Running head: POWER AND GOAL ACCESSIBILITY

Getting What You Want:

Power Increases the Accessibility of Active Goals

Letitia Slabu

University of Kent, Canterbury, U.K.

Ana Guinote

University College London, London, U.K.

(Word count: 4958)

This research is based on Letitia Slabu's doctoral dissertation, under the supervision of Ana Guinote. It was supported by a Departmental Scholarship to the first author, and a Nuffield Foundation Grant SGS/35183 to the second author. We thank Dirk Janssen and Jelena Havelka for technical support and Roger Giner-Sorolla for advice. Correspondence concerning this article should be addressed to Letitia Slabu, School of Psychology, University of Kent, CT2 7NP, UK; e-mail: letitia\_slabu@yahoo.com

#### Abstract

Power facilitates goal-directed behavior. Two studies, using different types of goals, examined the cognitive mechanisms that underlie this tendency. Participants, primed with power or powerlessness, performed lexical decision tasks that assessed the relative facilitation of goalrelevant constructs during goal striving and after goal attainment. Results showed that during goal striving powerful participants manifested an increased facilitation of goal-relevant constructs compared to other constructs, and this facilitation decreased immediately after goal completion. In contrast, their powerless counterparts showed less facilitation of goal constructs during goal striving and maintained goal accessibility after completion. These results are consistent with the effects of power on goal-directed behavior found in past research.

Keywords: goal pursuit; attentional focus; power; self-regulation; accessibility

Powerful actors more easily attain desired outcomes. This occurs, in part, through the ways they pursue goals. Power facilitates the pursuit of goals that individuals associate with power (e.g., Bargh & Raymond, 1995; Chen, Lee-Chai, & Bargh, 2001), as well as the pursuit of rewards and opportunities (Keltner, Gruenfeld, & Anderson, 2003). More generally, power increases goal-consistent behavior independently of the type of goal (Guinote, 2007a).

If research indicates that power facilitates goal pursuit what remains unexplained are the mechanisms that underlie these effects. The present article addresses this issue. We argue that power enhances the processing of information that is relevant, and decreases the processing of information that is irrelevant to goal pursuit. Furthermore, we argue that this increased goal accessibility occurs only when the goal is active (i.e., during goal striving). Once a goal has been completed, goal accessibility decreases, so powerful individuals are ready to respond to the new situation.

Imagine, for example, a student who is writing an essay. A powerful student (e.g., a dominant student) would focus her attention on the essay, and would attend less to distracting opportunities (e.g., entertainment). However, once the essay is completed this student would think less of the essay and be ready to respond to the new situation, for example, she would be attentive to entertainment opportunities. In contrast, a submissive student would think more of entertainment while working on the essay, and once the essay would be completed, she would continue to think of the essay as she did before, at the expense of entertaining herself. Overall, the information processing strategies of the powerful student, compared to the powerless student, would be more attuned to the active goal, and the phase of goal pursuit.

Power and goal pursuit

Powerful individuals are more disinhibited (Keltner, Young, Heerey, Oemig, & Monarch, 1998; Skinner, 1995), and readily act in any direction (Galinsky, Gruenfeld, & Magee, 2003). When pursuing a goal, they respond in a goal-consistent manner in all phases of goal pursuit (Guinote, 2007a). For example, compared to powerless individuals, powerful individuals made quicker decisions regarding potential courses of action (Study 1), and persisted longer, using more flexible strategies, to pursue a difficult goal (Study 3). They also responded more to good opportunities that advanced goal pursuit (Study 4).

Furthermore, power leads to prioritization of the focal goal, and a decrease in responses to alternative goals (Guinote, 2008). It also increases resistance to external influences that may detract from pursuing an active goal (Galinsky, Magee, Gruenfeld, Whitson, & Liljenquist, 2008; Guinote, 2008, Study 5). The greater goal focus of powerful individuals occurs regardless of whether goals are activated by an act of will or by the environment (Guinote, 2008).

Their greater attunement to focal goals affects the ways powerful individuals perceive others. For example, Vescio, Snyder and Butz (2003) found that powerful individuals relied more or less on stereotypes depending on the informational value of stereotypes for their social influence strategies (see also Vescio, Gervais, Snyder, & Hoover, 2005). Powerful individuals also perceive others as objects at the service of active goals (Gruenfeld, Inesi, Magee, & Galinsky, 2008; Overbeck and Park, 2006).

In spite of the robust evidence that power promotes goal-directed behavior, little is known about the cognitive mechanisms that support the more focused actions of powerful individuals. Because accessibility of goal constructs is central for successful goal pursuit (Förster, Liberman, & Friedman, 2007; Förster, Liberman, & Higgins, 2005; Gollwitzer, 1996; Gollwitzer & Moskowitz, 1996; Kruglanski, 1996), we hypothesize that power increases the accessibility of goal-relevant information. Furthermore, because powerful individuals readily act in any direction (Galinsky et al., 2003), and are attuned to the current situation (Guinote, 2008), we argue that after goal fulfillment, power should immediately decrease goal accessibility. *Accessibility of goal constructs* 

Goals affect various levels of information processing. Firstly, once a goal is set it enhances the ability to detect cues in the environment that can facilitate goal attainment (Custers & Aarts, 2005; Förster et al., 2005). An active goal also affects the retrieval of information from memory. Once a goal intention has been formed, this intention receives a special status in longterm memory, represented by a subthreshold node, so individuals more easily activate intentionrelated memory entries compared to neutral memories (Goschke & Kuhl, 1993; Marsh, Hicks, & Bink, 1998; Marsh, Hicks, & Bryan, 1999).

Finally, while these processes imply a heightened activation of goal-relevant information, inhibitory processes also facilitate goal-directed behavior. In particular, goal pursuit is facilitated by the inhibition of alternative goals that individuals possess (Shah, Friedman, & Kruglanski, 2002; Shah & Kruglanski, 2003). Together, these patterns of selective information processing translate into an overall greater accessibility (i.e., a processing facilitation) of goal-relevant information compared to other information. Goal accessibility protects goal pursuit from distracting influences, and facilitates the advancement of the goal.

We argue that power increases goal accessibility during goal striving. In contrast, powerlessness induces a less selective information processing strategy. Powerless individuals should process information in a similar fashion regardless of whether they are striving for a goal or the goal has been attained.

Power, cognition, and goal pursuit

The hypothesis that power increases the accessibility of active goals is consistent with findings pointing out that power affects basic cognitive processes (Guinote, 2007b). Powerful individuals are better able to focus attention on a target and ignore distracting information. For example, when asked to draw a line with the same length as a master line, powerful individuals better ignored contextual information that could interfere with task performance (e.g., the size of the surrounding square) compared to powerless individuals (Guinote, 2007b; Study 1).

These effects are explained by the Situated Focus Theory of Power (Guinote, 2007c), in terms of increased processing selectivity, on a moment-to-moment basis, in line with active constructs. For example, when a need emerges, powerful individuals selectively respond to this need; when an expectancy is active, powerful individuals respond more in an expectancy-consistent way; and when entering a situation, they respond more in line with the affordances of the situation, compared to powerless individuals. Powerless individuals have less clear priorities. As a consequence, compared to powerless individuals, they change less behavior as the situation changes (e.g., a goal is completed, an affordance emerges, a need is satisfied).

These differences in responses seem to derive from the fact that cognition services adaptive action (see Fiske, 1992). Powerless individuals experience more constraints, and so are more motivated to process different types of information to increase predictability and control (see Fiske & Dépret, 1996; see also Keltner et al., 2003).

Our claim is consistent with the notion that power activates the behavioral approach system, whereas powerlessness activates the behavioral inhibition system (Keltner et al., 2003; see also Gray, 1982, 1987). Accordingly, power would increase goal accessibility. However, this would occur predominantly for goals associated to rewards and opportunities. In summary, we expect powerful individuals, more than powerless individuals, to show an increased accessibility of goal-relevant constructs during goal striving, and a decrease in goal accessibility once the goal has been fulfilled. Two studies tested these hypotheses. Participants were assigned to a powerful or powerless condition and engaged in the pursuit of a focal goal. To measure goal accessibility they performed lexical decision tasks (LDTs) during goal striving and after goal fulfillment. Participants made decisions regarding words that were relevant or irrelevant to the focal goal. Faster response latencies on words related to a construct, compared to neutral words, indicate greater accessibility for this construct (see Neely, 1991, for a review). Power was manipulated by asking participants to recall an event in which they had power over someone or someone had power over them (Galinsky et al., 2003).

#### Study 1

Participants were assigned to a powerful or a powerless condition, and were asked to participate in a study that involved imagining working in a restaurant. Participants performed LDTs involving goal-relevant and irrelevant words. The role of mood and self-efficacy as potential mediators of the effects of power was assessed. Power has been linked to positive affect, and powerlessness to negative affect (Keltner et al., 2003). Therefore, the effects of power could be a result of changes in participants' mood. Similarly, the effects of power could derive from heightened self-efficacy. Greater self-efficacy is linked to greater goal focus (Bandura, 1997). It is therefore possible that powerful participants could show a greater goal focus because of greater self-efficacy beliefs.

# Method

#### **Participants**

Eighteen students (11 females and 7 males) from the University of Kent, between the ages of 18 and 31 (M = 21.51) participated in exchange for a £4 reward. All participants were native English speakers.

### Procedure and materials

Participants took part individually, and were informed that they would work on two independent studies. The first study allegedly investigated the perception of past events. Following Galinsky et al. (2003), participants described a past event in which they had power over someone or someone else had power over them. The written report was followed by a manipulation check that read "Now we would like to know how much in charge you were in this situation?" Answers were given on a 9-point scale ranging from 1 (not at all) to 9 (very much).

Upon completion participants supposedly participated in a study on planning in work settings. They were asked to imagine themselves working in a restaurant, "Le Gourmand", that opened every day at lunch and dinner time, and had usually 7 - 10 tables booked. Participants' task was to order the supplies for starters, mains and desserts for the following week.

The experimenter indicated that she had to leave the room, and asked whether while waiting participants could perform a task for a side project about perceptual abilities. Their task was to indicate whether a string of letters was a word or non-word, by pressing one of two keys on a serial box; the two keys were counterbalanced across participants. Participants were advised to respond as quickly and as accurately as possible.

The LDT was carried out on a RM Innovator, 15 in. screens color monitor. It consisted of 60 trials, of which 20 contained words related to the goal (e.g., meat, sugar, sauce, rice), 20 presented neutral words (e.g., ship, habit, pedal, belief) and 40 non-words. The neutral words were matched to the critical words in frequency and length using the CELEX Lexical Database

(Baayen, Piepenbrock, & Gulikers, 1995). Each trial started with an orientation marker consisting of a letter-string (xxxxxxxxx) printed in black. After a delay of 100 or 300 ms, a sequence of lower-case letter-strings appeared on the screen. The letter-string was green, on a Courier New Font, 16 point size and emerged on a white background.

Upon completion the experimenter came back and asked participants to complete the restaurant task. Participants then performed a second LDT, which was identical to the first one, allegedly to complete the study previously initiated. Finally, participants rated their mood (Forgas, 1994) on four 7-point scales, ranging from –3 (very bad; very sad; very discontent; very tense) to 3 (very good; very happy, very content; very relaxed), and completed a self-efficacy questionnaire (Schwarzer & Jerusalem, 1995). Participants were then debriefed, paid and thanked.

Results

#### Manipulation check

An independent-samples *t* test confirmed the effectiveness of the experimental manipulation. Participants in the powerful condition felt more in charge of the situation (M = 7.27, SD = 1.19) than participants in the powerless condition (M = 1.70, SD = 0.95), t(17) = 127.41, p < .001.

#### **Response Latencies**

Response latencies that were three standard deviations above or below the mean were eliminated from analyses (1.1% of the responses). The response times were log-transformed (natural logarithm function) to achieve homogeneity of error variance, but for the sake of clarity, we present non-transformed means. Power did not affect the number of incorrect responses (5.2%, F < 1). Analyses are based on correct responses. Preliminary analyses indicated that

gender did not affect the results, therefore gender was excluded from further analyses. RTs were submitted to a 2 (power: powerful vs. powerless) x 2 (word type: goal-relevant vs. goal-irrelevant) x 2 (goal phase: active vs. completed) ANOVA, with repeated measures on the last two factors.

This analysis revealed a significant main effect for word type, F(1,16) = 7.07, p < .02, indicating that, as expected, goal-relevant words (M = 527, SD = 18.40) were faster recognized than irrelevant words (M = 553, SD = 19.47). More importantly, the expected three-way interaction between power, word type and goal phase was significant, F(1,16) = 9.30, p < .01. The interaction between power and word type was significant for the active phase, F(1,16) = 5.15, p < .04. As can be seen in Table 1, during this phase, powerful individuals had an advantage for goal-relevant compared to goal-irrelevant words F(1,7) = 11.80, p < .01 (Mrelevant = 531 vs. Mirrelevant = 587). For powerless individuals, no such difference was found (Mrelevant = 573 vs. Mirrelevant =572; F < 1, p < .9). However, after the goal was completed no differences were found between powerful and powerless individuals, F < 1, p < .51. Power increased, therefore, the accessibility of goal constructs, and this occurred only when the goal was active.

Furthermore, for powerful individuals there was a significant interaction between word type and goal phase, F(1,7) = 6.79, p < .03. In the active phase, powerful individuals showed a facilitation of goal-relevant words compared to irrelevant words, F(1,7) = 13.34, p < .01, and this facilitation decreased once the goal was completed, F(1,8) = 3.42, p = .10. For powerless individuals the interaction between word type and goal phase was marginally significant, F(1,9)= 3.80, p = .08. In the active phase powerless individuals had no facilitation for the goal-relevant words, F(1,9) < 0, p = .97, however goal accessibility increased after goal completion, F(1,9) = 5.28, p = .005. Finally, the main effect of goal phase was also significant, F(1,16) = 12.32, p < .004, with faster reaction times after the goal had been completed (M = 513, SD = 16.74) compared to when the goal was active (M = 566, SD = 22.63), presumably due to training (for practice effects see Goschke & Kuhl, 1993).

# Mood and self-efficacy

The mood ratings were combined into a single score ( $\alpha = .86$ , M = 0.76, SD = 1.11) and subjected to an independent-samples *t* test. The results indicated that power did not impact participants' mood, t(16) = -.25, p = .80. Similarly, power did not affect self-efficacy ( $\alpha = .83$ , M = 2.98, SD = .57), t(16) = -.05, p = .96. Mood and self-efficacy did therefore not account for the effect of power on accessibility for goal-related constructs.

Overall the present results point out that during goal striving (e.g., in the active goal phase) powerful participants, compared to powerless individuals, showed a greater facilitation of goal-relevant information relative to goal-irrelevant information. This facilitation decreased once the goal was fulfilled (i.e., in the completed goal phase). However, after goal completion powerful participants did not show inhibition of the completed goal (i.e., faster responses to neutral compared to goal-relevant words). This result suggests that power facilitates goal-directed behavior through an enhanced activation of goal constructs during goal striving rather than through the inhibition of completed goals.

Powerless individuals, in contrast, processed information in the same fashion regardless of whether they were striving for the goal or the goal was already attained. If we consider that goal accessibility is central for efficient goal pursuit (Liberman & Förster, 2005, Förster et al., 2005), these results indicate that the attentional strategies of powerful individuals facilitate successful goal attainment. Furthermore, these individuals are cognitively more attuned to their current situation compared to powerless individuals.

### Study 2

Study 1 focused on a creative goal (planning and generating ingredients for future meals). Because different responses were possible to attain this goal, goal fulfillment was not marked by a single specific response that would inform participants how successfully they attained the goal. This may have contributed to the lesser goal accessibility found in powerless individuals.

Study 2 contributes to the generalizability of the previous findings by using a goal that was attained with a single specific response, marking successful goal achievement. Participants were primed with power or powerlessness and participated on what was supposedly a separate study. They performed a computerized task, in which they observed four sets of pictures in order to identify a particular combination of pictures, following Förster et al. (2005). Similarly as in Study 1, goal accessibility was measured using LDTs during goal striving and after fulfillment.

# Method

### **Participants**

Fifty-eight students (40 females and 18 males) from the University of Kent, between the ages of 18 and 35 (M = 20.52) participated in exchange for a £4 reward. Data from five participants were omitted from analyses because of an error in the program. Data from three other participants were removed because of not complying with the instructions. All participants were native English speakers.

# Stimulus material

A pre-test was conducted on 34 students to select goal-relevant words. Participants first generated 10 words related to the word glasses. Thirty words with the highest frequency were

chosen for a second pre-test. Another 32 students rated, on 9-point scales ranging from 1 (not at all) to 9 (very much), how much these words were associated to the word glasses. Eight words were finally retained for the study. The mean rating of these words (M = 7.80) was significantly greater than the scale's midpoint t(29) = 20.43, p < .001. The word "glasses" was not used. *Procedure* 

Participants took part individually. They supposedly participated on two studies, the first one investigating the perception of past events, and the second one being a pre-test for a future experiment. Power was manipulated similarly as in Study 1. Participants were then asked to watch four blocks of pictures and answer a few questions about them. They were informed that in order to make sure that they carefully watched all the pictures, they had to notify the experimenter when they saw a picture of glasses that was immediately followed by a picture of scissors.

Allegedly to provide participants with a break and to better discriminate between the blocks of pictures, they were asked to perform an unrelated task after each block of picture-evaluation. This task was introduced as a speed word recognition task, and was a LDT intended

to measure the accessibility of words related to glasses and words unrelated to glasses. A letter string appeared on the screen and participants had to indicate if it was a word or a non-word by pressing a left or a right key. The answer-key was counterbalanced across participants. Participants were invited to respond as quickly and as accurately as possible.

Each trial consisted of a black upper-case letter-string (font 22 in Times New Roman) presented in the middle of the computer screen on a white background. The letter-string remained until a response was made. Five seconds after the response, the next letter-string appeared. Each LDT presented, in random order, eight words related to glasses (e.g., optician, lenses, vision, frames), eight words unrelated to glasses (e.g. fences, notion, flames, copyrighted), and 16 non-words. The distracter items and the initial words that were altered in non-words were matched to the critical words for word length and frequency using the CELEX Lexical Database (Baayen et al., 1995). At the end participants were probed for suspicion, paid, and thanked for participation. None of the participants suspected a relation between the power manipulation, the picture task and the LDTs.

#### Results

# Manipulation check

An independent-samples *t* test confirmed the effectiveness of the experimental manipulation. Participants in the powerful condition felt more in charge of the situation (M = 7.23) than participants in the powerless condition (M = 2.60), t(44)=9.15, p < .001. *Accessibility from active goals and Goal completion* 

Gender and order of response did not affect responses, F < 0, therefore, these factors were not included in further analyses. The RTs were log-transformed (natural logarithm function) to achieve homogeneity of error variance. We excluded from the analysis incorrect responses (4.9 %) and response latencies that were three standard deviations greater or smaller than the mean (2.1 % of the responses). The mean RTs were submitted to a mixed model analysis of variance (ANOVA), with one between-subjects variable power (powerful vs. powerless) and two within-subject variables, goal phase (active vs. completed) and word type (goal-relevant vs. goal-irrelevant). To compute the accessibility of goal constructs during the active goal phase we averaged the RTs across the first two blocks, whereas accessibility during the completed goal phase was obtained by averaging RTs of the last two blocks. The analysis revealed a significant main effect of word type, F(1,48) = 33.14, p < .001, with goal-relevant words (M = 832; SD = 33.76) being faster recognized than goal-irrelevant words (M = 910; SD= 38.53).

More importantly, the expected interaction between power, goal phase and word type was significant, F(1,48) = 5.50, p < .02. During goal striving (i.e., in the active goal phase) there was a marginally significant interaction between word type and power, F(1,48) = 3.40, p < .07. As can be seen on Table 2, powerful participants showed a greater facilitation of goal-relevant words relative to goal-irrelevant words (*M*relevant = 830 vs. *M*irrelevant = 958; F(1,26) = 39.51, p < .001) compared to powerless participants (*M*relevant = 890 vs. *M*irrelevant = 951; F(1,22) = 3.97, p < .07). In contrast, after the goal was completed no differences were found between powerful and powerless individuals, F(1,48) = 1.06, p < .31.

Moreover, for powerful participants goal accessibility was dependent on the phase of goal pursuit, whereas for powerless participants it was not. Specifically, powerful participants manifested a greater facilitation of goal-relevant constructs during the active goal phase, and this facilitation decreased after goal completion, F(1,26) = 12.19, p < .002. For powerless individuals there was no significant interaction between word type and goal phase, F < 0, p < .78.

Finally, the main effect of goal phase was significant, F(1,48) = 12.33, p < .001, (*Mactive* = 907, *SDactive* = 35.85; *Mcomplete* = 835, *SDcomplete* = 37.99), indicating an increased facilitation of responses with practice (Goschke & Kuhl, 1993). The two-way interaction between word type and goal phase was marginally significant, F(1,48) = 3.50, p < .07, showing a tendency for a decrease in goal accessibility after completion.

The present results point out that, compared to powerless individuals, powerful individuals showed greater accessibility of goal-relevant constructs during goal striving, and this accessibility decreases after completion. These individuals were more responsive to active goals and were more guided on a moment-to-moment basis by the goal phase. This information processing strategy has been shown to facilitate goal attainment, and facilitate action in new situations (Kuhl, 1992). Similarly as in Study 1, powerful participants did not show an inhibition of goal constructs after fulfillment. This result suggests that the facilitation of goal-directed action typically observed in powerful individuals is sustained by an enhanced activation of goal constructs, compared to other constructs, and not from inhibitory processes related to completed goals.

# General discussion

In the present study we examined, for the first time, how power affects information processing during goal pursuit. In line with past research showing that power facilitates goaldirected behavior (Guinote, 2007a), action (Galinsky et al., 2003; Keltner et al., 2003) and focused attention (Guinote, 2007b), we hypothesized that powerful individuals process information more selectively in line with active goals compared to powerless individuals. Furthermore, because power increases responsiveness to the current situation on a moment-tomoment basis (Guinote, 2008), we hypothesized that the greater goal accessibility of powerful individuals occurs only when goals are active (i.e., during goal striving). Once a goal is completed goal accessibility should decrease, so powerful individuals can respond to the new situation.

Two studies addressed these issues. In Study 1 participants strived and attained a goal of a generative nature. As expected, during goal striving powerful participants, compared to powerless participants, showed greater accessibility of goal-relevant information compared to goal-irrelevant information. Furthermore, once the goal was fulfilled, powerful participants changed more their information processing orientation, decreasing goal accessibility, whereas powerless participants maintained the level of goal accessibility. In Study 2 participants engaged in a more tangible goal for which there was a specific criterion indicating successful goal fulfillment. Once more, during goal striving, goal accessibility was stronger for powerful participants than powerless participants. In addition, powerful participants modulated more their information processing strategies as a function of the phase of goal pursuit compared to powerless participants.

The selective activation of goal constructs during goal striving facilitates unequivocal goal pursuit, whereas the simultaneous accessibility of multiple constructs hinders goal-directed behavior (Foerster et al., 2005; Shah et al., 2002). In particular, attention to multiple sources of information creates multiple sources of action control, leading to indecision and delays in action, whereas focused attention facilitates action (Kuhl & Beckmann, 1985). The more selective information processing strategies of powerful individuals should, therefore, facilitate goal-focused behavior, whereas the lack of attentional focus of powerless individuals should be detrimental to goal pursuit.

These assumptions are consistent with past research showing that power enhances goalconsistent behavior (Guinote, 2007a). Powerful individuals are faster at deciding between different courses of action when setting a goal, and act more in a goal-consistent manner, prioritizing the focal goal relative to alternative goals (Guinote, 2007a; Guinote, 2008). In contrast, their powerless counterparts have less clear priorities and are more distractible.

Powerful individuals' decrease in goal accessibility after completion is consistent with the readiness to act in any situation demonstrated in past research (Anderson & Berdahl, 2002; Galinsky et al., 2003; Keltner et al., 2003).

The effects obtained were primarily driven by a greater focus on the active goal during goal striving in powerful compared to powerless individuals, rather than by differences in inhibitory abilities after the goal was fulfilled. Past research has demonstrated that individuals tend to inhibit fulfilled goals (Förster et al., 2005). For example, in lexical decision tasks they show longer response times to goal-relevant words compared to neutral words after the goal has been fulfilled.

Powerful individuals, however, did not show such a pattern of inhibition, suggesting that the cognitive mechanisms that support goal-directed behavior in powerful individuals consist of increased activation of goal constructs during goal striving rather than inhibition of completed goals. Both activation and inhibition processes contribute to selective information processing.

One question that arises is why are powerful individuals more focused, whereas powerless individuals disperse their attention toward multiple cues? Differences in self-efficacy could have accounted for the results (Bandura, 1997). The results did, however, not support this hypothesis. Differences in mood did also not explain the present findings. A decisive factor may be the fact that powerful individuals experience less constraints and do not need to manage multiple goals simultaneously (Guinote, 2007a; see also Fiske & Dépret, 1996). They can devote their undivided attention to focal goals. Alternative goals, including fulfilled goals, may not compete as much for attentional resources in these individuals. Put differently, the fact that powerful individuals do not need to manage multiple goals systems in the first place saves them attentional resources (see Shallice, 1972; see also Shah et al., 2002), which may contribute to increased goal accessibility during goal striving, and decreased need for inhibition after goal completion.

The differences in goal accessibility during goal striving could alternatively derive from lack of motivation in powerless individuals. However, our analysis of number of items generated in Study 1 shows that powerless individuals did not invest less effort on the task compared to powerful individuals. Previous research also suggests that powerless individuals are accuracy motivated, and engage in systematic information processing (see Fiske & Dépret, 1996; Goodwin, Gubin, Fiske, & Yzerbyt, 2000).

It seems, therefore, more plausible that powerless individuals pay attention to multiple sources of information to increase predictability and control (see Fiske & Dépret, 1996; Goodwin et al., 2000; Guinote, 2007a). In contrast, their powerful counterparts experience less constraints and can devote their undivided attention to active goals.

Importantly, the present results clearly indicate that the information processing strategies of powerful individuals are more attuned to active goals, more supportive of goal-directed action, and more flexible than the information processing strategies of powerless individuals. The latter individuals process information in more undifferentiated ways, and are less sensitive to current demands. The present findings expand past research by pointing out the specific cognitive processes that sustain the greater goal focus previously found in powerful individuals.

Although we found differences in the responses of powerful and powerless individuals, it is difficult to disentangle the contributions of power and powerlessness to the current results. Future research should address this issue by including control conditions.

The accessibility of multiple constructs in powerless individuals may be adaptive in light of the additional demands that these individuals face. However, this strategy is detrimental to the pursuit of any given goal. It remains for future research to develop techniques to improve the performance of powerless individuals.

#### References

- Anderson, C., & Berdahl, J. L. (2002). The experience of power: Examining the effects of power on approach and inhibition tendencies. *Journal of Personality and Social Psychology*, *83*(6), 1362-1377.
- Baayen, R. H., Piepenbrock, R., & Gulikers, L. (1995). *The CELEX Lexical Database* (CDROM). Philadelphia: University of Pennsylvania, PA.

Bandura, A. (1997). Self-Efficacy: the exercise of control. New York: Freeman.

- Bargh, J., A., & Raymond, P. (1995). The naive misuse of power: Nonconscious sources of sexual harassement. *Journal of Social Issues*, 51(1), 85-96.
- Chen, S., Lee-Chai, A., Y., & Bargh, J., A. (2001). Relationship orientation as a moderator of the effects of social power. *Journal of Personality and Social Psychology*, 80(2), 173-187.
- Custers, R., & Aarts, H. (2005). Positive Affect as Implicit Motivator: On the Nonconscious Operation of Behavioral Goals. *Journal of Personality and Social Psychology*, 89(2), 129-142.
- Fiske, S. (1992). Thinking is for doing: Portraits of social cognition from Daguerreotype to laserphoto. *Journal of Personality and Social Psychology*, *63*(6), 877-889.
- Fiske, S., & Dépret, E. (1996). Control interdependence and power: Understanding social cognition in its social context. In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychologg* (Vol. 7, pp. 31-61). New York: Wiley.

- Forgas, J. P. (1994). Sad and guilty? Affective influences on the explanation of conflict in close relationships. *Journal of Personality and Social Psychology*, *66*(1), 56-68.
- Förster, J., Liberman, N., & Friedman, R. S. (2007). Seven principles of goal activation: A systematic approach to distinguishing goal priming from priming of non-goal constructs. *Personality and Social Psychology Review*, 11(3), 211-233.
- Förster, J., Liberman, N., & Higgins, E. T. (2005). Accessibility from active and fulfilled goals. Journal of Experimental Social Psychology, 41(3), 220-239.
- Galinsky, A. D., Gruenfeld, D. H., & Magee, J. C. (2003). From Power to Action. *Journal of Personality and Social Psychology*, 85(3), 453-466.
- Galinsky, A. D., Magee, J. C., Ena Inesi, M., & Gruenfeld, D. H. (2006). Power and Perspectives Not Taken. *Psychological Science*, *17*(12), 1068-1074.
- Galinsky, A. D., Magee, J. C., Gruenfeld, D. H., Whitson, J. A., & Liljenquist, K. A. (2008).
  Power reduces the press of the situation: Implications for creativity, conformity, and dissonance. *Journal of Personality and Social Psychology*, 95(6), 1450-1466.
- Gollwitzer, P., M. (1996). The volitional benefits of planning. In P. Gollwitzer, M. & J. Bargh,A. (Eds.), *The psychology of action: linking cognition and motivation to behavior* (pp. 287-312). New York: Guilford.
- Gollwitzer, P., M., & Moskowitz, G., B. (1996). Goal effects on action and cognition. In E.
  Higgins, T. & A. Kruglanski, W. (Eds.), *Social Psychology Handbook of basic principles* (pp. 361-399). New York: Guilford Press.

- Goodwin, S., A., Gubin, A., Fiske, S., & Yzerbyt, V., Y. (2000). Power can bias impression processes: stereotyping subordinates by default and by desin. *Group Processes & Interbroup Relations*, 3(3), 227-256.
- Goschke, T., & Kuhl, J. (1993). Representation of intentions: Persisting activation in memory.
   Journal of Experimental Psychology: Learning, Memory, and Cognition, 19(5), 1211 1226.

Gray, J. A. (1982). The neuropsychology of anxiety. New York: Oxford University Press.

- Gray, J. A. (1987). The psychology of fear and stress. New York: Cambridge University Press.
- Gruenfeld, D. H., Inesi, M. E., Magee, J. C., & Galinsky, A. D. (2008). Power and the objectification of social targets. *Journal of Personality and Social Psychology*, 95(1), 111-127.
- Guinote, A. (2007a). Power and Goal Pursuit. *Personality and Social Psychology Bulletin, 33*(8), 1076-1087.
- Guinote, A. (2007b). Power affects basic cognition: Increased attentional inhibition and flexibility. *Journal of Experimental Social Psychology*, *43*(5), 685-697.
- Guinote, A. (2007c). Behaviour variability and the Situated Focus Theory of Power. In W.
  Stroebe, Hewstone, M. (Ed.), *European review of social psychology* (Vol. 18, pp. 256-295). New York: Wiley.

- Guinote, A. (2008). Power and affordances: When the situation has more power over powerful than powerless individuals. *Journal of Personality and Social Psychology*, 95(2), 237-252.
- Guinote, A., Judd, C. M., & Brauer, M. (2002). Effects of power on perceived and objective group variability: Evidence that more powerful groups are more variable. *Journal of Personality and Social Psychology*, 82(5), 708-721.
- Heckhausen, H., & Gollwitzer, P. M. (1987). Thought contents and cognitive functioning in motivational versus volitional states of mind. *Motivation and Emotion*, 11, 101-120.
- Keltner, D., Gruenfeld, D. H., & Anderson, C. (2003). Power, approach, and inhibition. *Psychological Review*, 110(2), 265-284.
- Keltner, D., Young, R. C., Heerey, E. A., Oemig, C., & Monarch, N. D. (1998). Teasing in hierarchical and intimate relations. *Journal of Personality and Social Psychology*, 75(5), 1231-1247.
- Kruglanski, A., W. (1996). Goals as knowledge structures. In P. Gollwitzer, M. & J. Bargh, A. (Eds.), *The psychology of action: linking cognition and motivation to behavior* (Vol. Guilford, pp. 599-618): New York.
- Kuhl, J. (1992). A theory of self-regulation: Action versus state orientation, self-discrimination, and some applications. *Applied Psychology:An International Review*, *41*, 97-129.
- Kuhl, J., & Beckmann, J. (1985). Action Control: From Cognition to Behavior. Berlin: Springer-Verlag.

- Liberman, N., & Förster, J. (2005). Motivation and construct accessibility. In J. Forgas, P., K.Williams, D. & S. Laham, M. (Eds.), *Social Motivation* (pp. 228-331). Cambridge: University Press.
- Marsh, R., L., Hicks, J., L., & Bink, M., L. (1998). Activation of completed, uncompleted, and partially completed intentions. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 24(2), 350-361.
- Marsh, R., L., Hicks, J., L., & Bryan, E. S. (1999). The activation of unrelated and canceled intentoins. *Memory & Cognition*, 27, 320-327.
- Neely, J. H. (1991). Semantic priming effects in visual word recognition: A selective review of current findings and theories. In D. Besner & G. W. Humphreys (Eds.), *Basic processes in reading: Visual word recognition* (pp. 264-336). Hillsdale, NJ: Erlbaum.
- Overbeck, J. R., & Park, B. (2006). Powerful perceivers, powerless objects: Flexibility of powerholders' social attention. *Organizational Behavior and Human Decision Processes*, 99(2), 227-243.
- Shallice, T. (1972). Dual functions of consciousness. Psychological Review, 79, 383–393
- Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S.
  Wright & M. Johnston (Eds.), *Measures in health psychology: A user's portofolio. Causal and control beliefs* (pp. 35-37). Windsor, U.K.: NFER-NELSON.

- Shah, J. Y., Friedman, R., & Kruglanski, A. W. (2002). Forgetting All Else : On the Antecedents and Consequences of Goal Shielding. *Journal of Personality and Social Psychology*, 83(6), 1261-1280.
- Shah, J. Y., & Kruglanski, A. W. (2003). When Opportunity Knocks : Bottom-Up Priming of Goals by Means and Its Effects On Self-Regulation. *Journal of Personality and Social Psychology*, 84(6), 1109-1122.
- Skinner, E. A. (1995). *Perceived control, motivation, and coping*. London: Sage Publications Ltd.
- Vescio, T., K., Gervais, S., J., Snyder, M., & Hoover, A. (2005). Power and the Creation of Patronizing Environments: The Stereotype-Based Behaviors of the Powerful and Their Effects on Female Performance in Masculine Domains. *Journal of Personality and Social Psychology*, 88(4), 658-672. Vescio, T., K., Snyder, M., & Butz, D. A. (2003). Power in stereotypically masculine domains: A social influence strategy X stereotype match model. *Journal of Personality and Social Psychology*, 85, 1062-1078.

# Table 1

Actional phase Postactional phase Powerful condition 488 (25.82) Critical words 531 (32.80) 512 (25.81) 587 (36.99) Neutral words Powerless condition 573 (29.34) 514 (23.10) Critical words 572 (33.09) 539 (23.09) Neutral words

*Response latencies by goal phase, word type and power, Study 1 (N = 18, SD in parentheses)* 

# Table 2

Actional phase Postactional phase Powerful condition Critical words 830 (48.57) 799 (47.46) 841 (57.65) Neutral words 958 (53.50) Powerless condition 890 (52.62) 810 (51.42) Critical words 951 (57.96) Neutral words 890 (62.46)

*Response latencies by goal phase, word type and power, Study 2* (N = 50, SD in parentheses)