When, why, and how do powerholders "feel the power"? Examining the links between structural and psychological power and reviving the connection between power and responsibility

Leigh Plunkett Tost *

University of Michigan, Ross School of Business, 701 Tappan Street, Ann Arbor, MI 48109, United States

A R T I C L E   I N F O

A B S T R A C T

Recent research in social psychology has examined how psychological power affects organizational behaviors. Given that power in organizations is generally viewed as a structural construct, I examine the links between structural and psychological power and explore how their interrelationships affect organizational behavior. I argue that psychological power takes two forms: the (nonconscious) cognitive network for power and the conscious sense of power. Based on this view, I identify two causal pathways that link psychological power and structural power in predicting organizational behavior. First, the sense of power is likely to induce a sense of responsibility among (but not exclusively among) structural powerholders, which in turn leads structural powerholders to be more responsive to the views and needs of others. Second, the sense of power, when brought into conscious awareness, activates a non-conscious association between power and agentic behaviors, which in turn leads structural powerholders to enact agentic behaviors. I discuss the ways in which these predictions diverge from previous theorizing, and I address methodological challenges in examining the relationship between structural and psychological power. In doing so, I suggest that certain features of the predominant methodological approaches to studying psychological power may have induced a bias in the empirical findings that obscures the crucial link between power and responsibility.

© 2015 Elsevier Ltd. All rights reserved.

Will the CEO's strategy be implemented? Or will she be over-ruled by the board of directors? Will a manager succeed in placing a new initiative on the agenda for an upcoming meeting, or will his supervisor reject its consideration? Will an entrepreneur acquire needed venture capital? To whom will a team leader assign an onerous and unrewarding task? Which defense contractor will acquire the next Pentagon contract? None of these questions can be fully addressed without appeal to the concept of power.

Power motivates people (Russell, 1938), shapes social interaction (Weber, 1947), and drives valued outcomes. Power is such a fundamental component of social structure that Clegg, Courpasson, and Phillips, 2006 (p3) argued that "power is to the organization as oxygen is to breathing." Indeed, a vast range of empirical evidence demonstrates the importance of power in shaping organizational outcomes. Power shapes strategic choice among decision

* Tel.: +1 919 210 7581.
E-mail address: lptost@umich.edu

makers (Allison, 1971; Child, 1972; Eisenhardt & Bourgeois, 1988; Finkelstein, 1992; Hinings, Hickson, Pennings, & Schneck, 1974; Pettigrew, 1973) and drives organizational and strategic change (Miles & Cameron, 1982), and power disparities in teams play a significant role in enhancing or diminishing team performance (see Anderson & Brown, 2010 for a review). Moreover, the effects of power extend beyond practical concerns about organizational direction and performance: power has important implications for the moral dimensions of organizational life. Power enables the subjugation, domination, and manipulation of some just as it liberates, inspires, and energizes others (Cote et al., 2011; Gruenfeld, Inesi, Magee, & Galinsky, 2008; Fleming & Spicer, 2014).

It is therefore unsurprising that power has garnered scholarly attention at multiple levels of analysis. Power has been conceived of as an organizing force at the societal level (Marx, 1867/1972), the industry level (Borenstein, 1989), the organizational level (Courpasson, 2000; Friedkin, 1993; Pfeffer & Salancik, 1978; Weber, 1947), the intergroup level (Nadler, 2002; Sidanius & Pratto, 2001), the team-level (Anderson & Brown, 2010), the dyadic level (Molm, 1990; Molm, Quist, & Wisely, 1994), and the individual level (Keltner, Gruenfeld, & Anderson, 2003). As such, power is a nexus for multiple theoretical perspectives on social dynamics, a reality that has both advanced and hindered the illumination of its nature. The relevance of power as a construct across multiple levels of analysis has advanced our understanding of power because a broad range of perspectives have reminded theorists that power has many manifestations, roles, dimensions, and effects. But like the proverbial blind men who fail to discover the full nature of the elephant, differing definitions, theoretical foundations, methodological approaches, and target audiences have hampered the integration of these views on power.

As a case in point, the *Academy of Management Annals*, the Academy of Management's journal dedicated to reviewing and synthesizing management research, has published two articles on power—a primarily psychologically-oriented article in 2008 (Magee & Galinsky, 2008) and a more sociologically-oriented article six years later (Fleming & Spicer, 2014). The authors of both, who are all remarkably productive and influential scholars on the topic of power in organizations, were not cited at all in one another's reviews. This lack of integration is understandable given the vastness of the power literature, and neither paper specified cross-level or cross-subfield integration as a goal. But the lack of integration is also unfortunate, because such integration is necessary for the advancement of social scientific research on power (Sturm & Antonakis, 2015). One reason that this divide may be so entrenched is the lack of clarity regarding how differing views of the construct of power map onto one another.

To understand why this is so, some definitions may be helpful. *Power* refers to asymmetric control over valued resources, which in turn affords an individual the ability to control others' outcomes, experiences, or behaviors (Depret & Fiske, 1993; Emerson, 1962; Fiske, 2010; Magee & Galinsky, 2008; Keltner et al., 2003; Thibaut & Kelley, 1959). The primary approach to the study of power in

social psychology in recent years involves a focus on power as a psychological state. In particular, the focus has been on the sense of power. The term *sense of power* has, as I will explain, been used in multiple ways, but it refers generally to an individual's internal mental representations of their power in relation to others in their social environments (Anderson & Galinsky, 2006; Anderson, John, & Keltner, 2012). A person with a high sense of power in a particular situation construes the social relationships in question in a way that characterizes him or her as having a relatively high ability to control the outcomes, experiences, or behaviors of others.

Psychological manifestations of power have been demonstrated to affect an almost astonishing list of constructs that are relevant to the study of organizations. For example, psychological power affects numerous variables related to strategic decision making, including optimism (Anderson & Galinsky, 2006), overconfidence (Fast, Halevy, & Galinsky, 2012a), risk-taking (Anderson & Galinsky, 2006), temporal discounting (Joshi & Fast, 2014), loss aversion (Inesi, 2010); advice taking (See, Morrison, Rothman, & Soll, 2011; Tost, Gino, & Larrick, 2012), and advice giving (Schaerer et al., 2015). Psychological manifestations of power also impact a range of variables related to other aspects of organizational behavior, such as goal pursuit (e.g., Guinote, 2008; Slabu & Guinote, 2010), action-orientation (Galinsky, Gruenfeld, & Magee, 2003), verbal communication (Tost, Gino, & Larrick, 2013), emotional expression (Van Kleef, De Dreu, Pietroni, & Manstead, 2006), social evaluations (Gruenfeld et al., 2008; Kipnis, 1972), performance evaluations (Georgesen & Harris, 1998, 2000), perspective taking (Galinsky, Magee, Inesi, & Gruenfeld, 2006), fairness (Blader & Chen, 2012), prosocial behavior (Cote et al., 2011), and ethical decision making (DeCelles, DeRue, Margolis, & Ceranic, 2012), among others (for reviews, see Anderson & Brion, 2014; Magee & Galinsky, 2008).

It is an impressive list, but how are we to understand how these effects map onto the ways power is conceived in organizational research? In organizational studies, researchers have traditionally thought of power as a structural variable driven by the objectively demonstrable control of valued resources (e.g., Fligstein, 1987; Pfeffer & Salancik, 1978) and intimately tied to organizational politics, which involves the mobilization of power to realize desired goals and interests (Fleming & Spicer, 2014). Do these psychological forms of power map directly onto the more structural view? That is, is the sense of power reliably and accurately evoked when someone holds a position that affords structural power?

There are substantial reasons to doubt an affirmative answer to this question. From a conceptual standpoint, the sense of power has been viewed and studied as both a psychological state and as an individual trait, with evidence suggesting that people high on this trait are predisposed to feel an enhanced sense of power quite apart from their structural position (Anderson et al., 2012). Empirical evidence has also produced multiple findings in which structural power and the sense of power diverge (e.g., Bugental & Lewis, 1999; Tost & Johnson, 2015). For example, Bugental and Lewis (1999) review research

examining the feeling of powerlessness among people who are structurally powerful, and Tost and Johnson (2015) found in an experimental study that manipulations of structural and psychological power can produce different effects on behavior.

At the same time, researchers have pointed to articles that contain multiple studies in which structural power manipulations have produced the same results as manipulations targeted to evoke the sense of power (e.g., Magee & Galinsky, 2008; Magee & Smith, 2013; Smith & Galinsky, 2010), suggesting that a correspondence between structural power and the sense of power exists. Consequently, recent reviews summarizing the implications of the social psychological research on power for organizational research have either implicitly or explicitly relied on the assumption that the experience of holding structural power reliably induces the psychological sense of power. For example, Magee and Galinsky (2008) state: "The following review relies heavily on the assumption that the empirical evidence using [social psychological laboratory] methods reflects the way that power operates in organizations" (p. 368). The purpose of this paper is to investigate that assumption, and in doing so to attempt to initiate a renewed dialogue on power in organizations across levels of analysis.

I therefore have two primary aims. The first is to address construct clarity regarding the psychological manifestations of power, with particular attention to what is meant by the term *sense of power*. What does it mean for an individual to have a mental representation of their power? What is the nature and structure of such a representation? From where does it emerge? How is its content developed, and how does it function? Does its nature vary from person to person or culture to culture? The second aim of this paper is to articulate the circumstances under which the structural experience of power would be likely to evoke the sense of power, thereby producing the myriad outcomes identified in the social psychological literature. When is the sense of power made psychologically salient in organizational life? How do institutional pressures affect individuals' senses of power? My goal in addressing these questions is to uncover the best available answers from the extant literature and, where those answers are insufficient, to point the way for new research to ameliorate the insufficiency.

This paper is organized into two sections, reflecting the two aims of the paper. The first section defines power and associated constructs and then engages in an examination of the sense of power, reviewing previous definitions of the construct and advocating that it has been theorized and examined as two distinct constructs that should be separated and delineated. In particular, I argue that the sense of power has often been discussed or studied as the myriad cognitions, emotions, and dispositions associated with the concept of power *and* as the sense that one is powerful. I suggest, however, that these mental associations of power may best be viewed as a separate construct: the cognitive network of power. I argue that distinguishing between these constructs allows researchers to consider how the two relate to one another and therefore to further specify the multiple causal processes by which the effects

of these psychological manifestations of power emerge. Such an understanding is necessary, I argue, in order to theorize how psychological power and structural power relate.

The second section then endeavors to build a bridge between the psychological manifestations of power and the structural forms of power most commonly examined in organizational studies. I explain why a direct one-to-one mapping of psychological power to structural power is unlikely, and I provide a theoretical justification for expecting that structural power may at times function quite differently from the dynamics that have emerged with respect to psychological power. In doing so I identify numerous directions for future research. My hope is that this initial foray into linking psychological and structural power can provide a foundation for future work that can advance a multi-level perspective on the operation of organizational power.

1. Construct clarity: Power and its psychological manifestations

1.1. Defining power

Consistent with the multiplicity of levels of analysis from which power has been addressed, the extant literature also offers a considerable number of definitions of power. Thankfully, others have undertaken reviews of such definitions (e.g., Kim, Pinkley, & Fragale, 2005; Magee & Galinsky, 2008; Overbeck, 2010; Sturm & Antonakis, 2015), so I will not do so here. Instead, I adopt the definition that is most commonly used in the social psychological literature: power is asymmetric control over valued resources (Depret & Fiske, 1993; Fiske, 2010; Magee & Galinsky, 2008; Keltner et al., 2003; Thibaut & Kelley, 1959). My focus here is on social power, rather than personal power. Personal power is generally viewed more broadly as the ability to bring about one's intended effects (e.g., Russell, 1938). Social power, in contrast, involves the ability to elicit desired behaviors in others because one controls resources that others value.

I adopt this definition because it is consistent not only with the way power is most often studied within social psychological research, but also because it is consistent with the way power has most often been studied in organizations. For example, one of the most influential theories of organizational power is resource dependence theory (Pfeffer & Salancik, 1978), which holds that the power of an organizational unit is determined by the extent to which the unit controls resources that are valued by others. More broadly, sociological research has generally viewed power as intimately tied with notions of organizational control (e.g., Courpasson, 2000) and decision making control (e.g., Davis & Thompson, 1994).

My adopted definition does diverge from one approach that has been used in some previous organizational research: defining power as the capacity to influence others or enforce one's will (e.g., Cartwright, 1965; Finkelstein, 1992; French & Raven, 1959; Sturm & Antonakis, 2015). For example, Sturm and Antonakis (2015) advocate that social power in organizational studies

be defined as "having the discretion and the means to asymmetrically enforce one's will over others" (p. 139). I view the discretion and means to enforce one's will as a concomitant of asymmetric control over valued resources. That is, asymmetric control over valued resources necessarily affords one the discretion and the means to asymmetrically enforce one's will over others. If one has control over resources that others desire, then one's capacity to enforce one's will over those others is commensurate to both the completeness of that control and the extent of others' desire. The one (control of valued resources) begets the other (ability to enforce one's will).

This observation raises the question, of course, of whether the capacity to enforce one's will can emerge from sources other than resource control. I suggest that it cannot. The ability to socially influence others may emerge from a variety of sources, such as argumentative skill, interpersonal liking, and reciprocity (Cialdini, 2009). The ability to enforce one's desires even when others have not been persuaded to comply, however, is dependent on resource control. It is important to note, however, that, as Keltner et al. (2003) pointed out, the nature of the resources in question could vary considerably, from material resources (e.g., money, food, economic opportunity, professional security, physical safety, etc.) to social resources (e.g., information, expertise, affection, social approval, decision-making opportunities, etc.). It is difficult to conjure a situation in which one would have the discretion and means to enforce one's will without controlling one or more of these resources. This observation does not mean that those lacking structural power can never prevail over those who possess it; however, in order to prevail, the weak must engage political strategies that alter the balance of power (i.e., that alter the value and/or distribution of relevant resources; see, e.g., Arreguin-Toft, 2001; Scott, 2008).

One objection to this position may be an appeal to the construct of authority: authority is generally viewed as power that comes from the occupation of a role (Weber, 1947). However, if the role is stripped of resource control (i.e., it is a mere title), it is difficult to see how such a role could afford a meaningful capacity to enforce one's will over others (i.e., in the face of others' disinclination to go along).

Another objection may appeal to the construct of status. Among social psychologists, status is defined as respect, esteem, and high regard in the eyes of others (Blader & Chen, 2012; Magee & Galinsky, 2008). Sociologists take a similar view of the fundamental nature of status while also recognizing that an individual's (or group's) status can be rooted in personal characteristics (ascribed status) and/or perceived abilities and achievements (achieved status); sociologists further highlight that these multiple social markers indicating an individual's status may send mixed signals (i.e., one can have high status based on one marker and low status based on another; Berger, Norman, Balkwell, & Smith, 1992; Stryker & Macke, 1978). While status is a construct that is closely related to power, the two are distinct: power depends on the resources the focal individual controls, whereas status is rooted in what others think about the focal individual (Blader & Chen, 2012; Magee & Galinsky, 2008; Smith and Magee, 2015).

Could not status grant one the capacity to enforce one's will? Yes, but only when it allows one to control a resource that others desire. Suppose Pat and Sandy work on the same team. Pat is a high status member and issues a command to Sandy that Sandy does not wish to follow. Will Sandy comply? Possibly. Specifically, Sandy may comply if Sandy desires approval from other team members (because Pat's status affords Pat control over that approval). Alternatively, Sandy may follow the command if Sandy actively desires Pat's approval. In either case, Pat's status provides the capacity to enforce his or her will because it endows Pat with control over a resource that is valued by Sandy. If Sandy does not value either Pat's approval or the approval of the group, Sandy is unlikely to comply. In such a situation, Pat would have status but lack control over a desired resource and therefore would be unable to enforce his or her will.

There are also other strengths associated with viewing power as asymmetric control over valued resources. If we discuss power as resource control, we can explore the dimensions of power as defined by the resources controlled. For example, French and Raven's (1959) well-known typology of the "bases" of power takes that approach. One can imagine an updated typology involving dimensions such as financial resources, information, technology, loyalty, social opportunities, and/or other dimensions that account for advances in theorizing since French and Raven wrote their landmark paper. Such an endeavor is outside the scope of this paper, but scholarly understandings of power would surely benefit from its undertaking. As Overbeck (2010) explains in her extensive review of theorizing on power in social science, there is evidence that the nature of the resource that a powerholder controls may affect how others respond to that power, though empirical investigation into this issue is limited (see Overbeck, 2010, p. 23 for more on this).

Another strength of the view of power as resource control is that it empowers scholars to investigate how relative power functions. This is also an important, and under-studied (though see two notable exceptions: Kim & Fragale, 2005; Kim et al., 2005), area of investigation. As Overbeck (2010) laments, "Social psychology has often proceeded by exploring the effects of power as if it were absolute, not just relative; that is, we tend to identify what 'powerful people' do, feel, and think, as if there were no constraints or obligations on those people" (p. 24–25). This is a crucial point, to which I will return later in this paper, but for now I note that viewing power as resource control allows scholars to explore how power dynamics change when, rather than one "high power" person controlling all of the resources, there is one person controlling resource A, and another person controlling resource B (see Kim et al., 2005 for such a framework). In such a situation, multiple people have power, though the power may be of different types. The view of power as the capacity to enforce one's will, without reference to resource control, does not lend itself as easily to the exploration of this type of dynamic.

For these reasons, I define power as asymmetric control over valued resources. I now turn my attention to understanding the primary ways in which power has been studied recently in social psychological research: the psychological manifestations of power.

1.2. Psychological manifestations of power

While power is asymmetric control over resources, power has increasingly been viewed and studied in social psychology as a psychological state. The primary impetus for this shift can be traced back to Keltner and colleagues' (2003) theory, in which they called on researchers to develop a better understanding of the effects of power on the powerholder. Keltner and colleagues built on Kipnis's (1972, 1976) seminal work on power as a corrupting influence on powerholders. Kipnis (1976) argued that the experience of power changed powerholders' behaviors in predictable, and generally undesirable, ways, suggesting that power enhanced individuals' self views but led to a tendency to derogate others. Keltner and colleagues reviewed and integrated over two decades of subsequent research to propose a new model of how power affects the powerholder. Their theory proposes that power activates the behavioral approach system, meaning that the experience of power enhances individuals' attention to rewards, increases their inclinations to take action, and limits psychological inhibitions. The authors laid out a broad range of new and exciting research questions for scholars to tackle, and the resulting set of findings are extensive and have been broadly supportive of what has come to be known as power-approach theory.

Of course, in order to tackle these questions about how power affects the psychology of the powerholder, researchers had to grapple with how exactly it is that powerholders psychologically understand or process their power. What is power to the psyche? How is it experienced? To answer these questions, power had to be re-located to the mind. Hence, the notion of power as a psychological state developed. To that end, in the same year that Keltner and colleagues' (2003) paper was published, Galinsky et al. (2003) presented the first published direct test of the theory, in which they introduce the notion of power as a psychological state as follows:

> Power is often conceived of as a structural variable (Ng, 1980) and as a property of social relationships (Emerson, 1962). We argue that power can also become a psychological property of the individual. The experience of holding power in a particular situation generates a constellation of characteristics and propensities that manifest themselves in affect, cognition, and behavior (Keltner et al., 2003). We suggest that the concepts and behavioral tendencies associated with power are activated whenever the possession of power is implied, consciously or nonconsciously, in a new situation, or even when an experience with power is simply recalled (Galinsky et al., 2003, p. 454).

In this view, the structural experience of power activates a set of concepts and behavioral tendencies, and such activation occurs regardless of whether the instance of power is ongoing or recollected.

Shortly thereafter, Anderson and Galinsky (2006) described the *sense of power* using very similar language (see p. 514), but more recently Anderson et al. (2012) articulated a different view. Specifically, they defined the *sense of power* as "the perception of one's ability to influence another person or other people" (Anderson et al., 2012, p. 316). In this view, the sense of power is a subjective judgment about one's own ability to influence others. How might this relate to Galinsky and colleagues' (2003) earlier articulation of power as a psychological state? If the sense of power is a judgment of one's social influence ability, what can we make of the concepts and behavioral tendencies that Galinsky et al. (2003) contend are associated with power and activated when power is experienced or recalled?

1.3. Linking the two views of psychological power

In arguing that there are psychological associations between concepts (in this case, power) and behavioral tendencies (i.e., action), Galinsky et al. (2003) were building on research on behavioral priming (for reviews see Bargh, 2006; Bargh & Chartrand, 1999, 2000). Behavioral priming studies focus on how cognitive representations of concepts can be made psychologically salient and can consequently affect behaviors, often outside of conscious awareness. The idea is that over time people's experiences produce a set of learned associations between and among concepts, and these associations are stored in memory. In this way, a cognitive network (which can be defined as a set of associations around a mental concept, learned from experience and stored in memory) is formed. The idea behind priming research is that when one node in the network is activated, the others are as well, and that activation affects behavior. One classic study (Bargh, Chen, & Burrows, 1996) activated the concept of the elderly in the minds of participants by having participants engage in a supposed "language test" in which some participants were exposed to words like "wrinkle," "bingo," and "Florida." Participants exposed to those words subsequently walked more slowly down the hallway when leaving the experiment than did participants not exposed to those words. The explanation presented for these findings was that the words subconsciously activated the cognitive network associated with the stereotype of elderly people, and that cognitive network included behaviors associated with elderly people (i.e., the behavior of walking slowly). If the network is activated, associated behaviors are expected to follow[1].

Researchers have argued that this type of cognitive network exists for power. Consistent with this perspective, Smith and Galinsky (2010) describe power as a mental concept that is "linked in memory to a host of cognitive, affective, and behavioral tendencies" (p. 920). They explain that the existence of these cognitive links means that when one concept in the network is activated (e.g., power), others are as well. Thus, in order to understand how power functions as a psychological construct, we need to understand what are the nodes in the cognitive network

---

[1] It should be noted that some researchers have indicated an inability to replicate some of the key findings in the goal-priming literature, including the Bargh and colleagues' (1996) "walking slowly" study (e.g., Doyen, Klein, Pichon, & Cleeremans, 2012). Although some findings in the priming paradigm have been shown to be robust (see Ferguson & Mann, 2014), controversy over to how to interpret the failed replication attempts continues (e.g., Cesario, 2014).

of power, and we need to be able to articulate how that network is related to the sense of power, which Anderson et al. (2012) defined and operationalized as an individual's sense of his or her own ability to influence others.

1.3.1. What are the nodes in the cognitive network of power?

What concepts are cognitively associated with power? The links that constitute these types of cognitive networks are thought to emerge from repeated couplings of the concepts (Bargh & Chartrand, 1999). In other words, these are learned associations. In the case of power, such couplings could emerge from direct or indirect experience: One may note consistent traits or behavioral tendencies that seem to characterize those with power and/or one may learn through socialization about the ways in which those with power are believed to act. Over time, the more often power is paired with a specific thought or feeling, the stronger the associated link binding power to that concept.

The pattern of results in the existing literature suggests that the cognitive network of power is broadly composed of constructs related to agency (Rucker, Galinsky, & Dubois, 2012). Agency refers to the experience of the self as an independent entity capable of acting on the material and social environment (Bakan, 1966). Agency involves a focus on self-expression and self-expansion, and as such a proactive orientation to behavior. Measures of agency typically include words such as *confident*, *decisive*, *active*, *efficient*, *persistent*, and *independent* (see, e.g., Abele, 2003; Suitner & Maass, 2008). Much of the empirical research on the psychological manifestations of power over the past two decades has uncovered associations between the psychological experience of power and behavioral tendencies that are closely associated with agency, including action-orientation (Galinsky et al., 2003; Keltner et al., 2003), self-assertion (Anderson & Berdhal, 2002; Tost et al., 2013) risk-seeking (Anderson & Galinsky, 2006), disinhibition (Galinsky, Magee, Gruenfeld, Whitson, & Liljenquist, 2008), and a focus on personal goals (e.g., Guinote, 2007b). The notion that the cognitive network of power should be predominantly composed of agentic concepts is also consistent with the observation that agentic traits and behaviors, such as goal-orientation and inclination to act, are often consistent with power acquisition (Anderson & Brion, 2014).

Although the record of empirical research suggests that the associations between power and agentic constructs (confidence, assertiveness, tendencies toward action and implementation) are strong, the theoretical understanding of how such associations are developed (i.e., personal experience and socialization) indicates that these associations can be expected to vary across individuals and cultures. While fairly little research has examined the potential for personal and cultural variation in the cognitive network for power, there is some indication in the literature that such variation exists. For example, Bargh and colleagues (Bargh, Raymond, Pryor, & Strack, 1995) found an association between power and sex, but only among men who had exhibited tendencies to sexually aggress. Similarly, Chen and colleagues (Chen, Lee-Chai, & Bargh, 2001) found that the association between power and personal goal pursuit only emerged among individuals with an exchange orientation to relationships, and not

among those with more communal orientations (see also DeCelles et al., 2012). With respect to culture, Zhong, Magee, Maddux, and Galinsky (2006) theorized that culture would be expected to moderate the effects of psychological power (see also Anderson & Brion, 2014; Magee & Smith, 2013). Consistent with this notion, Park and colleagues (Park, Streamer, Huang, & Galinsky, 2013) found that expansive postures symbolizing self-expression, independence, and entitlement were associated with power for individuals of Western culture but not for individuals of East Asian culture. Thus, new research is needed into the ways in which the cognitive network of power may vary across individuals and cultures, as the current findings suggesting the strong association between power and agentic traits and behaviors may be specific to Western cultures or to individuals who personally hold values that associate power with entitlement.

It is important to point out that it is not quite accurate to say that the predominantly agentic associations documented in the extant literature are linked to the concept of power, *per se*. More precisely, research seems to indicate that agency is cognitively linked to the concept of powerfulness. Recent theorists have proposed, in fact, that the construct of powerlessness is instead associated with a different type of behavior: communal behavior (Rucker et al., 2012). Bakan (1966) contrasted agency with communion, which involves a focus on participation in social groups or collectives. A communal orientation involves attention and responsiveness to the views and needs of others and thus is associated with a general outward orientation. It is often measured using words such as *helpful*, *warm*, *understanding*, and *aware* (see e.g., Abele, 2003; Suitner & Maass, 2008). Thus, in contrast to an agentic orientation, which involves a focus on the self and personal goals, a communal orientation is marked by an inclination to consider others' interests, needs, and perspectives. In this way, the other-focus involved in a communal orientation undercuts the self-focus inherent in an agentic orientation.

In applying this theoretical view to our understanding of the cognitive network for power, the implication is that there may be two distinct cognitive networks for power: one for "high power = agency" and one for "low power = communality." Alternatively, his theoretical view could entail a single cognitive network in which agency and communion exist along a single continuum, with agency conceived as the positive (high power) end of the continuum and communality conceived as the negative (low power) end. In either case, a view of the cognitive network for power that places agency and communion as opposed to one another faces some meaningful limitations. In particular, agency and communion are theoretically orthogonal concepts, and their correlations can range from positive to negative to non-existent (Suitner & Maass, 2008). That is, individuals can be high, or low, on both (Cuddy, Fiske, & Glick, 2007; Suitner & Maass, 2008). For example, an individual may identify strongly with a group, attending closely to group members' needs and views, while also aggressively pursuing the group's goals. However, in an agentic-communal view of power that places the outcome behaviors of agency and communion in

opposition, the experience of power could not produce such a psychological state. Instead, in this view, psychological power is dichotomous, and the experiences of high vs. low power can be expected to bring about very different types of behaviors. High power can be expected to have a positive effect on agentic behaviors and a negative effect on communal behaviors, whereas low power can be expected to operate in the opposite fashion.

It is unclear, however, that a cognitive association between powerlessness and communality is necessary to explain extant findings in the literature because a number of the empirical findings in the literature that are relevant to social orientations, such as the research on perspective taking (Galinsky et al., 2006) and empathy (Van Kleef, Oveis, Van Der Löwe, LuoKogan, Goetz, & Keltner, 2008), can be explained in part by the self-focus brought about by an agentic orientation. Moreover, research has identified an extensive range of moderators of the negative association between power and social attention, suggesting that the effects of power on attention to others is not as stable as the effects of power on agency (a point I return to in detail below). For example, Overbeck and Park (2001, 2006) have shown that the association between power and attention to others is actually positive if circumstances are such that attending to others enhances one's ability to achieve relevant goals (a situation that is likely to be more the rule than the exception in organizations). Moreover, others have accounted theoretically for extant empirical findings without appeal to the construct of communality (Magee & Smith, 2013). For these reasons, I set aside the notion of a cognitive association between powerlessness and communality and focus instead only on the cognitive associations of power with agency, viewed as negative for powerlessness and positive for powerfulness. I agree, however, with Rucker et al. (2012) that it is important to understand the causal mechanisms that bring about not only the specifically agentic, but also the specifically communal, effects of power. I therefore return to the topic of communal behaviors in building my theoretical models.

1.3.2. How does the cognitive network of power relate to the psychological sense of power?

This perspective seems to yield a fairly direct prediction about the relationships among structural power, the sense of power, and the cognitive network for power. Specifically, the implication is that lacking structural power can be expected to induce a low sense of power, which in turn activates the cognitive network for power in its negative state, whereas having structural power should induce a high sense of power, thereby activating the cognitive network for power in its positive state.

The reality, however, is more complicated. In particular, theorists have argued (Smith & Galinsky, 2010), and the priming paradigm would suggest (Bargh & Chartrand, 1999), that the sense of power is not necessary for the effects of the cognitive network of power to emerge. As Smith and Galinsky (2010) explain, the effects of power can be completely nonconscious, such that cues in the social environment (e.g., those related to structural power, as well as other cues unrelated to structural power) activate the cognitive network for power without any awareness on the part of the individual, thereby bringing about cognitive, emotional, and behavioral consequences without the individual's conscious awareness. In this view, the conscious sense of power could be completely bypassed in the causal link between structural power and the cognitive network for power. Moreover, the cognitive network associated with power can determine the cues that are interpreted as implicating power. That is, enacting behaviors one associates with power may produce, via the activations of the cognitive network, a sense of power. For example, if I associate an expansive posture with power, then occupying an expansive posture may activate the cognitive network associated with powerfulness, and the correspondence between my immediate experience and my schema of power may make me feel powerful, even if I am not granted control over resources (Huang, Galinsky, Gruenfeld, & Guillory, 2011).

Thus, it is possible that one can experience either form of psychological power (or both) without experiencing structural power. It is likewise possible that the causal relationship between the sense of power and the cognitive network for power can operate in both directions. Moreover, the psychological manifestations of power can operate at both the conscious and nonconscious levels. The relationship between structural and psychological power is much more complex, therefore, than a linear assumption that structure reliably and consistently evokes the psychological states associated with power.

1.4. Summary

Power is asymmetric control over valued resources, which affords one the ability to influence others' behaviors. Power is manifested psychologically in two forms. One way in which power manifests psychologically is as a cognitive network. This network emerges through learned associations and is likely to vary across individuals and cultures, and this network can and often does operate outside of conscious awareness. The second way in which power manifests psychologically is as a conscious evaluation. Specifically, the sense of power refers to one's evaluation of the extent to which one has the ability to influence others. The causal relationship between these two forms of psychological power exists in both directions (i.e., they can, under certain circumstances, mutually activate one another), and both forms can be experienced in the absence of structural power. Building on these insights, in the following section I develop a model of the relationships between and among structural power and the two forms of psychological power, with the intent that such a model may advance multi-level research on organizational power.

2. Linking structural and psychological power: An integrative model

Structural power entails the objective control over valued resources, and the primary agenda of this paper is to understand how such control is related to the psychological manifestations of power. In this section, I explore how structural manifestations of power activate,

Table 1
Examples of dependent variables within the two categories.

Agentic behaviors	Communal behaviors
Definition: these behaviors focus on self-assertion, self-expression, independence, confidence, expansion or promotion of one's own views or desires, action-orientation, and/or goal pursuit. They may or may not incorporate a social dimension	Definition: these behaviors are specifically related to attention and responsiveness to others' needs and concerns, and they involve behaviors that are positive in orientation to others, are intended to be helpful, and/or are likely to promote positive relationships
Optimism (Anderson & Galinsky, 2006)	Social evaluations (Gruenfeld et al., 2008; Kipnis, 1972)
Overconfidence (Fast, Sivanathan, Mayer, & Galinsky, 2012)	Performance evaluations (Georgesen & Harris, 1998, 2000)
Risk-taking (Anderson & Galinsky, 2006)	Perspective taking (Galinsky, Magee, Inesi, & Gruenfeld, 2006)
Goal pursuit (e.g., Guinote, 2007b; Slabu & Guinote, 2010)	Prosocial behavior and generosity (Cote et al., 2011; DeCelles, DeRue, Margolis, & Ceranic, 2012; Tost et al., 2015)
Action-orientation (Galinsky, Gruenfeld, & Magee, 2003)	
Resisting advice (See, Morrison, Rothman, & Soll, 2011; Tost, Gino, & Larrick, 2012)	
Verbal communication (Tost, Gino, & Larrick, 2013)	
Emotional expression (Van Kleef, De Dreu, Pietroni, & Manstead, 2006)	

or fail to active, the psychological manifestations of power and how both structural and psychological power are likely to affect the key behavioral dependent variables that have been the focus of recent social psychological research on power.

As explained above, the psychological manifestations of power have been shown to affect a wide array of behaviors relevant to organizational behavior. I group these behavioral dependent variables into two categories (see Table 1): (1) agentic behaviors that focus on self-assertion and independence and (2) communal behaviors related to social attention and interpersonal responsiveness[2].

Within the category of agentic behaviors, I incorporate dependent variables involving forms of self-expression, independence, confidence, action-orientation and goal pursuit: all behaviors that fall clearly and cleanly into the construct of agency. Dependent variables in this category may or may not incorporate a social dimension. For example, some dependent variables in this category that do not necessarily require a social referent are optimism (Anderson & Galinsky, 2006), overconfidence (Fast, Sivanathan, Mayer, & Galinsky, 2012), risk-taking (Anderson & Galinsky, 2006), goal pursuit (e.g., Guinote, 2008; Slabu & Guinote, 2010), and action-orientation

(Galinsky et al., 2003). Other dependent variables in this category do include a social referent, but the focus of the behavior is on exerting oneself and maintaining independence. Example dependent variables in this category that incorporate a social dimension include resisting advice (See et al., 2011; Tost et al., 2012), verbal communication (Tost et al., 2013), and emotional expression (Van Kleef et al., 2006).

The communal category encompasses dependent variables that are specifically related to the degree of attention granted to others, as well as responsiveness to others' needs and concerns. Examples of communal dependent variables include social evaluations (Gruenfeld et al., 2008; Kipnis, 1972), performance evaluations (Georgesen & Harris, 1998; Georgesen & Harris, 2000), perspective taking (Galinsky et al., 2006; Ku, Wang, & Galinsky, 2015), and generosity (Cote et al., 2011; DeCelles et al., 2012; Tost, Wade-Benzoni, & Johnson, 2015).

It is important to note, once again, that agency and communion are not necessarily opposing constructs. From a theoretical perspective they can be orthogonal, and empirically their correlations can range from positive to negative to non-existent (Suitner & Maass, 2008). Thus, individuals can be both highly agentic and highly communal (or substantially lacking on both dimensions; Cuddy et al., 2007; Suitner & Maass, 2008). One can engage in a communal behavior (e.g., generosity in the form of a charitable contribution) for an agentic reason (e.g., to have one's name placed on a building), and one can engage in agentic behaviors (e.g., aggressive negotiation) on behalf of a group.

In addition to the meaningful construct-based distinctions between the two categories, there are additional theoretical and empirical reasons for separating the two. As explained above, previous research strongly suggests that the psychological manifestations of power are positively associated with agentic dependent variables.

---

[2] I should note an important finding on the social psychology of power that does not fall cleanly into either category: psychological power induces abstract information processing (Smith & Trope, 2006). Some have viewed this finding as evidence of the association of power with agency, because abstract thinking is linked to goal-orientation (Rucker et al., 2012). On the other hand, abstract thinking has also been linked to social distancing (Magee & Smith, 2013), which is more of a (negative) communal behavior. In addition, abstract processing has also been linked to individuals' judgments about ethics and morality (Eyal, Liberman, & Trope, 2008), and such judgments are more closely associated with the communal dimension of organizational life than with agency. I therefore do not view abstract information processing as specifically related to one or the other category.

However, while extant theorizing construes the psychological manifestations of power as primarily negatively-associated with communal behaviors (e.g., Magee & Smith, 2013; Rucker et al., 2012), empirical research has identified a broader range of moderators for these effects, which incorporate a number of reverse-findings (e.g., Chen et al., 2001; DeCelles et al., 2012; Maner & Mead, 2010; Overbeck & Park, 2001, 2006; Tost et al., 2015; see also Joshi & Fast, 2013). It may therefore be useful, in examining how structural and psychological power inter-relate, to also consider whether the nature of such inter-relations may differentially affect these two categories of behavior.

Consistent with the dual nature of the psychological manifestations of power as emerging at both the conscious and nonconscious levels, I examine how structural power may affect the psychological manifestations of power both consciously and nonconsciously, and I address the interplay of these two types of processes. Social psychological models that incorporate both conscious and nonconscious processes are often referred to as dual-process models, and these models generally distinguish between two sets of cognitive operations: one that is effortful, conscious, and controlled, and another that is rapid, effortless, associative, and automatic (i.e., occurring outside conscious awareness; nonconscious) (e.g., Kahneman & Frederick, 2002). I begin by considering the nonconscious path by which structural power may affect psychological power and, consequently, the two categories of dependent variables.

2.1. The nonconscious path

The nonconscious path by which structural power may affect psychological power involves cues in the social environment that activate, outside of conscious awareness, the construct of power and its associated cognitive network, thereby enhancing the likelihood of power-associated behaviors. Fig. 1 depicts a theoretical model specifying the nature of this process.

According to priming research, the types of cues that activate cognitive networks in ways that subsequently

affect behavior are temporary and episodic (Janiszewski & Wyer, 2014; Schröder and Thagard, 2013). For example, some approaches that have been used to activate the construct of power without bringing it into conscious awareness involve word search puzzles or scrambled sentence tasks incorporating words such as "boss," "control," and "executive" (Chen et al., 2001; Smith & Trope, 2006). These approaches make clear that structural power is not the only way in which the cognitive network for power is activated or affects behavior. In fact, it is not possible for structural power to *directly* activate the cognitive network for power because one's structural power is not episodic. That is, cognitive networks are activated by episodic signals in the social environment, signals that come and go, and because structural power does not fluctuate greatly over short periods of time, it cannot function as such a signal (though changes in structural power, such as promotion or a budget increase, may do so). To clarify this point, it may be helpful to more clearly delineate the structural manifestations of power in organizations.

What are the structural manifestations of power in organizations? Organizational researchers have struggled with this question for decades in seeking to identify accurate measurements of structural power. Doing so is not simple, because power takes different forms (Finkelstein, 1992). That is, power involves control over resources, but the resources that can be controlled in organizations vary widely (see, e.g., French & Raven, 1959 for an early articulation of this observation), from control over decision rights (which may involve control over personnel decisions, strategic direction, or budget allocation decisions, among others) (e.g., Crossland & Hambrick, 2011) to control over information flows within and across organizational boundaries (Brass, 1984, 1992). While the notion that a variety of resources are at stake in organizational politics is broadly shared, agreement upon empirically measurable cues for resource control has yet to emerge. For example, control over decision making may be signaled by organizational policies, job titles, or position in the
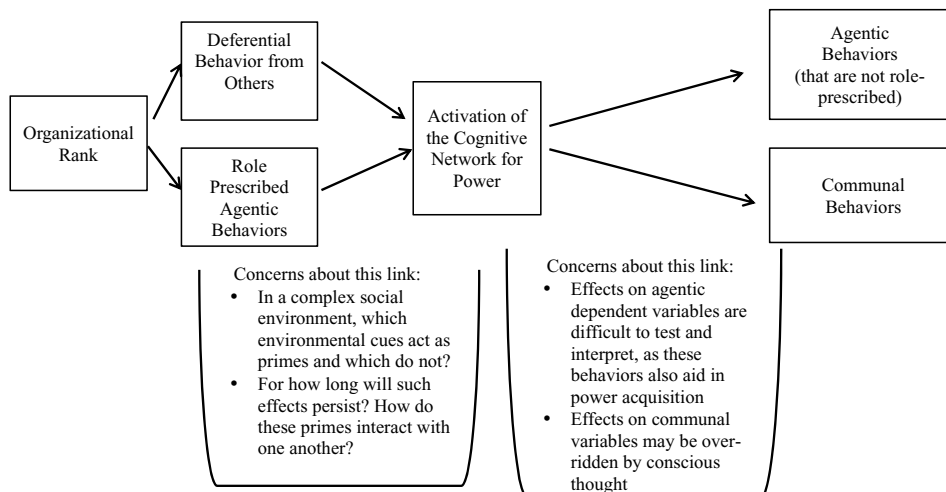

Fig. 1. Potential nonconscious path by which structural power may affect organizational behaviors.

organizational ranking chart, whereas control over information flows may be represented by one's position in a social network at the organizational or even the industry level. Given this complexity in the assessment of structural power, I develop my theoretical propositions around four of the most commonly used indicators of structural power in the organizational literature. The primary cues identified in the literature include formal position or rank in the organizational hierarchy (as indicated by position in the organizational chart and/or formal title; e.g., Finkelstein, 1992), membership in groups that control resources (such as influential committees; Salancik & Pfeffer, 1974), number of direct reports (Mintzberg, 1979; Perrow, 1986), and social network position (which may afford one the ability to control information flow in organizations; see Brass, 1984, 1992)[3].

Notably, each of these factors is likely to be fairly stable; one's job title and number of direct reports, for example, are unlikely to fluctuate much from one day to the next, or even one week or month to the next. How, then, could these structural manifestations of power, which are likely to be chronic rather than episodic, activate the cognitive network for power in ways consistent with psychological theory on priming effects? They cannot do so in a direct, unmediated, fashion. Current theorizing in social psychology views cognitive networks of this type as activated temporarily and thus temporarily affecting behavior (Janiszewski & Wyer, 2014; Schröder and Thagard, 2013). These networks can be chronically activated, but not continuously so; that is, a chronically activated network is one that is frequently activated (between periods of deactivation) (Janiszewski & Wyer, 2014). Does this view require that structural power cannot activate the cognitive network for power (aside from the experience of specific changes in structural power, such as promotion or budget enhancements)? Not necessarily. Specifically, structural power may be associated with other contextual cues that can be episodic in nature and could therefore activate the cognitive network for power. Relatively little research has directly examined the factors that nonconsciously activate the cognitive network for power (i.e., power is rarely the dependent variable in the recent social psychological research in this area). In order to link structural power to the cognitive network for power, such cues would have to (1) be cognitively associated with power, (2) vary in salience over time, and (3) be empirically associated with structural power. There are at least three types of contextual cues that could plausibly function in this way: status symbols, behavioral deference from others, and behaviors enacted in the process of fulfilling a structurally powerful role. I explore each of these in turn.

While power and status are distinct constructs, the two often co-occur in organizations. Status symbols include a variety of context-specific stimuli that indicate a person's high status in a group or organization. Status symbols may include luxury goods, a corner office, or a desirable parking space, among others perks. Do such status symbols activate the cognitive network for power? Extant research does not provide a clear answer. There are reasons to suspect, however, that such cues may not reliably activate the cognitive network for power. First, while status cues can be episodic (one may not wear the Rolex every day), powerholders are likely to become accustomed to them (Rolexes get old, too), possibly making them less potent as primes over time. Moreover, some such cues may be just as likely to be cognitively associated with the construct of status as with power, and research has indicated that the psychological experience of status may have very different, and even opposing, effects on behaviors as the experience of power (e.g., Blader & Chen, 2012). In addition, research has indicated that powerless people, more so than powerful people, are drawn to status symbols (Rucker et al., 2012). On the other hand, research suggests that the reason that powerless people pursue status symbols is because they are motivated to demonstrate some standing in the social hierarchy (Rucker et al., 2012). There is therefore considerable ambiguity about how status symbols relate to the cognitive network for power. Consequently, I do not specifically examine status symbols as activators of the cognitive network for power. However, I believe that more research is warranted into how these outward representations of hierarchy function with respect to power dynamics. Which status symbols are cognitively associated with power? Do those that are associated with power reliably activate the cognitive network for power and produce effects on behavior? Or do people habituate to their presence? Such questions are important issues for future research in this area.

Another type of contextual cue that may function as a link between structural power and the cognitive network for power is others' behavior that registers deference to the needs or views of the powerholder. For example, when an assistant brings coffee to an executive, the implicit message is that the executive's time is too important for making coffee. In meetings, team members may be more inclined to resist the views of their peers but may more readily endorse, or at least fail to challenge, the team leader's perspectives (Tost et al., 2013). In such situations, the behavior of others in the social environment functions as a signal indicating that the powerful person's needs or views are more important than those of other individuals. In essence, others' behavioral deference to a powerholder can represent an implicit endorsement of the self-focus inherent in an agentic orientation. By activating the construct of agency, which is closely associated with the construct of power, such experiences can be expected to activate the cognitive network for power. Therefore, to the extent that such experiences are reliably linked to the structural experience of power (an issue I examine below), they may represent nonconscious mediators of the effect of structural power on the cognitive network for power.

In addition, specific prescribed behaviors enacted by the powerholder in the process of fulfilling a structurally powerful role may also activate the cognitive network for power if those behaviors are agentic. As described above, research has repeatedly demonstrated a psychological association between the construct of powerfulness and

---

[3] It is important to note that, while these cues are among the most common, these are not the only indicators of structural power used in organizational research (e.g., Daily & Johnson, 1997).

agentic behaviors, at least in Western cultures. And according to the priming paradigm, these behaviors and traits that are cognitively associated with power can be expected to activate the cognitive network for power. That is, not only does activating the cognitive network for power lead to these behaviors, but engaging in these behaviors can be expected to activate the cognitive network for power. For example, recent research indicates that giving advice to others may activate the cognitive network for power (Schaerer et al., 2015) and that expansive physical postures, which connote agency, activate the construct of powerfulness and affect individuals' subsequent behaviors (Carney, Cuddy, & Yapp, 2010; but see also Ranehill et al., 2015). Thus, to the extent that structural manifestations of power elicit agentic (or unagentic) behaviors, these structural manifestations can be expected to be associated with the activation of the cognitive network for power.

Thus, behavioral deference from others and powerholders' own agentic behaviors represent two plausible activators of the cognitive network for power in organizations. To the extent that these two types of cues are reliably empirically associated with structural power, they may function to mediate a link between structural power and the cognitive network for power. As explained above, the primary structural manifestations of power in organizations include rank, number of direct reports, membership in powerful groups, and social network position. I address each of these in turn.

Rank, or one's formal position in the organizational hierarchy, is likely to be systematically associated both with behavioral deference from others and with a powerholder's enacting of agentic behaviors. With respect to behavioral deference, holding a position of high rank connotes authority in organizations (Weber, 1947), and individuals commonly react to that authority with deferential behaviors (Tost et al., 2013). Such behaviors often include servicing the various needs of the powerholder (e.g., bringing coffee, running errands) so that the powerholder can focus on activities deemed more important and worthy of one in a position of authority. Deference to those high in rank can also involve a tendency to endorse their views and cooperate with their requests (e.g., Tost et al., 2013).

With respect to enacting agentic behaviors, individuals at top organizational ranks are usually expected to set organizational goals, communicate organizational strategy, and exercise a variety of forms of power by, for example, assigning responsibilities and allocating budgetary resources. Each of these behaviors is agentic and may therefore activate the cognitive network for power. In contrast, those at the bottom of the formal hierarchy are usually expected to follow orders or instructions, accepting influence from others rather than charting their own course. While it is true that any of these activities may also lead one to consciously think about their power or lack thereof (which would represent a conscious, rather than a nonconscious, link between structural power and psychological power; addressed in the following section), it is also possible that individuals may enact these behaviors in a routine fashion, engaging them out of habit, and not

actively considering power or political dimensions to these behaviors. It is therefore possible that these activities may non-consciously activate the cognitive network for power.

Thus, it would seem that rank in the organizational hierarchy would be positively associated with deferential behavior from others and with enacting agentic behaviors. These experiences can activate the cognitive network for power, which in turn can enhance the likelihood of other agentic behaviors that are not necessarily role-prescribed (e.g., risk-taking).

The likely effects of number of direct reports on the cognitive network for power are somewhat less clear. In interacting with their direct reports, supervisors are indeed likely to experience deferential behaviors and also are expected to engage in a variety of agentic behaviors, including communicating organizational strategy on behalf of the top management team and exercising a variety of forms of power by, for example, assigning tasks, allocating budgetary resources, and issuing punishments and rewards as needed. At the same time, supervisors also often have to engage in other, more relational, behaviors that require close attention to subordinates' needs and perspectives and therefore may be in tension with the self-orientation and entitlement associated with agency (see Lee & Tiedens, 2001). For example, supervisors are expected not only to communicate organizational goals to their direct reports but also to translate those goals into terms that are relevant to their team (Bass, 1990; Judge, Piccolo, & Ilies, 2004; Stogdill, 1950). Supervisors are also expected to motivate and empower their direct reports (Bass, 1990; Judge et al., 2004; Stogdill, 1950), activities which may call the supervisor's attention to his or her own dependence on the subordinate, thereby eliciting a sense of powerlessness. That is, because supervisors depend on their direct reports to produce valuable outputs for the organization, some interactions with direct reports may serve less as opportunities to experience behavioral deference or to engage in agentic behaviors and more as subtle reminders that the supervisor's power and performance ability has constraints.

Thus, some interactions with direct reports may positively activate the cognitive network for power, whereas other interactions may instead produce a negative activation. The relative frequency of these two types of interactions can vary based on a wide variety of factors, and it is unclear how the absolute number of direct reports might systematically affect this ratio. On the one hand, having a large number of direct reports may diminish the expectation of relational interactions. When a supervisor has a large number of direct reports, he or she may not be expected to spend as much time on relational considerations because doing so would be particularly taxing. This could shift the ratio of interactions toward more frequency on the agentic side (e.g., more assignment of tasks and less focus on motivating and inspiring).

On the other hand, having more direct reports is likely to make one's job more taxing in general. With a greater number of direct reports comes a greater number of individuals making demands on one's time and energies. The multiplicity of needs and requests from subordinates could either remind one of one's control over resources or

instead could make one feel overwhelmed and lead to a sense of powerlessness, undercutting the effect of any agentic or deferential component to the interactions. I therefore do not expect that number of direct reports reliably activates the cognitive network for power in either a positive or negative fashion.

The effects of membership in influential groups and position in a valued social network are also unlikely to reliably activate the cognitive network for power. First, neither typically involves role prescriptions that are particularly agentic, with the possible exception of holding the chair of an important committee. However, chairing a committee incorporates rank (on the committee) with membership in a powerful group, and the prescribed agentic behaviors, as well as any deferential treatment from others, would be primarily associated with one's rank. Moreover, while committee membership often involves voting (a clearly self-expressive agentic behavior), the voting process also usually involves caucusing and political maneuvering. Such political processes necessitate substantial attention to others' needs and interests, and often involves enacting deferential behavior toward others; both of these features of politicking would be likely to remind the powerholder of the practical constraints on his or her power and the inherent interdependence with others that characterizes it. Similarly, occupying a structural hole in a social network involves active attention to and maintenance of one's social capital, and the processes involved in attending to others' needs would be likely to reinforce a sense of interdependence more so than one of independent agency.

Thus, of the four structural manifestations of power considered here, rank is the only one that is theoretically likely to increase the frequency with which the cognitive network for power is activated, and this increase in frequency is likely to occur because of the increase in (1) deferential treatment from others and (2) role-prescribed agentic behaviors that high-ranking individuals are expected to enact. Of course, these agentic behaviors are precisely the behaviors that the cognitive network for power is expected to elicit as dependent variables. Any meaningful and testable prediction about how rank activates the cognitive network for power would therefore have to narrow the range of dependent variables examined to those that are not specifically role-prescribed. These include such variables as optimism (Anderson & Galinsky, 2006), overconfidence (Fast, Gruenfeld, Sivanathan, & Galinsky, 2009), risk-taking (Anderson & Galinsky, 2006), and action-orientation (Galinsky et al., 2003). In essence, rank can be expected to promote an agentic mindset. While such a prediction maintains internal logic, it is likely to be very challenging to test because these are also the types of behaviors that are likely to increase the likelihood that one can attain a top position in an organization (Anderson & Brion, 2014). Any empirical investigation would require a longitudinal design to determine whether agentic mindsets increase and persist after promotions.

With respect to communal behaviors, a similar type of prediction is less clear. As indicated above, extant theorizing and empirical findings broadly suggest a negative relationship between power and communal behaviors (e.g., Rucker et al., 2012). However, in organizational contexts, it seems likely that when the cognitive network for power is activated, any negative nonconscious effect on communal behaviors would be over-ridden by conscious mental processes. Research in social psychology suggests that judgments, evaluations, decisions, and behavioral intentions are often initially formed through nonconscious processes, due to the rapid and automatic nature of such processes; for this reason, the nonconscious processing system is often referred to as "System 1" (Kahneman & Frederick, 2002). However, the slower, more effortful, conscious judgment process, known as "System 2," has the role of monitoring the quality of System 1's initial judgments and then endorsing or overriding them (Kahneman & Frederick, 2002; see also Gilbert, 2002; Lieberman, 2003). This view suggests that when the cognitive network for power is activated, conscious processes, such as concerns about organizational norms or social expectations, may override its effects. Given the relational norms that characterize leadership expectations in organizations, such a dynamic seems particularly likely with respect communal dependent variables. Of course, the possibility that conscious considerations might over-turn the effects of the cognitive network for power represents an empirical question, and I return to this consideration in examining the conscious path linking structure to psychological power.

Moreover, the complexity involved in parsing the likely effects of the various forms of structural power on the nonconscious activation of the cognitive network for power points to several other concerns about the validity of this causal path for both categories of dependent variables. First, one logical extension of the premise underlying the nonconscious path is that any time agentic behaviors are enacted, the cognitive network for power is activated (and by implication subsequently affects behaviors). Such a contention is implausible. Individuals engage agentic behaviors on a regular (daily, even hourly) basis just to function: people make decisions and act on them, for example, throughout their days. Because agentic behaviors are so common and essential to human functioning (for people of all levels of power), the priming paradigm view seems to imply that the cognitive network for power is activated with a high frequency for all individuals.

These concerns reflect what Bargh (2006), one of the founders of priming research, has termed "second generation" research questions in the psychological priming field. In particular, it remains unclear how psychological primes function in social settings outside the laboratory. The nature of the concerns is illuminated in the following tongue-in-cheek narrative:

> You are walking into a room. There is a man sitting behind a table. You sit down across from him. The man sits higher than you, which makes you feel relatively powerless. But he gives you a mug of hot coffee. The warm mug makes you like the man a little more. You warm to him so to speak. He asks you about your relationship with your significant other. You lean on the

table. It is wobbly, so you say that your relationship is not very stable. You take a sip from the coffee. It is bitter. Now you think the man is a jerk for having asked you about your personal life. Then the man hands you the test. It is attached to a heavy clipboard, which makes you think the test is important...The final question of the test asks you to form a sentence that includes the words gray, Florida, bingo, and pension. You leave the room, walking slowly... (Zwann, 2013: http://rolfzwaan.blogspot.co.uk/2013/04/social-priming-in-theory.html)

The questions are clear. There are many primes in this environment—which will affect the person's behavior? For how long will such effects persist? How do these primes interact with one another? Unfortunately, the extant social psychological priming literature does not provide clear and empirically-validated answers to these questions. Bargh (2006) argues that primes only affect behavior when they are relevant to the individual's immediate goals. For example, a power prime may affect my behavior as I struggle to make a resource allocation decision, but if I am suddenly interrupted by, say, a phone call from a friend, the effects of the prime can be expected to dissipate. The suggestion is plausible, but more research is needed to test the idea.

Finally, even if rank reliably induces an agentic orientation to behavior that is not over-ridden by conscious considerations (such as organizational norms and values), it is quite possible that the cognitive network for power is actually activated more reliably by factors unrelated to structural power. In fact, there is some empirical research suggesting as much. For example, recent research suggests that posture may activate the cognitive network for power more reliably than assignment to a powerful role (Huang et al., 2011). Moreover, the methodological approaches used to activate the cognitive network for power remind us that even hearing or using words such as *boss*, *control*, and *strong* or *subordinate*, *feeble*, and *weak* can activate this network, regardless of one's structural power.

In sum, the current state of knowledge about the psychological processes involved in nonconscious social dynamics poses particular challenges to the theorization of a reliable nonconscious effect of structural power on organizational behavior. The only manifestation of structural power that makes sense as a potential origin of such a path is organizational rank. However, despite the likely association of organizational rank with experiences that activate the cognitive network for power, research on dual process models suggest that the effects of any such activation, particularly on communal behaviors, may well be over-ridden by conscious processes in organizations (more on this below). In addition, while the effects of the cognitive network for power on agentic behaviors may be more reliable, many of these agentic behaviors are also the behaviors that are associated with the *acquisition* of rank, making the meaningfulness of such effects ambiguous and the testing challenging. In addition, rank may be a less reliable a predictor of the activation of the cognitive network for power than other non-structural factors, such

as physical posture (see Huang et al., 2011; but see also Ranehill et al., 2015), seeing or hearing words associated with high or low power, and engaging in agentic behaviors (which can be enacted by individuals at any level of the organizational hierarchy).

This is not to say that the nonconscious dynamics of power do not play a role in organizational behavior. Instead, the implication is that this nonconcious dynamic may not be reliably tied directly to *structural* power. Indeed, nonconscious power dynamics may occur commonly in organizations, but it is not clear that such effects are more common among the structurally powerful than among those with less power. This open question represents an important area for exploratory research. Moreover, this reasoning does not imply that the cognitive network for power cannot play a role in linking structural power to psychological power, because another source of activation of the cognitive network for power is the conscious sense that one is powerful or powerless in a specific situation. This type of awareness can be expected to emerge regularly in organizations, given the prevalence of the need to exercise or respond to power (Pfeffer, 1992, 2010, 2013). This observation provides reason to expect that the conscious path linking structural and psychological power is likely to play an important role in organizational dynamics, and it is to the conscious causal path that I now turn my attention.

2.2. The conscious sense of power as a link between structural power and organizational behavior

In organizations, individuals must elicit the cooperation of others in order to achieve their most important tasks. Social influence and power are therefore highly relevant to organizational interactions, and as such individuals are likely to find themselves presented regularly with occasions to consider their own levels of power. It is therefore also quite plausible that individuals' assessments of their own capacity to influence others (that is, their sense of power) may function as a causal mechanism linking structural power with individuals' behavioral choices in organizations. To evaluate this possibility, it is necessary to address a series of questions. When people think about their power, do they accurately assess it? When people feel powerful (or powerless) is the cognitive network for power reliably activated? If the cognitive network for power is activated, is there any reason to believe the previously demonstrated effects of this network on behavior will be disrupted? If so, by what? And what determines the likelihood of such a disruption? In the sections that follow, I address each of these questions, and as I do, I develop a model of the sense of power as a causal link between structural power and organizational behavior (see Fig. 2).

2.2.1. The link from structure to sense of power

It seems quite likely that the various forms of structural power would enhance the sense of power felt by their carriers. That is, *ceteris paribus*, one would expect that a CEO would report greater power and influence within the organization than his or her administrative assistant (rank), someone charged with evaluating and rewarding
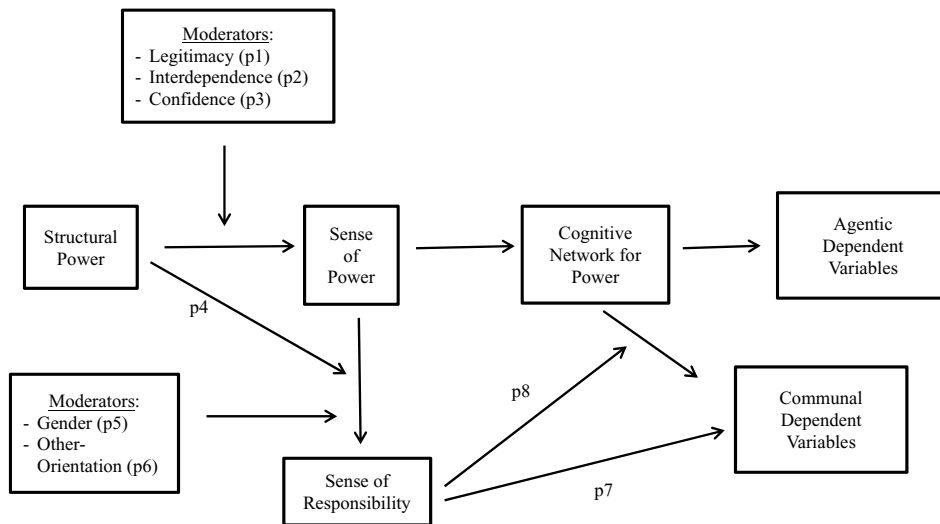
Fig. 2. Overall model of causal pathways linking structural power to psychological power and organizational behaviors.

the performance of a large number of individuals would feel more powerful than someone who does not have any subordinates (number of direct reports), a member of the Board of Directors would feel more powerful than a temporary employee (membership in powerful groups), and someone whose social network position allows him or her to fill a structural hole would feel more powerful than someone with few meaningful network ties. Indeed, extant research provides substantial reason to believe that there exists a positive effect of each of these manifestations of structural power on their carriers' sense of power. For example, Anderson et al. (2012) demonstrated that individuals are able to accurately gauge their power within various contexts (e.g., work, personal relationships) and that, although also affected by personality factors (e.g., dominance) and social factors (such as status), the sense of power is reasonably coherent and context-specific. That is, an individual's sense of power in the context of a friendship relationship is distinct from, but moderately correlated with, one's sense of power in the context of a parent-child relationship. These findings are consistent with the notion that sense of power can be viewed as both a psychological state (i.e., "I feel powerful right now") and as a psychological trait ("I am generally powerful").

At the same time, these examples also point to a complexity in linking structural power to the sense of power: one's level of power across the different structural manifestations may vary (i.e., ceteris is never paribus). One can have low rank but a highly effective network, for example, an observation that may lead us to view the CEO's administrative assistant in the previous paragraph in a new light. One rarely controls all the levers of power, and structural power is never absolute. Instead, structural power in organizations is qualified, either by other forms of structural power (or lack thereof), interdependence, or by concerns about legitimacy. Consider a dean who wants to push forward a major new initiative. From a technical standpoint, she may formally possess unilateral power to

mandate such an initiative. But if she does so without substantial support from the faculty, she risks alienating a base of her power (i.e., destabilizing her social network) and eliciting a backlash. She is interdependent with the faculty: she may control decision making power, but they have the ultimate decision as to whether they will cooperate, and if they view her as illegitimate, they will be disinclined to comply. The dean must attend to her legitimacy.

Legitimacy refers to "a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions" (Suchman, 1995: 574). Previous research on psychological power has identified legitimacy as a moderator of the effects of psychological power on agentic behavior (Lammers, Galinsky, Gordijn, & Otten, 2008; Smith, Jost, & Vijay, 2008). Arguing that illegitimacy changes the fundamental nature of power-based hierarchical relationships, Lammers et al. (2008) noted that legitimate power entails cooperation: the powerful rule and the powerless comply. When power is illegitimate (that is, when it is perceived as inappropriate or undeserved), the powerless no longer comply. This dynamic changes the likely relationship between power and agentic behavior: the powerless are more likely to act to overthrow the powerful, and the powerful are made aware of the instability of their structural power, evoking a sense of powerlessness and paralysis. As a consequence, Lammers et al. (2008) argue and empirically demonstrate, when power is illegitimate, the effects of power on action reverse (see also Hays & Goldstein, 2015; Lammers, Galinsky, Gordijn, & Otten, 2012; Smith et al., 2008; Willis et al., 2010).

These findings are consistent with extensive research in related disciplines, such as sociology and political science, in which the inherently contingent nature of power is emphasized. Locke (1689) conceived of power as emerging from the consent of the governed. Consistent with this

view, sociological theorizing has emphasized that power entails obligations to behave in ways that conform to collectively agreed upon duties associated with structural roles (Biggart & Hamilton, 1984; Hamilton & Biggart, 1985). Indeed, recent research in organizations supports the notions that subordinates' evaluations function as a check on their supervisors. In particular, Oc, Bashshur, and Moore (2015) found that powerholders adjusted their self-interested behavior based on feedback from subordinates, despite not being required to do so. Specifically, Oc and colleagues found that when powerful allocators received candid feedback from recipients about the fairness (or unfairness) of their allocations, they adjusted those allocations accordingly.

Taken together, this research suggests that self-perceived legitimacy likely moderates the effect of structural power on the sense of power. By "self-perceived" legitimacy, I mean one's perception of one's own legitimacy. Structural power is unlikely to enhance the sense of power when the person holding it believes that he or she lacks legitimacy in the eyes of subordinates. Without a sense of legitimacy, the powerholder becomes more aware of the interdependence that characterizes the power relationship, and the powerholder consequently feels less able to control the behavior of others.

The self-perceived nature of this prediction is important: if someone lacks legitimacy but is unaware of this lack, structural power can still be expected to enhance the sense of power. Broadly speaking, actual legitimacy and self-perceived legitimacy can be expected to closely correspond, as subordinates are likely to make clear their lack of esteem for a leader they perceive as illegitimate (Brief, Dietz, Reizenstein Cohn, Pugh, & Vaslow, 2000). Certain personality traits (e.g., narcissism), however, may make structural powerholders less likely to pick up on these types of cues.

It is also important to note that while the construct of self-perceived legitimacy is clearly related to structural power as manifested in rank, number of direct reports, and membership in valued groups, it is less clear that this construct applies to social network positions. While social connections can be viewed and deployed as resources, it is not likely that people actually construe them as such and therefore likely do not assess the legitimacy of their own or others' ties. Moreover, when one loses legitimacy in the eyes of one's connections, the social connection dissolves, and with it goes one's network-based power. I therefore do not view self-perceived legitimacy as a moderator of the link between network-based structural power and the sense of power.

Proposition 1. The positive effect of structural power (as manifested in organizational rank, number of direct reports, and/or membership in powerful groups) on the sense of power is moderated by self-perceived legitimacy, such that the positive effect of structural power on the sense of power is diminished when the powerholder feels a lack of legitimacy.

The above example about the dean and her major initiative demonstrates, however, that judgments of one's current legitimacy in the eyes of others is not the only way in which legitimacy-related concerns may moderate the relationship between structural power and the sense of power. In particular, the dean in that situation may report a low sense of power not because she feels she *lacks* legitimacy but because she believes that if she acts according to her own desires, she will *lose* it. Interdependence refers to a situation in which one actor controls some valued resources but other actors control other valued resources. In the section above on the nonconscious link between structural and psychological power, I specified ways in which structural power, especially number of direct reports, membership in powerful groups, and social network position, may involve experiences that remind powerholders of their interdependence with others. In situations of high interdependence, individuals are likely to feel constrained to act in ways that will ensure mutual satisfaction and hence cooperation. This feeling of constraint may lead even those with substantial structural power of one form or another to feel dependent on others to meet their needs and goals. This dynamic may diminish the effect of the various forms of structural power on the sense of power. I therefore propose:

Proposition 2. The positive effect of structural power (as manifested in organizational rank, number of direct reports, membership in powerful groups, and/or network position) on the sense of power is moderated by the perceived interdependence of organizational members, such that the effect of structural power is diminished when interdependence is perceived to be high.

Finally, while legitimacy involves evaluations by others, powerholders can also evaluate themselves, and self-evaluations may have important consequences for feelings of power. In particular, individuals can ask themselves if they are capable of performing in their powerful positions. Powerful positions often entail high performance expectations, and with such expectations can come pressure to perform (Fast, Burris, & Bartel, 2014). If individuals lack confidence in their abilities to perform (which may occur, for example, due to chronic negative self-evaluations or recent personal failures to perform at expected levels), they are likely to feel powerless even if they possess structural power (e.g., Bugental & Lewis, 1999; see also Cho & Fast, 2012; Fast & Chen, 2009). I therefore propose:

Proposition 3. The positive effect of structural power (as manifested in organizational rank, number of direct reports, membership in powerful groups, and/or network position) on the sense of power is moderated by the powerholders' confidence in his or her own abilities to perform up to expectations, such that the effect of structural power is diminished when confidence is low.

In sum, I expect that structural power in its various forms has a positive effect on the sense of power in organizations, but that this positive effect is moderated by self-perceived legitimacy, interdependence, and confidence. How might this sense of power affect the cognitive network for power and, ultimately, organizational behaviors?

2.2.2. The link from sense of power to the cognitive network for power

In considering the link between the sense of power and the cognitive network for power, it is once again apparent that if the sense of power is chronic (that is, if it is perpetually present at consistent levels), then it cannot be expected to meaningfully activate the cognitive network for power (because such activation must be temporary and episodic). Is the sense of power chronic or episodic? The answer from extant studies of the sense of power is that it is both. That is, the sense of power can function as both a trait (chronic) and a state (episodic) (Anderson et al., 2012). In the context of organizations, chronic sense of power is a sense of power that is consistently present within the individual but usually not brought into conscious awareness unless an event elicits that awareness. Episodic sense of power is a sudden increase or decrease in the sense of power as it applies to a particular situation. Propositions 1 through 3 can be expected to apply to both forms. That is, I expect that structural power has a positive effect on the general sense that one is powerful in the context of the organization, and that structural power is also positively related to the frequency of occasions in which that sense of power is episodically and temporarily enhanced.

In order for the sense of power to activate the cognitive network for power, the sense of power must enter into conscious awareness. This observation raises the question: What experiences or situations lead people to think to themselves "I am powerful(less) in this situation"? That is, when do people construe their experiences in terms of power? I expect that people are likely to consciously think about and assess their own power in two types of situations: when power becomes strategically important for getting what they want and when they are asked about power. The latter has received more meaningful empirical attention than the former. With respect to the latter, research indicates that when people are asked to report their level of power in a situation (e.g., Anderson & Galinsky, 2006; Anderson et al., 2012), they can do so, and this exchange also seems to activate the cognitive network for power. Of course, these types of experiences are not necessarily related systematically to structural power, and therefore they do not help us in identifying reliable links between structural and psychological power.

Situations in which power must be deployed (or defended against) represent another impetus for consciously thinking about and evaluating power, though the effect of such encounters on psychological power has received less empirical attention (but see Anderson & Brion, 2014 for a review of the extant relevant research). When one needs to engage in social influence, it often becomes necessary to consciously consider one's own level of influence and power, particularly relative to the power of the intended target(s) of influence. This necessity is likely to bring the sense of power into conscious awareness, and it is reasonable to expect that the frequency of such situations would be correlated in logical ways with structural power. With respect to rank, certainly people who hold higher ranks in organizations, who are generally expected to allocate resources and make strategic decisions, would have more frequent occasions

to deploy power than those in lower ranks (and those in the lowest ranks would have the most frequent occasions of defending against the power of others). Similarly, the number of direct reports in an individual's charge should be positively related to the occasions one has to exercise influence over subordinates. Membership on powerful committees increases the occasions on which individuals make requests to the powerholder for resources or votes, as well as the frequency with which one's decisions about such requests are deployed. Moreover, a powerful position in a social network is likely to elicit similar types of requests (for example, for introductions or information), and one may consider whether and how to use such requests strategically to achieve goals or to further entrench one's power. Indeed, even the more relational aspects of structural power, such as the need to motivate and inspire subordinates, which serve as reminders of interdependence, are likely to provide additional occasions for powerholders to consciously consider and evaluate their levels of power.

Thus, structural power in its various forms is likely to be positively related not only to the valence and degree of an individual's conscious judgment about his or her own level of power (i.e., one's sense of power) but also to the frequency of encountering situations that bring one's power level into conscious awareness. In this way, mediated by the conscious sense of power, structural power can be expected to activate the cognitive network for power. Thus, while I do not propose a reliable nonconscious mechanism by which structural power activates the cognitive network for power, I do expect that the network can be consciously activated by the experience of structural power. Will these activations, therefore, complete a causal link from structural power to the sense of power to the cognitive network for power, thereby producing the agentic and (non)-communal behaviors demonstrated in previous research on psychological power? The evidence reviewed thus far suggests an affirmative answer to this question. However, in order to address this question fully, we must consider whether the structural experience of power is likely to induce *other* psychological states that may override or undercut the effects of the cognitive network for power. It is to that consideration that I now turn.

2.3. An alternative portrait of power: The role of responsibility

What is the psychological essence of structural power? The predominant answer emerging from social psychological theorizing over the past two decades is: freedom. The notion that elevated power is characterized by freedom was a foundational premise of Keltner and colleagues' (2003) influential theory, and that notion has been carried through in the vast majority of the theorizing and empirical research of the last decade and a half. For example, Magee and Galinsky (2008) emphasize that power transforms psychological processes because power frees people to act in ways that are more consistent with their personal preferences, and Fast and colleagues noted that "power frees people to act

on their internal states" (p. 391; see also Cote et al., 2011). Similarly, Galinsky et al. (2008) argued that power "can be conceptualized as freeing people from the influence of external forces" (p. 1450) and presented a series of studies demonstrating that psychological power can lead people to act in ways that are less constrained by their social situations.

Certainly power can liberate. When we have the resources we need, we can spend less time worrying about acquiring more (though research suggests that people tend to ignore this privilege: e.g., Hsee, Zhang, Cai, & Zhang, 2013). And certainly in American culture, where independence is seen as a primary virtue, freedom must play a crucial role in the psychological experience of power. But is freedom the exclusive or even dominant psychological construct evoked by resource control? This view of power as freedom is clearly in tension with the theoretical perspectives and empirical findings that highlight the interdependence between powerholders and subordinates (e.g., Biggart & Hamilton, 1984; Hamilton & Biggart, 1985; Locke, 1689). What other psychological constructs that reflect this interdependence might be systematically tied to structural power? Previous theorizing suggests a candidate: a sense of responsibility.

The role of responsibility to others has played a central role in a number of theories of power, all of which emphasize the fundamentally relational nature of power. Power cannot emerge in a vacuum. Power, as explained above, is asymmetric control over valued resources. The term "valued" is crucial: controlling resources no one else wants does not afford power. It is the fact of others' valuation of what the powerholder controls that renders the resource control "power." Because power is fundamentally relational, along with the powerholder's relative independence comes others' dependence on the powerholder. When an individual holds power, others are, by definition, dependent on that individual in order to facilitate the meeting of their needs and the protection of their interests. Moreover, the degree of the power-holder's power is commensurate to the degree of this dependence that others experience. If the resource in question is highly valued, and the powerholder has complete control over that resource, then the power-holder's power is high, and the subordinate's dependence is as well. Thus, with power comes others' dependence.

Consistent with this notion, some early theorizing in organizational behavior linked the fact of others' dependence to the experience of responsibility. For example, Cartwright and Zander (1968) argued that with power comes responsibility, further noting that the social burdens that come with responsibility for others' outcomes may lead powerholders to exhibit compassionate behavior toward others. Similarly, Biggart and Hamilton (1984) (Hamilton & Biggart, 1985) described power as fundamentally grounded in the powerholder's responsibility to others and obedience to the social expectations associated with holding power. More recent thinking about organizational leadership has also emphasized that responsibility and accountability to others are integral aspects of leaders' exercise of power in organizations (Hollander, 2009).

Moreover, some recent psychological theorizing has taken a similar view. In particular, Keltner, Van Kleef, Chen, and Kraus (2008) proposed the "reciprocal influence model of social power," in which they argue that power relationships are characterized by interdependence and that as a consequence, powerful actors are not entirely free—they are, in fact, constrained to act in socially responsible ways by the social evaluations and interpersonal behaviors of other group members. They review extant research consistent with their theory and propose a model of the strategic interplay that characterizes power dynamics in groups (see also Oc et al., 2015; Rus, van Knippenberg, & Wisse, 2012). This perspective is consistent with research that has viewed relationships between supervisors and subordinates as ones of mutual interdependence (e.g., Dabos & Rousseau, 2004), as well as with the movement in sociology to conceptualize power as a network of interdependent relationships (e.g., Astley & Zajac, 1990; Burt, 1992; Krackhardt, 1992). In line with these views, Handgraaf, Van Dijk, Vermunt, Wilke, and De Dreu (2008) found that high levels of power elicited feelings of responsibility for others. In addition, Anderson et al. (2012) found that the sense of power is positively associated with a belief in taking care of the underprivileged. In addition, in a recent qualitative study of the antecedents of courage, Schilpzand, Hekman, and Mitchell (2014) interviewed military officers and executives from a variety of types of organizations, and their findings revealed that feelings of power were a key factor triggering a sense of responsibility to act on behalf of others.

Thus, there is reason to believe that responsibility may play just as prominent a role as freedom in the psychology of power in organizations. If this is the case, it helps to explain a number of findings that seem to be in tension with the notion that power leads to a tendency to focus on the self to the neglect of the perspectives and interests of others.

As indicated above, based on the empirical record, the effects of psychological power on agentic behaviors appear to be quite robust (Anderson & Brion, 2014; Magee & Galinsky, 2008). However, the effects of psychological power on communal behaviors, which involve attention to others' views and responsiveness to others' interests, have been more mixed. On the one hand, research has indicated that psychological power reduces perspective taking (Galinsky et al., 2006), leads to the objectification of others (Gruenfeld et al., 2008; Kipnis, 1972), diminishes evaluations of others' performance (Georgesen & Harris, 1998, 2000), and reduces empathy (Van Kleef et al., 2008). On the other hand, other work has found that psychological power increases interpersonal sensitivity and attention (Schmid Mast, Jonas, & Hall, 2009; see also Overbeck & Park, 2001, 2006), enhances individuals' learning about interaction partners (Copeland, 1994), increases helping behavior (Tjosvold, 1985), and enhances generosity to others (Anderson et al., 2012; Greenberg, 1978; Tost et al., 2015).

Perhaps these two divergent sets of findings point to a dual nature of power: power can induce freedom or responsibility. When power as freedom is evoked, we can expect a negative effect of power on social attention and

responsiveness to others' needs (i.e., communal behaviors); however, when responsibility is evoked, we can expect just the opposite.

If consciously-felt power is just as likely to evoke a sense of responsibility as it is to activate the sense of social liberation that characterizes the cognitive network for power in Western culture, then a central task for organizational researchers is to determine the circumstances under which one or the other predominates. I argue that the likelihood that consciously experienced power activates a sense of responsibility is driven by the powerholder's awareness that others are dependent on the powerholder, which is particularly likely to emerge when the sense of power is rooted in objective structural power (see Fig. 2). I further expect that the path from the sense of power to the sense of responsibility is moderated by gender, organizational culture, and personal traits and values corresponding to an inclination toward responsiveness to others in social interaction. In addition, I expect that when the sense of responsibility emerges, it moderates the effects of the cognitive network for power on behavior, eliminating those effects when they are viewed as inappropriate and replacing them with more responsibility-consistent behavioral choices. I explain these predictions below.

2.3.1. The link between the sense of power and the sense of responsibility: Dependency awareness

Responsibility is a feeling of obligation to act in ways that benefit others (Handgraaf et al., 2008; Krebs, 1970; Pearce & Gregersen, 1991; Smith, Organ, & Near, 1983; Tost et al., 2015). Previous research suggests that it emerges when individuals become aware of others' dependence on them. For example, Handgraaf et al. (2008) found that power increases selfish allocation behavior in an ultimatum game, but only up to the point at which other recipients are completely powerless (i.e., a dictator game), at which point a sense of responsibility emerges and leads to greater generosity to others. The authors argue that awareness of the powerlessness and dependence of the recipient produces the sense of responsibility.

Similarly, research on intergenerational dilemmas suggests that power evokes responsibility in intergenerational decisions due to dependency awareness (e.g., Tost et al., 2015; Wade-Benzoni, Hernandez, Medvec, & Messick, 2008). Intergenerational decisions are situations in which a decision maker must allocate resources between the self in the present and others in the future (Wade-Benzoni, 2002). In intergenerational dilemmas, therefore, the recipients are particularly powerless because not only are they unable to make the decision themselves, they are also unable to reciprocate the decision maker's behavior (because the allocation outcome to the recipient is revealed in the future rather than the present) (Wade-Benzoni & Tost, 2009). Research suggests that this extremity of power asymmetry and the recipient's dependence is salient to decision makers, and that consequently decision makers feel a sense of responsibility to be generous with others. For example, Wade-Benzoni et al. (2008) showed that the experience of power in intergenerational dilemmas can induce feelings of stewardship, raising the level of generosity to future others that is viewed as fair and just. Moreover, Tost et al. (2015) showed that power can induce generosity in intergenerational dilemmas, an effect that was mediated by a sense of responsibility.

Dependency awareness thus involves a conscious awareness of others' dependence on the powerholder, and it induces a sense of responsibility to others. Whereas the sense of power is a powerholder's conscious awareness of his or her own power over others, dependency awareness involves a powerholder's conscious awareness of others' dependence on him or her. On a conceptual level, of course, power and dependence are two sides of the same coin: if one holds social power, others are, by definition, dependent on that individual. On a perceptual level, however, the relationship between the two may vary. One may feel powerful without consciously considering those over whom one has power. That is, an individual may perceive that he or she has the ability to influence others without thinking of that influence as emerging from others' dependence.

What are the determinants of whether dependency awareness, and hence a sense of responsibility, will emerge when someone experiences a heightened sense of power? As indicated above, previous research suggests that the extremity of the power imbalance is one factor: when the asymmetry characterizing resource control increases, others' dependency is likely to become more salient to powerholders, thereby evoking a sense of responsibility (e.g., Handgraaf et al., 2008; Tost et al., 2015; Wade-Benzoni et al., 2008). This insight suggests that a sense of power that emerges from structural power (as opposed to a more "illusory" sense of power) is particularly likely to elicit a sense of responsibility.

Similarly, other factors related to structural power are likely to reinforce the link between the sense of power and the sense of responsibility. In particular, both the exercise of power and social interactions with subordinates in which dependency is highlighted likely reinforce the salience of others' dependence. When someone exercises power, they must not only consider their own level of power but also the level of power that characterizes the target of influence. If the difference is substantial, the person exercising the power is likely to become aware of others' dependence. Similarly, social interactions with subordinates are also likely to highlight others' dependence. For example, a manager may meet the families of his or her subordinates at an office party, an experience that would serve as a reminder that the subordinates are breadwinners for their families and that their abilities to provide for their families is dependent on decisions made by their manager. Perhaps the most common type of social interactions that highlight dependence for those in powerful positions in organization comes in the form of requests (e.g., requests for budget allocations, requests for help with a project, or requests for time off or a flexible work schedule to tend to an ill family member). Each of these types of experiences serves as a reminder that not only is the powerholder influential but also that the powerholder's influence is rooted in the fact that others depend on him or her. In other words, some of the same experiences and interactions that enhance the sense of

power may simultaneously enhance a sense of social responsibility. In short, when the sense of power is rooted in an actual structural power difference, powerholders tend to have plentiful occasions to interact with their subordinates. These interactions are likely to strengthen the positive relationship between the sense of power and the sense of responsibility to others. I therefore propose:

Proposition 4. The positive effect of the sense of power on the sense of responsibility is enhanced by the powerholder's structural power.

In addition to structural power, two other factors are likely to enhance the link between the sense of power and the sense of responsibility. One is gender. Women are generally inclined, overall, to be more other-oriented than men, tending to be less likely to construe themselves as independent (Cross & Madson, 1997) and desiring status (positive social evaluations) more than power (Hays, 2013; see also Mason, Zhang, & Dyer, 2010; Offerman & Schrier, 1985). Research also suggests that women may be more attuned to the moral and social implications of their behaviors (Kennedy & Kray, 2014). When individuals are focused on others, others' dependency on them is more likely to be salient. I therefore propose:

Proposition 5. The positive effect of the sense of power on the sense of responsibility is stronger among women than men.

In addition, just as gender is likely to moderate the effect of sense of power on the sense of responsibility, other individual-level and organizational-level factors that enhance (or diminish) the inclination to focus on others should have a similar effect. In particular, any variable that increases an individual's tendency to focus on others in social interactions should show a stronger effect of the sense of power on the sense of responsibility, whereas any variable that reduces such an orientation should reduce the effect. Research has identified a broad range of such factors. For example, at the individual level, variables such as communal relationship-orientation (Chen et al., 2001), self construal (Howard, Gardner, & Thompson, 2007), moral identity (DeCelles et al., 2012), need to belong (Rios, Fast, & Gruenfeld, 2015), social value orientations (Van Dijk & De Cremer, 2006), self-concept (Wisse & Rus, 2012), and prestige and dominance motivations (Maner & Mead, 2010, 2012) can be expected to act as moderators. At the organizational level, cultural values and norms that promote or enhance prosocial values (e.g., cooperation and collaboration) can be expected to do so. I therefore propose:

Proposition 6. The positive effect of the sense of power on the sense of responsibility is stronger among those with an other-orientation to social interactions.

Thus, I expect that the sense of power has a stronger positive effect on the sense of responsibility among those with structural power, among women, and among individuals with an other-orientation. In developing these ideas, I've relied on a simplifying assumption that the powerholder is only responsible to one individual or to a group of individuals with common interests. Clearly, such an assumption is, over time, unsustainable in organizations. However, this assumption may hold in specific decision situations, and it is also reasonable to expect the moderator variables I have identified generalize to a multi-party system. That is, it is likely that the link between the sense of power and the sense of responsibility is strong among other-oriented holders of structural power, even if there are multiple parties to whom they may feel responsible. The multi-party context does, however, add a new complication: powerholders must strategize ways to meet the needs of multiple parties or determine to whom they feel most responsible. How will they make such a determination? Will they prioritize those with the greatest need? Will they prioritize those with whom they feel the greatest interdependence, or those most able to ultimately take their power away? These questions represent important avenues for future research.

2.3.2. The effects of the sense of responsibility on organizational behaviors

As depicted in Fig. 2, I expect that the sense of responsibility moderates the effects of the cognitive network for power on behaviors, such that when a sense of responsibility is evoked, the effects of the cognitive network for power is diminished. This notion stems from previous research on dual process models of judgment and decision making in psychology. As explained above, psychological research suggests that conscious thought processes provide checks on nonconsciously-induced behavior, such that if the behavior does not seem appropriate for the situation, the nonsconscious processing system (System 1) is over-ruled by the conscious System 2 (Gilbert, 2002; Kahneman & Frederick, 2002; Lieberman, 2003)[4]. Given that conscious thoughts about responsibility are likely to be highly relevant to behaviors that emerge from the cognitive network for power, I expect that the sense of responsibility can eliminate the effects of the cognitive network for power, particularly on communal dependent variables.

Communal dependent variables involve a focus on others' views and needs. It is highly likely that a sense of responsibility would eliminate the adverse effects of the cognitive network for power on these types of variables, because the effects of the two are likely to be directly opposed. That is, research suggests that a "power liberates" ethos characterizes the cognitive network for power, at least in Western culture (Zhong et al., 2006). Consequently, psychological power in this form is likely to reduce attention and responsiveness to others (e.g., Galinsky et al., 2006; Magee & Smith, 2013; Van Kleef et al., 2008). In contrast, a sense of responsibility would lead individuals to recognize the importance and value of considering others' perspectives, opinions, interests, and needs (Handgraaf

---

[4] While more recent psychological theorizing has led to more nuanced neurologically-based understandings of these dynamics, the notion that conscious reflective thought moderates nonconsciously activated behavior continues to be a key component of these views (e.g., Cunningham, Zelazo, Packer, & Van Bavel, 2007; Van Bavel, Xiao, & Cunningham, 2012).

et al., 2008; Krebs, 1970; Pearce & Gregersen, 1991; Smith et al., 1983; Tost et al., forthcoming). Accordingly:

Proposition 7. There is a positive effect of the sense of responsibility on communal dependent variables.

Given that the sense of responsibility is a conscious cognition and strongly related to communal variables, it can be expected to override the effects of the cognitive network for power on communal variables.

Proposition 8. The negative effects of the cognitive network for power on communal dependent variables is diminished when the powerholder feels a strong sense of responsibility to others.

An integration of the above propositions allows us to derive the following:

Proposition 9. There is a positive effect of structural power on communal dependent variables.

Proposition 10. The effect described in Proposition 9 is mediated by the sense of power and the sense of responsibility.

Proposition 11. The mediating effect described in Proposition 9 is moderated in the second stage by gender and other-orientation, such that the effect is stronger among women and among those with an other-orientation to social interactions.

This prediction is depicted in Fig. 3. It is notable that I do not incorporate other moderator variables into this path. With respect to legitimacy, Proposition 1 predicts that self-perceived legitimacy will enhance the link between structural power and the sense of power. A logical extension of this expectation is that legitimacy would enhance the effects specified in Propositions 9 and 10. However, a lack of legitimacy would also be expected to have a positive effect on communal dependent variables, because a powerholder lacking legitimacy must attend to the views and needs of others if he or she hopes to restore it. Thus, I would expect the effect predicted in Proposition 9 to hold regardless of the powerholder's perception of legitimacy (because of the sense of responsibility when legitimacy is high, and because of strategic concerns when it is low).

Similarly, while Proposition 2 predicts that interdependence decreases the effect of structural power on the sense

of power (with the implication that interdependence should diminish the effects in Propositions 9 and 10), interdependence can also be expected to directly and positively affect communal dependent variables (due to the need to be responsive to those with whom one is interdependent). Again, I would expect the effect predicted in Proposition 9 to hold regardless of the powerholder's perception of interdependence (because of the sense of responsibility when interdependence is perceived to be low, and because of strategic concerns when it is perceived to be high).

Proposition 3 predicts that confidence enhances the link between structural power and the sense of power, and thus it can be expected to reinforce Propositions 9 and 10. However, confidence is also associated with cognitive network for power (Tost et al., 2012) and may therefore activate the cognitive network for power when it emerges in an episodic fashion (presumably negatively affecting communal dependent variables). Moreover, confidence may also directly predict communal dependent variables, such that powerholders lacking confidence would be likely to solicit others' views and base decisions thereon, because without them they feel unable to perform (Tost et al., 2012). I therefore expect that structural power positively affects communal dependent variables at both high and low levels of powerholder confidence.

Given these observations, it is important that correlational tests of Propositions 9 through 11 incorporate self-perceived legitimacy, interdependence, and confidence as control variables. I return to methodological issues in the Discussion, but it is also important to note here that I have glossed over some of the nuance of communal dependent variables. It is not necessary, for example, that attention and generosity co-vary, and it may well be theoretically useful to separate them out. Moreover, there are multiple types of attention that could be measured as communal dependent variables, some of which may be more relevant to the responsibility that comes with structural power than others. In particular, given that power is associated with goal pursuit (Guinote, 2007a) and leads to more abstract information processing (Smith & Trope, 2006), the positive effect of power on social attention may be more likely to emerge with forms of attention that serve the dependent's interests than with those that seem unrelated. For example, Propositions 9 through 11 may be more likely to hold when the dependent variable is related to understanding the target's personality and preferences
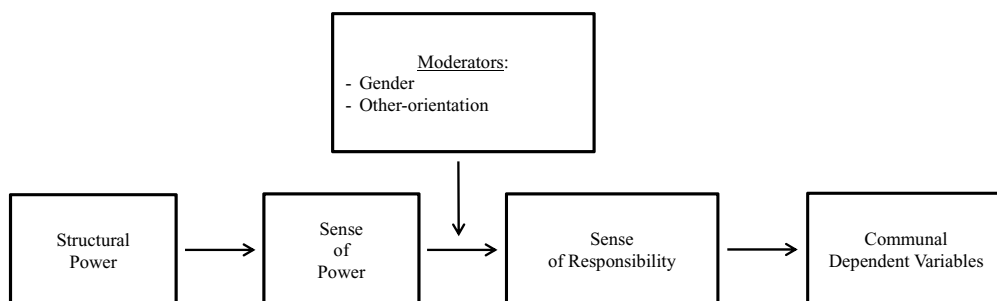
Fig. 3. Propositions 9 through 11.

(e.g., Overbeck & Park, 2006, Study 1) than when the dependent variable involves mirroring the target's visual orientation (e.g., Galinsky et al., 2006, Study 1). Structural powerholders may not take, or even have (see Fiske, 1993; Goodwin, Gubin, Fiske, & Yzerbyt, 2000; Magee & Smith, 2013), the time and cognitive capacity to attend to less crucial features of their dependents, but I expect that the effects specified in Propositions 9 through 11 would hold for measures that are of greater importance to the target, the powerholder, or their relationship.

The ways in which responsibility may affect agentic dependent variables is somewhat more complicated. Agentic dependent variables involve expansion or promotion of one's own views and ambitions and therefore typically incorporate self-assertion and independence. While this orientation may seem to be in tension with the other-focus that emerges with the sense of responsibility, this is not necessarily the case. First, agentic dependent variables may not necessarily involve a social referent (e.g. optimism and action-orientation), and under such circumstances a sense of responsibility to others may not seem relevant to a decision maker. Second, when there is a social referent (e.g., resisting advice, verbal communication, emotional expression), the implications of responsibility may remain unclear. For example, a powerholder may feel a responsibility to consider his or her advisor's perspectives but may not feel obligated to follow them.

One circumstance under which a sense of responsibility may moderate the effects of the cognitive network for power on agentic dependent variables is when the agentic behaviors are likely to affect those to whom one feels responsible. For example, a sense of responsibility may lead a decision maker to feel more risk-averse if the decision at hand is likely to aversely affect others to whom he or she feels responsible. Of course, in that case, the distinction between the two categories of variables is blurred.

Concerns about how agentic behaviors may affect dependents notwithstanding, it is possible to incorporate the ideas above into a prediction about how structural power may elicit nonconscious effects on agentic dependent variables. Specifically, Propositions 1 through 3 suggest that when a structural powerholder perceives his or her power to be legitimate (Proposition 1), does not feel a strong sense of interdependence with others (Proposition 2), and feels reasonably confident, there is a positive effect of structural power on the sense of power.

The sense of power, when brought into conscious awareness by an episodic event or social experience, can activate the cognitive network for power, which in turn produces a positive effect on agentic dependent variables. Given that there is little reason to expect that such effects on agentic behaviors would be consistently over-ridden by conscious and strategic considerations (because these behaviors are normative for powerful people in organizations), the integration of these ideas leads to the following propositions:

Proposition 12. There is a positive effect of structural power on agentic dependent variables.

Proposition 13. The effect described in Proposition 12 is mediated by the sense of power and the cognitive network for power.

Proposition 14. The mediating effect described in Proposition 13 is moderated in the first stage by legitimacy, interdependence, and confidence, such that the effect is stronger among those who feel they possess legitimacy, do not feel highly interdependent with others, and are confident.

These propositions are depicted in Fig. 4.

2.4. Summary

While it is not possible at this point to specify a reliable nonconscious path linking structural power to psychological power and its downstream effects, it is possible to derive propositions that link structural power with those outcome variables through the conscious sense of power. In particular, I expect that structural power has a positive effect on both agentic and communal dependent variables. The causal path associated with agentic dependent variables involves a conscious sense of power as a trigger activating the cognitive network for power, which in turn increases the likelihood of power-associated agentic behaviors (at least in Western cultures). The positive effect of structural power on communal dependent variables, in contrast, is expected to be mediated by the conscious sense of power and a sense of responsibility. A critical step in studying the dynamics of the effect of structural power on the sense of responsibility will involve incorporating a nuanced understanding of the dynamics of strategic power maintenance (e.g., Anderson & Brion, 2014; Keltner et al., 2008) to theorize how
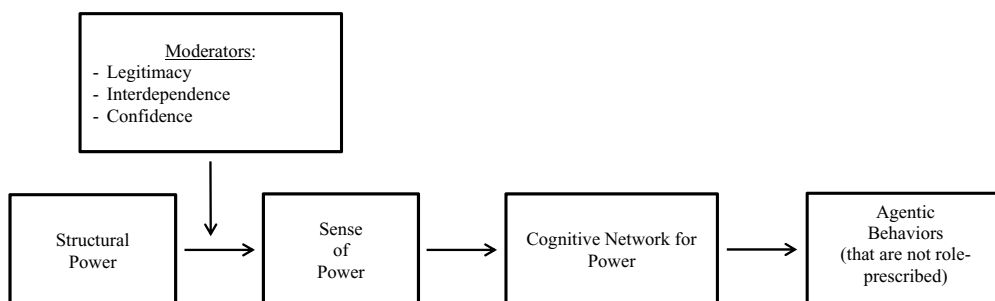

Fig. 4. Propositions 12 through 14.

powerholders balance their responsibilities to multiple parties.

3. Discussion

The aim of this paper is to examine the links between structural and psychological power and to explore how their interrelationships affect organizational behavior. I have argued that psychological power takes two forms: the (nonconscious) cognitive network for power and the conscious sense of power. The causal relationship between the two operates in both directions (i.e., the two forms of psychological power can, under certain circumstances, mutually activate one another), and both forms can be experienced in the absence of structural power. However, structural power is likely to produce a conscious sense of power, which is enhanced when powerholders feel they have high legitimacy, low interdependence, and reason to be confident in their own abilities. This structure-induced sense of power can affect organizational behavior in two primary ways. First, the sense of power is likely to induce a sense of responsibility among (but not exclusively among) structural powerholders, especially among women and those with other-focused orientations to social interaction. The sense of responsibility leads structural powerholders to be responsive to the views and needs of others (see Fig. 3). Second, the sense of power, when brought into conscious awareness, activates a non-conscious association between power and agentic behaviors, which in turn leads structural powerholders to enact agentic behaviors (see Fig. 4).

It is important to note that the causal path depicted in Fig. 3 is in tension with other recent theorizing and with several empirical findings. In particular, the social distance theory of power (Magee & Smith, 2013) makes just the opposite prediction with respect to communal dependent variables: it predicts that power reduces attention and responsiveness to others (see also Rucker et al., 2012). Moreover, previous research suggests that psychological power reduces perspective taking (Galinsky et al., 2006) and empathy (Van Kleef et al., 2008), and leads to a desire to work alone rather than with others (Lammers et al., 2012). As noted above, however, other work has found that psychological power increases interpersonal sensitivity and attention (Schmid Mast et al., 2009; see also Overbeck & Park, 2001, 2006), enhances individuals' learning about interaction partners (Copeland, 1994), increases helping behavior (Tjosvold, 1985), and enhances generosity to others (Anderson et al., 2012; Greenberg, 1978; Tost et al., 2015). Recent theoretical reviews have highlighted the need for research that can reconcile these two divergent sets of findings.

A close examination of the distinctions between structural and psychological power provides a potential path to reconciliation. In particular, the two sets of findings may reflect theoretical paradigms (e.g., an emphasis on power as liberating rather than as obligating) and research methodologies in which responsibility would be more or less salient. That is, the primary approaches to manipulating power in social psychological research have been built on the assumption that psychological power and structural power function in the same ways, and these approaches have primarily been developed to test ideas associated with the liberating and agentic aspects of power (e.g., action-orientation). Other experimental methodologies may be needed in order to reveal the fuller picture of how structural and psychological power affect these types of behaviors, and how each form of power affects responsibility to others.

3.1. Methodological issues

To consider this possibility, it is helpful to revisit how power has been manipulated in recent social psychological research. Three primary approaches to manipulating power have been used: semantic primes, recall primes, and role assignment. Semantic primes are those that require participants to unscramble or otherwise interact with words related to power (e.g., "boss" or "weak," e.g., Chen et al., 2001; Smith & Trope, 2006). This approach bypasses the conscious sense of power entirely, intervening only at the point of the cognitive network for power. Based on Fig. 2, we can expect that such approaches would lead to negative effects on communal dependent variables. But if such a finding were interpreted to apply to structural power, Fig. 2 and Fig. 3 indicate that the implication would likely be misleading.

By far the most common approach to manipulating power in social psychology over the last decade is the writing task, developed by Galinsky et al. (2003) to test the effect of power on action-orientation. The high power version reads as follows:

> Please recall a particular incident in which you had power over another individual or individuals. By power, we mean a situation in which you controlled the ability of another person or persons to get something they wanted, or were in a position to evaluate those individuals. Please describe this situation in which you had power—what happened, how you felt, etc. (Galinsky et al., 2003, p. 458).

This approach intervenes at the sense of power. It therefore in theory allows for a sense of responsibility to emerge. However, there are two important concerns related to this approach.

First, a closer examination of the text indicates that in addition to asking people to recall feeling a sense of power, the text may also inadvertently prime a strategic orientation. That is, when participants recall a time they had control over someone, they are likely to think about a situation in which their own and the target's interests were in conflict. For example, a father may have power over his children, but he is not likely to think about that power, or to construe it as power, until his children misbehave. If indeed the writing task does induce such a strategic orientation, it would likely induce a sense of competition with those over whom one has power. Indeed, such effects have emerged in previous research (e.g., Tost et al., 2012), though it is unclear if this effect emerged because of a confound in the manipulation (as I am suggesting; i.e., a confound with goal conflict) or because competitiveness is a node in the cognitive network for power that was

particularly salient in those studies (or both). Thus, while the writing task may remind participants what it is like to experience a sense of power, it may also lead them to think about situations marked by conflict between themselves and those over whom they have power, which would presumably have a substantial negative effect on their communal orientation. This competitive rather than communal orientation would likely undermine the effect of the sense of power on the sense of responsibility (see Proposition 6).

Notably, an assumption of conflict between the powerful and those over whom they have power would be consistent with assuming a negative relationship between agency and communion, as previous theorists have implied (Rucker et al., 2012). That is, when the two parties are in competition, an individual's focus on his or her own goals (agency) is in greater conflict with the interests and needs of others (communion). While such a boundary condition may be appropriate for a variety of social contexts, it seems less than ideal for the study of organizations, as organizational behavior often involves the pursuit of shared goals. If researchers focus only on situations of conflict between powerful actors and those over whom they have power, empirical findings may obscure any prosocial side of power that emerges in the absence of such conflict. While some may argue that power becomes most interesting in situations of goal conflict, I suggest that if scholars aim to understand the full range of effects of psychological power in organizations, it is necessary to examine contexts that involve goal alignment as well.

Perhaps the writing task could be improved by asking participants to write about a time they controlled valued resources rather than controlled other people. However, this adjustment would not address an important second concern.

The second concern regarding this manipulation stems from a related observation that, under some circumstances, represents a clear strength of this approach. In particular, Galinsky et al. (2003), who developed the task (Studies 2 and 3), indicated that this type of priming approach is useful because it avoids activating any role-prescribed norms (see also Gruenfeld et al., 2008). There can certainly be empirical value in separating psychological forms of power from the norms associated with structural power. In particular, the writing task can be especially useful when researchers want to experimentally separate structural and psychological power (e.g., Tost & Johnson, 2015; Tost et al., 2013). At the same time, recent research shows that powerholders are particularly likely to identify with their power-based roles (Joshi & Fast, 2013), a finding which reminds us that while there may be theoretical reasons to separate power from the role-based norms with which it is associated, the practical meaning of doing so is not always evident.

This observation highlights the second important concern about the writing task, one that also applies to the use of semantic primes: these approaches obscure the fundamentally relational nature of power. In these tasks, one writes about power over Person or Group A and then moves on to make decisions or enact behaviors in contexts

that are in no way related to that group. For example, in response to the writing task prompt, an individual may choose to write about a powerful experience in a relation to a romantic partner. However, once the writing task is finished, the romantic partner does not come up again in the study. Instead, to the extent that the dependent variable carries a relational component, the individual or individuals affected by the participant's choice on the dependent variable is someone different from the person they wrote about. That is, participants write about power over one person and then exercise it over another. To the extent that any of the effects of power depend, as I contend, on the relationship between the powerholder and those over whom the powerholder has power, this approach cannot uncover those effects. Therefore, while this approach achieves the goal of eliminating concerns about role-based norms, it also virtually eliminates any potential basis for a sense of responsibility to those over whom one has power.

This is not to say that the writing task manipulation should never be used. My point here is simply that, when it is used, it is important that researchers note its limitations and use caution in assuming that its effects generalize to relational aspects of structural forms of power. In particular, when testing predictions about how power affects powerholders' treatments of and behaviors relating to their subordinates, it is important that researchers consider other methodological options.

A third approach to experimentally manipulating power is to use role assignments. In their critique of the writing prime, Sturm and Antonakis (2015) suggest that researchers adopt the approach used by behavioral economists, asking participants to engage in strategic allocation games (e.g., the dictator game). This approach may well hold promise, but it is also important to point out that such games often evoke a confrontational or competitive orientation on the part of the powerful individual (Larrick & Blunt, 1997). Subtle changes in wording can lead to significantly divergent effects, particularly with respect to communal variables such as generosity, as is evidenced by the different effects of resource control that emerges in ultimatum games (more selfish behavior) versus social dilemmas (greater generosity) (Larrick & Blunt, 1997). Sturm and Antonakis's (2015) contention, therefore, that such approaches avoid evoking social norms does not seem to be accurate.

Games are not the only way in which role assignments have been used to experimentally manipulate power. For example, in the Galinsky et al. (2003) paper that first used the writing task, the first study involved a role manipulation in which the high power participants were assigned to the role of "manager" in a Lego building task, and the low power participants were assigned to the role of "builder." The manager role involved planning the building process and assigning tasks to the team, as well as determining team member rewards after task completion. The low power role required taking instructions from the manager (the "responsibility" to do so), and it was emphasized that the low power participants would be evaluated by the manager and would receive the rewards assigned by the manager but would not be able to evaluate or reward (or punish) the manager. This approach certainly manipulates

structural power and is therefore more suitable to studying the effects of structural power on behaviors.

Have artifacts of these various manipulations lead to divergent findings? Do studies involving different manipulations demonstrate different effects on communal dependent variables? To address this issue in an exploratory fashion, I examined the papers I have cited here that address communal dependent variables directly. Indeed, based on an exploratory investigation, it seems plausible that the manipulations used in the studies may produce divergent effects.

Among those showing a negative effect of power on communal dependent variables 11 out of 13 studies used the writing task (Galinsky et al., 2006: 3 out of 3; Gruenfeld et al., 2008: 4 out of 5; Lammers et al., 2012: 4 out of 4). Only two used role-based manipulations (Experiment 4 in Gruenfeld et al., 2008; Kipnis, 1972), one of which informed participants that the participants assigned to different roles (worker vs. manager) would conduct the task in separate rooms because in previous administrations of the study, personality clashes among the two roles interfered with their work (a scenario likely to elicit feelings of conflict and confrontation that could override the effect of power on responsibility) (Kipnis, 1972). The other three references (Georgesen & Harris, 1998; Georgesen & Harris, 2000; Van Kleef et al., 2008) are harder to incorporate into an assessment of the likely effects of different manipulations. The Van Kleef et al. (2008) paper included only one study in which power was measured rather than manipulated, and the Georgesen and Harris (2000) paper manipulates power in various ways (one of which is simply by having the opportunity to perceive and evaluate another person). Another Georgesen and Harris (1998) study, however, is a meta-analysis that incorporates studies utilizing various manipulations and measures, and they found that the negative effect of power on evaluations of others' performance was consistent and moderately strong. However, they do not separate out different types of manipulations or different types of measures to examine how such findings may differ across them.

In contrast, of the papers that directly examine the effect of power on communal dependent variables and reveal a *positive* effect, 9 out of 13 used a role manipulation similar to that used in Galinsky and colleagues' (2003) Study 1 (Schmid Mast et al., 2009: 1 out of 4 studies; Overbeck & Park, 2001: 3 out of 3 studies; Overbeck and Park, 2006: 2 out of 2 studies; Tost et al., 2015: 3 out of 4 studies). Only 3 used the writing task (2 in Schmid Mast et al., 2009, and 1 in Tost et al., 2015). One used an information-based manipulation: Tjosvold (1985) made all participants supervisors but some were provided with information that their subordinate would desire. While this manipulation is different from the other role-based manipulations, it is notable that the findings demonstrated a positive effect of power on communal dependent variables when the context was manipulated as "cooperative" but not when it was manipulated as "competitive" or "individualistic" (there was no control condition). Other referenced papers in this category are harder to incorporate because they simultaneously manipulate multiple

forms of power (Copeland, 1994; Greenberg, 1978) or because power is measured rather than manipulated (Anderson et al., 2012).

My analysis here is not a systematic one, and a more in-depth and comprehensive meta-analysis of these and related findings would be required to suggest any meaningful conclusions. However, this exploratory investigation does suggest that such a meta-analysis is warranted. Consistent with this notion, Tost and Johnson (2015) conducted a study in which they manipulated power and varied the manipulation of power. That is, participants were assigned to either the low or high power condition, and the manipulation was conducted using either the writing task or a role manipulation similar to that used by Galinsky and colleagues (2003; Study 1). The role manipulation revealed a positive effect of power on solidarity with teammates, whereas the writing task did not. The researchers also replicated the role-manipulated finding in three additional studies.

3.2. Concluding thoughts

The research reviewed and the ideas presented here suggest that it is important for researchers to mind the differences between structural and psychological power in theorizing, empirical design, and the interpretation of findings. Theoretical construals of power range from an emphasis on power as liberation and freedom (e.g., Keltner et al., 2003; Magee & Smith, 2013) to views of power as involving responsibility and social obligations (e.g., Cartwright & Zander, 1968; Hamilton & Biggart, 1985; Keltner et al., 2008). Empirical approaches vary with respect to whether they manipulate power as a nonconscious psychological construct, as a conscious one, or structurally. Moreover, there is reason to believe that these theoretical orientations and methodological approaches may produce divergent findings.

These observations make it all the more important that researchers are careful in interpreting their effects, both in the contexts of their papers and in media reports. It is not difficult to identify studies of psychological power highlighted in media under headlines touting the negative interpersonal effects of power. As one example, consider a recent opinion piece in the New York Times entitled "Powerful and Coldhearted" (Inzlicht & Obhi, 2014: http://www.nytimes.com/2014/07/27/opinion/sunday/powerful-and-coldhearted.html). The article focuses on a study (Hogeveen, Inzlicht, & Obhi, 2014) in which 45 individuals completed the writing task manipulation (high power $n = 18$, low power $n = 17$, and control group = 10) and then had their brains scanned as they observed a video of a person's right hand (only the hand and wrist) squeezing a ball. The brain scan assessed the extent to which the participants' neural activity levels reflected a resonance with the squeezing activity demonstrated by the hand. The New York Times article, however, frames the study as showing an association between power and coldheartedness, which hardly seems warranted.

This example may seem like a harmless instance of researchers exhibiting excess enthusiasm about the

implications of their own work (I am strongly inclined to the same tendency). However, I highlight this example not to chastise the authors but to note an important and concerning dynamic. Priming research is designed to uncover non-conscious associations that are learned over time and stored in memory. Certainly these associations emerge from a variety of sources, but it seems plausible that at least one meaningful source is the media. And in the case of power, it seems reasonable that the media's attraction to stories about how power corrupts may play a role in creating the nonconscious negative effects of the cognitive network for power on communal variables. Therefore, when researchers publicize psychological power findings (especially nonconscious ones) as if they apply to structural power, they may inadvertently be reinforcing the effects they claim to reveal. Gergen (1973) described a similar process in detail with respect to social psychological research (see also Ghoshal, 2005).

Finally, I wish to highlight an important critique of my treatment of the construct of power. Specifically, critical management theorists would likely highlight that the scope of my examination is far too narrow. That is, an exploration of power that defines power as asymmetric control over valued resources and then moves forward to examine the effects of power on observed decision making and behavior glosses over what may be some of the most impactful and interesting effects of power. Specifically: what factors and circumstances render the resources in question valuable? Who sets this value and how? How did the current arrangement of resource control emerge, and how is it sustained? Meaningful answers to these questions will necessarily appeal to the construct of power itself as an explanatory variable. In sidestepping these issues, I risk masking the ways in which power relations at a single point in time are often the result of preceding power dynamics in which the powerful have, consciously or not, endeavored to maintain a state of inequality that places them at the top. Moreover, in theorizing a connection between feeling powerful and a sense of responsibility, I may be "rendering power tolerable" (Willmott, 2013, p. 285) and therefore legitimizing unjust distributions of power. These contentions represent important challenges not only to my own work, but also to the vast majority of the extant literature on both psychological and structural power in the management and social psychology literatures (see Willmott, 2013 for a discussion and Fleming & Spicer, 2014, for a review that focuses heavily on critical views of power). Indeed, there is an urgent need for scholars to wrestle more directly with these issues and to move theories of managerial power forward to consider a much broader range of power dynamics (see, e.g., Lukes, 2005). My goal here has been more humble: given the ways in which both structural and psychological power have been defined and examined (both theoretically and empirically), I have attempted to build a theoretical bridge between these two constructs in order to understand the linkages and disconnects between them and to explore how their interplay affects organizational behavior.

Power can be a psychological construct embedded in people's minds. But psychological power is unlikely to function in the same ways as structural power. It is therefore important that research seeks to distinguish the two, exploring both their interrelationships and their distinctions. Doing so is necessary to advance scholarly understandings of how power operates in organizations and how organizations can channel powerholders' cognitions and behaviors in prosocial ways.

References

Abele, A. E. (2003). The dynamics of masculine-agentic and feminine-communal traits: Findings from a prospective study. *Journal of Personality and Social Psychology, 85*(4), 768–776.

Allison, G. T. (1971). *Essence of decision: Explaining the Cuban missile crisis.* Boston: Little, Brown.

Anderson, C., & Berdhal, 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., & Brion, S. (2014). Perspectives on power in organizations. *Annual Review Organizational Psychology and Organizational Behavior, 1*, 67–97.

Anderson, C., & Brown, C. E. (2010). The functions and dysfunctions of hierarchy. *Research in Organizational Behavior*, 1–35.

Anderson, C., & Galinsky, A. D. (2006). Power, optimism, and risk-taking. *European Journal of Social Psychology, 36*, 511–536.

Anderson, C., John, O. P., & Keltner, D. (2012). The personal sense of power. *Journal of Personality, 80*(2), 313–344.

Arreguin-Toft, I. (2001). How the weak win wars: A theory of asymmetric conflict. *International Security, 26*(1), 93–128.

Astley, W. G., & Zajac, E. J. (1990). Beyond dyadic exchange—Functional interdependence and subunit power. *Organization Studies, 11*(4), 481–501.

Bakan, D. (1966). *The duality of human existence.* Reading: Addison-Wesley.

Bargh, J. A. (2006). What have we been priming all these years? On the development, mechanisms, and ecology of nonconscious social behavior. *European Journal of Social Psychology, 36*(2), 147–168.

Bargh, J. A., & Chartrand, T. L. (1999). The unbearable automaticity of being. *American Psychologist, 54*(7), 462–479.

Bargh, J. A., Chen, M., & Burrows, L. (1996). Automaticity of social behavior: Direct effects of trait construct and stereotype priming on action. *Journal of Personality and Social Psychology, 71*, 230–244.

Bargh, J. A., Raymond, P., Pryor, J. B., & Strack, F. (1995). Attractiveness of the underling: An automatic power–sex association and its consequences for sexual harassment and aggression. *Journal of Personality and Social Psychology, 68*, 768–781.

Bass, B. M. (1990). *Bass and Stogdill's handbook of leadership.* New York, NY: Free Press.

Berger, J., Norman, J. Z., Balkwell, J. W., & Smith, R. F. (1992). Status inconsistency in task situations: A test of four status processing principles. *American Sociological Review, 57*(6), 843–855.

Blader, S. L., & Chen, Y. R. (2012). Differentiating the effects of status and power: A justice perspective. *Journal of Personality and Social Psychology, 102*, 1–21.

Biggart, N. W., & Hamilton, G. G. (1984). The power of obedience. *Administrative Science Quarterly, 29*(4), 540–549.

Borenstein, S. (1989). Hubs and high fare: Dominance and market power in the U.S. airline industry. *The Rand Journal of Economics, 20*(3), 344–365.

Brass, D. J. (1984). Being in the right place: A structural analysis of individual influence in an organization. *Administrative Science Quarterly, 29*, 518–539.

Brass, D. J. (1992). Power in organizations: A social network perspective. *Research in politics and society, 4*(1), 295–323.

Brief, A. P., Dietz, J., Reizenstein Cohn, R., Pugh, S. D., & Vaslow, J. B. (2000). Just doing business: Modern racism and obedience to authority as explanations for employment discrimination. *Organizational Behavior and Human Decision Processes, 81*(1), 72–97.

Bugental, D. B., & Lewis, J. C. (1999). The paradoxical misuse of power by those who see themselves as powerless: How does it happen? *Journal of Social Issues, 55*, 51–64.

Burt, R. S. (1992). *Structural holes: The social structure of competition.* Cambridge: Harvard University Press.

Carney, D. R., Cuddy, A. J. C., & Yapp, A. J. (2010). Power posing: Brief nonverbal displays affect neuroendocrine levels and risk tolerance. *Psychological Science, 21*, 1363–1368.

Cartwright, D. (1965). Influence, leadership, control. In J. G. March (Ed.), *Handbook of organizations* (pp. 1–47). Chicago, IL: Rand McNally.

Cartwright, D., & Zander, A. (1968). *Group dynamics* (3rd ed.). New York, NY: Harper.

Cesario, J. (2014). Priming, replication, and the hardest science. *Perspectives on Psychological Science, 9*(1), 40–48.

Chen, S., Lee-Chai, A. Y., & Bargh, J. A. (2001). Relationship orientation as a moderator of the effects of social power. *Journal of Personality and Social Psychology, 80*(2), 173–187.

Child, J. (1972). Organizational structure, environment, and performance: The role of strategic choice. *Sociology, 6*, 1–22.

Cho, Y., & Fast, N. J. (2012). Power, defensive denigration, and the assuaging effect of gratitude expression. *Journal of Experimental Social Psychology, 48*(3), 778–782.

Cialdini, R. B. (2009). *Influence: Science and practice* (Vol. 4). Boston: Pearson Education.

Cote, S., Kraus, M. W., Cheng, B. H., Oveis, C., Van Der Lowe, I., Lian, H., et al. (2011). Social power facilitates the effect of prosocial orientation on empathic accuracy. *Journal of Personality and Social Psychology, 101*(2), 217–232.

Clegg, S. R., Courpasson, D., & Phillips, N. (2006). *Power and organization*. London: Sage.

Copeland, J. T. (1994). Prophecies of power: Motivational implications of social power for behavioral confirmation. *Journal of Personality and Social Psychology, 67*, 264–277.

Courpasson, D. (2000). Managerial strategies of domination. Power in soft bureaucracies. *Organization Studies, 21*(1), 141–161.

Cross, S. E., & Madson, L. (1997). Models of the self: Self-construal's and gender. *Psychological Bulletin, 122*(1), 5–37.

Crossland, G., & Hambrick, D. C. (2011). Differences in managerial discretion across countries: How nation-level institutions affect the degree to which CEO's matter. *Strategic Management Journal, 32*, 797–819.

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.

Cunningham, W. A., Zelazo, P. D., Packer, D. J., & Van Bavel, J. J. (2007). The iterative reprocessing model: A multilevel framework for attitudes and evaluations. *Social Cognition, 25*(5), 736–760.

Dabos, G. E., & Rousseau, D. M. (2004). Mutuality and reciprocity in the psychological contracts of employees and employers. *Journal of Applied Psychology, 89*(1), 52–72.

Daily, C. M., & Johnson, J. L. (1997). Sources of CEO power and firm financial performance: A longitudinal assessment. *Journal of Management, 23*(2), 97–117.

Davis, G. F., & Thompson, T. A. (1994). A social movement perspective on corporate control. *Administrative Science Quarterly, 39*(1), 141–173.

DeCelles, K. A., DeRue, S. D., Margolis, J. D., & Ceranic, T. L. (2012). Does power corrupt or enable? When and why power facilitates self-interested behavior. *Journal of Applied Psychology, 97*(3), 681–689.

Depret, E., & Fiske, S. T. (1993). Social cognition and power: Some cognitive consequences of social structure as a source of control deprivation. In F. G. G. Weary & K. Marsh (Eds.), *Control motivation and social cognition* (pp. 176–202). New York, NY: Springer-Verlag.

Doyen, S., Klein, O., Pichon, C. L., & Cleeremans, A. (2012). Behavioral Priming: It's all in the mind, but whose mind? *PLoS ONE, 7*(1), e29081.

Eisenhardt, K., & Bourgeois, L. J. (1988). Politics of strategic decision making in high-velocity environments: Toward a midrange theory. *Academy of Management Journal, 31*, 737–770.

Emerson, R. M. (1962). Power–dependence relations. *American Sociological Review, 27*, 31–40.

Eyal, T., Liberman, N., & Trope, Y. (2008). Judging near and distant virtue and vice. *Journal of Experimental Social Psychology, 44*, 1204–1209.

Fast, N. J., Burris, E. R., & Bartel, C. A. (2014). Managing to stay in the dark: Managerial self-efficacy, ego defensiveness, and the aversion to employee voice. *Academy of Management Journal, 57*(4), 1013–1034.

Fast, N. J., & Chen, S. (2009). When the boss feels inadequate: Power, incompetence, and aggression. *Psychological Science, 20*, 1406–1413.

Fast, N. J., Gruenfeld, D. H., Sivanathan, N., & Galinsky, A. D. (2009). Illusory control: A generative force behind power's far-reaching effects. *Psychological Science, 20*(4), 502–508.

Fast, N. J., Halevy, N., & Galinsky, A. D. (2012). The destructive nature of power without status. *Journal of Experimental Social Psychology, 48*(1), 391–394.

Fast, N. J., Sivanathan, N., Mayer, N. D., & Galinsky, A. D. (2012). Power and overconfident decision-making. *Organizational Behavior and Human Decision Processes, 117*(2), 249–260.

Ferguson, M. J., & Mann, T. C. (2014). Effects and evaluation: An example of robust ''social'' priming. *Social Cognition, 32*, 33–46.

Finkelstein, S. (1992). Power in top management teams: Dimensions, measurement, and validation. *Academy of Management Journal, 35*(3), 505–538.

Fiske, S. T. (1993). Controlling other people: The impact of power on stereotyping. *American Psychologist, 48*, 621–628.

Fiske, S. T. (2010). Interpersonal stratification: Status, power, and subordination. In S. T. Fiske, D. T. Gilbert, & G. Lindzey (Eds.), *In Handbook of Social Psychology* (5th ed., pp. 941–981). New York, NY: Wiley.

Fleming, P., & Spicer, A. (2014). Power in Management and Organization Science. *The Academy of Management Annals, 8*(1), 237–298.

Fligstein, N. (1987). The intraorganizational power struggle: Rise of finance personnel to top leadership in large corporations, 1919–1979. *American Sociological Review, 52*(1), 44–58.

French, J. R. P., & Raven, B. H. (1959). The bases of social power. In D. Cartwright (Ed.), *Studies of social power* (pp. 118–149). Ann Arbor, MI: Institute for Social Research.

Friedkin, N. E. (1993). Structural bases of interpersonal influence in groups: A longitudinal case study. *American Sociological Review, 58*(6), 861–872.

Galinsky, A. D., Gruenfeld, D. H., & Magee, J. C. (2003). From power to action. *Journal of Personality and Social Psychology, 85*(3), 453–466.

Galinsky, A. D., Magee, J. C., Gruenfeld, D. H., Whitson, J. A., & Liljenquist, K. A. (2008). Power reduces the press of the situation: Implications for creativity, conformity, and dissonance. *Journal of Personality and Social Psychology, 95*(6), 1450–1466.

Galinsky, A. D., Magee, J. C., Inesi, E. M., & Gruenfeld, D. H. (2006). Power and perspective not taken. *Psychological Science, 17*(12), 1068–1074.

Georgesen, J. C., & Harris, M. J. (1998). Why's my boss always holding me down? A meta-analysis of power effects on performance evaluation. *Personality and Social Psychology Review, 2*, 184–195.

Georgesen, J. C., & Harris, M. J. (2000). The balance of power: Interpersonal consequences of differential power and expectations. *Personality and Social Psychology Bulletin, 26*, 1239–1257.

Gergen, K. J. (1973). Social psychology as history. *Journal of Personality and Social Psychology, 26*(2), 309–320.

Ghoshal, S. (2005). Bad management theories are destroying good management practices. *Academy of Management learning & education, 4*(1), 75–91.

Gilbert, D. T. (2002). Inferential correction. In T. Gilovich, D. Griffin, & D. Kahneman (Eds.), *Heuristics and biases: The psychology of intuitive judgment* (pp. 167–184). Cambridge: Cambridge University Press.

Goodwin, S. A., Gubin, A., Fiske, S. T., & Yzerbyt, V. Y. (2000). Power can bias impression processes: Stereotyping subordinates by default and by design. *Group Processes & Intergroup Relations, 3*, 227–256.

Greenberg, J. (1978). Effects of reward value and retaliative power on allocation decisions: Justice, generosity, or greed? *Journal of Personality and Social Psychology, 36*(4), 367–379.

Gruenfeld, D. H., Inesi, M. E., Magee, J. C., & Galinsky, A. D. (2008). Power and the objectification of social targets. *Journal of Personality and Social Psychology, 95*(1), 111–127.

Guinote, A. (2007a). Power affects basic cognition: Increased attentional inhibition and flexibility. *Journal of Experimental Social Psychology, 43*, 685–697.

Guinote, A. (2007b). Power and goal pursuit. *Personality and Social Psychology Bulletin, 33*(8), 1076–1087.

Guinote, A. (2008). Power and affordances: When the situation has more power over powerful than powerless individuals. *Journal of Personality and Social Psychology, 95*(2), 237–252.

Hamilton, G. G., & Biggart, N. W. (1985). Why people obey: Theoretical observations on power and obedience in complex organizations. *Social Perspectives, 28*, 3–28.

Handgraaf, M. J. J., Van Dijk, E., Vermunt, R. C., Wilke, H. A. M., & De Dreu, C. K. W. (2008). Less power or powerless? Egocentric empathy gaps and the irony of having little versus no power in social decision-making. *Journal of Personality and Social Psychology, 95*, 1136–1149.

Hays, N. A. (2013). Fear and loving in social hierarchy: Sex differences in preferences for power versus status. *Journal of Experimental Social Psychology, 49*(6), 1130–1136.

Hays, N. A., & Goldstein, N. J. (2015). Power and legitimacy influence conformity. *Journal of Experimental Social Psychology, 60*, 17–26.

Hinings, C. R., Hickson, D. J., Pennings, J. M., & Schneck, R. E. (1974). Structural conditions of intraorganizational power. *Administrative Science Quarterly, 19*, 22–44.

Hogeveen, J., Inzlicht, M., & Obhi, S. S. (2014). Power changes how the brain responds to others. *Journal of Experimental Psychology, 143*(2), 755–762.

Hollander, E. P. (2009). *Inclusive Leadership: The essential leader–follower relationship*. Oxon, OX: Routledge.

Howard, E. S., Gardner, W. L., & Thompson, L. (2007). The role of the self-concept and the social context in determining the behavior of power holders: Self-construal in intergroup versus dyadic dispute resolution negotiations. *Journal of Personality and Social Psychology, 93*, 614–631.

Hsee, C. K., Zhang, J., Cai, C. F., & Zhang, S. (2013). Overearning. *Psychological Science, 24*(6), 852–859.

Huang, L. G., Galinsky, A. D., Gruenfeld, D. H., & Guillory, L. E. (2011). Powerful postures versus powerful roles: Which is the proximate correlate of thought and behavior? *Psychological Science, 22*, 95–102.

Inesi, M. E. (2010). Power and loss aversion. *Organizational Behavior Human Decision Processes, 112*, 58–69.

Inzlicht, M., Obhi, S., 2014. ⟨http://www.nytimes.com/2014/07/27/opinion/sunday/powerful-and-coldhearted.html⟩

Janiszewski, C., & Wyer, R. S. (2014). Content and process priming: A review. *Journal of Consumer Psychology, 24*(1), 96–118.

Joshi, P. D., & Fast, N. J. (2013). I am my (High-Power) role: Power and role identification. *Personality and Social Psychology Bulletin, 39*(7), 898–910.

Joshi, P. D., & Fast, N. J. (2014). Power and reduced temporal discounting. *Psychological Science, 24*(4), 432–438.

Judge, T. A., Piccolo, R. F., & Ilies, R. (2004). The forgotten Ones? The validity of consideration and initiating structure in leadership research. *Journal of Applied Psychology, 89*(1), 36–51.

Kahneman, D., & Frederick, S. (2002). Representativeness revisited: Attribute substitution in intuitive judgment. In T. Gilovich, D. Griffin, & D. Kahneman (Eds.), *Heuristics and biases: The psychology of intuitive judgment* (pp. 49–81). Cambridge: Cambridge University Press.

Keltner, D., Gruenfeld, D. H., & Anderson, C. (2003). Power, approach, and inhibition. *Psychological Review, 110*(2), 265–284.

Keltner, D., Van Kleef, G. A., Chen, S., & Kraus, M. W. (2008). *A reciprocal influence model of social power: Emerging principles and lines of inquiry*. Waltham: Elsevier Inc.

Kennedy, J. A., & Kray, L. J. (2014). Who is willing to sacrifice sacred values for money and social status: Gender differences in reactions to ethical compromises. *Social Psychological and Personality Science, 5*(1), 52–59.

Kim, P. H., & Fragale, A. R. (2005). Choosing the path to bargaining power: An empirical comparison of BATNAs and contributions in negotiation. *Journal of Applied Psychology, 90*(2), 373–381.

Kim, P. H., Pinkley, R. L., & Fragale, A. R. (2005). Power dynamics in negotiation. *Academy of Management Review, 30*(4), 799–822.

Kipnis, D. (1972). Does power corrupt? *Journal of Personality and Social Psychology, 24*(1), 33–41.

Kipnis, D. (1976). *The powerholders*. Chicago: University Chicago Press.

Krackhardt, D. (1992). The strength of strong ties: The importance of philos. In organizations. In N. Nohria & R. G. Eccles (Eds.), *Networks and organizations: Structure, form, and action* (pp. 216–239). Boston: Harvard Business School Press.

Krebs, D. L. (1970). Altruism: An examination of the concept and a review of the literature. *Psychological Bulletin, 73*, 258–302.

Ku, G., Wang, C. S., & Galinsky, A. D. (2015). The promise and perversity of perspective-taking in organizations. *Research in Organizational Behavior, 35*, 79–102.

Lammers, J., Galinsky, A. D., Gordijn, E. H., & Otten, S. (2008). Illegitimacy moderates the effect of power on approach. *Psychological Science, 19*, 558–564.

Lammers, J., Galinsky, A. D., Gordijn, E. H., & Otten, S. (2012). Power increases social distance. *Social Psychological and Personality Science, 3*(3), 282–290.

Larrick, P., & Blunt, S. (1997). The Claiming effect: Why players are more generous in social dilemmas than in ultimatum games. *Journal of Personality and Social Psychology, 72*(4), 810–825.

Lee, F., & Larissa, Z. T. (2001). 2. Is it lonely at the top?: The independence and interdependence of power holders. *Research in organizational behavior, 23*, 43–91.

Locke, J. (1988). *An essay concerning human understanding*. Oxford, UK: Clarendon Press (Original work published 1689).

Lieberman, M. D. (2003). Reflective and reflexive judgment processes: A social cognitive neuroscience approach. In J. P. Forgas, K. R. Williams, & W. von Hippel (Eds.), *Social judgments: Implicit and explicit processes* (pp. 44–67). New York, NY: Cambridge University Press.

Lukes, S. (2005). *Power: A radical view* (2nd ed.). London: Palgrave-Macmillan.

Magee, J. C., & Galinsky, A. D. (2008). Social hierarchy: The self-reinforcing nature of power and status. *The Academy of Management Annals, 2*(1), 351–398.

Magee, J. C., & Smith, P. K. (2013). The social distance theory of power. *Personality and Social Psychology Review, 17*(2), 158–186.

Maner, J. K., & Mead, N. L. (2010). The essential tension between leadership and power: When leaders sacrifice group goals for the sake of self-interest. *Journal of Personality and Social Psychology, 99*, 482–497.

Mason, M. F., Zhang, S., & Dyer, R. L. (2010). Male susceptibility to attentional capture by power cues. *Journal of Experimental Social Psychology, 46*, 482–485.

Marx, K. (1867/1972). *Capital* (Vol. 1). London: Penguin.

Mead, N. L., & Maner, J. K. (2012). On keeping your enemies close: Powerful leaders seek proximity to ingroup power threats. *Journal of Personality and Social Psychology, 102*, 576–591.

Miles, R. H., & Cameron, K. (1982). *Coffin nails and corporate strategies*. Englewood Cliffs: Prentice-Hall.

Mintzberg, H. (1979). *The Structuring of Organizations*. Englewood Cliffs: Prentice-Hall.

Molm, L. D. (1990). Structure, action, and outcomes: The dynamics of power in social exchange. *American Sociological Review, 55*(3), 427–447.

Molm, C. W., Quist, T. M., & Wisely, P. A. (1994). Imbalanced structures, unfair strategies: Power and justice in social exchange. *American Sociological Review, 59*, 98–121.

Nadler, A. (2002). Inter-group helping relations as power relations: Maintaining or challenging social dominance between groups though helping. *Journal of Social Issues, 58*(3), 487–502.

Ng, S. H. (1980). *The social psychology of power*. San Diego: Academic Press.

Oc, B., Bashshur, M. R., & Moore, C. (2015). Speaking truth to power: The effect of candid feedback on how individuals with power allocate resources. *Journal of Applied Psychology, 100*(2), 450–463.

Offerman, L. R., & Schrier, P. E. (1985). Social influence strategies: The impact of sex, role, and attitudes toward power. *Personality and social psychology Bulletin, 11*(3), 286–300.

Overbeck, J. R. (2010). Concepts and Historical Perspectives on Power. In A. Guinote & T. K. Vescio (Eds.), *The social psychology of power* (pp. 19–27). New York, NY: Guilford Press.

Overbeck, J. R., & Park, B. (2001). When power does not corrupt: Superior individuation processes among powerful perceivers. *Journal of Personality and Social Psychology, 81*(4), 549–565.

Overbeck, J. R., & Park, B. (2006). Powerful perceivers, powerless objects: Flexibility of powerholders' social attention. *Organizational Behavior and Human Decision Processes, 99*, 227–243.

Park, L. E., Streamer, L., Huang, L., & Galinsky, A. D. (2013). Stand tall, but don't put your feet up: Universal and culturally-specificeffects of expansive postures on power. *Journal of Experimental Social Psychology, 49*, 965–971.

Pearce, J. L., & Gregersen, H. B. (1991). Task interdependence and extra role behavior: A test of the mediating effects of felt responsibility. *Journal of Applied Psychology, 76*, 838–844.

Perrow, C. (1986). *Complex organizations: A critical essay* (3rd ed.). New York, NY: Random House.

Pettigrew, A. (1973). *The politics of organizational decision making*. London: Tavistock.

Pfeffer, J. (1992). *Managing with power: Politics and influence in organizations*. Boston: Harvard University Press.

Pfeffer, J. (2010). *Power: Why some people have it—and others don't*. New York, NY: Harper Business.

Pfeffer, J. (2013). You're still the same: Why theories of power hold over time and across contexts. *The Academy of Management Perspectives, 27*(4), 269–280.

Pfeffer, J., & Salancik, G. R. (1978). *The external control of organizations: A resource dependence perspective*. New York, NY: Harper & Row.

Ranehill, E., Dreber, A., Johannesson, M., Leiberg, S., Sul, S., & Weber, R. A. (2015). Assessing the robustness of power posing: No effect on hormones and risk tolerance in a large sample of men and women. *Psychology Science, 26*(5), 653–656.

Rios, K., Fast, N. J., & Gruenfeld, D. H. (2015). Feeling high but playing low: Power, need to belong, and submissive behavior. *Personality and Social Psychology Bulletin, 41*(8), 1135–1146.

Rucker, D. D., Galinsky, A. D., & Dubois, D. (2012). Power and consumer behavior: How power shapes who and what consumers value. *Journal of Consumer Psychology, 22*, 352–368.

Rus, D., van Knippenberg, D., & Wisse, B. (2012). Leader power and self-serving behavior: The moderating role of accountability. *The Leadership Quarterly, 23*(1), 13–26.

Russell, B. (1938). *Power: A new social analysis* (2004). New York, NY: Routledge.

Salancik, G. R., & Pfeffer, J. (1974). The bases and use of power in organizational decision making: The case of a university. *Adminstrative Science Quarterly, 19*(4), 453–473.

Schaerer, M., Tost, L. P., Huang, L., Gino, F., & Larrick, R. P. (2015). Advice givers feel the power: The political implications of advice giving. Working paper, University of Michigan.

Schilpzand, P., Hekman, D. R., & Mitchell, T. R. (2014). An inductively generated typology and process model of workplace courage. *Organization Science, 26*(1), 52–77.

Schmid Mast, M., Jonas, K., & Hall, J. A. (2009). Give a person power and he or she will show interpersonal sensitivity: The phenomenon and its why and when. *Journal of Personality and Social Psychology, 97*, 835–850.

Schröder, T., & Thagard, P. (2013). The affective meanings of automatic social behaviors: Three mechanisms that explain priming. *Psychological Review, 120*(1), 255.

Scott, J. C. (2008). *Weapons of the weak: Everyday forms of peasant resistance*. Yale university Press.

See, K. E., Morrison, E. W., Rothman, N. B., & Soll, J. B. (2011). The detrimental effects of power on confidence, advice taking, and accuracy. *Organizational Behavior and Human Decision Processes, 116*(2), 272–285.

Sidanius, J., & Pratto, F. (2001). Social dominance: An intergroup theory of social hierarchy and oppression. *American Journal of Sociology, 105*(5), 1436–1440.

Slabu, L., & Guinote, A. (2010). Getting what you want: Power increases the accessibility of active goals. *Journal of Experimental Psychology, 46*, 344–349.

Smith, P. K., & Galinsky, A. D. (2010). The nonconscious nature of power: Cues and consequences. *Social and Personality Psychology Compass, 4*(10), 918–938.

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.

Smith, P. K., & Magee, J. C. (2015). The interpersonal nature of power and status. *Current Opinion in Behavioral Sciences, 3*, 152–156.

Smith, C., Organ, D. W., & Near, J. P. (1983). Organizational citizenship behavior: Its nature and antecedents. *Journal of Applied Psychology, 68*, 653–663.

Smith, P. K., & Trope, Y. (2006). You focus on the forest when you're in charge of the trees: Power priming and abstract information processing. *Journal of Personality and Social Psychology, 90*, 578–596.

Sturm, R. E., & Antonakis, J. (2015). Interpersonal Power: A Review, Critique and Research Agenda. *Journal of Management, 41*(1), 136–163.

Stryker, S., & Macke, A. S. (1978). Status inconsistency and role conflict. *Annual Review of Sociology, 4*, 57–90.

Stogdill, R. M. (1950). Leadership, membership and organization. *Psychological Bulletin, 47*, 1–14.

Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review, 20*(3), 571–610.

Suitner, C., & Maass, A. (2008). The role of valence in the perception of agency and communion. *European Journal of Social Psychology, 38*, 1073–1082.

Thibaut, J. W., & Kelley, H. H. (1959). *The social psychology of groups.* New York, NY: Wiley.

Tjosvold, D. (1985). Power and social context in superior–subordinate interaction. *Organizational Behavior and Human Decision Processes, 35*, 281–293.

Tost, L. P., & Johnson, H. H. (2015). An alternative portrait of power: How, when, and why power induces solidarity with others. *Working paper.* University of Michigan.

Tost, L., Gino, F., & Larrick, R. (2012). Power, competitiveness, and advice taking: Why the powerful don't listen. *Organizational Behavior and Human Decision Processes, 117*, 53–65.

Tost, L. P., Gino, F., & Larrick, R. P. (2013). When power makes others speechless: The negative impact of leader power on team performance. *Academy of Management Journal, 56*, 1465–1486.

Tost, L. P., Wade-Benzoni, K. A., & Johnson, H. H. (2015). Noblesse oblige emerges (with time): Power motivates intergenerational impact. *Organizational Behavior and Human Decision Processes, 128*, 61–73.

Van Bavel, J. J., Xiao, Y. J., & Cunningham, W. A. (2012). Evaluation is a dynamic process: Moving beyond dual system models. *Social and Personality Psychology Compass, 6*(6), 438–454.

Van Dijk, E., & De Cremer, D. (2006). Self-benefiting in the allocation of scarce resources: Leader-follower effects and the moderating effect of social value orientations. *Personality and Social Psychology Bulletin, 32*, 1352–1361.

Van Kleef, G. A., De Dreu, C. K., Pietroni, D., & Manstead, A. S. R. (2006). Power and emotion in negotiation: Power moderates the interpersonal effects of anger and happiness on concession making. *European Journal of Social Psychology, 36*, 557–581.

Van Kleef, G. A., Oveis, C., Van Der Löwe, I., LuoKogan, A., Goetz, J., & Keltner, D. (2008). Power, distress, and compassion turning a blind eye to the suffering of others. *Psychological Science, 19*(12), 1315–1322.

Wade-Benzoni, K. A. (2002). A golden rule over time: Reciprocity in intergenerational allocation decisions. *Academy of Management Journal, 45*, 1011–1028.

Wade-Benzoni, K. A., Hernandez, M., Medvec, V. H., & Messick, D. M. (2008). In fairness to future generations: The role of egocentrism, uncertainty, power, & stewardship in judgments of intergenerational allocations. *Journal of Experimental Social Psychology, 44*, 233–245.

Wade-Benzoni, K. A., & Tost, L. P. (2009). The egoism and altruism of intergenerational behavior. *Personality and Social Psychology Review, 13*, 165–193.

Weber, M. (1947). *The theory of social and economic organization.* New York, NY: Oxford University Press (A.M. Henderson & T. Parsons, Trans.).

Willis, G. B., Guinote, A., & Rodríguez-Bailón, R. (2010). Illegitimacy improves goal pursuit in powerless individuals. *Journal of Experimental Social Psychology, 46*(2), 416–419.

Willmott, H. (2013). Reflections on the darker side of conventional power analytics. *The Academy of Management Perspectives, 27*, 281–286.

Wisse, B., & Rus, D. (2012). Leader self-concept and self-interested behavior: The moderating role of power. *Journal of Personnel Psychology, 11*(1), 40–48.

Zhong, C., Magee, J. C., Maddux, W. W., & Galinsky, A. D. (2006). Power, culture, and action: Considerations in the expression and enactment of power in East Asian and Western societies. In E. A. Mannix, M. A. Neale, & Y. Chen (Eds.), *Research on managing in teams and groups* (Vol. 9, pp. 53–73). Greenwich, CT: Elsevier Science Press.

Zwann, R., 2013. ⟨http://rolfzwaan.blogspot.co.uk/2013/04/social-priming-in-theory.html⟩