorsement of authority or a belief that the power will be used for the benefit of the group (i.e., high status), HPLS individuals will be judged cold (Hypothesis 7).

High Power, High Status (HPHS): Possessing both power and status, HPHS individuals should also be judged as very influential and, hence, dominant. Like HPLS individuals, HPHS individuals have the potential to control the behaviors and outcomes of others, which is generally disliked. However, because this control is accompanied by status, which is a consensual recognition of one's value, expertise, and benefit to the group, HPHS individuals will be judged warm (Hypothesis 8).

These predictions are illustrated in Fig. 1. We represent dominance and warmth as vertical and horizontal axes, respectively, and denote the predicted quadrant for each of the four power–status combinations under investigation.

Dominance and warmth perceptions combine to affect the overall valence, positive or negative, of social judgments. Dominance is seen as more positive than submissiveness, and warmth is more positive than coldness (Tiedens & Jimenez, 2003). However, warmth more strongly affects overall judgment valence than dominance (cf. Wojciszke & Abele, 2008): That is, being "cold" is judged more negatively than being "warm," regardless of the level of perceived dominance.<sup>2</sup> Thus, our predictions suggest that high status individuals, with either high or low power, would be perceived most positively (dominant and warm), followed by individuals low in both power and status (submissive and warm). High power targets who

lack status will be perceived most negatively of all power–status combinations (dominant and cold).

In two experiments, we examine how targets' levels of power and status interact to influence perceivers' judgments of targets' dominance and warmth. We also explore one important consequence of these social judgments in Experiment 2 — behavioral expectations.

# **Experiment 1**

In Experiment 1, we examined social judgments of targets in occupations that differ in power and status.

#### **Participants**

One hundred undergraduate students (43% male) at a west-coast U.S. university participated for payment.

#### Pretest

A separate group of individuals (N = 375), drawn from the same population as Experiment 1 participants, rated the extent to which a person in each of 42 occupations would have resources to reward and punish others (power) and would be respected and admired by others (status). Participants also rated how much influence a person in the occupation would have over the thoughts and behaviors of others (all three items rated on 1 = None, 7 = A great deal scales). We used these pretest ratings to select three occupations in each power-status condition such that, for example, all six occupations in the low power conditions were rated similarly low in power, but differed in status ratings (low versus high). As may be seen in Table 1, occupations low in power or status had ratings of approximately 2-3 on the 7-point scales, whereas occupations high in power or status had ratings of approximately 5-6. The selected occupations were: secretary, waiter, payroll clerk (LPLS); emeritus professor, Olympic athlete, author (LPHS); bill collector, immigrations officer, bouncer (HPLS); and dean, vice-president of U.S., professor (HPHS).

## Design and procedure

Participants rated each of these 12 occupations on the extent to which individuals in the occupations were likely to possess eight dominance (assertive, forceful, self-assured, dominant, submissive (r), unassertive (r), timid (r), and self-doubting (r);  $\alpha$ s>.70) and eight warmth characteristics (cordial, respectful, cooperative, agreeable, impolite (r), disrespectful (r), uncooperative (r), and quarrelsome (r);  $\alpha$ s>.77) taken from Wiggins (1979).

**Table 1**Experiment 1: Pretest ratings of power, status and influence for 12 selected occupations.

Condition	Occupations	Status	Power	Influence
Low power, Low status	Secretary	2.55	2.85	2.80
	Waiter	2.20	3.21	2.70
	Payroll clerk	2.33	3.10	2.66
	Average	2.36	3.05	2.72
Low power, High status	Emeritus professor	5.57	3.18	4.81
	Olympic athlete	5.99	2.36	4.41
	Author	5.05	2.88	5.08
	Average	5.53	2.81	4.77
High power, Low status	Bill collector	2.11	4.10	3.35
	Immigrations off.	2.97	5.03	3.96
	Bouncer	2.83	4.81	3.55
	Average	2.64	4.65	3.62
High power, High status	Dean	5.32	5.19	5.03
	Vice-President U.S.	5.91	5.09	5.32
	Professor	5.63	5.26	5.52
	Average	5.62	5.18	5.29

<sup>&</sup>lt;sup>2</sup> We replicated this finding. We conducted a pretest (N=110) in which participants were given characteristics associated with one of the four quadrants in the dominance-warmth space (e.g., characteristics of high dominance and high warmth: assertive, dominant, cordial, respectful, etc.), and then rated six items about the positivity of their impression of a target described this way. As predicted, social judgments of high dominance, high warmth targets were most positive (M=5.24 on 7-point scale), followed by low dominance, high warmth targets (M=3.93), high dominance, low warmth targets (M=2.42), and low dominance, low warmth targets (M=1.81).

A.R. Fragale et al. / Journal of Experimental Social Psychology 47 (2011) 767-775

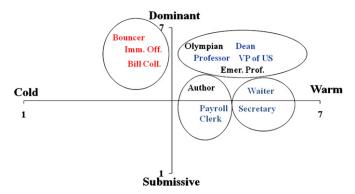


Fig. 2. Experiment 1: Occupation dominance and warmth ratings.

#### Results

#### Cluster analysis

As shown in Fig. 2, the pattern of occupation means is generally consistent with our predictions. All HPLS occupations fell in the dominant-cold quadrant, whereas all high status occupations, of both high and low power, fell within the dominant-warm quadrant. Two of the three LPLS occupations fell in the submissive-warm quadrant, with "waiter" being rated just above the midpoint on dominance.

We conducted a k-means cluster analysis to group occupations based on participants' dominance and warmth ratings (see Fig. 2). Based on the conceptual expectation that there should be four power-status clusters, we used k=4 as the seed for analysis (and verified this number empirically with a hierarchical cluster analysis, using the Ward's linkage method and squared Euclidean distance; Blashfield & Aldenderfer, 1988). Occupations within condition, although quite different in many respects, generally clustered together. Only one occupation, author, did not cluster as expected. Social judgments of authors were more similar to the low power, low status (LPLS) occupations than the other LPHS occupations. Removing author from the 12-occupation set resulted in a three cluster solution with all HPLS occupations in one cluster, all high status occupations (both high and low power) in another cluster, and all LPLS occupations in a third cluster.

#### Dominance and warmth

We averaged participants' occupation ratings (including author) within each condition and conducted 2 (Occupational Power: low versus high)  $\times$  2 (Occupational Status: low versus high) within-subject ANOVAs on dominance and warmth ratings (see Table 2 for all means and condition contrasts).

Both power, F(1, 99) = 852.67,  $\eta_p^2 = .896$ , and status, F(1, 99) = 99.04,  $\eta_p^2 = .500$ , ps < .001, positively predicted perceived dominance. A significant power–status interaction, F(1, 99) = 329.03,  $\eta_p^2 = .769$ , p < .001, also emerged. As may be seen in Table 2, simple comparisons between the four conditions revealed that members of occupations lacking both power and status (LPLS) were judged significantly less dominant than members of occupations with high power, status, or

**Table 2** Experiments 1 and 2: Dominance and warmth means by condition.

	Experiment 1		Experiment 2		
	Dominance	Warmth	Dominance	Warmth	
Low power, Low status	3.86 <sub>a</sub> (.58)	5.47 <sub>a</sub> (.57)	2.60 <sub>a</sub> (.86)	4.93 <sub>a</sub> (1.04)	
Low power, High status High power, Low status	5.06 <sub>b</sub> (.51) 6.02 <sub>c</sub> (.51)	4.90 <sub>b</sub> (.57) 3.38 <sub>c</sub> (.74)	4.27 <sub>b</sub> (1.03) 5.53 <sub>c</sub> (1.14)	6.10 <sub>b</sub> (.60) 3.45 <sub>c</sub> (1.29)	
High power, High status	$5.79_{d}$ (.58)	$5.34_a$ (.67)	6.12 <sub>d</sub> (.52)	5.76 <sub>b</sub> (.88)	

*Notes.* Standard deviations are in parentheses. Column means that do not share subscripts differ from each other at p<.05.

both. Thus, as hypothesized, participants were judged more dominant when they possessed some form of influence, either power or status, than when they did not.

Higher status predicted higher perceived warmth, F(1, 99) = 109.70,  $\eta_p^2 = .526$ , whereas higher power was negatively associated with perceived warmth, F(1, 99) = 347.36,  $\eta_p^2 = .778$ , ps < .001. A significant power–status interaction, F(1,99) = 743.81,  $\eta_p^2 = .883$ , p < .001, also emerged. Simple comparisons showed that, as predicted, members of HPLS occupations were judged less warm than any other condition (see Table 2).

To determine whether the four occupational groups were seen as "warm" or "cold," or "dominant" or "submissive," we compared dominance and warmth ratings to the scale midpoints (4) for each group. Both the HPHS and LPHS groups were judged dominant (significantly above 4, ts(99) > 20.59, ps < .001) and warm (ts(99) > 15.87, ps < .001). The LPLS group was judged marginally submissive (t(99) = -1.73, p = .087) and warm (t(99) = 25.39, p < .001). HPLS targets were perceived as dominant (t(99) = 39.68, p < .001) and cold (significantly below 4, t(99) = -8.33, p < .001).

#### Discussion

This overall pattern of results supports the predictions illustrated in Fig. 1. Members of high status occupations, of either high or low power, were judged dominant and warm, whereas members of low power–low status occupations were judged slightly submissive and very warm. Members of high power–low status occupations were judged dominant and cold, which is the most negatively-valenced judgment of the four power–status conditions (refer to footnote 2).

An advantage of Experiment 1 is that it examines the effects of power and status on social judgments in a naturally-occurring context, occupational categories. Of course, a disadvantage of this type of experimental design, high in external validity, is alternative explanations that pose a threat to internal validity. For one, participants in our experiment likely have had interactions with members of some of these occupational groups, and it is possible that their judgments were affected by these past experiences. In this vein, participants may have associated some of these occupations with particular genders, believing, for example, that a bouncer is more likely to be male and a secretary is more likely to be female. Thus, the social judgments we documented may also have been affected by gender stereotypes, in addition to power and status stereotypes.

Another alternative explanation derives from differences in the magnitude of influence across the four experimental conditions. As discussed in the introduction, both power and status are contextdependent, but power is likely to be, on average, more domainspecific than status. That is, because power is defined as resource control, one's power extends only to the domains in which one controls resources. In comparison, status, defined as respect and regard, may be more diffuse and may extend to a greater number of domains than one's power. Results from our pretest, presented in Table 1, are consistent with this logic. Pretest participants were asked about the magnitude of influence an individual in each occupation would have. Means indicated that participants perceived individuals in HPHS occupations to have the most influence, and those in LPLS occupations to have the least. However, individuals in occupations with power, but not status (HPLS) were viewed as less influential overall than individuals in occupations with status, but not power (LPHS). Thus, these findings are consistent with the argument that influence deriving from power may often be more limited in scope than influence deriving from status.

#### **Experiment 2**

Experiment 2 was designed to replicate and extend the results of Experiment 1, while addressing the above-mentioned limitations.

First, rather than relying on naturally-occurring occupational categories, we manipulated the power and status of a fictional individual. Second, we sought to eliminate any differences between the magnitude and scope of influence deriving from power versus status.

In Experiment 2, we also sought to extend our results by examining an important consequence of social judgments: expectations of target behavior. Social judgments often function to predict behavior, such that audiences expect targets to act in judgment-consistent ways. In addition to rating targets' dominance and warmth, participants wrote about what it would be like to interact with the target. We predicted that dominance and warmth judgments of a target would mediate expectations of the target's likely future behavior in an interpersonal encounter.

# **Participants**

One-hundred-fourteen undergraduate students (42% male) at a west-coast university participated for payment.

#### Design and procedure

We used a 2 (Target Power: low versus high)  $\times$  2 (Target Status: low versus high) between-subject design. Participants read a four-sentence description about an individual, "L," which manipulated L's power and status in an organization. To control the scope of influence deriving from power or status, both the power and status descriptions emphasized that L either did or did not have influence in one specific context, the organization. Participants read that L either did or did not control valued organizational resources (power manipulation) and was or was not highly respected and admired in the organization (status manipulation). The full text of the HPHS manipulation is below. Modifications for the other conditions appear in parentheses:

In "L's" organization, "L" holds a formal position that gives him/her a great deal of (very little) control over valued resources in the organization. Thus, L has (does not have) influence over others because of his/her access to resources in the organization. In addition (However), L is highly (not very) respected and admired by other members of the organization. As a result, L has (does not have) influence over others in the organization because these individuals value L's opinion.

To address the possibility that our power and status manipulations triggered assumptions about L's gender, we first asked participants to indicate whether L was male or female. There were no significant gender assumptions based on condition (e.g., participants did not assume that HPHS and LPLS were more likely to be male and female, respectively), thus we do not discuss this measure further.

Participants then rated L on the dominance and warmth ( $\alpha$ s = .96) characteristics used in Experiment 1. To determine whether power and status resulted in similar or different perceptions of overall influence for L, participants also indicated how much influence L had in the organization (1 = *None*; 7 = *A great deal*).

Finally, participants were asked to envision interacting with L and to write about what a typical interaction with L would be like.

# Results

Unless otherwise indicated, all results are based on 2 (Target Power: low versus high)  $\times$  2 (Target Status: low versus high) ANOVAs.

# Overall influence

We found main effects of both power, F(1, 110) = 140.16, p < .001,  $\eta_p^2 = .560$ , and status, F(1, 110) = 133.59, p < .001,  $\eta_p^2 = .548$ , on overall influence, as well as an interaction between them, F(1, 110) = 6.10, p = .015,  $\eta_p^2 = .052$ . Consistent with the pretest findings from

Experiment 1, L was perceived as most influential when possessing both power and status (HPHS:  $M\!=\!6.6$ ), and least influential when possessing neither ( $M\!=\!1.6$ ). However, in contrast to the prior study, there was no difference in the perceived magnitude of L's influence between the HPLS and LPHS conditions (both  $Ms\!=\!4.6$ ; t(110)<1). This suggests that, as we intended, power without status was judged to be as influential as status without power in this context.

#### Dominance and warmth

Both power, F(1, 110) = 192.10,  $\eta_p^2 = .636$ , and status, F(1, 110) = 42.68,  $\eta_p^2 = .280$ , ps < .001, positively predicted L's perceived dominance. A significant power-status interaction, F(1, 110) = 9.66,  $\eta_p^2 = .081$ , p = .002, also emerged. Consistent with Experiment 1, simple comparisons among the four conditions revealed that the LPLS target was judged significantly less dominant than any other target (see Table 2).

Power negatively, F(1, 110) = 24.84,  $\eta_p^2 = .184$ , and status positively, F(1, 110) = 90.40,  $\eta_p^2 = .451$ , ps < .001, predicted L's perceived warmth. As in Experiment 1, a power–status interaction also emerged, F(1, 110) = 9.75,  $\eta_p^2 = .081$ , p = .002. Simple comparisons showed that, as predicted, the HPLS target was judged less warm than any other target (see Table 2).

Again, we compared dominance and warmth ratings to the scale midpoints (4) for each group, and the pattern of results generally supported both our predictions (illustrated in Fig. 1) and the findings of Experiment 1. The HPHS target was judged dominant (significantly above 4, t(110) = 12.19, p < .001) and warm (t(110) = 9.53, p < .001). The LPHS target was neither highly dominant nor submissive (not significantly different from 4, t(110) = 1.59, p = .116), but was judged warm (t(110) = 11.78, p < .001). The LPLS group was judged submissive (t(110) = -8.03, p < .001) and warm (t(110) = 5.05, p < .001). HPLS targets were perceived as dominant (t(110) = 8.80, t < .001) and cold (significantly below 4, t(110) = -2.99, t < .003).

#### Interaction expectations

Approximately 96% of the participants (N=109) provided a response to the open-ended question about interacting with L. Among those who answered, responses ranged from 13 to 148 words, with an average response length of 54 words. Participants' responses generally focused on the positivity versus negativity of L's behavior toward the participant, and the participants' assessment of the overall interaction. Thus, two coders, blind to condition, rated four items designed to capture the "goodness" or "badness" of L's behavior: the extent to which the participant thought L was a) behaving coercively (reverse coded), b) being accommodating versus difficult, c) behaving appropriately or legitimately for the situation, and d) putting the participant's needs first. The coders also rated one item capturing the pleasantness or unpleasantness of the overall interaction. All items were rated on 5-point scales, with higher values reflecting more positive assessments. The coders' ratings were averaged for each item (ICC(2)s > .73, ps < .001), and then the five item ratings were averaged to form a composite rating of participants' expectations of the interaction ( $\alpha$ =.96).

Participants had more positive expectations of L's behavior and the overall interaction when L had low (M=4.00), versus high (M=3.11), power, F(1105)=28.73, and high (M=4.28), versus low (M=2.85), status, F(1105)=78.71, ps<.001. Importantly, these main effects were qualified by a significant interaction, F(1105)=5.52, p=.021. Simple contrasts revealed that all four conditions differed significantly from each other, ts(105)>2.14, ps<.035. As may be seen in Fig. 3, participants expected the most positive behavior and interaction experience from the LPHS target, followed by the HPHS target, then the LPLS target. The HPLS target was perceived most negatively of the four conditions. These results essentially mirror the overall valence of the social judgments associated with these conditions. That is, being dominant and warm is the most positively-valenced categorization in the dominance-warmth space

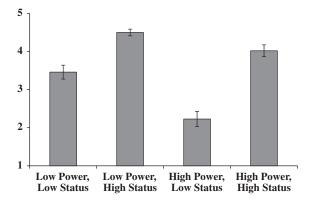


Fig. 3. Experiment 2: Positive interaction expectations. Note. Error bars indicate standard errors of the means.

(refer to footnote 2), and the two targets who were perceived this way, the HPHS and LPHS<sup>3</sup> targets, were expected to behave most positively in interactions. In contrast, being dominant and cold is a negatively-valenced social judgment, and as a result participants held negative expectations for interacting with HPLS targets.

We then formally assessed whether these behavioral expectations were mediated by judgments of the targets' dominance and warmth. We regressed interaction expectations on L's power and status, their interaction, and ratings of L's dominance and warmth. Dominance negatively (b = -.16, p = .045), and warmth positively (b = .42, p<.001) predicted positive expectations of L's behavior and the overall interaction, and the power-status interaction decreased below significance (b = .02, p = .768). To examine whether this decrease was statistically significant, we used bootstrap procedures to construct 95% bias-corrected confidence intervals based on 1000 random samples with replacement from the full sample (MacKinnon, Fairchild, & Fritz, 2007). The confidence intervals for the indirect effects excluded zero for dominance (.002, .116) and warmth (.044, .224). Thus, participants' expectations of the targets' behaviors in interpersonal interactions were mediated by judgments of the targets' dominance and warmth.

# Discussion

As in Experiment 1, the predictions illustrated in Fig. 1 were generally supported. Targets high in power and status were judged dominant and warm. Low power-high status targets were not seen as either highly dominant or submissive, but were also judged very warm. Targets lacking both power and status were judged submissive and warm, and high power targets who lacked status were judged dominant and cold — the most negatively-valenced judgment of all four targets. By replicating these results using manipulations of status and power that tightly correspond to the definitions of these constructs (Fiske & Berdahl, 2007; Magee & Galinsky, 2008), we complement the findings of Experiment 1, which relied on lay beliefs about the power and status inherent in various occupations, demonstrating the robustness of our results.

We also addressed an alternative explanation for the findings of Experiment 1 — namely, that our results may have been affected by the amount and breadth of influence associated with power versus status. In Experiment 1, high power–low status targets were judged less influential overall than low power–high status targets. However, this difference was eliminated in Experiment 2, and targets in both conditions were judged equally influential. The fact that a similar

pattern of results was obtained across both studies suggests that our findings cannot simply be attributed to differences in overall influence across conditions.

Further, we also explored a consequence of social judgments expectations of target behavior in future interactions. We found that social judgments of dominance and warmth mediated expectations of target behavior. Specifically, we found that expectations of target behavior mirrored the overall valence of the social judgments. Targets who were perceived positively, as dominant and warm, were expected to behave positively and benevolently, and participants expected interactions with these targets to be pleasant. Conversely, high power-low status targets, who were perceived negatively, as dominant and cold, engendered negative behavioral expectations these targets were expected to behave coercively and malevolently. These behavioral expectations are important, because they have the power to shape social interactions. Expecting to interact with an unpleasant and coercive target may cause an actor to enact strategies designed to combat this anticipated behavior, even before any such behavior is ever exhibited. Likewise, anticipating a benevolent and accommodating target is likely to engender reciprocal behavior from the actor, consequently shaping how the relationship unfolds. Thus, social judgments, and the behavioral inferences that result from them, are the first important step in determining the nature of interpersonal interactions.

Although the overall pattern of results is consistent across the two experiments, it is also worth noting the differences between studies. For dominance perceptions, the most notable difference is that low power targets, regardless of status level, were seen as more dominant in Experiment 1 than Experiment 2. This resulted in the low power-low status targets being judged as only marginally submissive in Experiment 1, but highly submissive in Experiment 2. Likewise, the low power-high status targets were judged dominant in Experiment 1, but less dominant (not different from the scale midpoint) in Experiment 2.

For warmth perceptions, the most significant difference across studies again concerned the low power conditions. In Experiment 1, the highest warmth ratings went to low power-low status targets, and the low power-high status targets were still viewed warm, but were the least warm of all three groups in the warm quadrant. In Experiment 2 this pattern reversed: the highest warmth ratings went to the low power-high status targets and the low power-low status targets were viewed as the least warm of all of the warm targets.

For both dominance and warmth judgments, we speculate that these differences may be driven by nature of our power and status manipulations across the two studies. For example, although our Experiment 1 occupations differed in power and status, they also may have differed on other things as well, such as gender stereotypes associated with the occupations, participants' experience with the occupations, and the tasks required by each occupation, to name a few. Experiment 2 used "cleaner" manipulations, but stripping power and status from their possible real-world covariates (e.g., influence, gender, and tasks) may have influenced the nature of participants' social judgments.

# General discussion

Power and status have been topics of longstanding interest in social psychology, and this interest has appeared to increase dramatically in recent years (e.g., Anderson & Berdahl, 2002; Fast & Chen, 2009; Fragale, 2006; Fragale et al., 2009; Galinsky et al., 2003, 2008; Overbeck & Park, 2001; Tiedens et al., 2000; Weick & Guinote, 2008). Despite the plethora of research in this domain, and the emerging recognition that power and status are different constructs (Fiske & Berdahl, 2007; Magee & Galinsky, 2008; Sachdev & Bourhis, 1991), notably few studies have attempted to empirically disentangle

<sup>&</sup>lt;sup>3</sup> As discussed above, the LPHS target was not judged significantly dominant, but was not categorized as submissive, either.

status and power, or to understand how they interact to affect the consequences that individuals experience.

In addressing these issues, our research makes several contributions. First, we provide greater insight into the consequences experienced by individuals who possess more power than status, or vice-versa. Power and status often covary in everyday life, but this covariance is not absolute. In many instances, as illustrated in Experiment 1, individuals may control resources without being respected by others; or be respected, but lack resource control. Thus, it is important to understand how such individuals are viewed by others, and our work is the first, to our knowledge, to demonstrate the social judgment consequences befalling high power–low status and low power–high status targets.

Second, our research speaks to the similarities and differences in consequences resulting from power and status positions. Although power and status have been acknowledged to have some conceptual distinctions, it was not clear that these distinctions had any effect on interpersonal and intrapersonal consequences. In fact, many prior studies have treated power and status as if the distinctions were of little practical importance, sometimes using these two terms interchangeably as labels for a single construct, or purporting to study one construct while actually manipulating both. Thus, a conclusion that could (erroneously) be drawn from past empirical approaches is that what ultimately drives intrapersonal and interpersonal behaviors is the amount of influence that individuals possess, and power and status are simply two different routes to the same destination. Here, we tested this notion empirically and demonstrated that target power and status were similar in their effects on perceived dominance, but different in their effects on perceived warmth: High power was, on average associated with lower warmth than low power, but status moderated this effect. Consequently, high status targets, of both high and low power, were generally viewed most positively, as dominant and warm. Targets lacking status and power were seen as submissive and warm, and high power-low status targets were seen as dominant and cold, the most negative social judgment observed.

The uniquely negative nature of the high power–low status social judgment implies that it may be interpersonally costly to possess power without status. Given that power and status have been described as fundamental human motives (Frank, 1985; Winter, 1973), individuals may often enact strategies designed to increase their power or status. However, individuals who succeed in acquiring resource control, but fail in garnering respect and admiration, may be penalized in the form of negative social judgments from others. In this sense, status may serve as a prerequisite for possessing power without social repercussions.

It is also important to note that lacking status was not socially punished in its own right — those targets who lacked both status and power in our experiments were viewed as submissive and warm, which is neither a highly positive nor negative social judgment (see footnote 2). It was only the lack of status coupled with the possession of power that resulted in a negative social judgment for targets. High power-low status targets differ from those who lack both power and status, in that the former individuals have the capacity to influence the behavior of others (through access to carrots and sticks). However, high power-low status targets also differ from those individuals who have status-based influence (with either high or low power) because high power-low status targets have only obvious, tangible outcomes to offer others for their compliance. Thus, high power-low status targets may feel, rightly, that others will not comply with their wishes voluntarily. Consequently, these targets may be constrained to attempt influence in ways that justify their public perception as dominant and cold. Consistent with this notion, Fast and Chen (2009) found that power-holders who felt incompetent (i.e., low status) were more likely to behave aggressively toward others, relative to individuals who felt powerful and competent or

those who lacked power. In contrast to high power–low status targets, targets with other power–status combinations may not face the same constraints on their influence repertoire, and, as a result, may not incur the same public sanctions.

It is also possible that the uniquely negative reaction to high power–low status targets is exacerbated by the expectation that power and status are, and perhaps should be, positively correlated in everyday life. In the present studies we did not include "control" conditions in which either power or status was manipulated, but not both. In study pretests, we found that participants assumed that power and status covaried (e.g., a target described only as high in status was perceived to be as powerful as a target explicitly described as high in both status and power). Although this made it difficult to include meaningful control conditions in our studies, this finding also suggests that high power–low status targets may be viewed as counter-normative, thereby exacerbating the negative public reaction they receive.

#### Conclusion

Social judgments are a cornerstone of social interaction. Our research not only provides evidence for how power and status interact to influence the social judgments of individuals, but also illuminates the similarities and differences between two constructs that are acknowledged to be related, yet conceptually distinct. Thus, our research provides greater insight into the social judgment consequences befalling individuals as a function of their power and status positions, and contributes to our theoretical understanding of the relationship between these two constructs.

# Acknowledgments

We are grateful to Lara Tiedens, as well as our editor and reviewers for helpful comments on this manuscript.

## References

Abele, A. E., Cuddy, A. J. C., Judd, C. M., & Yzerbyt, V. Y. (2008). Fundamental dimensions of social judgment. *European Journal of Social Psychology*, 38, 1063—1065.

Abele, A. E., & Wojciszke, B. (2007). Agency and communion from the perspective of self versus others. *Journal of Personality and Social Psychology*, 93, 751—763.

Anderson, C., & Berdahl, J. L. (2002). The experience of power: Examining the effects of power on approach and inhibition tendencies. *Journal of Personality and Social Psychology*, 83, 1362–1377.

Anderson, C., John, O. P., Keltner, D., & Kring, A. M. (2001). Who attains social status? Effects of personality and physical attractiveness in social groups. *Journal of Personality and Social Psychology*, 81, 116—132.

Anderson, C., & Kilduff, G. J. (2009). Why do dominant personalities attain influence in face-to-face groups? The competence-signaling effects of trait dominance. *Journal* of Personality and Social Psychology, 96, 491–503.

Anderson, C., Srivastava, S., Beer, J. S., Spataro, S. E., & Chatman, J. A. (2006). Knowing your place: Self-perceptions of status in face-to-face groups. *Journal of Personality* and Social Psychology, 91, 1094—1110.

Bachman, J. G. (1968). Faculty satisfaction and the dean's influence: An organizational study of twelve liberal arts colleges. *The Journal of Applied Psychology*, *52*, 55–61. Bachman, J. G., Smith, C. G., & Slesinger, J. A. (1966). Control, performance, and

Bachman, J. G., Smith, C. G., & Slesinger, J. A. (1966). Control, performance, and satisfaction: An analysis of structural and individual effects. *Journal of Personality* and Social Psychology, 4, 127—136.

Bales, R. F. (1950). Interaction process analysis: A method for the study of small groups. Chicago: University of Chicago Press.

Berger, J., Cohen, B. P., & Zelditch, M., Jr. (1972). Status characteristics and social interaction. *American Sociological Review*, 37, 241–255.

Berger, J., Conner, T. L., & Fisek, M. H. (1974). Expectation states theory: A theoretical research program. Cambridge, MA: Winthrop.

Blashfield, R. K., & Aldenderfer, M. S. (1988). The methods and problems of cluster analysis. In J. R. Nesselroade & R. B. Cattell (Eds.), *Handbook of multivariate* experimental psychology (pp. 447–474). New York: Plenum Press.

Blau, P. M. (1964). Exchange and power in social life. New Brunswick, NJ: Transaction Books.

<sup>&</sup>lt;sup>4</sup> A full description and results of the pretest are available from the first author, by request

- Bruins, J., Ellemers, N., & De Gilder, D. (1999). Power use and differential competence as determinants of subordinates' evaluative and behavioural responses in simulated organizations. European Journal of Social Psychology, 29, 843-870.
- Conway, M., Pizzamiglio, M. T., & Mount, L. (1996). Status, communality, and agency: Implications for stereotypes of gender and other groups. Journal of Personality and Social Psychology, 71, 25–38.
- Cuddy, A. J. C., Fiske, S. T., & Glick, P. (2007). The BIAS map: Behaviors from intergroup affect and stereotypes. *Journal of Personality and Social Psychology*, 94, 631–648. Fast, N. J., & Chen, S. (2009). When the boss feels inadequate: Power, incompetence, and
- aggression. Psychological Science, 20, 1406-1413.
- Fiske, A. P. (1991). Structures of social life: The four elementary forms of human relations. New York: Free Press.
- Fiske, S. T. (1993). Controlling other people: The impact of power on stereotyping. The American Psychologist, 48, 621–628.
  Fiske, S. T., & Berdahl, J. L. (2007). Social power. In E. T. Higgins & A. W. Kruglanski
- (Eds.), Social psychology: Handbook of basic principles (pp. 678-692). Oxford: Oxford University Press.
- Fragale, A. R. (2006). The power of powerless speech: The effects of speech style and task interdependence on status conferral. Organizational Behavior and Human Decision Processes, 101, 243-261.
- Fragale, A. R., Rosen, B., Xu, C., & Merideth, I. (2009). The higher they are, the harder they fall: The effects of wrongdoer status on observer punishment recommendations and intentionality attributions. Organizational Behavior and Human Decision Processes, 108, 53-65.
- Frank, R. H. (1985). Choosing the right pond: Human behavior and the quest for status. New York: Oxford University Press
- French, J. R. P., Jr., & Raven, B. (1959). The bases of social power. In D. Cartwright (Ed.), Studies in social power (pp. 150–167). Ann Arbor: University of Michigan Press.
- Galinsky, A. D., Gruenfeld, D. H., & Magee, J. C. (2003). From power to action. Journal of Personality and Social Psychology, 85, 453-466.
- Galinsky, A. D., Magee, J. C., Gruenfeld, D. H., Whitson, J., & Liljenquist, K. (2008). Power reduces the press of the situation: Implications for creativity, conformity, and
- dissonance. Journal of Personality and Social Psychology, 95, 1450—1466.
  Hall, J. A., Coats, E. J., & LeBeau, L. S. (2005). Nonverbal behavior and the vertical dimension of social relations: A meta-analysis. Psychological Bulletin, 131, 898-924.
- Keltner, D., Gruenfeld, D. H., & Anderson, C. (2003). Power, approach, and inhibition. Psychological Review, 110, 265-284.
- Lammers, J., Galinsky, A. D., Gordijn, E. H., & Otten, S. (2008). Illegitimacy moderates the effects of power on approach. Psychological Science, 19, 558-564.
- Lammers, J., Stapel, D. A., & Galinsky, A. D. (2010). Power increases hypocrisy:

  Moralizing in reasoning, immorality in behavior. *Psychological Science*, 21,
- Lenski, G. (1966). Power and privilege: A theory of social stratification. New York: McGraw-Hill.
- Leotti, L. A., Iyengar, S. S., & Ochsner, K. N. (2010). Born to choose: Biological bases for the need for control. *Trends in Cognitive Science*, 14(10), 457–463.
- MacKinnon, D. P., Fairchild, A. J., & Fritz, M. S. (2007). Mediation analysis. Annual Review of Psychology, 58, 593-614.

- Magee, J. C., & Galinsky, A. D. (2008). Social hierarchy: The self-reinforcing nature of power and status. Academy of Management Annals, 2, 351-398.
- McClelland, D. C. (1975). Power: The inner experience. Oxford, England: Irvington.
- Morris, M. W., Larrick, R., & Su, S. (1999). Misperceiving negotiation counterparts: When situationally determined bargaining behaviors are attributed to personality traits. Journal of Personality and Social Psychology, 77, 52-67.
- Ng, S. H. (1980). The social psychology of power. New York: Academic Press.
- Overbeck, J. R. (2010). Concepts and historical perspectives on power. In A. Guinote & T. K. Vescio (Eds.), The social psychology of power (pp. 19-45). New York: The Guilford
- Overbeck, J. R., & Park, B. (2001). When power does not corrupt: Superior individuation processes among powerful perceivers. Journal of Personality and Social Psychology, 80 549-565
- Ridgeway, C. L. (1987). Nonverbal behavior, dominance, and the basis of status in task groups, American Sociological Review, 52, 683-694.
- Russell, A. M. T., & Fiske, S. T. (2008). It's all relative: Competition and status drive interpersonal perception. European Journal of Social Psychology, 38, 1193-1201.
- Sachdev, I., & Bourhis, R. Y. (1991). Power and status differentials in minority and majority group relations. European Journal of Social Psychology, 21, 1-24.
- Smith, P. K., Jost, J. T., & Vijay, R. (2008). Legitimacy crisis? Behavioral approach and inhibition when power differences are left unexplained. Social Justice Research, 21, 358-376
- Snyder, M., Tanke, E. D., & Berscheid, E. (1977). Social perception and interpersonal behavior: On the self-fulfilling nature of social stereotypes. Journal of Experimental Social Psychology, 35, 656-666.
- Tiedens, L. Z. (2001). Anger and advancement versus sadness and subjugation: The effects of negative emotion expression on social status conferral. Journal of Personality and Social Psychology, 80, 86-94.
- Tiedens, L. Z., Ellsworth, P. C., & Mesquita, B. (2000). Stereotypes about sentiments and status: Emotional expectations for high- and low-status group members. Personality and Social Psychology Bulletin, 26, 560-574.
- Tiedens, L. Z., & Jimenez, M. C. (2003). Assimilation for affiliation and contrast for control: Complementary self-construals. Journal of Personality and Social Psychology, 85, 1049-1061.
- Van Vugt, M., Hogan, R., & Kaiser, R. B. (2008). Leadership, followership, and evolution: Some lessons from the past. The American Psychologist, 63, 182-196.
- Weick, M., & Guinote, A. (2008). When subjective experiences matter: Power increases reliance on ease of retrieval. Journal of Personality and Social Psychology, 94, 956-970.
- Wiggins, J. S. (1979). A psychological taxonomy of trait-descriptive terms: The interpersonal domain. Journal of Personality and Social Psychology, 37, 395-412.
- Winter, D. G. (1973). The power motive. New York: Free Press.
- Wojciszke, B., & Abele, A. E. (2008). The primacy of communion over agency and its reversals in evaluations. European Journal of Social Psychology, 38, 1139-1147.
- Wojciszke, B., Abele, A. E., & Baryla, W. (2009). Two dimensions of interpersonal attitudes: Liking depends on communion, respect depends on agency. European Journal of Social Psychology, 39, 973-990.
- Yukl, G., & Falbe, C. M. (1991). Importance of different power sources in downward and lateral relations. The Journal of Applied Psychology, 76, 416-423.