

How Power Affects People:
Activating, Wanting and Goal Seeking

Ana Guinote

University College London

Leadership Knowledge Center, Nova School of Business and Economics

In press: Annual Review of Psychology

Correspondence:

Dr. Ana Guinote

Experimental Psychology

University College London

26 Bedford Way

London WC1H 0AP, UK

Phone: 020 7679 5378

fax: 020 7436 4276

Email: a.guinote@ucl.ac.uk

Contents

INTRODUCTION.....	5
CONCEPTS, METHODS AND THEORIES OF POWER	7
What is Power?	7
Methods and Measures in Power Research	9
Theories of Power.....	10
UNDERSTANDING POWER THROUGH THE LENSES OF ACTIVATING, WANTING AND GOAL SEEKING	12
Power Triggers Generalized Approach	13
Neuro-Psychological Developments in Approach Motivation Research.....	14
POWER AS ACTIVATING, WANTING AND GOAL SEEKING: EMPIRICAL EVIDENCE	15
Who Rises to Power? Energized Wanting and Seeking Power	16
Power Energizes Thought, Speech and Action	18
Power Intensifies Wanting and Goal Seeking.....	20
POWER AND COGNITION	22
Power and the Self: Positive Self-Concept, Independence, and Magnified Active Self	22
Wanting is Linked to Prioritization and Selective Attention	25
Flexibility, Creativity and Reliance on Gut Feelings	27
THE GOALS OF POWERFUL PEOPLE	29
Goals Linked to Power Roles, Tasks, and Predispositions	29
Exercising and Maintaining Power	30
State Dependent Reward Seeking	31
Does Power Corrupt?	32

POWER IN THE SOCIAL WORLD.....	33
Social Attention, Perspective Taking and Objectification of Subordinates.....	34
Social Behavior	36
CONCLUSIONS.....	37

Abstract

Socio-cognitive research has demonstrated that power affects how people feel think and act. Here, literature from social psychology, neuroscience, management, and animal research is reviewed, and an integrated framework of power as an intensifier of goal related approach motivation is proposed. A growing literature shows that power energizes thought, speech and action, and orients individuals towards seeking salient goals linked to power roles, predispositions, tasks and opportunities. Power magnifies self-expression linked to active parts of the self (the active self), enhancing confidence, self-regulation and prioritization of their efforts towards advancing focal goals. The effects of power on cognitive processes, goal preferences, performance, and corruption are discussed and its potentially detrimental effects on social attention, perspective taking, and objectification of subordinates are examined. Several inconsistencies in the literature are explained by viewing the goal directedness of power holders as more dynamic and situated than is usually assumed.

Key words: social power, dominance, approach motivation, goal seeking, self-regulation, corruption

How Power Affects People: Activation, Wanting and Goal Seeking

“The fundamental concept in social science is power, in the same sense in which energy is the fundamental concept in physics” Bertrand Russell

INTRODUCTION

Power is admired and fought over by some and often feared by those who lack it. It is ubiquitous and affects the fate of many. Unsurprisingly, power has attracted the attention of ancient and modern philosophers, practitioners and scholars from various disciplines. In psychology there has been a substantial increase in research on social power since Keltner's et al. (2003) review proposing that power activates the behavioral approach system (BAS, Gray & McNaughton, 2003). As it is suggested that this activation has a wide range of consequences for the thoughts, feelings and actions of power holders, the theory may have great explanatory power.

The present article discusses research published since Keltner et al. (2003) examining how power affects people. In so doing, it revisits this and other theories of power (e.g., Fiske's, 1993, power as control theory; Guinote's, 2007, situated focus theory of power) and proposes an integrated framework, according to which power energizes thought, speech and action, and intensifies wanting and goal seeking. That is, power triggers a readiness to think, speak and act, raising vigor, and frequency of output (i.e., it energizes or activates people). Power also brings clarity of focus and eagerness of desire (wanting), as well as working to obtain desires and aims (goal seeking). In this framework, activating, wanting and goal seeking among the powerful reflect a stimulated behavioral approach system associated with the pursuit of goals. BAS activation among power holders is associated with their desire to have a prompt impact in the social environment and advance role priorities or personal inclinations.

Power related approach motivation is accompanied by prioritization of important goals and enhanced self-regulation, rather than, as has been suggested, *hedonic tone* or reward seeking and consumption (see Berridge, 2007; Salamone & Correa, 2002). The perspective taken here is not consistent with initial approach-motivation conceptions that associated power to positive affect and reward seeking (Keltner et al., 2003). Instead the review suggests that people in power typically have strong agendas and more readily act upon their goals. Furthermore, power affects cognitive processes in ways that facilitate self-expression, action and goal pursuit (Galinsky et al., 2003; Guinote, 2007a, 2007b; Overbeck & Park, 2006). Enhanced activation, wanting and goal seeking among power holders has downstream consequences for performance, corruption, and social behavior.

The review is informed by research in the fields of social psychology, cognitive neuroscience, leadership and management, as well as animal behavior. The focus is on the powerful, although some consequences of being powerless are also considered. Although the review discusses primarily how power affects people, it also addresses the question of who rises to power. Individuals who rise to power often exercise influence in a goal oriented manner akin to those who have power. Therefore, their behavior is also approach motivated.

The article starts with conceptual definitions, methods and theories of power. It revisits Keltner's et al. approach motivation theory of power, considering recent developments in the neuroscience of appetitive behavior. Subsequently, it discusses empirical evidence for the framework of power as activating, wanting and seeking, as well as the effects of having power on cognitive processes. Literature concerning the links between power and the self then demonstrates that power potentiates the development of a positive self-concept, independent self-construal, and expression of the active self. This is followed by a section dedicated to goal pursuit, and the types of desires and aims sought by people in power. The question of whether

power corrupts is also discussed. A subsequent section analyzes how power affects social behavior. This is followed by concluding considerations.

CONCEPTS, METHODS AND THEORIES OF POWER

What is Power?

The word power derives from the Latin word *potere* and means *to be able*. Although the etymology of the word locates it in the person, power is a relational concept, and is dependent upon people's perceptions of their levels of control relative to another's (Dahl, 1957; Parsons, 1963). Power results from a negotiation of a shared reality and often involves the creation of shared meanings, ideologies, and identities (Haslam et al., 2010; Hogg, 2001; Parsons, 1963).

Following Russell's analogy of energy in the natural sciences, power cannot be reduced to a single form. At a macro level, organizations may generate economical, religious, political or military power, phenomena described in *elite theories* in political science and sociology (e.g., Mills, 1999). At a middle-level, membership in social groups, such as ethnic, gender and social class, also affects control over resources and the attainment of influential social positions (Keltner et al., 2003). For example, only 4% of CEOs at S&P 500 companies are women (Catalyst, 2016). Power also emerges at the group level, often in association with leadership roles that facilitate the attainment of shared interests. Leadership, a construct related to power, is the process of influence in groups geared towards the attainment of shared goals (Northouse, 2015). Finally, power asymmetries occur in small settings, such as in families and within intimate relationships (e.g., Laurin et al., in press).

Most frequently, social power has been conceptualized in terms of the ability to control or influence another's thoughts, feelings or behaviors in meaningful ways (French & Raven, 1959; Thibaut & Kelly, 1959). However, given the multiple levels of analysis and the complexity of power relations there are various definitions of power. Conceptions of power

may be categorized according to three major types. Those that focus on 1) asymmetric interdependence, 2) control over outcomes and 3) social-functional relations in groups.

Scholars have defined power on the basis of the actual or the potential ability to influence another. For instance, Weber (1914) defined power as “the probability that one actor within a social relationship will be in a position to carry out his own will despite resistance” (p. 152). Dahl (1957), considered that “A has power over B to the extent that he can get B to do something that B would not otherwise do” (p. 202). Such potential to influence derives from the possession of valued resources.

The diversity of factors contributing to power processes led French & Raven (1959) to put forward an encompassing classification of tactics used to assert power, named *power bases*: coercive (e.g., punishment), reward (e.g., support), legitimate (e.g., shared beliefs about obedience), expert (e.g., knowledge), referent (e.g., religious identification), and informational (e.g., persuasion). In informal, medical and organizational contexts, soft means, such as reward or expertise, are more effective and trigger greater adherence than harsh means. Harsh means are seen more often in formal structures and are typically used by people in the higher echelons of power. Recently, power bases have been re-classified into social control (harsh bases) and influence (soft bases; see Fiske & Berdahl, 2007). Influence is commonly seen among prestige (i.e., status) based hierarchies, which command deference and liking.

Conceptions of power based on influence rely on observed or inferred potential behavior. However, this conflates structural aspects of tangible control with the targets’ psychological reactions and desire to comply (Fiske & Dépret, 1996). To solve this issue, scholars have defined power in terms of control over valued outcomes (Emerson, 1962; Fiske & Dépret, 1996; Keltner et al., 2003). Power as asymmetric control implies that one person, the power holder, has a resource that is valued by another person, who is dependent on the

power holder (Emerson, 1962). Power holders can affect the thoughts, feelings, or behavior of subordinates (Keltner et al. 2003).

Socio-functional conceptions are concerned with the origins and functions of power. From an evolutionary perspective power has emerged to help advance the needs of groups (Maner & Case, in press; Van Vugt et al., 2008). A review of ethnographic accounts of 150 years (Boehm, 2009) revealed that power structures had already emerged in small hunting and gathering societies to facilitate peacekeeping, performance of religious rituals, and to deal with problems of group movement and intergroup rivalries in ancestral environments (Van Vugt et al., 2008).

Functional perspectives draw on legitimized power structures that contribute to collective goals (Parsons, 1963). In this conception, people only have power if others recognize (i.e., consent to) it. Social identity perspectives (Ellemers et al., 2004; Haslam et al., 2010; Hogg, 2001) claim that power arises from groups processes. The effectiveness of leaders depends on their ability to stimulate a shared group identity (Haslam et al., 2010), and groups create power through coordination and social influence. Nevertheless, in spite of the ubiquity of legitimized power in society, being powerless is tolerated rather than desired. It conflicts with basic human needs to have control and autonomy (Fiske & Berdahl, 2007; Lammers et al., 2016; Pratto, 2015). Therefore, subordinates generally attempt upward mobility.

Methods and Measures in Power Research

Socio-cognitive research on social power has been carried out via experimental, quasi-experimental and correlational methodology. Manipulations involving roles that control another's outcomes have been common since Kipnis' studies (1972, 1976). For example, Fiske & Dépret (1996) asked participants to make decisions about internship applicants, with allegedly 30% impact (powerful) or no impact (control) on final decisions. Other procedures

ask participants to enact judge/worker or manager/subordinate roles (Guinote et al., 2002). Studies have also used an episodic recall of a high/low power past event (Galinsky et al., 2003).

Economic games that create resource inequalities (ultimatum and dictator), and negotiation tasks have contributed to the understanding of power (De Dreu & Van Kleef, 2004; Kim et al., 2005; Magee et al., 2007). The various manipulation of power generally have similar effects. In addition, studies have used expansive-contractive bodily postures (Carney et al., 2010; Hall et al., 2005) and testosterone administration (Josephs et al., 2013) as a way to manipulate power related states.

Individual differences in dominance have been widely examined, using questionnaire measures, such as the California Personality Inventory, (Gough, 1987) and the Personal Sense of Power Scale (Anderson et al., 2012). Studies have also relied on employee participants who occupy managerial or subordinate positions. Finally, implicit need for power has been assessed with projective measures (Schultheiss et al., 2005).

Theories of Power

Scientists, philosophers and political analysts have long associated power with free will, volition and agency. In short, it is argued that power gives people the ability to act at will (e.g., Weber, 1914). This ability derives from reduced resistance and constraint. This article reviews literature showing a different perspective: that power changes people. It affects motivation, cognition and self-regulation in ways that facilitate carrying out one's aims and desires. In the next sections first, prior theories of power are discussed, then an integrated framework is presented.

Fiske's functionalist theory of power. A systematic investigation of the motivational and cognitive underpinnings of power holders emerged after developments in social cognition, with work by Fiske et al. (e.g., Fiske, 1993; Goodwin et al., 2000). Following the continuum model of impression formation (Fiske & Neuberg, 1990), humans are seen as motivated

tacticians who deploy their limited cognitive resources in line with their motivations (Fiske & Dépret, 1996). Interpersonal (or outcome) dependency triggers deliberative processes and raises social attention in order to predict another's actions. The power as control model (Fiske, 1993) proposes that power decreases social attention because power holders are overloaded with other priorities, are not dependent on others or have a dominant personality and do not want to pay attention.

The proposed framework of power as activation, wanting and seeking draws on Fiske's central assumption that cognition is for action (Fiske, 1992), and that attention follows motivation (Fiske & Neuberg, 1990). As discussed below, the present framework provides a broader examination of how power affects the person, including cognition, affect and behavior.

Approach motivation theory of power. The dominant paradigm in current power research is the approach-inhibition theory of power proposed by Keltner et al. (2003). Based on the notion that people in power live in reward rich environments and have more opportunities, Keltner et al. proposed that power activates the behavioral approach system (BAS, Gray & McNaughton, 2003). BAS triggers preferential attention to rewards, positive affect, automatic cognition, and disinhibited behavior. In contrast, lack of power is associated with punishment, constraint and threats, and activates the behavioral inhibition system (BIS, Gray & McNaughton, 2003). This system functions as an alarm that inhibits ongoing behavior, triggers vigilance, and negative affect.

Expanding Keltner's et al. theory, the present model relies on a specific class of BAS: wanting and seeking salient goals. Here, goals can be, but are most frequently not, hedonic. Goals linked to power roles or personal dispositions tend to have priority over seeking pleasurable experiences through sex, food and other positive stimuli.

Situated focus theory of power. The situated focus theory of power (Guinote, 2007a) argues that power leads to situated behavior driven by the prioritization of salient goals and

constructs. At the cognitive level, power affords flexibility, and the use of selective processing strategies that focus on the desires, affordances and aims deemed relevant in a given context, whilst neglecting irrelevant information. This processing style enables prompt decisions and actions on a moment-to-moment basis.

The present framework retains the notion of situated behavior, prioritization, selective processing and flexibility of the situated focus theory of power, while expanding it to encompass BAS as an intensifier that facilitates thought, speech and action, and assists sustained effort during the pursuit of goals. That is, while the situated focus theory of power is primarily a cognitive approach with proximal motivational units (e.g., goals), the power as activation, wanting and seeking framework encompasses a basic motivational system linked to the energization of behavior akin to neuro-scientific developments on appetitive behavior, as well as developments in motivational science (Kruglanski et al., 2012).

Social distance and confidence. Smith & Trope (2006) argued that power increases social distance, and this triggers abstract thinking (see below). Others have evoked intermediate mechanisms suggesting that power elevates self-esteem (De Cremer & Van Dijk, 2005; Hofstede et al., 2002; Wojciszke et al., 2007) and confidence in one's judgments (Briñol et al., 2007; Fast et al., 2012; Tost et al., 2012). These factors act as proximal mechanisms that are consistent with most conceptual perspectives on social power and contribute to the increased decisiveness and agency of people in positions of authority.

UNDERSTANDING POWER THROUGH THE LENSES OF ACTIVATING, WANTING AND GOAL SEEKING

Originally, and most frequently, BAS has been conceptualized as a system that is activated in the presence of positive stimuli (e.g., food, sex; Gray & McNaughton, 2003). People with an active BAS experience positive affect in the presence of positive possibilities and events, and eagerly pursue these rewarding opportunities (Carver & White, 1994; Gray &

McNaughton, 2003). BAS is implicated in reinforcement learning, and in various forms of addictions (Alcaro et al., 2007). The first premise of the present framework is that power leads to activation, that is, it energizes thought, speech and action. Activation is a neurobiological mechanism that facilitates responses and is common to all types of approach-oriented states (Alcaro et al., 2007; Berridge, 2007).

Power Triggers Generalized Approach

A great deal of evidence supports the claim that power triggers a generalized approach orientation. Power sparks optimism and confidence (Fast et al., 2009), authentic self-expression (Anderson & Berdahl, 2002; Kraus et al., 2011; Guinote, et al., 2002), action (Galinsky et al., 2003), disinhibited behavior (Gonzaga et al., 2008), while decreasing vigilance (Willis et al., 2011) and worries about threats or losses (Inesi, 2010; Keltner et al., 2003). Power holders and dominant people often experience positive affective states, such as happiness and interest (Anderson & Berdahl, 2002; Berdahl & Martorana, 2006; Langner & Keltner, 2008; Schmid Mast et al., 2009). However, evidence regarding the links between power and affect is mixed (Galinsky et al., 2003; Smith & Bargh, 2008; Weick & Guinote, 2008). Elevated positive affect could occur primarily in interaction contexts (see Petkanopoulou et al., in press).

Direct measures of approach that do not conflate psychological states correlated with approach motivation (e.g., positive affect, optimism) with the underlying motivation also show enhanced generalized approach motivation among the powerful. Support stems from motor responses (Maner et al., 2010; Smith & Bargh, 2008), self-report (Lammers et al., 2010; Smith & Bargh, 2008), and left hemispheric brain dominance (Boksem et al., 2012; Wilkinson et al., 2010). For example, in one study (Maner et al., 2010) power primed participants responded to auditory signals by pressing keys that implied approach movements toward the body or avoidance movements away from the body. High power facilitated approach movements.

Similarly, a large survey of employees revealed enhanced approach motivation among the powerful (Lammers et al., 2010).

In summary, this evidence suggests that power holders have a readiness to move forward towards desired ends, even when the specific direction of behavior is unspecified.

Neuro-Psychological Developments in Approach Motivation Research

Most research on appetitive behavior has been conducted in relation to rewards (see Alcaro et al., 2007; Hamid et al., 2016). Therefore, the motivational system underlying appetitive behavior has been linked to reward processing and hedonic tone (Berridge, 2007). Power research is no exception (Anderson & Berdahl, 2002; Galinsky et al., 2003; Keltner et al., 2003; Magee et al., 2007). However, recently the overuse of the term reward has been criticized. Salamone & Correa (2012) pointed out that “the word ‘reward’ seems to be used as a general term that refers to all aspects of appetitive learning, motivation and emotion, including both conditioned and unconditioned aspects; this usage is so broad as to be essentially meaningless” (p. 473). It became apparent that approach motivation is not monolithic (Alcaro et al., 2007; Carver & White, 1994).

An examination of the neural correlates of appetitive behavior has propelled new insights. Pathways of the brain associated with reward processing (involving a cortico–basal ganglia–thalamic loop) are also responsive to prediction errors, salient non-rewards, and a variety of positive objects, possibilities and events (e.g., music, shopping; Alcaro et al., 2007; Salamone & Correa, 2002). To explain this diversity, Salamone & Correa (2002, 2012) advanced a facilitation of responses model. This model considers two classes of incentive motivation: liking (reward pleasure) and wanting. Wanting involves “appetite to consume” and “working to obtain” motivational stimuli and to “overcome response constraints, activation for engaging in vigorous instrumental actions” (Salamone & Correa, 2002, p. 17). Wanting occurs through the release of the neurotransmitter dopamine produced in the basal ganglia of the brain

(Hamid et al., 2016). Dopamine is said to signal the value of work, balance energy levels and sustain behavior directed at desired end states.

Similarly, Berridge (2007) associated wanting with incentive salience and activation (effort, arousal, and vigor). Alcaro et al. (2007) advocated for an instinctual emotional appetitive state -seeking. Together, this work shows that approach motivation entails activation and seeking a variety of desired experiences, and is stronger during expectation than consumption. In the present model the term activation is used to denote increased energy, vigor and effort, which facilitate responses and sustain goal directed behavior (see also Kruglanski et al., 2012). Wanting refers to focus and desire to achieve, and seeking refers to the implementation of courses of action geared towards attaining one's aims and desires.

Another criticism of dominant reward seeking models of approach motivation is related to the role of positive affect. New evidence has casted doubt on their proposed links between approach motivation and positive affect (e.g., anger involves approach; Carver & Harmon-Jones, 2009). Approach motivated individuals, compared to others, can become more frustrated, angry or depressed if their aims are thwarted (Carver, 2004).

Given these advancements, several questions arise. Are power holders primarily concerned with seeking pleasure and reward (hedonic tone) or with wanting and seeking desires and aims? Is power associated with indulgence and poor self-regulation or with volition and goal striving? Evidence regarding these questions is discussed below.

POWER AS ACTIVATING, WANTING AND GOAL SEEKING: EMPIRICAL EVIDENCE

Most research on social power has been behavioral. However, animal studies found that the creation of hierarchies affects activity in dopaminergic pathways of the brain associated with motivation (e.g., Kaplan et al., 2002; Morgan et al., 2002). For instance, Morgan et al. housed monkeys first individually, and found that they had similar dopamine levels. Later, the

monkeys were housed in groups and hierarchies emerged. Dominant monkeys had increased levels of dopamine. When given the opportunity, subordinates self-administered more cocaine (i.e., a reward) than dominant monkeys. These findings support the links between power and approach motivation. However, they do not support the hypothesis that high rank triggers reward seeking.

Here it is proposed that power increases activation levels, wanting and seeking desired ends. Furthermore, similar tendencies are already observed when individuals, in particular dominant people, seek power. A framework based on activation, wanting and seeking helps us therefore understand the acquisition of emerging and appointed power, as well as the effects of power on people.

Who Rises to Power? Energized Wanting and Seeking Power

The trait that most predicts upward mobility is dominance. Dominance refers to motivated behavior aiming at increasing power in relation to others, and is associated with forceful, assertive and confident actions (Gough, 1987; Guinote & Chen, 2016). Dominant individuals have strong agendas, particularly in seeking power. They deploy a great deal of effort and energy to prevail over and influence others.

In social encounters dominant people are energized. They are assertive, decisive, and they speak and interrupt others more often (Anderson & Kilduff, 2009; Mast, 2002). The assertiveness of dominant people creates the impression of competence, even when they are not necessarily more competent. This in turn affords power (see Anderson & Kilduff, 2009; Guinote et al., 2015).

At the hormonal level, testosterone, a steroid hormone, has long been associated with trait dominance. People with high baseline levels of testosterone eagerly and effortfully seek power (Josephs et al., 2006; Mazur & Booth, 1998). High levels of testosterone predict features

associated with power as activation and seeking, such as staring duration, amount of talking, and expansive postures.

The relationship between testosterone and dominance is reciprocal, such that the acquisition of status or power increases testosterone levels (Mazur & Booth, 1998), whereas a decrease of status and power diminishes testosterone (Josephs et al. 2006; Schultheiss et al., 2005). This relationship depends, however, on the presence of psychological stress and the hormone cortisol (Mehta & Josephs, 2010).

Within the Big Five model of personality (see Costa & McCrae, 1995), extroversion is the trait that most contributes to power emergence (Ellermers et al., 2004; Judge et al., 2002). Extraversion refers to the tendency to be sociable, assertive, active and experience positive emotions (Costa & McCrae, 1995). Extroverts are influential in spontaneous interactions (e.g., Anderson et al., 2001) and in organizations (see Judge, et al., 2002). The extraversion trait has two facets related to approach related activation and wanting: raised activity level and assertiveness (Costa & McCrae, 1995). Similarly to dominance, a high frequency of output (activation) and conviction in one's desires and opinions (wanting) affords power, even though extraverts do not necessarily seek power.

Being competent and skilled also affords power. In particular, earlier scholars considered intelligence a good predictor of power emergence. However, a meta-analysis revealed that this relationship is weak ($r=.27$; Judge et al., 2004). Instead, people who *appear intelligent* more easily attain power ($r=.60$; Judge et al., 2004). Judge et al. concluded that "it is possible [...] that leadership status is afforded to those who effectively manage a reputation for intelligence" (p. 548). Finally, being empathic and being a good listener increase leadership potential (Keltner et al., 2010). Importantly, power emergence is often dependent on having a combination of skills (e.g., intelligence and extroversion) and being able to respond to situational demands (Dinh & Lord, 2012).

The literature suggests, therefore, that most frequently power is consented through implicit social influence and the creation of a shared reality. Two different bases and processes commonly afford power: power is readily conferred to individuals who have visible skills or attributes that contribute (or appear to contribute) to the solution of group problems. Power is also conferred to people with dominant or extroverted personalities who spend a great deal of time and effort at presenting ideas, persuading and influencing others. In these circumstances power is consented, at least in part, because these individuals are perceived to add value to groups (see Keltner et al., 2010; Van Vugt et al., 2008). Furthermore, dominance is frequently associated with energized behavior, conviction and persuasion rather than with the use of force and threat traditionally associated to dominance (see Mazur & Booth, 1998). Dominant individuals tend to be popular and emerge as leaders because they appear competent, even though they are less liked than people with high status who command respect and admiration. To conclude, the emergence of power is a relational phenomenon often involving skill, effort, strategy, and inference processes among actors. This contrasts with static conceptions concerning the role of personality traits, styles and situations on power and leadership emergence.

Power Energizes Thought, Speech and Action

While the efforts of dominant people are directed towards the goal of acquiring power, when people have power they can direct their efforts towards the pursuit of other goals. That is, power becomes a means to the pursuit of goals, typically associated with organizational roles and personal inclinations. To effectively do so, power holders deploy high levels of activation, wanting and seeking.

Power holders are on the go, and are expected to be energetic and decisive (Allen et al., 2015). For instance, three quarters of the British members of parliament considered decisiveness the most important attribute of a prime minister (32% considered honesty

important; Allen et al., 2015). While decisiveness is often seen as a skill of the particular individuals who emerge as leaders, psychological research shows that the mere fact of having power raises decisiveness. This is visible in elevated verbal production, fast decision making and action, and perseverance (Guinote, 2007c). These attributes derive from increased activation levels, which facilitate spontaneous responses and sustain effort during goal directed action.

Enhanced verbal production. Reid & Ng (1999) explain that “Language is a communication medium for turning a power base into influence” (p. 119). In organizations, people with power spend up to two thirds of their time in communication with subordinates. Powerful people speak their minds, speak first, and speak more than others (e.g., Guinote et al., 2002; Hall et al., 2005). They also speak more loudly and interrupt others more often. In competitive debates, power holders tend to make the opening arguments (Magee et al., 2007).

In addition to increasing response speed and output, having power engages cognitive processes that aid social influence. People in power seek to influence through language and paralinguistic means that convey confidence, decisiveness and competence (Kacewicz et al., 2013). An observation of communication in teaching contexts, eye witness testimony, organizations and experimental conditions found that, compared to the powerless, powerful people use more plural (*we*) than singular (*I*) pronouns (Kacewicz et al., 2013), and tend to use less disclaimers (e.g., “I don’t really know”), hesitations, hedges (“sort of, maybe”), tag questions (“it is very cold out today, isn’t it”), and intensifiers (e.g., *so*, Reid & Ng, 1999; Thomas et al., 2004). Additionally, they display open and expansive non-verbal communication (Carney et al., 2010). Together, these verbal and non-verbal communication means effectively affect perceptions of status and power in observers, increasing persuasion and ability to attain desired ends (wanting and seeking).

Energized thought and action. Power holders make fast decisions and act promptly. This is accompanied by increased cardio-vascular efficiency in challenging situations, which provides resources for action (Scheepers et al., 2012; Schmid & Schmid Mast, 2013). Galinsky et al. (2003) demonstrated that power leads to action regardless of type of action. For instance, participants with power more readily moved an annoying object (a fan) compared to subordinates (see also Fast et al. 2009). Power holders make faster decisions regarding courses of action, and are faster at initiating goal pursuit (Guinote, 2007c). In negotiations, power holders generally make the first offers (Magee et al., 2007). Altogether this research shows an increased readiness to decide and act among the powerful, consistent with the power as activation perspective.

Power Intensifies Wanting and Goal Seeking

One premise of the present framework is that power intensifies wanting and seeking desired end states. That is, power gives people clarity of focus and single-mindedness, which helps approach goals without distraction. This state is triggered by the desires and aims of people in power, fuelled by an overactive BAS. Power holders utilize effortful strategies involving self-regulation (i.e., managing their responses) to attain their aims, even in domains unrelated to power (Galinsky et al., 2003; Guinote, 2007c). A power advantage can be seen across all phases of goal oriented activity: from setting goals, to initiating goal pursuit, and striving until successful completion (Guinote, 2007c).

When encountering difficulties people often disengage from goal pursuit. This is not the case for powerful people (DeWall et al., 2011; Guinote, 2007c). DeWall et al. found that participants in power were less depleted after a demanding task compared to others. Power holders also resort to more means to reach their goals compared to subordinates (Guinote, 2007c). Organizational literature, including a meta-analysis of 142 studies (Seibert et al., 2011), have long documented that having control at work, one ingredient of power, increases pro-

active engagement and productivity. Together this research indicates that people in power eagerly want desired outcomes, and engage in self-regulatory processes that help materialize these desires.

Does power enhance performance? The enhanced goal orientation of people in power begs the question of whether power increases effectiveness outside the domain of influence. Power is often beneficial for individual task performance, however, findings are nuanced. With less social evaluative concerns, high power people perform better in social contexts, such as in interviews and self-presentations (Guinote et al., 2002; Lammers et al., 2013; Schmid & Schmid Mast, 2013). They express their needs and desires, and persuade others to adopt their goals more, which helps advance their agendas (Laurin et al., in press; Guinote et al., 2002; Magee, et al. 2007).

Power holders have important advantages by being fast, being the first to intervene and persevering. For instance, the fact that power holders in negotiations often make the first offer serves as an anchor that affords them better deals (Magee et al., 2007). Powerful people perform better also in a range of complex tasks. Experimental studies have shown that they generate better arguments (Weick & Guinote, 2008) and complete higher proportions of anagrams correctly (DeWall et al., 2011). Women assigned to a power condition (vs. control) perform math calculations better, accompanied by related neural activity (Harada et al., 2012; Van Loo & Rydell 2013). This is due to less interference and better working memory. Women who are given power also perform better on visual rotation tasks than powerless women (Nissan et al., 2015).

Power does not always improve performance. Power is more beneficial under pressure and when high stakes are at hand (Kang et al., 2015). Power does not facilitate performance when power holders dislike tasks (DeWall et al., 2011). Furthermore, power can decrease judgment accuracy when power holders are overconfident or not motivated, which has been

documented in the social domain (Fiske & Berdahl, 2007; Nissan et al., 2009). Finally, when people in power work together in panels and committees they often have conflicts and their individual (as well as the group's) performance deteriorates (Hildreth & Anderson, 2016). To conclude, there is a power advantage in performance across many contexts and tasks but the links between power and performance are nuanced, and depend on motivation and the task.

POWER AND COGNITION

Trait perspectives of leadership and power have been common and popular, however, they have not satisfactorily explained the behavior of powerful people, giving way to *process approaches* in organizational research (Dihn & Lord, 2012; Lord & Maher, 2002). Simultaneously, socio-cognitive experimental research has helped grasp how power affects the mind (Guinote, 2007b; Smith et al., 2008).

People in power eagerly seek desired outcomes, which is facilitated by enhanced beliefs about the self, and the use of cognitive strategies that optimize important goals. However, to be decisive and ready to intervene people in positions of authority often compromise accuracy, engaging in fast decision making based on gut feelings and other shortcuts (see Fiske, 1993; Keltner et al., 2003; Weick & Guinote, 2008). Thus an examination of power and cognition needs to consider the specific situation.

Power and the Self: Positive Self-Concept, Independence, and Magnified Active Self

Positive self-concept. Power affects the beliefs people have about themselves. It boosts confidence, or conviction about their abilities and opinions, and other self-enhancing beliefs, which are middle-level mechanisms that facilitate prompt decision making and exercise of influence. Both field and experimental studies found increased confidence among the powerful (Briñol et al., 2007; Fast et al., 2012; Georgensen & Harris, 1998; Scholl & Sassenberg, 2014). Power holders take less advice from others (See et al, 2011; Tost et al., 2012), and conform less to others' opinions (Galinsky et al., 2008). Greater confidence leads

power holders to validate prior experiences or salient thoughts that they have in mind (Briñol et al., 2007; Guinote et al., 2012), enabling them to make swift decisions and actions.

Power holders have high sense of control, even in domains unrelated to their power roles (Scholl & Sassenberg, 2014). Van Dijke & Poppe (2006) and Lammers et al. (2016) found that people seek power mainly to increase control over their own lives. This increased sense of control plays a causal role on power holders' optimism and action orientation (Fast et al., 2009). Furthermore, with enhanced perceived control, powerful people perceive the self as an independent, self-sufficient entity (independent self-construal). In contrast, powerless people resort to relationships as a means to enhance control, are more communal and have an interdependent self-construal (see Fiske & Dépret, 1996; Guinote et al., 2015; Guinote & Chen, 2016).

Power elevates self-esteem (Fast et al., 2009; Hofstede et al., 2002; Wojciszke & Struzynska-Kujalowicz, 2007). For instance, an investigation involving 1,814 participants in managerial positions across 15 different countries found that managers rated themselves higher on positive managerial traits compared to the average of managers in their countries (Hofstede et al., 2002). People in power have a sense of superiority in various domains. For instance, they overestimate their own height (Duguid, & Goncalo, 2012), while perceiving others as smaller than they really are (Yap et al., 2013; see Schubert, 2005).

Magnified active self. Power changes the person in multiple ways. In addition to affecting the self-concept by enhancing confidence, perceived control, and self-esteem the present framework proposes that increased activation and wanting intensify the expression of the *active self* (Guinote & Chen, 2016). This proposal is based on the notion that the self is not monolithic (Markus & Nurius, 1986; Wheeler et al., 2007). The active or working self is the part of the overall self-knowledge that is currently accessible and active in peoples' working memory (Markus & Nurius, 1986). Power holders' increased activation, wanting and seeking,

magnifies the behavior expression of the active self. This contributes to a frequent expression of predispositions, which are chronically accessible and active in many contexts, but also other temporarily accessible subsets of the self (see Guinote & Chen, 2016; Guinote et al., 2012).

A great deal of evidence shows that people in power promptly express their desires, thoughts or emotions (Berdahl, & Martorana, 2006; Chen et al., 2001; Guinote et al., 2002). For instance, Guinote et al. (2002) assigned participants to powerful or powerless groups and videotaped them while working together. Observers, who were unaware of power relations, rated powerful, compared to the powerless, group members as more variable along several personality traits. This occurred because participants in power manifested more their idiosyncratic nature. Other studies found increased authenticity among the powerful (Berdahl & Martorana, 2006; Kraus et al., 2011).

Does this mean that power liberates people from constraints, and so they consistently behave in trait consistent ways? Put differently, does power increase trait-behavior consistency? Decades of research seeking to understand how the traits of leaders affect behavior in organizational contexts did not produce satisfactory answers (Lord & Maher, 2002). Therefore, investigations of self-expression across different situations were taken up (Chen et al., 2009; Dihn & Lord, 2012; Guinote, 2008).

Network and process models of personality (see Dinh & Lord, 2012), the active self model (Markus & Nurius, 1986; Wheeler et al., 2007), and dynamic views have pointed out that people often exhibit second nature traits that are situationally relevant and help advance goals (known as free traits, Little, 2008). This has paved the way for a new understanding of the ways power affects the self. This understanding explains both stability and variability in the behavior of people in authority positions. In line with the situated focus theory of power (see Guinote, 2007a), power enhances the expression of any traits, states or desires that emerge as individuals interact with the environment. Therefore, power holders act often in more

expressive and variable ways across different situations. Consistent with this notion, Dinh & Lord (2012) stressed that “intrapersonal variability across situations has important consequences for understanding leadership processes, which implies that leadership might be best understood at the event, rather than at the person-level of analysis” (p.654).

Because dispositions, values and power roles are chronically accessible, they will often guide the behavior of people in power, contributing to stability. However, temporarily activated aims and desires also readily guide the behavior of people in power contributing to variability. Below recurrent goals of people in power that are chronically accessible is first focused upon. Then situational, temporary influences on self-expression are discussed.

Wanting is Linked to Prioritization and Selective Attention

Power holders prioritize their effort towards salient desires and aims, while neglecting secondary ones (Guinote, 2007a; Overbeck & Park, 2006; Smith & Trope, 2006). To illustrate this, after a power manipulation students were asked to predict when they would submit coursework due two weeks later (Weick & Guinote, 2010). Those in power (vs. control) underestimated more the time needed to complete the coursework (demonstrating planning fallacy). This was driven by a too narrow focus of attention on the focal goal and neglect of other interfering goals and events. Enhanced prioritization of salient goals among power holders involves focus and rank ordering of action plans. However, power does not necessarily affect the importance of one’s goals (Schmid & Schmid Mast, 2013).

Selective attention and thought. Power holders allocate their attentional resources selectively in line with their motivations and active goals (Guinote, 2007b; Overbeck & Park, 2006; Smith & Trope, 2006; Vescio et al., 2003; Whitson et al., 2013). This notion is consistent with the “motivational tunnel vision” associated with approach-states (McGregor et al., 2010, p. 134), with Fiske’s (1993; Fiske & Neuberg, 1990) motivational account of social attention, and with the situated focus perspective of selective attention (Guinote, 2007a, 2007b). For

instance, in one study (Guinote, 2008) participants expected to describe either a social or a work day, and read work and social information. Powerful (vs. powerless) participants paid more attention to work (vs. social) information on a work day, and to social (vs. work) information on a leisure day. Their attention and behavior were more variable across situations associated with different goals.

Power holders often use rules of thumb to make decisions, however, this is less pronounced when the task at hand is important (Min & Kim, 2013). They balance their effort depending on motivation and the task. In contrast, powerless people more consistently deliberate (Fiske & Dépret, 1996). Scholl and Sassenberg (2014, 2015) found that power diminishes forethought (e.g., “what would happen, if...”) before solving a task or making a decision, unless it is beneficial for the upcoming task. In contrast, after failure on a project, power increases self-focused counterfactuals (e.g., “If only I had done things differently ...”). This in turn contributes to better future planning. Overall these findings illuminate contradictory claims arguing that power holders are cognitive misers (Keltner et al., 2003), and that they are competent information processors (Guinote, 2007b; Smith & Trope, 2006). Power holders are generally competent and economic information processors, who flexibly apply more or less cognitive resources depending on the task at hand and motivation.

Cognitive control. Scholars have examined whether power affects distractibility and ability to inhibit task irrelevant information. Research found an advantage for powerful compared to powerless participants (Guinote, 2007b; Smith et al., 2008; DeWall et al., 2011; Schmid et al., 2015). Being powerless impairs central executive functions, whereas power does not enhance common central executive functions (Smith et al., 2008). Nevertheless, power heightens some forms of cognitive control (DeWall et al., 2011; Harada et al., 2012; Schmid et al., 2015). Using ERPs (Event-Related-Potentials) and process dissociation analyses, Schmid et al. (2015) found that power increases cognitive control by facilitating the link between

conflict detection and regulative processes that implement actions. The authors concluded that power facilitates goal pursuit through enhanced controlled processing (see also Guinote, 2007b). Altogether this research shows that power promotes some cognitive processes facilitative of the pursuit of one's aims and desires, while also enabling strategies for fast decision making and action.

Flexibility, Creativity and Reliance on Gut Feelings

To thrive in the long term groups and organizations need to innovate, and respond to a constantly changing environment. Those in power are in charge of innovation and vision. When facing organizational or environmental changes they need to make fast decisions and intervene (Dane & Pratt, 2007). Therefore, power holders often rely on gut feelings, and tend to be attuned to environmental inputs.

Power holders also need to think flexibly. In organizational contexts these attributes have been praised in times of change and uncertainty, and have been considered attributes of a good leader. However, experimental work has shown that power changes people, and that the mere fact of having power enhances flexibility, reliance on experiential information, and ability to think abstractly into the future.

Situation tuning and flexibility. Organizational studies show that emergent leaders have greater behavior flexibility, and ability to respond to environmental inputs. For instance, using a rotation paradigm Zaccaro et al. (1991) found that emergent leaders were more likely than other people to recognize and act upon different situational demands, an attribute that they coined "response flexibility".

According to the situated focus theory of power (Guinote, 2007a) power enhances the ability to discern and respond to environmental inputs in a flexible manner, given opportunities for action or for the advancement of power holders' goals. Indeed experimental work shows that power increases situation tuning and cognitive flexibility. For example, people in power,

more than powerless people, vary their social attentional strategies depending on the task at hand and the context (Guinote, 2007a, 2008; Overbeck & Park, 2006; Vescio et al., 2003).

Creativity. Creativity is a skill associated with cognitive flexibility. Organizational studies reveal that feeling empowered is key to creative process engagement (Zhang & Bartol, 2010). Similarly, induced power increases creativity (Duguid, & Goncalo, 2015; Galinsky et al., 2008; Gervais et al., 2013). For example, participants with power generated more novel product names compared to control participants (Galinsky et al., 2008; Gervais et al., 2013). However, Gervais et al. found that power holders only utilize their creative potential when creativity aids the task at hand, a finding that is consistent with the situated focus perspective.

Reliance on experiential information. Gut feelings and experiences while thinking (cognitive experiences) can inform judgments and contribute to fast decision making. They are associated with insight (Kounios & Beeman, 2009) and are an asset for managers under time pressure and in unstable environments (Dane & Pratt, 2007). Unsurprisingly, managers often rely on intuitive processes in corporate decision making, especially if they are senior (Dane & Pratt, 2007).

This could result solely from the managers' predispositions and experience. However, induced power per se, alongside trait dominance and organizational power, increases reliance on subjective experiences (ease of retrieval, Weick & Guinote, 2008). When people have expertise such reliance is not necessarily inaccurate, and power seems to license individuals to use experiential information when they deem it as good enough.

Power also increases the use of motor experiences in the construction of aesthetic judgments (motor fluency, Woltin & Guinote, 2015). For instance, Woltin & Guinote (2015) found that after training extraocular muscles to perform certain eye movements used to scan the environment, high power participants, compared to control and powerless participants, liked more moving stimuli that engaged the trained muscles (vs. other stimuli).

Abstraction. People in positions of authority need to provide vision and to think abstractly. Consequently, power triggers abstract representations of events, plans and concepts (Smith & Trope, 2006; Nissan et al., 2015). For example, participants in a powerful (vs. control) condition focused more on the gist of words presented in a memory task (Smith & Trope, 2006). When describing events power holders use a more abstract language (Guinote et al., 2001; Magee et al., 2010). In the present framework abstract thinking helps balance between power holders' tendency for prompt responses to salient goals and more abstract, long term desires and aspirations.

THE GOALS OF POWERFUL PEOPLE

As we have seen, people in power have a clear focus of attention attuned to goal priorities. One question that arises is, which goals do then powerful people seek to accomplish? Since Greek philosophers Antisthenes and Plato, (4th-5th century BC) power has been associated with abuse and selfish behavior. According to Lord Acton's aphorism 'power corrupts, and absolute power corrupts absolutely'. Yet others argue that power can be used for good or evil depending on the person (Clegg et al., 2006). In US President Abraham Lincoln's words "if you want to know a person's character, give him power". How can these views be reconciled? A consideration of the active self helps address this question. Goals linked to power holders' predispositions, roles, and tasks at hand influence the parts of the self that are active and so explain variability. This section discusses research showing that power magnifies the active self, increasing a focus on salient goals. Within this framework, power holders' common goals, and the links between power and corruption are also addressed.

Goals Linked to Power Roles, Tasks, and Predispositions

Power energizes people during the pursuit of salient activities, projects and aims linked to their roles, tasks, affordances and predispositions. Among the various goals that people in power have, those related to their roles tend to have priority. An investigation of 21 groups in

15 different countries asked business managers to list important goals (Hofstede et al., 2002). Growth of the business was ranked number one, followed by continuity of business. In Yukl's et al. (2002) taxonomy of leaders' goals, task goals, concerning the efficiency of the use of resources, people and product operations, appear as the number one concern. The prioritization of goals related to power roles is found also in experimental research showing that the more power people have, the more they identify with their roles (Joshi & Fast, 2013a). These findings are consistent with the notion that power often triggers a sense of responsibility (see Chen et al., 2001; Sassenberg et al., 2014).

Experimental research shows that people in power are more agentic, and more readily act in ways that are called for by the task at hand. For example, compared to other people, power holders act in more benevolent ways in prosocial tasks and in more selfish ways in tasks that highlight the opportunity for personal gains (Galinsky et al., 2003). Temporarily accessible goals and the active self are pursued energetically by power holders.

Pre-existing inclinations of powerful actors are chronically accessible and guide their behavior (Chen et al., 2001; Guinote et al., 2012). Chen et al., showed that people who adhere to tit-for-tat rules act in more self-interested ways when in power, whereas communally oriented individuals become more pro-social. This tendency was found for similar attributes associated with social responsibility, such as moral identity (DeCelles et al., 2012), and a variety of other predispositions (e.g., Cote et al., 2011; Guinote et al., 2012; Schmid Mast et al., 2009). For example, a study conducted in 73 organizations found that CEO's who scored high on social responsibility (e.g., a preference for moral-legal conduct, and concern for others and obligations) engaged in ethical leadership, which was then related to increased effectiveness of management and followers' optimism (De Hoogh & Den Hartog, 2008).

Exercising and Maintaining Power

People in authority positions are oriented towards causing an impact in the social environment, and maintaining appropriate levels of power. These power goals are necessary for role effectiveness, and lead, for example, to increased communication and strategic language use, as discussed above.

The motivation to maintain hierarchical differences becomes particularly strong when power is threatened. For example, when power is perceived as unfair (i.e., illegitimate), or is unstable powerful people feel threatened and are less efficient (Lammers et al., 2008; Rodriguez-Bailon et al., 2000). Subjective lack of power among the powerful has similar effects (Bugental & Happaney, 2004; Fast & Chen, 2009). Correlational and experimental evidence shows that subjectively powerless caregivers (e.g., teachers) exhibit high arousal, less effectiveness, and use more punishment (see Bugental, 2010). That is, perceived losses of power trigger threat reactivity seen in inefficiency and authoritarian power assertion.

Power enhances personal control and resources (Fast et al., 2009; Van Dijke, & Poppe, 2006). Therefore, as we have seen, some people are motivated to have power. Once in power, people avoid relinquishing power (Ratcliff & Vescio, 2013). Together this work shows that maintaining power is important for power holders. They monitor their relative power, and respond to power threats with harsh power assertion.

State Dependent Reward Seeking

Echoing Salamena and Correa's (2002) views in neuroscience, in power research the usage of the word 'reward' has also become so broad as to be essentially meaningless. However, some evidence suggests that power can intensify reward seeking (e.g., seeking food, sex and other pleasures). Following the power as salient goal seeking framework, this occurs especially when basic needs are thwarted, during hedonic consumption, and for hedonistic people. For example, powerful participants who were hungry ate more food in a tasting task compared to their powerless counterparts (Guinote, 2010). In another study power holders ate

more appetizing food (chocolates) and less distasting food (radishes). Similarly, power can be associated to infidelity and heightened sexual perceptions (Kunstman & Maner, 2011; Lammers et al., 2011). Crucially, some evidence suggests that when given a choice between immediate smaller rewards, such as money, and larger, later rewards, people in power prefer to delay gratification (Joshi & Fast, 2013b). This contrasts with the choices of people with hyperactive reward systems, who tend to prefer immediate rewards (McClure et al., 2004).

Does Power Corrupt?

Power holders can use their advantaged positions to satisfy their needs (Pratto, 2015). In politics, corporations and public service people in the high echelons often seek to accumulate resources and personal prestige (Ashforth & Anand, 2003). They frequently focus on increasing their payouts while neglecting others' payouts. These tendencies can be observed early in ontogeny: 5 years old children who were in a high rank position gave less stickers to a child in need compared to their low rank counterparts (Guinote et al., 2015). This was true regardless of whether rank was determined by trait dominance or was experimentally induced.

Similarly, power holders often enforce personal values. For instance, the more power CEO's have the more they implement corporate actions linked to personal political ideologies (Chin et al., 2013). Power holders can also use deceptive tactics, such as making promises and breaking them later.

The self-serving behavior of power holders is linked to feelings of legitimacy and self-entitlement (e.g., Ashforth & Anand, 2003; De Cremer & Van Dijk, 2005). People in power contribute more to groups, therefore, they have feelings of deservingness and are not always aware of violating fairness principles.

Self-serving biases and impulses are automatic and common (Ross et al., 1977). To override them one needs self-control. However, people in power do not always have the resources or want to exercise self-control to overcome these biases (Fiske & Berdahl, 2007).

Nevertheless, the links between power and corruption are moderated by a number of factors, and can be reversed depending on predispositions and context (Guinote & Chen, 2016). These factors include power stability, intergroup conflict (Maner & Case, in press), culture (Kopelman, 2009; Torelli, & Shavitt, 2010), organizational culture (Ashforth & Anand, 2003), moral identity (DeCelles et al., 2012), the task (Galinsky et al., 2003), and the predispositions of people in power (Sassenberg et al., 2012). In many occasions people in authority positions sacrifice their interests to serve groups (Hoogervorst et al., 2012; Ratcliff, & Vescio, 2013). This is more pronounced in collectivistic cultures, which associate power with social responsibility (socialized power), whereas in individualistic cultures power is seen in terms of self-interested opportunities (personalized power; Torelli, & Shavitt, 2010; see Sassenberg et al., 2012). These findings are consistent with the notion that power facilitates the pursuit of salient goals, which can be linked to predispositions of the person, cultural influences or the situation.

In summary, the behavior of people in power is best understood in line with the active self and salient goals, whilst taking the person and the situation into consideration. Typically, power holders are guided by their roles, predispositions, the task at hand and their cultural inclinations. They are more self-expressed, and this includes the expression of common self-serving biases. These biases can be amplified by a sense of entitlement, a desire to maintain the hierarchy, and greater exposure to self-serving opportunities. When responsible uses of power are active due to individual predispositions, organizational or national culture, self-serving behavior is less common.

POWER IN THE SOCIAL WORLD

The prioritized pursuit of institutional or personal goals typical for people in power has downstream consequences for the ways they attend and relate to others. In organizations managers often focus too narrowly on organizational targets, including profit, at the expense

of the employees' needs (Hoffstede et al., 2002; Pfeffer, 2007). Up to 2/3 of employees in any organization consider their immediate supervisor the strongest source of stress at work (Hogan et al., 2010). Ironically, neglecting employees markedly reduces organizational profit, commitment, and wellbeing of subordinates (Pfeffer, 2007).

The negative consequences of power for social attention, judgment and decision making, perspective taking, and objectification are well documented. The following section discusses common social inclinations of powerful people, boundary conditions, and how a goal seeking and the active self perspective can incorporate different findings in power research.

Social Attention, Perspective Taking and Objectification of Subordinates

Since Fiske's (1993) article it became apparent that power holders are often socially inattentive. Fiske et al. (e.g., Fiske, 1993; Goodwin et al., 2000) reasoned that people in power are generally not motivated or cannot pay attention to the personal attributes of subordinates. This is consistent with the notion proposed here that the attention of powerful people is geared primarily by their salient goals, often the task at hand. In so doing they are more prone to neglect others (Fiske & Berdahl, 2007).

Fiske found that compared to control participants, participants in power seek less diagnostic and personal information about subordinates. To illustrate, in one study (Fiske & Dépret, 1996) powerful and control participants judged the suitability of Anglo and Latino internship applicants, described with stereotypic and non-stereotypic attributes. Power increased attention (reading time) to stereotypic attributes (see Goodwin et al., 2000; Schmid & Amodio, 2016).

Other studies have shown that power decreases emotion recognition (Galinsky et al., 2006; Gonzaga, et al., 2008; Nissan et al., 2015; but see Schmid Mast et al., 2009). Negotiators with power are less motivated to be accurate than their partners, asking more leading questions and less diagnostic questions (De Dreu & Van Kleef, 2004). Power decreases the ability to take

another's vantage point (Galinsky et al., 2006). For example, compared to control, high power participants drew more often a letter "E" on their forehead from their vantage point rather than that of the observer. However, evidence regarding the accuracy of power holders' judgments and recall is mixed. A power disadvantage is more pronounced in studies involving life interactions than in other types of studies (Hall et al., 2015). In addition, power holders are often more accurate than powerless individuals for task relevant attributes of the targets.

Stereotypes and negative attitudes towards disadvantaged groups are socially shared and when unsupervised can automatically influence judgments. Guinote et al. (2010) found that having power increases implicit prejudice against disadvantaged groups. Schmid and Amodio (2016) corroborated these findings. Similarly, powerful participants deny the humanness of others more often, attributing them fewer unique human attributes (e.g., Gwinn et al., 2013). Finally, elevated power diminishes concern for others and empathy for their suffering (Van Kleef et al., 2008).

Person oriented goals increase social attention. In spite of the evidence discussed above, the judgments of people in power influenced by their salient goals and therefore malleable. If concentrating on organizational or self-focused goals can be detrimental for social attention, the activation of person centered goals can neutralize or reverse this tendency. Power holders are socially attentive when predispositions (e.g., Chen et al., 2001; Schmid Mast et al., 2009; Vescio et al., 2003) and situational goals (Overbeck & Park, 2001, 2006) are other oriented. For instance, Vescio et al. (2003) found that people in power only use stereotypes when enacting certain leadership styles. Overbeck & Park (2006) found that power holders in simulated "people centered" organizations paid more attention to subordinates compared to those in "product centered" organizations.

Gruenfeld et al. (2008) found that high power people evaluate others more positively if they are instrumental for their goals (i.e., objectify them). Crucially, this bias is linked to the

presence of an active goal, suggesting that goals strongly influence the attention and judgments of people in power. Similarly, when others signal potential for satisfying chronic needs and desires, such as sexual needs, power holders tend to objectify them. For instance, compared to men and women who lack power, those in power show enhanced selective attention to sexualized images of the opposite gender, identifying them better even if they are difficult to see (e.g., inverted, Civile & Obhi, 2015).

Other studies (Weick & Guinote, 2008) found that certain subjective experiences (ease of retrieval) facilitate more strongly stereotype use among the power holders compared to other people. Overall research shows that the social judgments of people in power are constructed on a moment-to-moment basis and depend on the goals and states of power holders. Given that people in power frequently have non-social priorities, the tendency to dehumanize others and be socially inattentive is an enduring risk (see Fiske, 1993; Keltner et al., 2003).

Social Behavior

Power holders' propensity for fast decisions and actions can magnify egocentric, common biases leading to a disproportionate focus on their needs and desires. Generally, in interpersonal relations power holders sacrifice their interests less vis-a-vis partners than vice-versa (Danescu-Niculescu-Mizil et al., 2012; Laurin et al., in press). When communicating, those with power display less language coordination (i.e., mimic less others' choices of word classes; Danescu-Niculescu-Mizil et al., 2012) compared to people who lack power. In close relationships dominant and powerful people tend to lead partners to adopt their goals (Laurin et al., in press).

Nevertheless, people who see power as responsibility sacrifice their time and resources to benefit others (e.g., Chen et al., 2001; Galinsky et al., 2003; Guinote et al., 2012; Hoogervorst et al., 2012; Sassenberg et al., 2014). When in power, benevolent people are helpful and socially attentive (Chen et al., 2001; Cote et al., 2011; DeCelles, et al., 2015;

Guinote et al., 2012). Similarly, feelings of group belonging (Hoogervorst et al. 2012), as well as reminders of fairness (Guinote et al., 2012), can block the expression of immediate impulses, increasing power holders' pro-social orientation.

Accountability effectively mitigates power abuse in education (Ingersoll, 2009), organizational and political arenas (Grant & Keohane, 2005), and in experimental conditions (Rus et al., 2012). For example, Oc et al. (2015) conducted a multi-round dictator game where participants distributed resources between self and others. Being powerful increased self-serving biases. However, candid feedback from recipients led to fairer distributions, whereas compliant feedback increased self-serving behavior.

CONCLUSIONS

Research over the last 15 years supports the notion that power activates one specific component of approach motivation: that associated with the pursuit of goals. Power energizes people, gives a clear focus, and facilitates seeking or working to obtain salient goals. Power holders spend a great deal of time and effort trying to influence others, promptly intervening, and seeking opportunities to pursue their aims and desires.

As the review shows, power holders successfully attain their desires aims not only because they can act at will with less resistance (Weber, 1914) but also because of enhanced self-regulation (DeWall et al., 2011; Guinote, 2007c). Powerful people allocate their attentional resources selectively in line with priorities. They tune in to information that is goal relevant and more selectively ignore other information (Guinote, 2007; Overbeck & Park, 2006). In addition, they have greater ability to be creative, flexible and think abstractly, attributes that are an asset when dealing with complex problems that require innovation and vision into the future. However, to be decisive and readily impact the social environment power holders often choose to compromise and use fast and frugal decision making strategies, such as reliance on subjective experiences and gut feelings (Guinote 2010; Weick & Guinote, 2008).

Power can be used for good or evil, depending on power roles, the person and the environment. Consistent with the situated focus theory of power (Guinote, 2007a, 2010), power intensifies the active self, and helps people strive for salient goals. Common goals of power holders are linked to their roles, predispositions, ideologies, the task at hand or opportunities.

Keltner's et al. (2003) reward and affect based theory has dominated over a decade of psychological research on power. This theory has great explanatory power, and has guided research into new directions, producing many valuable insights. The framework presented here is consistent with basic tenets of Keltner's et al (2003) approach theory of power. However, it departs from the original conception that linked power to reward seeking and positive affect (hedonic tone). The present framework reconciles this theory with Fiske's (1993) socio-cognitive paradigm of social attention prominent between 1993 and 2003. Specifically, it incorporates Fiske's functionalist perspective, linking motivation to attention, and proposes that the goal priorities of power holders, fuelled by approach motivation, explain the effects of power on social perception. At the same time the framework explains malleability and research inconsistencies, opening new avenues for the understanding and prevention of the dark side of power.

Nearly 50 years after the first experimental studies on power and corruption (Kipnis, 1972; Zimbardo, 1971) evidence continues to testify to the danger of power abuse. The power as activation, wanting and seeking framework suggests that this occurs because power intensifies egocentric biases but only to the extent that these are accessible. As far as organizational goals, culture and the predispositions of people in power are communally oriented, power holders will primarily benefit their teams and organizations (Chen et al., 2001). Ethical and servant leaders typically do so (Sassenberg et al., 2014).

If power aids social assertion and the quest for priorities this often comes at a risk of neglecting secondary goals, in particular the needs and perspectives of other people (Fiske &

Berdahl, 2007; Galinsky et al., 2006). Over two decades after the first discoveries in social cognition linking power to stereotyping (Fiske, 1993), related tendencies continue to be uncovered. This includes decreased perspective taking, perceived humanness in others, elevated implicit prejudice and objectification. Pro-social predispositions, cultural or situational reminders of person centered goals ameliorate or even reverse these tendencies.

Given the potential negative effects of power in the social domain, what can be done? Together the research suggests ways of mitigating power abuse, and fostering social responsibility. In appointed power, considering predispositions and selecting ethical candidates is important to avoid future abuse. In addition, training can effectively increase social responsibility in powerful people (McClelland & Burnham, 1995). Finally, citizens of organizations and community can influence power holders through norms and culture that associate power with responsibility (Sassenberg et al., 2014; Torelli, & Shavitt, 2010). While in non-human primate species subordinates often form alliances to challenge power through force (Boehm, 2009), in human societies alliances without the use of force are also influential (Hogg, 2001; Parsons, 1963). For instance, subordinates can resort to shared symbolic means, such as culture, to influence power holders. Lastly, reminders of social obligations and accountability have proven successful mechanisms to control power abuse and the neglect of subordinates' needs.

DISCLOSURE STATEMENT

The author is not aware of any affiliations, memberships, funding, or financial holdings that might be perceived as affecting the objectivity of this review.

SUMMARY POINTS LIST

- People who rise to power display typically visible competencies and skills and/or talk more, showing confidence and assertiveness.
- Having power energizes thought, speech and action. People with power make faster decisions, speak more, and act more compared to others.
- Powerful people are goal oriented. They have clarity of focus (wanting) and work towards obtaining (seeking) desired goals. They are persistent.
- Power affects cognitive strategies, increasing prioritization, selective attention to goal relevant information, flexibility, and creativity. However, power also licenses people to rely on gut feelings.
- Power raises self-expression. Power holders manifest more their thoughts, emotions and predispositions.
- Power can magnify the expression of common egocentric biases, increasing self-serving behavior. This is often accentuated by feelings of entitlement.
- The links between power and corruption depend on personal predispositions and the situation. Socially responsible people exercise power ethically.
- The goal orientation of power holders has downstream consequences for social behavior, often leading to the use of stereotypes, prejudice, and objectification of subordinates.

FUTURE ISSUES

- Power is a relational phenomenon, yet, little is known about the role of subordinates. Subordinates may play a less passive role than commonly considered.
- Future research needs to further examine power related processes across different cultures. Are some of the research findings a Western phenomenon?
- More experimental research investigating power at the group level is necessary. How do groups affect the exercise of power? How do power holders think and act in high power groups (e.g., panels, committees) compared to less powerful groups? How does gender and ethnic composition of groups and their leaders affect the exercise of power?
- Socio-cognitive, experimental research could develop better methodology to examine the impact of predispositions and the situation on power holders, for example, by using rotation paradigms that vary the constitution of groups and tasks.
- Socio-cognitive research could further examine power holders' dynamic uses of automatic and controlled processes. This would contribute to the understanding of performance and decision making, and clarify controversies regarding when are power holders cognitive misers and when are they efficient processors.
- What are the physiological, cardiovascular and neural correlates of having power? How do bio-social markers of power vary across individuals and situations?

ACKNOWLEDGMENTS:

Preparation of this review was supported by grants British Academy SG132223, and Daedalus Trust 520180 F67. I am grateful for the comments to an earlier draft provided by Marcin Bukowski, Andrew Elliot, Christos Halkiopoulos, Robert Josephs, Merik Kohta, Joris Lammers, Kai Sassemberg, Marianne Schmid Mast, Annika Scholl, Kathleen Vohs, and Guillermo Willis. Thanks also to Liyin Sun for assistance.

LITERATURE CITED

- Alcaro A, Huber R, Panksepp J. 2007. Behavioral functions of the mesolimbic dopaminergic system: an affective neuroethological perspective. *Brain Res Rev*, 56(2), 283-321.
- Allen N, Angers H, Bhogal A, Ching C, Davidian S, et al. 2015. British MPs on British PMs: Parliamentary evaluations of prime ministerial success. *Politics*, 35(2), 111-27.
- Anderson C, Berdahl JL. 2002. The experience of power: examining the effects of power on approach and inhibition tendencies. *J Pers Soc Psychol*, 83(6), 1362-77.
- Anderson C, John OP, Keltner D. 2012. The personal sense of power. *J Pers*, 80(2), 313-44.
- Anderson C, Kilduff G.J. 2009. Why do dominant personalities attain influence in face-to-face groups? The competence-signaling effects of trait dominance. *J Pers Soc Psychol*, 96(2), 491-503.
- Ashforth BE, Anand V. 2003. The normalization of corruption in organizations. *Res Organ Behav*, 25, 1-52.
- Berdahl JL, Martorana P. 2006. Effects of power on emotion and expression during a controversial group discussion. *Eur J Soc Psychol*, 36(4), 497-509.
- Berridge KC, 2007. The debate over dopamine's role in reward: the case for incentive salience. *Psychopharmacology*, 191(3), 391-431.
- Boehm C. 2009. *Hierarchy in the forest: The evolution of egalitarian behavior*. Harvard University Press.
- Boksem MA, Smolders R, De Cremer D. 2012. Social power and approach-related neural activity. *Soc Cogn Affect Neurosci*, 7(5), 516-20.
- Briñol P, Petty RE, Valle C, Rucker DD, Becerra A. 2007. The effects of message recipients' power before and after persuasion: a self-validation analysis. *J Pers Soc Psychol*, 93(6), 1040-53.

- Bugental DB. 2010. Paradoxical power manifestations: Power assertion by the subjectively powerless. In *The social psychology of power*, ed. A Guinote, TK Vescio, 209-30. New York: Guilford Press.
- Bugental DB, Happaney K. 2004. Predicting infant maltreatment in low-income families: The interactive effects of maternal attributions and child status at birth. *Dev Psychol*, 40, 234-43.
- Carney DR, Cuddy AJ, Yap AJ. 2010. Power posing brief nonverbal displays affect neuroendocrine levels and risk tolerance. *Psychol Sci*, 21(10), 1363-68.
- Carver CS, Harmon-Jones E. 2009. Anger is an approach-related affect: evidence and implications. *Psychol Bull*, 135(2), 183-204.
- Carver CS, White TL. 1994. Behavioral inhibition, behavioral activation, and affective responses to impending reward and punishment: the BIS/BAS scales. *J Pers Soc Psychol*, 67(2), 319-33.
- Carver CS. 2004. Negative affects deriving from the behavioral approach system. *Emotion*, 4(1), 3-22.
- Catalyst. 2016. *Women CEOs of the SandP 500*. New York: Catalyst, February 1.
- Civile C, Obhi SS. 2016. Power, objectification, and recognition of sexualized women and men. *Psychol Women Q*, 40(2), 199-212.
- Chen S, Lee-Chai AY, Bargh JA. 2001. Relationship orientation as a moderator of the effects of social power. *J Pers Soc Psychol*, 80(2), 173-87.
- Chicago.
- Chin M.K, Hambrick DC, Treviño LK. 2013. Political Ideologies of CEOs The Influence of Executives' Values on Corporate Social Responsibility. *Adm Sci Q*, 58(2), 197-232.
- Clegg SR, Courpasson D, Phillips N. 2006. *Power and organizations*. Pine Forge Press.

- Collins JC, and Porras, JI. 2005. *Built to last: Successful habits of visionary companies*. Random House.
- Côté S, Kraus MW, Cheng, BH, Oveis C, Van der Löwe, I, Lian H, Keltner, D. 2011. Social power facilitates the effect of prosocial orientation on empathic accuracy. *J Pers Soc Psychol* 101(2), 217-32.
- Costa Jr PT, McCrae RR. 1995. Domains and facets: Hierarchical personality assessment using the Revised NEO Personality Inventory. *J Pers Assess*, 64(1), 21-50.
- Dahl R. 1957 (2007). The concept of power. *Syst. Res.*, 2(3), 201-15.
- Dane E., Pratt MG. 2007. Exploring intuition and its role in managerial decision making. *Acad Manage Rev*, 32(1), 33-54.
- Danescu-Niculescu-Mizil C, Lee L, Pang B. Kleinberg J. 2012 (April). Echoes of power: Language effects and power differences in social interaction. In *Proceedings of the 21st international conference on World Wide Web*. ACM., 699-708.
- De Cremer D, Van Dijk, E. 2005. When and why leaders put themselves first: Leader behaviour in resource allocations as a function of feeling entitled. *Eur J Soc Psychol*, 35(4), 553-63.
- De Dreu CK, Van Kleef GA. 2004. The influence of power on the information search, impression formation, and demands in negotiation. *J Exp Soc Psychol*, 40(3), 303-19.
- DeCelles KA, DeRue DS, Margolis JD, Ceranic TL. 2012. Does power corrupt or enable? When and why power facilitates self-interested behavior. *J Appl Psychol*, 97(3), 681-89.
- DeWall CN, Baumeister RF, Mead NL, Vohs KD. 2011. How leaders self-regulate their task performance: evidence that power promotes diligence, depletion, and disdain. *J Pers Soc Psychol*, 100(1), 47-65.

- Dinh JE, Lord RG. 2012. Implications of dispositional and process views of traits for individual difference research in leadership. *Leadersh Q*, 23(4), 651-69.
- Duguid MM, Goncalo JA. 2012. Living large the powerful overestimate their own height. *Psychol Sci*, 23(1), 36-40.
- Duguid MM, Goncalo JA. 2015. Squeezed in the middle: The middle status trade creativity for focus. *J Pers Soc Psychol*, 109(4), 589-603.
- Ehrenkranz J, Bliss E, Sheard MH. 1974. Plasma testosterone: correlation with aggressive behavior and social dominance in man. *Psychosom Med*, 36(6), 469-75.
- Ellemers N, De Gilder D, Haslam SA. 2004. Motivating individuals and groups at work: A social identity perspective on leadership and group performance. *Acad Manage Rev*, 29(3), 459-78.
- Emerson RM. 1962. Power-dependence relations. *Am Sociol Rev*, 31-41.
- Fast NJ, Chen S. 2009. When the boss feels inadequate Power, incompetence, and aggression. *Psychol Sci*, 20(11), 1406-13.
- Fast NJ, Gruenfeld DH, Sivanathan N, Galinsky, AD. 2009. Illusory control a generative force behind power's far-reaching effects. *Psychol Sci*, 20(4), 502-8.
- Fast NJ, Sivanathan N, Mayer ND, Galinsky. 2012. Power and overconfident decision-making. *Organ Behav Hum Decis Process*, 117(2), 249-60.
- Fiske ST. 1992. Thinking is for doing: portraits of social cognition from daguerreotype to laserphoto. *J Pers Soc Psychol*, 63(6), p.877.
- Fiske ST. 1993. Controlling other people: The impact of power on stereotyping. *Am. Psychol*, 48(6), p.621.
- Fiske ST, Berdahl J. 2007. Social power. *Social psychology*. In *Handbook of basic principles*, ed, AW Kruglanski, T Higgins, 2, pp.678-92. New York: Guilford.

- Fiske ST, Dépret E. 1996. Control, interdependence and power: Understanding social cognition in its social context. *Eur Rev Soc Psychol*, 7(1), 31-61.
- Fiske ST, Neuberg SL, 1990. A continuum of impression formation, from category-based to individuating processes. *Advances in experimental social psychology*, 23(C), 1-74.
- Foucault, M., 1982. The subject and power. *Crit. Inq*, 8(4), 777-95.
- French JRP, Raven B. 1959. The bases of social power. In: Cartwright, D. ed. *Studies in social power*. Ann Arbor: University of Michigan, Institute for Social Research. pp. 150-167.
- Galinsky AD, Gruenfeld DH, Magee JC. 2003. From power to action. *J Pers Soc Psychol*, 85(3), p.453.
- Galinsky AD, Magee JC, Gruenfeld DH, Whitson JA, Liljenquist KA. 2008. Power reduces the press of the situation: implications for creativity, conformity, and dissonance. *J Pers Soc Psychol*, 95(6), p.1450.
- Galinsky AD, Magee JC, Inesi ME, Gruenfeld DH. 2006. Power and perspectives not taken. *Psychol Sci*, 17(12), pp. 1068-1074.
- Gervais SJ, Guinote A, Allen J, Slabu L. 2013. Power increases situated creativity. *Social Influence*, 8(4), pp.294-311.
- Gonzaga GC, Keltner D, Ward D. 2008. Power in mixed-sex stranger interactions. *Cogn Emot*, 22(8), pp.1555-1568.
- Goodwin SA, Gubin A, Fiske ST, Yzerbyt VY. 2000. Power can bias impression processes: Stereotyping subordinates by default and by design. *Group Process Intergroup Relat*, 3(3), pp.227-256.
- Gough HG. 1987. California Psychology Inventory administrator's guide.
- Grant RW, Keohane RO. 2005. Accountability and abuses of power in world politics. *Am Polit Sci Rev*, 99(01), pp. 29-43.

- Gray JA, McNaughton N. 2003. *The neuropsychology of anxiety: An enquiry into the function of the septo-hippocampal system* (No. 33). Oxford university press.
- Gruenfeld DH, Inesi ME., Magee JC, Galinsky AD. 2008. Power and the objectification of social targets. *J Pers Soc Psychol*, 95(1), 111-27.
- Guinote A. 2007a. Behaviour variability and the situated focus theory of power. *Eur Rev Soc Psychol*, 18(1), 256-95.
- Guinote A. 2007b. Power affects basic cognition: Increased attentional inhibition and flexibility. *J Exp Soc Psychol*, 43(5), 685-97.
- Guinote A. 2007c. Power and goal pursuit. *Pers Soc Psychol Bull*, 33(8), 1076-87.
- Guinote A. 2008. Power and affordances: when the situation has more power over powerful than powerless individuals. *J Pers Soc Psychol*, 95(2), 237-52.
- Guinote A. 2010. In touch with your feelings: Power increases reliance on bodily information. *Soc Cogn*, 28(1), 110-21.
- Guinote A, Chen S. 2016. Power as active self: acquisition and use of power. In *Oxford Handbook of Personality and Social Psychology*, ed. K Deaux, M Snyder. Oxford University Press.
- Guinote A, Cotzia I, Sandhu S., Siwa P. 2015. Social status modulates prosocial behavior and egalitarianism in preschool children and adults. *Proc Natl Acad Sci USA*, 112(3), 731-736.
- Guinote A, Judd CM, Brauer M. 2002. Effects of power on perceived and objective group variability: evidence that more powerful groups are more variable. *J Pers Soc Psychol*, 82(5), 708-721.
- Guinote A, Weick M, Cai A. 2012. Does power magnify the expression of dispositions? *Psychol Sci*, 94(6), 956-970.

- Guinote A, Willis GB, Martellotta C. 2010. Social power increases implicit prejudice. *J Exp Soc Psychol* 46(2). 299-307.
- Gwinn JD, Judd CM, Park, B. 2013. Less power=less human? Effects of power differentials on dehumanization. *J Exp Soc Psychol*, 49(3), 464-70.
- Hall JA, Coats EJ, LeBeau LS. 2005. Nonverbal behavior and the vertical dimension of social relations: a meta-analysis. *Psychol Bull*, 131(6), p.898.
- Hall JA, Schmid Mast MS, Lutu IM. 2015. The vertical dimension of social relations and accurate interpersonal perception: A meta-analysis. *J Nonverbal Behav*, 39(2), 131-63.
- Hamid AA, Pettibone JR, Mabrouk OS, Hetrick VL, Schmidt R, et al.. 2016. Mesolimbic dopamine signals the value of work. *Nat Neurosci*, 19(1), 117-26.
- Harada T, Bridge DJ, Chiao JY. 2012. Dynamic social power modulates neural basis of math calculation. *Front. Hum. Neurosci*, 6(350), 115-27.
- Haslam SA, Reicher SD, Platow MJ. 2010. *The new psychology of leadership: Identity, influence and power*. Psychology Press.
- Hildreth JAD, Anderson C. 2016. Failure at the top: How power undermines collaborative performance. *J Pers Soc Psychol*, 110(2), 261-86.
- Hofstede, G, Van Deusen CA, Mueller CB, Charles TA, The Business Goals Network. 2002. What goals do business leaders pursue? A study in fifteen countries. *J Int Bus Stud*, 785-803.
- Hogan J, Hogan R, Kaiser RB. 2010. Management derailment. *APA handbook of industrial and organizational psychology*, 3, 555-75.
- Hogg MA. 2001. A social identity theory of leadership. *Pers Soc Psych Rev*, 5(3), 184-200.
- De Hoogh AH, Den Hartog DN. 2008. Ethical and despotic leadership, relationships with leader's social responsibility, top management team effectiveness and subordinates' optimism: A multi-method study. *Leadersh Q*, 19(3), 297-311.

- Hoogervorst N, De Cremer D, Van Dijke M, Mayer DM. 2012. When do leaders sacrifice?: The effects of sense of power and belongingness on leader self-sacrifice. *Leadersh Q*, 23(5), 883-896.
- Inesi ME. 2010. Power and loss aversion. *Organ Behav Hum Decis Process*, 112(1), 58-69.
- Ingersoll RM. 2009. *Who controls teachers' work?: Power and accountability in America's schools*. Harvard University Press.
- Josephs RA, Sellers JG, Newman ML, Mehta PH. 2006. The mismatch effect: when testosterone and status are at odds. *J Pers Soc Psychol*, 90(6), 999-1013.
- Joshi PD, Fast NJ. 2013a. I Am My (High-Power) Role Power and Role Identification. *Pers Soc Psychol Bull*, 39(7), 898-910.
- Joshi PD, Fast NJ. 2013b. Power and reduced temporal discounting. *Psychol Sci*, 24(4) 432-38.
- Judge TA, Bono JE, Ilies R, Gerhardt MW. 2002. Personality and leadership: a qualitative and quantitative review. *J Appl Psychol*, 87(4), 765-80.
- Judge TA, Colbert AE, Ilies R. 2004. Intelligence and leadership: a quantitative review and test of theoretical propositions. *J Appl Psychol*, 89(3), 542-52.
- Kacwicz E, Pennebaker JW, Davis M, Jeon M, Graesser AC. 2013. Pronoun use reflects standings in social hierarchies. *J Lang Soc Psychol*, 33(2), 125-47.
- Kang SK, Galinsky AD, Kray LJ, Shirako A. 2015. Power Affects Performance When the Pressure Is On Evidence for Low-Power Threat and High-Power Lift. *Pers Soc Psychol Bull*, 41(5), 726-35.
- Kaplan JR, Manuck SB, Fontenot MB, Mann JJ. 2002. Central nervous system monoamine correlates of social dominance in cynomolgus monkeys (*Macaca fascicularis*). *Neuropsychopharmacology*, 26, 431-43.

- Keltner D, Gruenfeld DH, Anderson C. 2003. Power, approach, and inhibition. *Psychol Rev*, 110(2), 265-84.
- Kim PH, Pinkley RL, Fragale AR. 2005. Power dynamics in negotiation. *Acad Manage Rev*, 30(4), 799-822.
- Kipnis D. 1972. Does power corrupt? *J Pers Soc Psychol*, 24(1), 33-41.
- Kipnis D. 1976. *The powerholders*. Chicago, IL: University of Chicago.
- Kopelman S. 2009. The effect of culture and power on cooperation in commons dilemmas: Implications for global resource management. *Organ Behav Hum Decis Process*, 108(1), 153-63.
- Kounios J, Beeman M. 2009. The Aha! Moment the cognitive neuroscience of insight. *Curr Dir Psychol Sci*, 18(4), 210-16.
- Kraus MW, Chen S, Keltner D. 2011. The power to be me: Power elevates self-concept consistency and authenticity. *J Exp Soc Psychol*, 47(5), 974-80.
- Kruglanski AW, Bélanger JJ, Chen X, Köpetz C, Pierro A, Mannetti L. 2012. The energetics of motivated cognition: a force-field analysis. *Psychol Rev*, 119(1), 1-20.
- Kunstman JW, Maner JK. 2011. Sexual overperception: power, mating motives, and biases in social judgment. *J Pers Soc Psychol*, 100(2), 282-94.
- Lammers J, Dubois D, Rucker DD, Galinsky AD. 2013. Power gets the job: Priming power improves interview outcomes. *J Exp Soc Psychol*, 49(4), 776-79.
- Lammers J, Galinsky AD, Gordijn EH, Otten S. 2008. Illegitimacy moderates the effects of power on approach. *Psychol Sci*, 19(6), 558-64.
- Lammers J, Stoker JI, Jordan J, Pollmann M, Stapel DA. 2011. Power increases infidelity among men and women. *Psychol Sci*, 22(9), 1191-97.
- Lammers J, Stoker JI, Stapel DA. 2010. Power and behavioral approach orientation in existing power relations and the mediating effect of income. *Eur J Soc Psychol*, 40(3), 543-51.

- Lammers J, Stoker JI, Rink F, Galinsky AD. 2016. To have control over or to be free from others? The desire for power reflects a need for autonomy. *Pers Soc Psychol Bull*, 42(4), 498-12.
- Langner CA, Keltner D. 2008. Social power and emotional experience: Actor and partner effects within dyadic interactions. *J Exp Soc Psychol*, 44(3), 848-56.
- Laurin K, Fitzsimons GM, Finkel EJ, Carswell KL, Van Dellen MR, et al. in press. Power and the pursuit of a partner's goals. *J Pers Soc Psychol*.
- Little BR. 2008. Personal projects and free traits: Personality and motivation reconsidered. *Soc Personal Psychol Compass*, 2(3), 1235-54.
- Lord RG, Maher KJ. 2002. *Leadership and information processing: Linking perceptions and performance*. Routledge.
- Magee JC, Galinsky AD, Gruenfeld DH. 2007. Power, propensity to negotiate, and moving first in competitive interactions. *Pers Soc Psychol Bull*, 33(2), 200-12.
- Magee JC, Milliken FJ, Lurie AR. 2010. Power differences in the construal of a crisis: The immediate aftermath of September 11, 2001. *Pers Soc Psychol Bull*, 36(3), 354-70.
- Maner JK, Case CR. in press. Dominance and Prestige: Dual Strategies for Navigating Social Hierarchies. *Adv Exp Social Psychol*.
- Maner JK, Kaschak MP, Jones JL. 2010. Social power and the advent of action. *Soc Cogn*, 28(1), 122-32.
- Markus H, Nurius P. 1986. Possible selves. *Am. Psychol*, 41(9), 954-69.
- Mast MS. 2002. Dominance as expressed and inferred through speaking time. *Human Communication Research*, 28(3), 420-50.
- Mazur A, Booth, A. 1998. Testosterone and dominance in men. *Behavioral and brain sciences*, 21(03), 353-63.

- McClelland DC, Burnham. 1995. Power is the great motivator. *Harvard business review*, 73(1), 126-39.
- McClure SM, Laibson DI, Loewenstein G, Cohen JD. 2004. Separate neural systems value immediate and delayed monetary rewards. *Science*, 306(5695), 503-7.
- McGregor I, Nash K, Mann N, Phillips CE. 2010. Anxious uncertainty and reactive approach motivation (RAM). *J Pers Soc Psychol*, 99(1), 133-47.
- Mehta PH, Josephs RA. 2010. Testosterone and cortisol jointly regulate dominance: Evidence for a dual-hormone hypothesis. *Horm Behav*, 58(5), 898-906.
- Mills CW. 1999. *The power elite*. Oxford University Press.
- Min D, Kim JH. 2013. Is power powerful? Power, confidence, and goal pursuit. *Int J Res Mark*, 30(3), 265-75.
- Morgan D, Grant KA, Gage HD, Mach RH, Kaplan JR, Prioleau O, Nader MA. 2002. Social dominance in monkeys: dopamine D2 receptors and cocaine self-administration. *Nature neuroscience*, 5(2), 169-74.
- Nissan T, Shapira O, Liberman N. 2015. Effects of Power on Mental Rotation and Emotion Recognition in Women. *Pers Soc Psychol Bull*, 41(10), 1425-37.
- Northouse PG. 2015. *Leadership: Theory and practice*. Sage publications.
- Oc B, Bashshur MR, Moore C. 2015. Speaking truth to power: The effect of candid feedback on how individuals with power allocate resources. *J Appl Psychol*, 100(2), 450-63.
- Overbeck JR, Park B. 2001. When power does not corrupt: superior individuation processes among powerful perceivers. *J Pers Soc Psychol*, 81(4), 549-65.
- Overbeck JR, Park B. 2006. Powerful perceivers, powerless objects: Flexibility of powerholders' social attention. *Organ Behav Hum Decis Process*, 99(2), 227-43.
- Parsons T. 1963. On the concept of political power. *Proc Am Phil Soc*, 107(3), 232-62.

Petkanopoulou, Willis & Rodríguez-Bailón, in press, The Emotional Side of Power(lessness).

In: Bukowski, M., Frischie, Guinote, A., & Kofa, M. eds. *Coping with lack of control in a social world*. Taylor & Francis: Hove.

Pfeffer J. 2007. Human resources from an organizational behavior perspective: Some paradoxes explained. *J Econ Perspect*, 21(4), 115-34.

Pratto F. 2015. On power and empowerment. *Brit J Soc Psychol*, 55(1), 1-20.

Ratcliff NJ, Vescio, TK. 2013. Benevolently bowing out: the influence of self-construals and leadership performance on the willful relinquishing of power. *J Exp Soc Psychol*, 49(6), 978-83.

Reid SA, Ng SH. 1999. Language, power, and intergroup relations. *J Soc Issue*, 55(1), 119-39.

Rodríguez-Bailón R, Moya M, Yzerbyt V. 2000. Why do superiors attend to the negative stereotypic information about their subordinates?. Effects of power legitimacy on social perception. *Eur J Soc Psychol*, 30, 651-71.

Ross L, Greene D, House P. 1977. The “false consensus effect”: An egocentric bias in social perception and attribution processes. *J Exp Soc Psychol*, 13(3), 279-301.

Rus D, Van Knippenberg D, Wisse B. 2012. Leader power and self-serving behavior: The moderating role of accountability. *Leadersh Q*, 23(1), 13-26.

Salamone JD, Correa M. 2002. Motivational views of reinforcement: implications for understanding the behavioral functions of nucleus accumbens dopamine. *Behav Brain Res*, 137(1), 3-25.

Salamone JD, Correa M. 2012. The mysterious motivational functions of mesolimbic dopamine. *Neuron*, 76(3), 470-85.

Sassenberg K, Ellemers N, Scheepers D, Scholl A. 2014. Power corrupts revisited: The role of construal of power as opportunity or responsibility, ed. JW Van Prooijen, P Van Lange,

Power, politics, and paranoia: Why people are suspicious of their leaders, 73-87.

Cambridge: Cambridge University Press.

Scheepers D, de Wit F, Ellemers N, Sassenberg K. 2012. Social power makes the heart work more efficiently: Evidence from cardiovascular markers of challenge and threat. *J Exp Soc Psychol*, 48(1), 371-74.

Schmid Mast M, Jonas K, Hall, JA. 2009. Give a person power and he or she will show interpersonal sensitivity: the phenomenon and its why and when. *J Pers Soc Psychol*, 97(5), 835-50.

Schmid, PC, Schmid Mast M. 2013. Power increases performance in a social evaluation situation as a result of decreased stress responses. *Eur J Soc Psych*, 43(3), 201-11.

Schmid PC, Amodio DM. in press. Power effects on implicit prejudice and stereotyping: The role of intergroup face processing. *Soc Neurosci*.

Schmid PC, Kleiman T, Amodio, DM. 2015. Power effects on cognitive control: Turning conflict into action. *J Exp Psychol Gen*, 144(3), 655-63.

Scholl A, Sassenberg K. 2015. Better Know When (Not) to Think Twice How Social Power Impacts Prefactual Thought. *Pers Soc Psychol Bull* 41(2), 159-70.

Scholl A, Sassenberg K. 2014. Where could we stand if I had...? How social power impacts counterfactual thinking after failure. *J Exp Soc Psychol*, 53, 51-61.

Schubert TW. 2005. Your highness: vertical positions as perceptual symbols of power. *J Pers Soc Psychol*, 89(1), 1-21.

Schultheiss OC, Wirth MM, Torges CM, Pang JS, Villacorta MA, Welsh KM. 2005. Effects of implicit power motivation on men's and women's implicit learning and testosterone changes after social victory or defeat. *J Pers Soc Psychol*, 88(1), 174-88.

- See KE, Morrison EW, Rothman NB, Soll JB. 2011. The detrimental effects of power on confidence, advice taking, and accuracy. *Organ Behav Hum Decis Process*, 116(2), 272-85.
- Seibert SE, Wang G, Courtright SH. 2011. Antecedents and consequences of psychological and team empowerment in organizations: a meta-analytic review. *J Appl Psychol*, 96(5), 981-1003.
- Smith PK, Bargh JA. 2008. Nonconscious effects of power on basic approach and avoidance tendencies. *Soc Cogn*, 26(1), p.1-24.
- Smith PK, Trope Y. 2006. You focus on the forest when you're in charge of the trees: power priming and abstract information processing. *J Pers Soc Psychol*, 90(4), 578-96.
- Smith PK, Jostmann NB, Galinsky AD, Van Dijk WW. 2008. Lacking power impairs executive functions. *Psychol Sci*, 19(5), 441-47.
- Thibaut JW, Kelley HH. 1959. *The social psychology of groups*. New York: Wiley & Sons, Inc.
- Thomas L, Singh I, Peccei JS. 2004. *Language, society and power: An introduction*. New York: Psychology Press.
- Torelli CJ, Shavitt S. 2010. Culture and concepts of power. *J Pers Soc Psychol*, 99(4), 703-23.
- Tost LP, Gino F, Larrick RP. 2012. Power, competitiveness, and advice taking: Why the powerful don't listen. *Organ Behav Hum Decis Process*, 117(1), 53-65.
- Van Dijke M, Poppe M. 2006. Striving for personal power as a basis for social power dynamics. *Eur J Soc Psychol*, 36(4), 537-56.
- Van Kleef GA, 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. *Psychol Sci*, 19(12), 1315-22.

- Van Loo KJ, Rydell RJ. 2013. On the experience of feeling powerful perceived power moderates the effect of stereotype threat on women's math performance. *Pers Soc Psychol Bull*, 39(3), 387-400.
- Van Vugt M, Hogan R, Kaiser RB. 2008. Leadership, followership, and evolution: some lessons from the past. *Am. Psychol*, 63(3), 182-96.
- Vescio TK, Snyder M, Butz DA. 2003. Power in stereotypically masculine domains: a Social Influence Strategy X Stereotype Match model. *J Pers Soc Psychol*, 85(6), p.1062.
- Weber M. 1914 (1978). *Economy and society: An outline of interpretive sociology*. Univ of California Press.
- Weick M, Guinote A. 2010. How long will it take? Power biases time predictions. *J Exp Soc Psychol*, 46(4), 595-604.
- Weick M, Guinote A. 2008. When subjective experiences matter: power increases reliance on the ease of retrieval. *J Pers Soc Psychol*, 94(6), 956-70.
- Wheeler SC, DeMarree KG, Petty RE. 2007. Understanding the role of the self in prime-to-behavior effects: The active-self account. *Pers Soc Psychol Rev*, 11(3), 234-61.
- Wilkinson D, Guinote A, Weick M, Molinari R, Graham K. 2010. Feeling socially powerless makes you more prone to bumping into things on the right and induces leftward line bisection error. *Psychon Bull Rev*, 17(6), 910-14.
- Whitson JA, Liljenquist KA, Galinsky AD, Magee JC, Gruenfeld DH, Cadena B. 2013. The blind leading: Power reduces awareness of constraints. *J Exp Soc Psychol*, 49(3), pp.579-582.
- Willis GB, Rodríguez-Bailón R, Lupiáñez J. 2011. The boss is paying attention: Power affects the functioning of the attentional networks. *Soc Cogn*, 29(2), 166-81.
- Wojciszke B, Struzynska-Kujalowicz A. 2007. Power influences self-esteem. *Soc Cogn*, 25(4), 472-94.

Woltin KA, Guinote A. 2015. I can, I do, and so I like: From power to action and aesthetic preferences. *J Exp Psychol Gen*, 144(6), 1124-36.

Yap AJ, Mason MF, Ames DR. 2013. The powerful size others down: The link between power and estimates of others' size. *J Exp Soc Psychol*, 49(3), 591-94.

Yukl G, Gordon A, and Taber T. 2002. A hierarchical taxonomy of leadership behavior: Integrating a half century of behavior research. *J Leadersh Organ Stud*, 9(1), 15-32.

Zaccaro SJ, Foti RJ, Kenny DA. 1991. Self-monitoring and trait-based variance in leadership: An investigation of leader flexibility across multiple group situations. *J Appl Psychol*, 76(2), 308-15.

Zhang X, Bartol KM. 2010. Linking empowering leadership and employee creativity: The influence of psychological empowerment, intrinsic motivation, and creative process engagement. *Acad Manage J*, 53(1), 107-28.

Zimbardo PG, Cross AB. 1971. *Stanford prison experiment*. Stanford University.

Glossary:

Social Power is the the ability to control or influence another's thoughts, feelings or behaviors in meaningful ways.

Dominance refers to motivated behavior aiming at increasing power in relation to others, often through assertive and confident actions.

Approach motivation is the energization of behavior oriented towards positive or desired objects, events and possibilities.

Goals are mental representations of desired end states that a person seeks to attain.