

# When Subjective Experiences Matter: Power Increases Reliance on the Ease of Retrieval

Mario Weick and Ana Guinote  
University of Kent

Past research on power focused exclusively on declarative knowledge and neglected the role of subjective experiences. Five studies tested the hypothesis that power increases reliance on the experienced ease or difficulty that accompanies thought generation. Across a variety of targets, such as attitudes, leisure-time satisfaction, and stereotyping, and with different operationalizations of power, including priming, trait dominance, and actual power in managerial contexts, power consistently increased reliance on the ease of retrieval. These effects remained 1 week later and were not mediated by mood, quality of the retrieved information, or number of counterarguments. These findings indicate that powerful individuals construe their judgments on the basis of momentary subjective experiences and do not necessarily rely on core attitudes or prior knowledge, such as stereotypes.

*Keywords:* power, control, ease of retrieval, subjective experiences, motivation

I don't spend a lot of time taking polls around the world to tell me what I think is the right way to act. I just got to know how I feel.

—George W. Bush, United States President (November 2002)

Individual and collective outcomes are to a great extent the result of judgments and decisions made by powerful actors. Political leaders embark on wars, executives define organizational objectives, teachers evaluate students, doctors prescribe treatments, and parents make family decisions. In short, powerful roles require individuals to make judgments and decisions with important implications for others. Anecdotal evidence, such as George Bush's comment, would suggest that feelings play an important role in the judgments made by powerful actors. However, past research on power focused exclusively on the declarative content that formed the basis for powerful individuals' judgments. Accompanying subjective experiences were not considered. In the present article, we rectify this neglect by proposing that power promotes reliance on experience-based information.

Human reasoning is accompanied by subjective experiences, such as affective feelings (e.g., sadness, fear), bodily sensations

(e.g., hunger, fatigue), and feelings that accompany thought processes (e.g., ease of retrieving mental contents, feeling of familiarity; see Schwarz & Clore, 1996). Subjective experiences derive from perceptual systems and sensations that arise while individuals process information, form judgments, and engage in action (Strack, 1992; see also Kahneman, 2003). These experiences are a source of information, and such experiential information is often used to guide judgments and behavior (e.g., Schwarz, 2004; Schwarz & Clore, 1996; Schwarz & Vaughn, 2002; Strack, 1992). For example, the feeling of familiarity informs us that we have encountered a given stimulus before, the feeling of guilt can be used to judge the appropriateness of our ongoing actions, or the feeling of difficulty in retrieving exemplars can inform us about the frequency of an event.

In the present article, we propose that power promotes reliance on experiential information. Our proposal derives from research indicating that subjective experiences are a primary aspect that drives cognition (see Kahneman, 2003; Kahneman & Frederick, 2002; Strack, 1992; Whittlesea & Williams, 1998), and power induces a simplified processing orientation that focuses on single sources of information (Guinote, 2007a, 2007c, in press; see also Fiske & Dépret, 1996; Keltner, Gruenfeld, & Anderson, 2003). We first briefly describe the role of experiential information in the construction of judgments. We then discuss the ways powerful and powerless individuals rely on experiential information using the ease-of-retrieval paradigm (Schwarz et al., 1991).

## Declarative Versus Experiential Information

Broadly speaking, human judgments can draw on two distinct sources of information: declarative information that pertains to features of a target and experiences or feelings that occur during the judgmental process. At present, a considerable body of research demonstrates that a full account of human judgments requires a consideration of both sources of information (e.g., Bless & Forgas, 2000; Schwarz, 1998).

---

Mario Weick and Ana Guinote, Department of Psychology, University of Kent at Canterbury, Canterbury, Kent, United Kingdom.

The research reported in this article is part of Mario Weick's doctoral dissertation under the supervision of Ana Guinote and received the European Social Cognition Network Best Paper Award in 2006. The research was supported by a German Academic Exchange Service scholarship and an Economic and Social Research Council doctoral studentship to Mario Weick and the Economic and Social Research Council Grant RES-000-22-1217 to Ana Guinote. We thank Karen Douglas for comments regarding a previous version of the article. We also thank Cristiana Martellotta for assistance with data collection and data coding and Milica Vasiljevic for proofreading the article.

Correspondence concerning this article should be addressed to Mario Weick or Ana Guinote, Department of Psychology, University of Kent at Canterbury, Canterbury, Kent, CT2 7NP United Kingdom. E-mail: m.h.weick@gmail.com or a.guinote@kent.ac.uk

This becomes particularly evident when one examines the feeling of difficulty or ease that emerges from the retrieval of mental contents (e.g., Schwarz et al., 1991). When retrieving information about an object is easy, individuals tend to perceive the target object in line with the implications that derive from their thought contents. However, when retrieving information is difficult, individuals interpret this experience as a limitation or restriction, and their judgments tend to contradict the content of their thoughts. For example, a person may conclude from the difficulty in thinking of many reasons to accept an offer for a new post that it is better to stay in the current job. Ease of retrieval thus provides experiential information that qualifies and may even reverse the implications of declarative thought contents (e.g., in spite of having good reasons to aim for the new post, the person may conclude "If it's so difficult to think of many reasons to accept the new post it may not be worth accepting it"; see Schwarz, 1998).

Tversky and Kahneman (1973) were the first to point out the role of ease-of-retrieval experiences in the judgmental domain. A new interest was sparked, however, with the creation of a research design that allows a separation of the effects of experienced ease and declarative thought contents. Schwarz et al. (1991) asked participants to list either a few (an easy task) or many (a difficult task) past instances indicative of assertiveness. Participants subsequently rated themselves as more assertive when they had experienced ease rather than difficulty in the retrieval process. Because judgments based on the mere declarative content are likely to result in the opposite pattern, with higher ratings of assertiveness after retrieving many rather than few behavioral examples, it was concluded that participants' judgments were guided by experiential information.

The ease-of-retrieval paradigm has the unique feature of being able to elicit experiential information that is at odds with declarative thought contents. It has been used in a variety of domains to separate the relative contribution of experience-based and content-based information, including social perception (Aarts & Dijksterhuis, 1999; Gawronski & Bodenhausen, 2005; Raghuram & Menon, 2005), attitudes (Menon & Raghuram, 2003; Wänke & Bless, 2000; Wänke, Bohner, & Jurkowsch, 1997), and autobiographic knowledge (Winkielman & Schwarz, 2001; see also Winkielman, Schwarz, & Bellig, 1998). In the present article, we focus on ease of retrieval with the purpose of separating the relative contribution of experience-based and content-based information in the judgments of powerful and powerless individuals.

### Power and Ease of Retrieval

Power refers to the ability to control others' outcomes (Thibaut & Kelley, 1959) and to influence others at will (Cartwright, 1959). Powerful individuals have greater predictability and control and are less dependent on external circumstances (Hollander, 1958; Lewin, 1941). According to the Situated Focus Theory of Power (Guinote, 2007a), powerful individuals are free to process information more selectively in line with the factors that drive cognition in the situation (e.g., expectancies, goals, affordances, bodily sensations). Conversely, powerless individuals need to pay attention to multiple sources of information and interpret information beyond its face value to increase predictability and control (see also Fiske & Dépret, 1996; Goodwin, Gubin, Fiske, & Yzerbyt, 2000;

Guinote, 2004, 2007a; Guinote, Brown, & Fiske, 2006; Keltner et al., 2003). For instance, studies on persuasion show that control-deprived individuals turn to the message content for additional information (Pittman, 1993; see also Guinote et al., 2006). In contrast, elevated power increases the tendency to focus on single cues (Guinote, 2007a, 2007c, in press) and reduces the tendency to take additional perspectives into account (e.g., Galinsky, Magee, Inesi, & Gruenfeld, 2006; Mannix & Neale, 1993).

Subjective experiences, such as the ease of retrieval, are primary cues that can drive the online construction of judgments both automatically and deliberately (see Kahneman, 2003; Kahneman & Frederick, 2002; Menon & Raghuram, 2003; Strack, 1992; Whittlesea & Williams, 1998; see also Pam, Cohen, Pracejus, & Hughes, 2001). The greater tendency of powerful individuals to rely on the primary factors that drive cognition and to ignore additional information should therefore promote experience-based responses. In contrast, the greater tendency of powerless individuals to engage in interpretative reasoning and to go beyond accessible impressions should decrease the impact of subjective experiences and strengthen content-based processing. One would therefore expect powerful individuals to rely on the ease of retrieval and powerless individuals to rely on activated declarative contents.

Indirect support for this claim is offered by research suggesting that powerful individuals respond more in line with their feelings (e.g., Guinote, 2007b; Hecht & LaFrance, 1998). For example, in a study that involved eating appetizing and nonappetizing food, powerful participants ate more or less food as a function of their gustatory experiences while eating (Guinote, 2007b). In contrast, the amount of food eaten by powerless individuals was unrelated to their experiences. Guinote (2007e) also found that powerful individuals were more prone to magnify the expression of unwanted thoughts after suppressing these thoughts than were powerless individuals. This increased rebound of unwanted thoughts after suppression indicates that powerful individuals, more than powerless individuals, used the experienced difficulties in suppressing unwanted thoughts as a source of information (see Förster & Liberman, 2001, 2004).

Although these studies are suggestive, the role of subjective experiences remains largely unexplored. In particular, prior research did not separate experiential information from declarative thought contents. For example, ease of processing stereotype-consistent information, rather than the content of this information per se, could contribute to greater stereotyping in the social perception of powerful and powerless individuals. Consequently, experiential and declarative information remain confounded in most research on power. Moreover, prior studies focused on domains that do not have strong declarative components, such as smiling in interaction contexts (Hecht & LaFrance, 1998) or eating (Guinote, 2007b). It is possible that the greater tendency of powerful individuals to rely on experiences does not hold when one can resort to declarative information. In the present article, we hypothesize that power induces reliance on subjective experiences in a context in which responses can be based on declarative thought contents. This perspective implies that the judgments of powerful individuals are malleable and subject to influences of momentary experiences.

## Subjective Experiences and Temporal Stability

Although the present research emphasizes the construed character of attitudes on a moment-to-moment basis and the greater variability in judgments that results from the experience of power (see also Guinote, 2004; Guinote, Judd, & Brauer, 2002), we think that this does not preclude some temporal stability of attitudes. Under certain circumstances, powerful individuals may rely on evaluative judgments previously stored in memory (see Judd & Brauer, 1995), in particular when previously formed attitudes are accessible at the time of judgment (Bohner & Wänke, 2002). This would reconcile the present perspective with past research showing that powerful individuals can respond more in line with stable personal tendencies or prior knowledge structures (e.g., Chen, Lee-Chai, & Bargh, 2001; Fiske & Dépret, 1996). The present article explores the possibility that powerful individuals' past attitude judgments, construed on the basis of experiential information, can affect judgments at later points in time. We reasoned that when individuals make judgments on the basis of ease of retrieval, these judgments are stored in memory, perhaps together with information on retrieval experiences (see Barsalou, 1999). Subsequent attitudinal judgments can be based in part on these sources of information, thereby contributing to some temporal stability. One goal of the present research is to provide, as far as we know for the first time, evidence that reliance on ease of retrieval can have long-term effects. We examine this effect in the context of power, illustrating how momentary influences can transpire over time and promote some stability in the judgments of powerful individuals.

## The Present Research

The primary goal of the present article is to demonstrate that powerful individuals rely on experiential information, whereas powerless individuals draw their judgments on declarative thought content. This hypothesis was tested in five studies using the ease-of-retrieval paradigm (Schwarz et al., 1991). These studies examined reliance on ease-of-retrieval experiences in domains that have been associated with judgmental stability and the expression of core values and attitudes in powerful individuals, such as stereotyping and self-related judgments. Power was operationalized through priming, trait dominance, and actual professional roles (i.e., managers vs. subordinates). We also examined whether the effects of power on reliance on ease of retrieval can be explained by other factors, such as mood, quality of the retrieved information, number of counterattitudinal thoughts, or differences in the subjective experience itself. In addition, in Study 4, we used a longitudinal design to test the prediction that reliance on the ease of retrieval can have long-term effects.

### Study 1a: Evaluative Judgments in Unfamiliar Domains

The present study tests the hypothesis that power induces reliance on the ease of retrieval in the realm of attitude judgments. Power was primed by asking participants to report a past event in which they had power over someone or someone had power over them (Galinsky, Gruenfeld, & Magee, 2003). Participants were then provided with a news report that dealt with plans of the National Aeronautics and Space Administration (NASA) to send

humans to Mars. In the following, we asked participants to generate either a small number or a large number of arguments in favor of sending humans to Mars.

If powerful individuals rely more on subjective experiences, they should use the ease or difficulty of generating arguments as a source of information to guide their attitude judgments. That is, powerful individuals should be more in favor of sending humans to Mars after generating few as opposed to many arguments. Conversely, if powerless individuals have a more complex processing orientation, they should be less affected by the ease of retrieval and focus more on the content of their thoughts. Thus, the attitudes of powerless individuals should be equally favorable after generating few or many arguments or be even more positive after generating many rather than few arguments.<sup>1</sup>

## Method

### Participants and Design

One hundred and thirty-six students (78 women and 56 men) from the University of Kent, Canterbury, Kent, United Kingdom, participated in exchange for a lottery ticket.<sup>2</sup> Up to 5 participants took part in each session. They were randomly assigned to the conditions of a 2 (Power: powerful vs. powerless)  $\times$  2 (Number of Arguments: few vs. many arguments) between-subjects factorial design.

### Procedure and Materials

Participants were informed that they would work on two independent studies about situational perception and decision making. They received a booklet that consisted of two separate questionnaires. The first questionnaire contained the power manipulation and a measure of mood. Following Galinsky et al. (2003), participants were asked to provide a vivid written report of either a past event in which they had power over another individual or someone else had power over them. Participants were given an answer-sheet with 35 lines to complete this task. Following the manipulation of power, a single item assessed participants' mood on a scale ranging from 1 (*very sad*) to 10 (*very happy*).<sup>3</sup> The second questionnaire included a manipulation of ease of retrieval. Participants were asked to read the following scenario extracted from a news report that dealt with the endeavor of sending humans to Mars:

On January 14, 2004, a new course of human exploration of the solar system was charted. A "Commission on Implementation of Space Exploration" was created. The Commission will generate a report for NASA this summer, and it is expected that the endeavor of sending humans to Mars will play a prominent role in this report.

After reading this background information, participants were asked to generate either two arguments or six arguments in favor of this enterprise. The ease-of-retrieval paradigm rests on the

<sup>1</sup> A large number of arguments can be more favorable toward the attitude object, compared with a small number of arguments (e.g., Ruder & Bless, 2003). However, empirical evidence indicates that this is not necessarily always the case (see Haddock, 2000; Tormala, Pretty, & Briñol, 2002).

<sup>2</sup> Two participants did not indicate their gender in the questionnaire.

<sup>3</sup> See Wilson, Wheatley, Meyers, Gilbert, and Axsom (2000) for a discussion of a single-item mood measure.

assumption that listing only few arguments is perceived as easy, whereas listing many arguments is perceived as difficult (Schwarz et al., 1991). Thus, a pretest was carried out in which we asked participants ( $N = 10$ ) to generate as many arguments in favor of sending humans to Mars as they could think of ( $M = 3.60$ ,  $SD = 0.89$ ). On the basis of this pretest, we concluded that listing two arguments is perceived as easy, whereas generating six arguments is perceived as difficult (see Ruder & Bless, 2003). Participants in the main study received an answer sheet that provided three lines for each argument. Participants completed this task at their own pace. Following the generation of arguments, participants rated their attitudes toward sending humans to Mars on a point scale ranging from 1 (*negative*) to 10 (*positive*). They also indicated how much they would welcome such an enterprise on a scale ranging from 1 (*not at all*) to 10 (*very much*). After completion of the booklet, participants were thanked and debriefed.

### Results and Discussion

#### Manipulation Checks

After the written report of a past instance, participants indicated on a 9-point scale (ranging from *not at all* to *very much*) how much they felt in charge in the situation they described in their essay. An independent-samples  $t$  test revealed that participants in the powerful condition felt more in charge of the situation than did participants in the powerless condition ( $M_s = 7.34$  and  $2.61$ , respectively),  $t(134) = -20.27$ ,  $p < .001$ . This result indicates that the manipulation was successful in inducing instances where participants felt powerful or powerless.

Participants also rated how difficult it was to generate the requested number of arguments on a scale ranging from 1 (*not at all difficult*) to 10 (*very difficult*). A 2 (Power: powerful vs. powerless)  $\times$  2 (Number of Arguments: few vs. many arguments) between-subjects analysis of variance (ANOVA) was conducted on this measure. As expected, generating two arguments was perceived to be easier than generating six arguments ( $M_s = 4.14$  and  $6.44$ , respectively),  $F(1, 132) = 26.91$ ,  $p < .001$ , which demonstrates the effectiveness of the ease-of-retrieval manipulation. No other effects were significant ( $ps \geq .16$ ). Ease-of-retrieval experiences were therefore not affected by our priming manipulation of power.

#### Attitudes

The two attitude measures designed to assess participants' attitudes toward sending humans to Mars were highly correlated ( $\alpha = .95$ ,  $M = 5.76$ ,  $SD = 2.51$ ) and therefore collapsed into a single attitude score. This score was subjected to a 2 (Power: powerful vs. powerless)  $\times$  2 (Number of Arguments: two vs. six arguments) between-subjects ANOVA. This analysis yielded a main effect of number of arguments, indicating a more favorable opinion after generating two, as opposed to six, arguments ( $M_s = 6.34$  and  $5.15$ , respectively),  $F(1, 132) = 8.91$ ,  $p = .003$ . This result points out that ease-of-retrieval experiences affected participants' judgments more than did the content of the information they retrieved. When generating arguments was easy, participants had a more favorable attitude than when generating arguments was difficult. Of special importance, this main effect was qualified by a significant inter-

action between power and number of arguments,  $F(1, 132) = 4.06$ ,  $p = .046$ . As expected, participants in the powerful condition were more affected by ease of retrieval than were participants in the powerless condition (Table 1). Powerful participants were more in favor of sending humans to Mars after having generated few compared with many arguments ( $M_s = 4.88$  and  $6.97$ , respectively),  $F(1, 132) = 11.47$ ,  $p < .001$ . In contrast, participants in the powerless condition were unaffected by the ease or difficulty in generating arguments ( $M_s = 5.77$  and  $5.36$ , respectively;  $F < 1$ ). The main effect of power was not significant ( $F < 1$ ).

#### Mood

An independent-samples  $t$  test indicated that power did not affect participants' mood ( $M_s = 6.47$  and  $6.42$ , respectively),  $t(135) = -.09$ ,  $p = .931$ . The impact of power on ease of retrieval was therefore not mediated by differences in mood.

Taken together, these results provide initial evidence for the hypothesis that power promotes reliance on the ease of retrieval. The attitudes of participants primed with power seemed to be affected by the experience of ease or difficulty in retrieving thought contents. No such effect was evident for participants primed with powerlessness.

Still, although the results seem to indicate that ease of retrieval was the key factor affecting powerful individuals' attitudes, the results could be explained by differences in the content of the information retrieved rather than the use of experiential information. In particular, powerful individuals, unlike powerless individuals, may have generated more persuasive arguments when asked to generate few compared with many arguments, and this could have affected their responses. The original paradigm developed by Schwarz et al. (1991) does not rule out this possibility (see Ruder & Bless, 2003; Wänke, Bless, & Biller, 1996). We conducted a subsequent study to address this issue.

#### Study 1b: The Role of Persuasiveness

The purpose of the present study was to rule out the possibility that differences in the persuasiveness of the retrieved information account for the effects observed in Study 1a. To this end, a yoked design was employed (see Ruder & Bless, 2003; Wänke et al., 1996). The arguments generated in Study 1a were presented to

Table 1  
Attitudes as a Function of Power and Number of Arguments Retrieved (Writers; Study 1a) or Arguments Studied (Readers; Study 1b)

No. of arguments	Writers		Readers	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
	Powerful			
Few	6.97	2.29	6.27	2.18
Many	4.88	2.70	6.38	2.00
	Powerless			
Few	5.77	2.31	6.32	2.29
Many	5.36	2.41	6.26	2.31



another sample of participants. Specifically, each writer of Study 1a was matched with one reader of the same sex in Study 1b. After reading the arguments of a writer, participants expressed their own attitudes regarding the dispatch of humans to Mars. They also evaluated the quality of the arguments.

Because readers have access only to the content and not to the subjective experiences associated with the generation of the arguments, their attitudes should reflect the arguments' persuasive content. Thus, if power-primed writers relied on the experienced ease of generating arguments, only writers, but not readers, should have more favorable attitudes in the few-arguments condition than in the many-arguments condition. Conversely, if powerlessness-primed writers based their judgments on the content of the retrieved information, their attitudes should be analogous to their corresponding readers' attitudes.

### Method

#### Participants and Design

One hundred and thirty-six students from the University of Kent (79 women and 57 men) participated on a voluntary basis. Participants were presented with the arguments of a same-sex writer of Study 1a. As a result, this study used a 2 (Power: powerful vs. powerless)  $\times$  2 (Number of Arguments: few vs. many arguments)  $\times$  2 (Source: writer vs. reader) mixed-factor yoked design, with power and number of arguments as between-subjects factors.

#### Procedure and Materials

Participants took part in groups of up to 5 people. First they read the same background information presented to the writers of Study 1a. Then each participant was presented with the arguments generated by one writer of Study 1a. Participants were instructed to read the arguments carefully to provide an objective interpretation of this information. After reading the arguments, participants completed the same attitude measures as did participants in Study 1a. Finally, participants rated the quality and the persuasiveness of the total number of arguments generated by each participant on two 10-point scales ranging from 1 (*not at all persuasive; very bad*) to 10 (*very persuasive; very good*). Participants were then thanked and debriefed.

### Results and Discussion

#### Attitudes

The readers' scores on the two attitude measures were averaged into a single index ( $\alpha = .89$ ,  $M = 6.31$ ,  $SD = 2.19$ ). To test the hypothesis that readers' attitudes differ from the attitudes of writers primed with power but not from the attitudes of writers primed with powerlessness, we submitted this score to a 2 (Power: powerful vs. powerless)  $\times$  2 (Number of arguments: few vs. many arguments)  $\times$  2 (Source: writer vs. reader) mixed ANOVA. Status as a writer or a reader was treated as a within-subjects factor. The analysis yielded a main effect of source,  $F(1, 132) = 4.20$ ,  $p = .043$ , indicating that readers had a more favorable attitude toward sending humans to Mars than did writers ( $M_s = 6.31$  and  $5.75$ , respectively). Readers' attitudes may have been affected by the fact that another student (i.e., the corresponding writer) generated

unequivocally supportive arguments in favor of sending humans to Mars. As expected, the interaction between source and number of arguments was also significant,  $F(1, 132) = 5.33$ ,  $p = .023$ . Participants in Study 1a reported a more favorable attitude after generating a few rather than many arguments ( $M_s = 6.34$  and  $5.15$ , respectively),  $F(1, 132) = 8.91$ ,  $p = .003$ , however, no such difference was evident for the readers ( $M_s = 6.30$  and  $6.32$ , respectively;  $F < 1$ ; see Table 1). This relationship was further qualified by a marginally significant interaction between power, number of arguments, and source,  $F(1, 132) = 2.87$ ,  $p = .093$ .<sup>4</sup> Although powerful writers had reported a more favorable attitude toward sending humans to Mars after generating few as opposed to many arguments ( $M_s = 6.97$  and  $4.88$ , respectively),  $F(1, 132) = 11.47$ ,  $p < .001$ , this difference was not evident for their readers ( $M_s = 6.27$  and  $6.38$ , respectively;  $F < 1$ ). This pattern is reflected in a significant interaction between source and number of arguments for powerful writers and their readers,  $F(1, 132) = 7.34$ ,  $p = .008$ . In contrast, the attitudes of powerless writers and their readers did not vary as a function of the number of arguments retrieved, ( $M_{s_{writers}} = 5.77$  and  $5.36$  for few and many arguments, respectively;  $M_{s_{readers}} = 6.32$  and  $6.26$ , respectively;  $F_s < 1$ ). These results support the hypothesis that powerful writers based their attitudes on the ease of retrieval, whereas readers and powerless writers based their attitudes on the content of the information described. No other reliable effects emerged ( $F < 1$ ).

#### Argument Persuasiveness

We averaged readers' ratings of argument persuasiveness and quality ( $\alpha = .87$ ,  $M = 5.51$ ,  $SD = 1.94$ ) and submitted this score to a 2 (Power: powerful vs. powerless)  $\times$  2 (Number of Arguments: few vs. many arguments) between-subjects ANOVA. The analysis revealed a main effect of power,  $F(1, 132) = 5.17$ ,  $p = .025$ . The arguments of powerful writers were rated higher in persuasiveness than the arguments of powerless writers ( $M_s = 5.56$  and  $4.82$ , respectively). However, this effect did not vary as a function of the number of arguments ( $F < 1$ ), providing additional support for the hypothesis that powerful individuals were primarily influenced by ease-of-retrieval experiences, rather than by differences in the persuasiveness of the retrieved information. Finally, there was also no reliable effect of number of arguments on perceived persuasiveness ( $p = .164$ ). Overall, listing many arguments was not more persuasive than listing few arguments. This result is consistent with our interpretation that powerless individuals, who did not vary their attitudes as a function of the number of arguments in Study 1a, based their judgments on the content of the information retrieved.

Taken together, the results of Study 1b are consistent with our hypotheses. Readers had access only to the informational content of the arguments but not to the experienced ease of retrieval. Because the attitudes of readers, as well as their ratings of persuasiveness, did not differ as a function of the number of arguments, we can conclude that persuasiveness of the arguments generated

<sup>4</sup> Across studies, tests of simple effects were conducted using Fisher's least significant difference test, which requires a significant higher order interaction (see Howell, 1995). In Study 1b, simple effects were still significant after we used Bonferroni correction to adjust the familywise error rate for the number of comparisons made ( $\alpha' = .05/4 = .0125$ ).

by powerful and powerless participants in Study 1a could not account for the results obtained. These results lend support to the hypothesis that powerful writers were affected by the ease of retrieval, whereas powerless writers drew on the content of the retrieved information.

Taken together, the results of Studies 1a and 1b support the hypothesis that power promotes reliance on ease of retrieval in the realm of attitude judgments. A subsequent study was designed with the aim of extending these findings into a more familiar and involving domain: judgments related to the self.

### Study 2: Self-Related Judgments

Past research has argued that power magnifies the expression of self-related attributes (Chen et al., 2001; Keltner et al., 2003, Smith & Trope, 2006). For example, power increases cooperative behavior for communal-oriented participants and selfish behavior for exchange-oriented participants (Chen et al., 2001). From this perspective, one would predict that judgments and behaviors related to the self are more stable and less subject to momentary influences for powerful than for powerless individuals. Yet if self-related judgments are construed in the moment on the basis of subjective experiences, and powerful individuals respond more in line with the factors that drive cognition in the situation, then their self-related judgments might actually be more malleable than previously assumed. The present study tests this hypothesis.

One further contribution of the present study is the examination of the ecological validity of our predictions using a sample of managers and subordinates. There is surprisingly little evidence that effects obtained in the laboratory coincide with effects of power that take place in real life. To date socio-cognitive research on power has used only undergraduate students, which might be problematic, considering the fact that students have little experience with enacting powerful roles.

In the present study, we asked managers and subordinates to retrieve recent episodic instances about their lives before we assessed their self-perception. Specifically, they were asked to list either many or few episodic instances that had occurred during their leisure time in the 2 weeks preceding the assessment. Following this task, participants were asked to indicate how satisfied they were with the amount of leisure time at their disposal, as well as with their general work–life balance. We expected managers to be more satisfied with their leisure time after generating few (a task that is perceived as easy) compared with many (a task that is perceived as difficult) past instances of leisure time. Subordinates, on the other hand, should have been unaffected by the ease of retrieval and should have based their judgments on the content of the retrieved information instead.

### Method

#### Participants and Design

Eighty-three full-time employees (44 managers and 39 subordinates) were approached at an international business airport. Managers (9 women and 35 men) worked in a variety of businesses (e.g., information technology, banking, automotive). All managers had subordinates under their supervision. Nineteen managers (43.2%) occupied middle management, and 17 (38.7%) occupied

top management positions.<sup>5</sup> Twenty-three percent had five or fewer subordinates, 43% had 6 to 20 subordinates, and 29% were in charge of more than 20 subordinates. The managers were aged between 21 and 60 years ( $M = 40.14$ ,  $SD = 9.08$ ). Care was taken to obtain a comparable sample of employees in subordinate positions (13 women and 26 men) working under the supervision of one or more managers. Most subordinates (87.2%) were office workers in clerical positions (e.g., sales executives, advisors, software programmers). Fourteen subordinates (43.6%) occupied senior positions, and 11 subordinates (28.2%) occupied junior positions. The subordinates were between 20 and 53 years old ( $M = 32.74$ ,  $SD = 8.31$ ), and none of them had personnel responsibilities.

Participants were run individually and were randomly assigned to one of the two ease-of-retrieval conditions, thus creating a 2 (Power: managers vs. subordinates)  $\times$  2 (Number of Instances: few vs. many) factorial between-subjects design.

#### Procedure and Materials

Participants were informed that the study dealt with the perception of work–life balance. They received a short, two-page questionnaire. On the first page, participants were asked to indicate their current job function and level. Managers also indicated the number of subordinates working under their supervision. This was followed by the experimental manipulation of ease of retrieval. We manipulated ease of retrieval by asking participants to indicate two (easy) or 10 (difficult) activities or events that they had experienced during the last 2 weeks in their leisure time and to indicate the time they spent on each activity. The number of instances in each condition was based on a pretest conducted with 10 full-time employees, who were asked to list as many episodes of leisure time as they could think of ( $M = 7.40$ ,  $SD = 3.13$ ). The definition of leisure time was included in the instructions, which read as follows:

Balancing professional and private life plays a prominent role in well-being and in our general quality of life. It is evident that work–life balance involves not only factors occurring at work, but also all activities/events outside work. Time outside employment or education can be divided into necessary time (e.g., personal care activities, sleeping, eating), committed time (pursuing social or other responsibilities—housework and domestic activities, child care, shopping, voluntary work, social commitments), and leisure time (time for yourself, not falling into the other categories). In the following please list two (10) distinct situations or events that you experienced within the last 2 weeks in your leisure time. This means time for “yourself” outside work that was not committed to any responsibilities. Please describe the situation or event briefly. In the right column, please indicate how much time the situation or event took approximately (in hours).

Participants completed the questionnaire at their own pace. Following the manipulation of ease of retrieval, they indicated on three 9-point scales how much they were happy with the amount of leisure time they had, whether their leisure time allowed them to self-realize, and how much they were content with their current work–life balance. Participants’ mood was assessed using four

<sup>5</sup> Eight managers (18.2%) and 11 subordinates (28.2%) did not indicate their current job level.

7-point scales ranging from -3 (*very bad; very sad; very discontent; very tense*) to 3 (*very good; very happy, very content; very relaxed*). Finally, participants also indicated their gender, age, weekly hours spent at work, and how many days they had been on holidays during the 2 weeks prior to completion of the questionnaire. On completion, participants were thanked and debriefed.

### Results and Discussion

#### Manipulation Check

Participants indicated how easy it was for them to recall the leisure activities on a 9-point scale. This measure of experienced ease was subjected to a 2 (Power: managers vs. subordinates)  $\times$  2 (Number of Instances: few vs. many instances) between-subjects ANOVA. The results indicated that generating few instances was easier than generating many instances ( $M_s = 5.89$  and  $4.33$ , respectively),  $F(1, 78) = 8.24, p = .005$ , confirming the effectiveness of the experimental manipulation. No other reliable effect emerged ( $F_s < 1$ ), which suggests that managers and subordinates did not differ in the experienced ease of retrieval within the experimental conditions.

#### Leisure-Time Satisfaction

First, we examined whether leisure time, indexed by the total number of hours participants spent in the activities reported, varied as a function of power (managers vs. subordinates) and number of instances recalled (few vs. many). Participants retrieved more hours of leisure time when they were asked to indicate many as opposed to few past instances ( $M_s = 34.82$  and  $13.65$ , respectively),  $F(1, 79) = 19.93, p < .001$ . No other effects emerged ( $F_s < 1$ ), which indicates that managers and subordinates did not differ in terms of actual amount of leisure time reported.<sup>6</sup>

We then collapsed the three measures of leisure-time satisfaction into a single index ( $\alpha = .84, M = 4.41, SD = 1.87$ ) and submitted this score to a 2 (Power: managers vs. subordinates)  $\times$  2 (Number of Instances: few vs. many) between-subjects ANOVA. The analysis yielded the expected significant interaction between position and number of recalled instances,  $F(1, 79) = 7.48, p = .008$ . As shown in Table 2, managers reported greater satisfaction after indicating a few rather than many leisure-time activities ( $M_s = 4.95$  and  $3.82$ , respectively),  $F(1, 79) = 4.19, p = .044$ . Subordinates showed the opposite tendency, as implied by the marginally significant trend to be more satisfied after having listed many as opposed to few activities ( $M_s = 3.85$  and  $4.92$ , respectively),  $F(1, 79) = 3.34, p = .071$ . No other reliable effect

emerged ( $F_s < 1$ ). In line with the hypothesis, these results suggest that managers, but not subordinates, were guided by the experienced ease of retrieval.

#### Mood

We first collapsed the four mood items into a single score ( $\alpha = .86, M = .71, SD = 1.17$ ), which we then subjected to a 2 (Power: managers vs. subordinates)  $\times$  2 (Number of Instances: few vs. many instances) between-subjects ANOVA. No reliable effects emerged ( $p_s \geq .196$ ). This suggests that mood does not underlie the effects reported in the present study.

Taken together, these findings contribute to the generality of our claim that power induces reliance on experiential information. We found that managers, who occupied naturally occurring powerful positions, relied on the experienced ease associated with the retrieval of mental contents. In contrast, a comparable group of employees in subordinate positions was unaffected by this experiential information. These results are noteworthy because very little research has examined the effects of power in individuals who occupy real-life powerful and powerless positions.

Overall, these findings point out that power increases reliance on subjective experiences not only in unfamiliar attitude judgments (Study 1a) but also in familiar judgments related to the self (Study 2). The next study examines judgments related to social targets.

### Study 3: Social Perception

Following the same logic, we aimed at extending our findings into social perception and stereotyping, a topic that has traditionally attracted a great deal of research on power (e.g., Chen et al., 2001; Chen, Ybarra, & Kiefer, 2004; Dépret & Fiske, 1999; Fiske, 1993; Goodwin et al., 2000; Goodwin, Operario, & Fiske, 1998; Guinote et al., 2002; Overbeck & Park, 2001, 2006; Richeson & Ambady, 2003; Stevens & Fiske, 2000; Vescio, Gervais, Snyder, & Hoover, 2005; Vescio, Snyder, & Butz, 2003). It is widely assumed that power promotes stereotyping and reliance on prior knowledge (see Fiske, 1993; Fiske & Dépret, 1996; Goodwin et al., 2000; Keltner et al. 2003; Keltner & Robinson, 1997; Rodriguez-Bailon, Moya, & Yzerbyt, 2000). For example, in an extensive line of research, Fiske and her colleagues (Fiske, 1993; Fiske & Dépret, 1996; Goodwin et al., 2000) found that powerful individuals attend more to stereotype-consistent information of social targets than to stereotype-inconsistent information, whereas powerless individuals also attend to stereotype-inconsistent information.

However, recent findings indicate that powerful individuals are capable of individuating their subordinates. Overbeck and Park (2001) found that powerful individuals, compared with powerless individuals, better remembered individuating information of their interaction partners that was relevant for the task at hand. Simi-

Table 2  
Satisfaction With Leisure Time as a Function of Organizational Power and Number of Instances Retrieved (Study 2)

No. of instances	Position			
	Manager		Subordinate	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Few	4.95	1.77	3.85	1.99
Many	3.82	1.88	4.92	1.64

<sup>6</sup> We also examined the role of age and gender. There was a tendency for age to be positively related to leisure-time satisfaction,  $r(79) = .21, p = .066$ . Moreover, women reported lower levels of satisfaction than did men ( $M_s = 3.71$  and  $4.66$ , respectively),  $F(1, 81) = 4.27, p = .042$ . However, participant age and gender did not have other effects (all  $p_s \geq .156$ ). Therefore, these factors were dropped from further analyses.

larly, Vescio et al. (2003) found that powerful individuals only used stereotypes about their subordinates when stereotypes were relevant to the context (e.g., women in masculine domains) and informed the social influence strategies of powerful individuals. Powerful individuals, therefore, seem to have more malleable social perceptions than previously considered. They may individuate others depending on the relevance of individuating information for the goals (Overbeck & Park, 2006; see also Guinote, 2007d) and social influence strategies (Vescio et al., 2003) that powerful individuals pursue.

This previous research has examined contexts in which social perception was instrumental to the exercise of power. One question that arises is whether the social judgments of powerful individuals can also be affected by momentary influences that are unrelated to the exercise of power. In the present study, we examined how momentary influences that derive from subjective experiences affect the social perception of powerful and powerless individuals. We hypothesized that powerful individuals would rely more on stereotypes when experiential information was consistent with stereotypes but that they would rely less on stereotypes when subjective experiences contradicted stereotypes.

We used gender groups as the target categories. Gender is a basic social category, and the representation of gender categories is well established and developed at a very young age (e.g., Powlisha, 1995; Yee & Brown, 1994; see also Jost & Kay, 2005). Our claim that powerful individuals rely more on subjective experiences is particularly supported if we can show that these effects occur even for well-established stereotypes.

Participants were asked to generate many or few characteristics on which they felt men and women are, on average, different (see Dijksterhuis, Macrae, & Haddock, 1999). When it was easy to retrieve differences between men and women, we expected powerful participants, more than powerless participants, to perceive the two gender groups in stereotypic ways. However, when it was difficult to retrieve differences between men and women, we expected powerful participants to perceive the gender groups in less stereotypic ways compared with powerless participants. In the present study, we operationalized power using a priming manipulation similar to the one used in Study 1a.

## Method

### Participants and Design

One hundred and thirty-two students (84 women and 48 men) from the University of Kent participated in this study. In return for their participation, students were entered in a drawing for four prizes. Participants were randomly assigned to the 2 (Power: powerful vs. powerless)  $\times$  2 (Number of Differences: few vs. many) experimental conditions.

### Procedure and Materials

Up to 6 participants took part in each session. Upon arrival, participants were informed that they would participate in three separate studies: The first study was allegedly concerned with situational perception, and the remaining two studies were supposed to investigate group perception. Separate questionnaires numbered from one to three, as well as coversheets in differing

color, aimed at bolstering this cover story. Participants were instructed to work through the questionnaires in the order in which they were presented. The power manipulation was included in the first questionnaire and was the same as in Study 1a. This was followed by the manipulation of ease of retrieval. Participants were asked to list either two or 12 attributes on which they thought women and men are, on average, different. This manipulation was adapted from Dijksterhuis et al. (1999). The instruction read as follows:

In this study, we are interested in your perception of characteristics that members of different groups possess. In particular, we are interested in gender groups and attributes that differentiate men and women. We would like you to think about differences between men and women. In the space below please list two (12) traits/personality characteristics on which you think women and men are, on average, different.

The final questionnaire assessed the dependent variables. A first measure of typicality asked participants to indicate how well 12 gender-typed attributes describe men and women on a scale ranging from 1 (*not at all*) to 9 (*very well*). Attributes were chosen on the basis of previous research (Bem, 1976; Spence, Helmreich, & Holahan, 1979; Williams & Best, 1982). Masculine attributes were *courageous*, *assertive*, *self-confident*, *rude*, *boastful*, and *autocratic*; female attributes were *warm*, *sympathetic*, *gentle*, *nagging*, *whiny*, and *fussy*. Participants indicated how well each of the attributes described the two target groups. They also estimated the percentage of women and men possessing each of the 12 attributes (see Park & Judd, 1990). Finally, mood was measured using the same scales employed in Study 2.

## Results and Discussion

### Manipulation Checks

Participants in the high-power condition reported that they felt more in charge than did participants in the low-power condition ( $M_s = 6.98$  and  $2.70$ , respectively),  $t(129) = 15.09$ ,  $p < .001$ , indicating that the manipulation of power was effective. Participants also indicated their experienced ease or difficulty in generating the requested number of attributes on a 9-point scale. Scores were subjected to a 2 (Power: powerful vs. powerless)  $\times$  2 (Number of Traits: few vs. many traits) between-subjects ANOVA. This analysis indicated that generating few differences between men and women was perceived as easier than generating many differences ( $M_s = 4.84$  and  $3.30$ , respectively),  $F(1, 128) = 14.98$ ,  $p < .001$ . No other effects were significant ( $F_s < 1$ ).

### Stereotyping

**Stereotypicality.** We computed an index of stereotypicality by subtracting ratings given on counterstereotypical traits from ratings given on stereotypical traits for each target group separately. We then submitted this index to a 2 (Power: powerful vs. powerless)  $\times$  2 (Number of Traits: few vs. many traits)  $\times$  2 (Participant Gender: male vs. female)  $\times$  2 (Target Gender: men vs. women) mixed ANOVA with target as the within-subjects factor. The analysis revealed the expected significant interaction between power and number of stereotypic traits generated,  $F(1, 124) = 8.21$ ,  $p = .005$ . As shown in Table 3, powerful participants



Table 3  
*Gender Stereotyping as a Function of Power and Number of Stereotypical Attributes Retrieved (Study 3)*

No. of arguments	Stereotyping			
	Typicality		Percentage estimate	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
	Powerful			
Few	2.09	1.10	25.83	15.98
Many	1.62	0.86	18.96	10.23
	Powerless			
Few	1.44	0.85	16.48	10.07
Many	1.91	1.08	21.04	13.66

stereotyped both target groups more after having retrieved few, as opposed to many, stereotypic traits ( $M_s = 2.09$  and  $1.62$ , respectively),  $F(1, 124) = 4.43, p = .037$ . Conversely, powerless participants tended to stereotype more after retrieving many, rather than few, stereotypic traits ( $M_s = 1.91$  and  $1.44$ , respectively),  $F(1, 124) = 3.81, p = .053$ . Furthermore, there was a main effect of target gender such that men were perceived in more stereotypical ways than were women ( $M_s = 1.95$  and  $1.58$ , respectively),  $F(1, 124) = 5.87, p = .017$ . A marginally significant interaction between power, number of arguments, and target gender suggests that the effects of power on ease of retrieval were somewhat stronger for male than for female gender stereotypes,  $F(1, 124) = 3.58, p = .061$ .<sup>7</sup> Finally, an interaction between power and participant gender indicates that men had more stereotypical perceptions than did women when primed with powerlessness ( $M_s = 2.14$  and  $1.46$ , respectively) but not when primed with power ( $M_s = 1.73$  and  $1.93$ , respectively),  $F(1, 124) = 6.22, p = .014$ . No other effects were significant ( $ps \geq .173$ ). In particular, powerful participants did not rely more on stereotypes than did powerless participants ( $F < 1$ ).

*Percentage estimates.* The percentage estimates given on counterstereotypical traits were subtracted from the percentage estimates given on stereotypical traits for each target group separately. We then submitted this index to a 2 (Power: powerful vs. powerless)  $\times$  2 (Number of Traits: few vs. many traits)  $\times$  2 (Participant Gender: male vs. female)  $\times$  2 (Target Gender: men vs. women) mixed ANOVA with target as the within-subjects factor. The results yielded the predicted interaction between power and number of stereotypic attributes retrieved,  $F(1, 124) = 6.22, p = .014$ . As can be seen in Table 3, powerful participants tended to stereotype more after having retrieved few, as opposed to many, stereotypic traits ( $M_s = 25.83\%$  and  $18.96\%$ , respectively),  $F(1, 124) = 3.54, p = .062$ , whereas the opposite tendency was evident for powerless participants ( $M_s = 16.48\%$  and  $21.04\%$ , respectively),  $F(1, 124) = 2.73, p = .101$ . Furthermore, there was an interaction between number of arguments and target gender,  $F(1, 124) = 3.58, p = .061$ , as well as an interaction between power and participant gender, indicating that male participants stereotyped more than female participants when primed with powerlessness ( $M_s = 22.74\%$  and  $19.01\%$ , respectively) but not when

primed with power ( $M_s = 19.40\%$  and  $21.88\%$ , respectively),  $F(1, 124) = 6.22, p = .014$ . No other effects were significant ( $ps \geq .151$ ). In particular, power did not increase stereotyping independent of ease-of-retrieval experiences ( $F < 1$ ).

*Mood.* Answers to the four items were collapsed into a single index ( $\alpha = .79, M = .65, SD = 1.20$ ) and entered into a 2 (Power: powerful vs. powerless)  $\times$  2 (Number of Attributes: few vs. many attributes) between-subjects ANOVA, which revealed no significant effects ( $F_s < 1$ ). This suggests that mood does not underlie the effects of power reported in the present study.

Taken together, the results of the present study indicate that power promoted stereotyping only when generating stereotypical information was easy. When retrieving stereotypical information was difficult, power lessened stereotypical gender perceptions. No support was found for an overall link between power and stereotyping. In line with the findings obtained for attitudes and self-related judgments, the present data suggest that also the social perception of powerful individuals is highly flexible and depends on experiential information that accompanies judgmental processes.

Study 3 extended our previous studies to judgments made in relation to social targets. We conducted a final study to demonstrate that ease-of-retrieval experiences can have more enduring effects, thereby contributing to some attitudinal stability.

#### Study 4: Ease of Retrieval and Attitude Stability

Past research has emphasized the greater idiosyncrasy (Chen et al., 2001) and stability of powerful individuals (e.g., Anderson & Berdahl, 2002). The present research emphasizes the greater context dependence and flexibility that derives from the experience of power. Those two perspectives are, however, not necessarily contradictory. Some contexts may consistently trigger the emergence of an individual's more chronic personal tendencies and be conducive of some stability in judgments over time.

Moreover, evaluative judgments can be stored in memory and retrieved later in subsequent evaluations related to the same target (Judd & Brauer, 1995; see also Schwarz & Bohner, 2001; Wilson & Hodges, 1992). Likewise, experiential information may be stored in memory (see Barsalou, 1999). We hypothesized, therefore, that these sources of information stored in memory may contribute to some temporal stability of the initial effects of ease of retrieval. To test this hypothesis, we asked participants to make evaluative judgments twice: immediately after a manipulation of ease of retrieval and after 1 week. We predicted that the effects of our initial manipulation of ease of retrieval would be still evident after 1 week.

In the present study, the target of judgments was participants' attitudes toward a controversial topic: the introduction of biometric identification cards. We asked participants to indicate their attitudes toward the introduction of new identification cards immediately after the manipulation of ease of retrieval and 1 week later. The present study used trait dominance as a proxy for power (see Anderson & Berdahl, 2002; Goodwin et al., 1998; Operario &

<sup>7</sup> These were unpredicted effects and were therefore prone to Type 1 error inflation (e.g., Howell, 1995). After Bonferroni correction to adjust alpha for the total number of possible comparisons between means, none of the unpredicted effects remain significant ( $ps > .0017$ ).

Fiske, 2001). Because our previous studies did not include a control group, this approach has the advantage of allowing for a test of a linear relationship between power and reliance on the ease of retrieval. Similar to the previous studies, we assessed participants' mood to examine whether the effects of dominance are related to differences in mood.

The present study tested an additional alternative explanation for the results obtained in the previous studies. The differences in the judgments of powerful and powerless individuals may derive from differences in the number of counterarguments generated by these participants during the retrieval process. To rule out this alternative explanation, we asked participants to list all thoughts they had while generating arguments (see Greenwald, 1968; Maheswaran & Chaiken, 1991).

### Method

#### Participants and Design

One hundred twenty-eight students (86 women and 42 men) from the University of Kent participated for course credits. We measured trait dominance and assigned participants randomly to the ease-of-retrieval conditions (number of arguments: few vs. many arguments). One week later, participants completed the same dependent measures as in Time 1 (T1).

#### Procedure and Materials

Trait dominance scores were obtained from a mass test at the beginning of the academic year, using the Revised Interpersonal Adjective Scale (Wiggins, Trapnell, & Phillips, 1988). The scale consists of eight adjectives (e.g., "firm," "assertive"), which were embedded in filler items. Participants rated how accurately the adjectives described them on an 8-point scale ranging from 1 (*extremely inaccurate*) to 8 (*extremely accurate*).

Upon arrival to the experiment, participants learned that they would be involved in two separate studies, the first being concerned with the design of a larger survey and the second with the validation of scales. Participants were asked to complete a booklet that contained all the experimental materials. To reinforce the cover story, we designed the booklet to consist of two different parts, separated with colored sheets. The first part manipulated ease of retrieval by asking participants to generate arguments in favor of introducing biometric identification cards. The second part contained the dependent measures. Participants were informed that the study examined people's views about current issues and that their answers would help to design a questionnaire for a later survey. Participants were asked to read the following information carefully:

Recently, the government launched an ID [identification] card bill. This bill pushes for the introduction of a national identity card, which presents one component of the government's legislative plan that puts an emphasis on security measures. The new ID cards contain biometric information stored on a microchip. This includes fingerprints, facial scans and iris scans, all of which are unique to each individual. A national database would be created holding personal information, such as names, addresses, and biometric information, for all cardholders. The scheme elicited much controversial reactions.

After reading this information, participants were asked to generate either three arguments or seven arguments in favor of the new identification card. The number of arguments was chosen on the basis of a pretest in which participants ( $N = 20$ ) were asked to generate as many distinct arguments as they could think of ( $M = 4.45$ ,  $SD = 1.50$ ). After generating the arguments, participants in the main study responded to two items measuring their attitudes toward the new biometric identification cards. The first item asked participants to indicate their attitude toward the new cards on a scale from 1 (*negative*) to 9 (*positive*), and the second item assessed how much participants would welcome the introduction of the new identification cards on a scale from 1 (*not at all*) to 9 (*very much*). Participants also indicated their current mood 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*). In a subsequent thought-listing task, participants were instructed to list any thoughts they had while they were generating their arguments in favor of the new identification cards. Participants received a separate sheet for each argument and were instructed to write each distinct thought they had on a separate line. For each argument, participants could write down up to five thoughts. They were assured that any thought was of relevance and that there were no right or wrong answers.

A questionnaire was sent to participants after 1 week had elapsed, asking them to rate their attitudes toward the introduction of the biometric identification card on the same rating scales used at T1. Ninety participants (70.31%) replied to this follow-up questionnaire. A written debrief was subsequently e-mailed to all participants involved in the study.

### Results and Discussion

#### Manipulation Check

In a manipulation check, we asked participants to indicate how easy or difficult it was for them to generate the requested number of arguments, on a 9-point scale ranging from 1 (*very easy*) to 9 (*very difficult*). Scores were reverse coded and subjected to an independent  $t$  test, which confirmed that generating three arguments was indeed perceived to be easier than generating seven arguments ( $M_s = 4.72$  and  $3.59$ , respectively),  $t(126) = 3.13$ ,  $p = .002$ .

#### Attitudes at T1

The eight items of the dominance scale were first combined into a single score ( $\alpha = .83$ ;  $M = 4.87$ ,  $SD = .107$ ). The two items measuring attitudes at T1 were highly correlated and also collapsed to form a single score for participants' attitudes ( $\alpha = .98$ ;  $M = 5.20$ ;  $SD = 2.17$ ). The standardized dominance scores, number of arguments, as well as the interaction term of those two variables were entered as predictors of participants' attitude score (see Aiken & West, 1991). This analysis yielded a significant main effect of dominance ( $\beta = .19$ ,  $p = .029$ ). The more dominant participants were, the more they welcomed the new identification cards. More important, the expected interaction between trait dominance and number of arguments was significant ( $\beta = -.20$ ,  $p = .021$ ). As can be seen in the top panel of Figure 1, generating few arguments resulted in a more favorable attitude than did generating

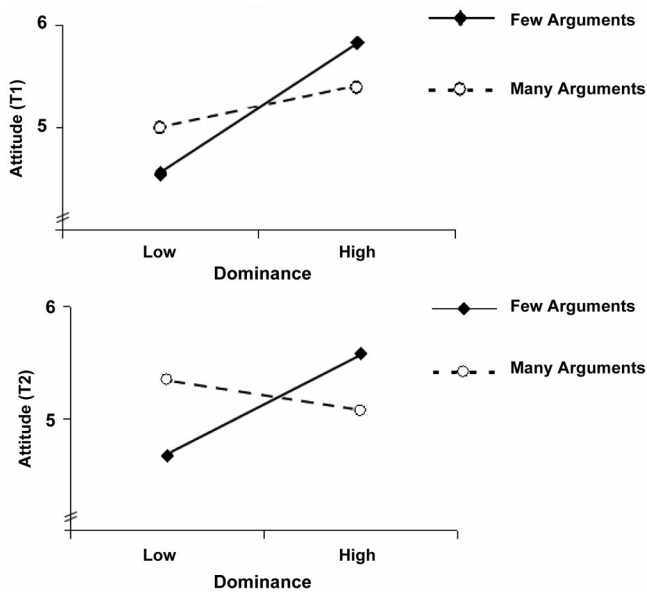


Figure 1. Attitudes toward the introduction of new biometric identification cards as a function of trait dominance and number of arguments (Study 4). Top panel: attitudes at Time 1 (T1). Bottom panel: attitudes at Time 2 (T2). Higher numbers indicate a more favorable attitude.

many arguments for participants high in dominance (+1 *SD*, *M*s = 5.82 and 5.38, respectively), whereas the opposite tendency was evident for participants low in trait dominance (−1 *SD*, *M*s = 4.54 and 4.99, respectively). There was no main effect of number of arguments ( $t < 1$ ). The variance explained by the model (7.4%) was significant,  $F(3, 124) = 3.32, p = .022$ . In sum, paralleling the findings obtained in the previous studies, the results indicate that trait dominance moderates reliance on the ease of retrieval. The more participants were dominant, the more they were influenced by the experienced ease of retrieval. Conversely, the less participants were dominant, the more they drew on the content of the information they retrieved.

### Attitudes at Time 2

Thirty percent of participants did not reply to the Time 2 (T2) measures. This dropout was, however, independent of experimental conditions,  $\chi^2(1, N = 128) = .77, ns$ , and of T1 attitudes toward the biometric identification cards,  $t(126) = .45, ns$ . Responses were, however, related to participants' dominance scores,  $t(126) = 2.03, p = .044$ . Somewhat surprising, respondents were on average more dominant than nonrespondents (*M*s = 4.97 and 4.55, respectively). Important for our purpose, this dropout is unlikely to have produced a biasing effect on the key interaction between dominance and ease of retrieval.

We first examined the relationship between T1 and T2 attitudes. Participants' evaluations of the identification cards were highly correlated,  $r(89) = .88, p < .001$ , and this association did not vary as a function of dominance,  $r(89) = -.06, ns$ . This result indicates that attitudes were stable over time. We then regressed participants' dominance scores, number of arguments, as well as the corresponding interaction term onto the combined T2 attitude scores ( $\alpha = .97; M = 5.18, SD = 2.05$ ). The analysis revealed that

the interaction between trait dominance and number of arguments was significant,  $\beta = -.28, p = .008$ , which is illustrated in the bottom panel of Figure 1. This indicates that the effect of the initial manipulation of ease of retrieval was still evident after 1 week had elapsed. No other significant effects were found ( $t$ s < 1). The variance explained by the model (8.4%) approached statistical significance,  $F(3, 86) = 2.64, p = .054$ .

Taken together, these results are consistent with the hypothesis that dominant individuals rely more on ease of retrieval and that ease of retrieval can affect attitudes outside the context in which it initially operated. The effects of the experimental manipulation of ease of retrieval were still evident after 1 week had elapsed, demonstrating that subjective experiences can have enduring effects.

### Mood

The four items assessing mood were highly correlated and collapsed into a single index ( $\alpha = .88; M = .83, SD = 1.12$ ). An initial correlation analysis revealed a positive association between dominance and elevated mood,  $r(127) = .31, p < .001$ . Dominant participants were in a better mood than nondominant participants. However, when we controlled for the effects of mood, the joint effect of trait dominance and number of arguments on attitudes remained significant (T1,  $\beta = -.25, p = .008$ ; T2,  $\beta = -.30, p = .008$ ). These results exclude, therefore, the possibility that mood mediated the effects of dominance on reliance on ease of retrieval (cf. Kenny, Kashy, & Bolger, 1998).

### Counterattitudinal Thoughts

We examined the number of counterarguments generated during the thought-listing task. Specifically, for each participant, the total number of supportive, opposing, and neutral (unrelated or indifferent) thoughts were counted. We established reliability by having a second rater code two thirds of the total sample ( $\alpha = .96$ ). We computed an index of counterattitudinal thought bias by subtracting for each participant the total number of opposing thoughts from the total number of supportive thoughts. Trait dominance, number of arguments, and the interaction term between these two factors were then regressed on this index. The results indicate that number of arguments had a significant effect on thought bias ( $\beta = .20, p = .025$ ). Participants had relatively more positive thoughts when they generated many as opposed to few arguments. No other effects were significant ( $t$ s < 1), which suggests that differences in the number of counterattitudinal thoughts cannot account for the relationship between dominance and reliance on the ease of retrieval.

Taken together, these results are consistent with the previous studies indicating that powerful individuals relied more on ease of retrieval than did powerless individuals. Furthermore, the present study demonstrated that ease of retrieval can have more enduring effects than previously considered. Reliance on the ease of retrieval does not preclude some temporal stability of the judgments and attitudes of powerful individuals.

Moreover, examining power from an individual-difference perspective allowed us to confirm a linear relationship between power and reliance on ease-of-retrieval experiences. Finally, the present study ruled out alternative explanations for ease-of-retrieval ef-

fects. Study 1b indicated that variations in the persuasiveness of the generated arguments cannot account for the effects of power. The present study further demonstrates that differences in the number of counterattitudinal arguments generated during the retrieval process can also not account for the results. Consistent with the previous studies, the effects obtained were independent of mood. The results are best interpreted in terms of direct effects of power on reliance on ease of retrieval.

### General Discussion

The present article examined the effects of power on reliance on experiential information. Therefore, our focus was the experienced ease or difficulty associated with the retrieval of mental contents. On the basis of the assumption derived from the Situated Focus Theory of Power that power promotes reliance on the primary factors that drive cognition (Guinote, 2007a) and that the ease of retrieval usually guides judgment (Kahneman, 2003; see also Me-non & Raghurir, 2003; Pam et al., 2001), we hypothesized that powerful individuals, more than powerless individuals, rely on the ease of retrieval.

Using a variety of operationalizations of power and investigating different domains, such as attitude judgments toward irrelevant (Study 1a) or relevant targets (Study 4), self-related judgments (Study 2), and stereotypes (Study 3), we consistently found that power promotes reliance on ease-of-retrieval experiences. The judgments of powerful participants were more in line with the content of the retrieved information when retrieval was easy than when retrieval was difficult. Conversely, the judgments of powerless participants were not affected by experiential information and tended to be based on the content of the retrieved information.

Compared with the results of powerless individuals, the results of powerful individuals are closer to the results usually obtained with the ease-of-retrieval paradigm (e.g., Schwarz et al., 1991). One could think that the effects reported in this article are mainly driven by powerlessness, rather than by power. We believe, however, that power has linear effects on reliance on ease of retrieval. This assumption is supported by Study 4: Using trait dominance as a proxy for power, we found a linear relationship between power and reliance on the ease of retrieval. That is, the more individuals usually exerted power, the more their judgments were likely to be guided by experiential information. Conversely, the more individuals were submissive, the more they were prone to draw on additional sources of information to inform their judgments.

Throughout the studies, we made an effort to rule out alternative explanations for the effects obtained. Some authors argue that power induces positive mood (Keltner et al., 2003). It has also been shown that mood increases reliance on ease of retrieval (Ruder & Bless, 2003). Therefore, we examined whether power affected mood and this, in turn, explained differences in reliance on the ease of retrieval. Consistently across all studies, mood did not account for the results obtained. We therefore concluded that mood and power have independent effects on the extent to which individuals rely on the ease of retrieval.

An additional alternative explanation pertains to differences in the content of the information retrieved by powerful and powerless participants across the two levels of ease of retrieval. Specifically, it is conceivable that the persuasiveness, the valence of the information retrieved, or the number of counterarguments generated

varied more as a function of the amount of information retrieved for powerful than for powerless individuals. Using external observers (Study 1b) as well as a thought-listing task (Study 4), we could, however, not find support for these mechanisms.

Another alternative explanation pertains to differences in processing motivation and effort. Powerful individuals may be less motivated to process information and therefore rely on subjective experiences (see Aarts & Dijksterhuis, 1999; Rothman & Schwarz, 1998). Although we argue that powerful individuals rely on those aspects that are primary in a given situation (see Guinote, 2007a), we believe that these effects are independent of effort. In other words, power affects what information individuals process but not necessarily the effort involved in processing (see Guinote, 2007a, 2007c).

Several findings contradict an explanation in terms of effort: Participants primed with power generated higher quality arguments than did participants primed with powerlessness (Studies 1a and 1b). Moreover, the instances retrieved by powerful and powerless participants were similar on a number of criteria (e.g., time involved in the activities reported [Study 2] and number of counterarguments generated [Study 4]). Finally, the results obtained do not seem to derive from differences in the effects of our manipulation of ease of retrieval, as indicated by our manipulation checks. Taken together, these results suggest that power directly increased reliance on ease of retrieval.

### *Implications of the Present Findings*

The present findings rectify an important neglect in past research on power, demonstrating that a full account of the effects of power needs to consider subjective experiences. Taking into account subjective experiences leads to different predictions, qualifying and often reversing the predictions made on the basis of declarative thought contents (see Schwarz, 1998). Furthermore, the present findings highlight the fact that power promotes malleable responses, construed in the situation on the basis of momentary experiences individuals have. These findings have consequences for several domains.

#### *Power and the Self*

Researchers have argued that power promotes responses in line with dispositions of the person (Chen et al., 2001; see also Smith & Trope, 2006). In contrast, the present findings demonstrate that the self-related judgments of powerful individuals are subject to temporary influences of subjective experiences and are therefore more malleable than it has previously been considered.

Nevertheless, in line with the Situated Focus Theory of Power (Guinote, 2007a), we believe that power induces a selective processing of information. We believe, therefore, that power can magnify the expression of person variables, but only in situations in which those chronic person constructs are the primary factors that drive cognition (see Higgins, 1996; Higgins, King, & Mavin, 1982).

#### *Power and Stereotyping*

A great deal of past research on power has focused on social perception (e.g., Chen et al. 2001, 2004; Dépret & Fiske, 1999;



Fiske, 1993; Goodwin et al., 1998, 2000; Guinote et al., 2002; Overbeck & Park, 2001, 2006; Richeson & Ambady, 2003; Rodriguez-Bailon et al., 2000; Stevens & Fiske, 2000; Vescio et al., 2003, 2005). This work was based on the effects of declarative information on stereotyping.

Previous research has shown that power promotes stereotypical social perceptions when stereotype-consistent information is present in the environment (e.g., Fiske, 1993; Fiske & Dépret, 1996) and when stereotypes are instrumental to the person's current goals (Overbeck & Park, 2006; Vescio et al., 2003). The present findings provide an important extension, showing that in the absence of external cues or processing objectives, power can promote both individuation and stereotypical perceptions depending on momentary experiences.

### *Power and Behavior Variability*

Past research found that powerful groups are perceived as more variable than powerless groups (Guinote, 2001; see also Lorenzo-Cioldi, 1993; Simon & Brown, 1987). This occurs in part because powerful individuals act objectively in more variable ways than do powerless individuals (Guinote et al., 2002).

To demonstrate this phenomenon, Guinote et al. (2002) assigned participants randomly to powerful and powerless groups and videotaped them working on different tasks. Subsequently, observers rated each group member along several personality traits. Observers, who were unaware of the power relations between the groups, rated the members of powerful groups as more variable from one another than the members of powerless groups. Power therefore increased interpersonal behavior variability. Because subjective experiences vary across individuals, reliance on these experiences may contribute to greater interpersonal variability in the judgments and behavior of powerful compared with powerless individuals. Furthermore, because subjective experiences also vary within individuals, reliance on subjective experiences may also induce greater intrapersonal variability in powerful compared with powerless individuals.

### *Attitudes and Subjective Experiences*

The present findings not only indicate that the attitudes of powerful individuals are dependent on subjective experiences but they also have implications for the understanding of ease of retrieval. We hypothesized that attitudes that are formed on the basis of ease of retrieval can be stable over time. Although attitudes are often construed in the situation on the basis of cues that are temporarily accessible (e.g., Schwarz & Bohner, 2001), individuals can rely on past evaluations stored in memory to construe their judgments (see Judd & Brauer, 1995). Therefore, we reasoned that the initial judgments, and possibly the ease or difficulty in retrieving information (see Barsalou, 1999), can be stored in memory and affect later judgments, thereby resulting in some stability over time. The results of Study 4 supported this hypothesis.

The finding that power moderates ease of retrieval is also important for our understanding of attitudes and attitude formation. Research has largely focused on contextual variables (e.g., Lerner & Gonzales, 2005; Ruder & Bless, 2003) and characteristics of the target (e.g., Gawronski, Bodenhausen, & Banse, 2005; Rothman &

Hardin, 1997) that affect reliance on the ease of retrieval. The present findings indicate that structural variables associated with the extent to which individuals control outcomes, as well as dispositional variables associated with the tendency to dominate and influence others, affect the extent to which individuals rely on the ease of retrieval.

### *Conclusion*

The present research points out that an understanding of the effects of power requires a consideration of experiential information. Power promotes reliance on subjective experiences independently of factors such as motivation, persuasiveness, thought contents, and mood. Taking into account experiential knowledge leads to differential predictions of the effects of power than those commonly considered in the literature. This highlights the flexibility of powerful individuals' attitudes and perceptions.

### *References*

- Aarts, H., & Dijksterhuis, A. (1999). How often did I do it? Experienced ease of retrieval and frequency estimates of past behavior. *Acta Psychologica, 103*, 77–89.
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage.
- Anderson, C., & Berdahl, J. L. (2002). The experience of power: Examining the effects of power on approach and inhibition tendencies. *Journal of Personality and Social Psychology, 83*, 1362–1377.
- Barsalou, L. W. (1999). Perceptual symbol systems. *Behavioral and Brain Science, 22*, 577–660.
- Bem, S. L. (1976). Probing the promise of androgyny. In A. G. Kaplan & J. P. Bean (Eds.), *Beyond sex-role stereotypes: Readings toward a psychology of androgyny* (pp. 48–62). Boston, Toronto: Little, Brown.
- Bless, H., & Forgas, J. P. (2000). *The message within: The role of subjective experience in social cognition and behavior*. Philadelphia: Psychology Press.
- Bohner, G., & Wänke, M. (2002). *Attitudes and attitude change*. Hove, United Kingdom: Psychology Press.
- Cartwright, D. (1959). A field theoretical conception of power. In D. Cartwright (Ed.), *Studies in social power* (pp. 86–103). Ann Arbor: University of Michigan Press.
- 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*, 173–187.
- Chen, S., Ybarra, O., & Kiefer, A. K. (2004). Power and impression formation: Effects of power on the desire for morality and competence information. *Social Cognition, 22*, 391–421.
- Dépret, E., & Fiske, S. T. (1999). Perceiving the powerful: Intriguing individuals versus threatening groups. *Journal of Experimental Social Psychology, 35*, 461–480.
- Dijksterhuis, A., Macrae, C. N., & Haddock, G. (1999). The recollective experiences matter: Subjective ease of retrieval and stereotyping. *Personality and Social Psychology Bulletin, 25*, 766–774.
- Förster, J., & Liberman, N. (2001). The role of attribution of motivation in producing postsuppressional rebound. *Journal of Personality and Social Psychology, 81*, 377–390.
- Förster, J., & Liberman, N. (2004). A motivational model of postsuppressional rebound. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (Vol. 15, pp. 1–32). Sussex, United Kingdom: Wiley.
- Fiske, S. T. (1993). Controlling other people: The impact of power on stereotyping. *American Psychologist, 48*, 621–628.
- Fiske, S. T., & Dépret, E. (1996). Control, interdependence and power:

- Understanding social cognition in its social context. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (Vol. 7, pp. 31–61). Sussex, United Kingdom: Wiley.
- Galinsky, A. D., Gruenfeld, D. H., & Magee, J. C. (2003). From power to action. *Journal of Personality and Social Psychology*, *85*, 453–466.
- Galinsky, A. D., Magee, J. C., Inesi, M. E., & Gruenfeld, D. H. (2006). Power and perspectives not taken. *Psychological Science*, *17*, 1068–1074.
- Gawronski, B., & Bodenhausen, G. V. (2005). Accessibility effects on implicit social cognition: The role of knowledge activation and retrieval experiences. *Journal of Personality and Social Psychology*, *89*, 672–685.
- Gawronski, B., Bodenhausen, G. V., & Banse, R. (2005). We are, therefore they aren't: Ingroup construals as a standard of comparison for outgroup judgments. *Journal of Experimental Social Psychology*, *41*, 515–526.
- Goodwin, S. A., Gubin, A., Fiske, S. T., & Yzerbyt, V. Y. (2000). Power can bias impression processes: Stereotyping subordinates by default and by design. *Group Processes and Intergroup Relations*, *3*, 227–256.
- Goodwin, S. A., Operario, D., & Fiske, S. T. (1998). Situational power and interpersonal dominance facilitate bias and inequality. *Journal of Social Issues*, *54*, 677–698.
- Greenwald, A. G. (1968). Cognitive learning, cognitive response to persuasion, and attitude change. In A. G. Greenwald, T. C. Brock, & T. M. Ostrom (Eds.), *Psychological foundations of attitudes* (pp. 148–170). New York: Academic Press.
- Guinote, A. (2001). The perception of group variability in a non-minority and a minority context: When adaptation leads to out-group differentiation. *British Journal of Social Psychology*, *40*, 117–132.
- Guinote, A. (2004). Group size, outcome dependency, and power: Effects on perceived and actual group variability. In V. Yzerbyt, C. Judd, & O. Corneille (Eds.), *The psychology of group perception: Contributions to the study of homogeneity, entitativity, and essentialism* (pp. 221–236). New York: Psychology Press.
- Guinote, A. (2007a). Behavior variability and the Situated Focus Theory of Power. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (Vol. 18, pp. 256–295). New York: Wiley.
- Guinote, A. (2007b). *In touch with your feelings: Power increases reliance on bodily sensations*. Manuscript submitted for publication.
- Guinote, A. (2007c). Power affects basic cognition: Increased attentional inhibition and flexibility. *Journal of Experimental Social Psychology*, *43*, 685–697.
- Guinote, A. (2007d). Power and goal pursuit. *Personality and Social Psychology Bulletin*, *33*, 1076–1087.
- Guinote, A. (2007e). Power and the suppression of unwanted thoughts: Does control over others decrease control over the Self? *Journal of Experimental Social Psychology*, *43*, 433–440.
- Guinote, A. (in press). Power and affordances: When the situation has more power over powerful than over powerless individuals. *Journal of Personality and Social Psychology*.
- Guinote, A., Brown, M., & Fiske, S. T. (2006). Minority status decreases sense of control and increases interpretive processing. *Social Cognition*, *24*, 170–187.
- 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*, 708–721.
- Haddock, G. (2000). Subjective ease of retrieval and attitude-relevant judgments. In H. Bless & J. P. Forgas (Eds.), *The message within: The role of subjective experience in social cognition and behavior* (pp. 125–142). Philadelphia: Psychology Press.
- Hecht, D. B., & LaFrance, M. (1998). License or obligation to smile: The effect of power and sex on amount and type of smiling. *Personality and Social Psychology Bulletin*, *24*, 1332–1342.
- Higgins, E. T. (1996). Knowledge activation: Accessibility, applicability, and salience. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 133–168). New York: Guilford Press.
- Higgins, E. T., King, G. A., & Mavin, G. H. (1982). Individual construct accessibility and subjective impressions and recall. *Journal of Personality and Social Psychology*, *43*, 35–47.
- Hollander, E. F. (1958). Conformity, status, and idiosyncrasy credit. *Psychological Review*, *65*, 117–127.
- Howell, D. C. (1995). *Fundamental statistics for the behavioral sciences* (3rd ed.). Belmont, CA: Thomson Learning.
- Jost, T. J., & Kay, A. C. (2005). Exposure to benevolent sexism and complementary gender stereotypes: Consequences for specific and diffuse forms of system justification. *Journal of Personality and Social Psychology*, *88*, 498–509.
- Judd, C. M., & Brauer, M. (1995). Repetition and evaluative extremity. In R. E. Petty & J. A. Krosnick (Eds.), *Attitude strength: Antecedents and consequences* (pp. 43–71). Hillsdale, NJ: Erlbaum.
- Kahneman, D. (2003). A perspective on judgment and choice: Mapping bounded rationality. *American Psychologist*, *58*, 697–720.
- Kahneman, D., & Frederick, S. (2002). Representativeness revisited: Attribute substitution in intuitive judgment. In T. Gilovich, D. Griffin, & D. Kahneman (Eds.), *Heuristics and biases: The psychology of intuitive judgment* (pp. 49–81). Cambridge, United Kingdom: Cambridge University Press.
- Keltner, D., Gruenfeld, D. H., & Anderson, C. (2003). Power, approach, and inhibition. *Psychological Review*, *110*, 265–284.
- Keltner, D., & Robinson, R. J. (1997). Defending the status quo: Power and bias in social conflict. *Personality and Social Psychology Bulletin*, *23*, 1066–1077.
- Kenny, D. A., Kashy, D. A., & Bolger, N. (1998). Data analysis in social psychology. In D. Gilbert, S. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (4th ed., Vol. 1, pp. 233–265). Boston: McGraw-Hill.
- Lerner, J. S., & Gonzales, R. M. (2005). Forecasting one's future based on fleeting subjective experiences. *Personality and Social Psychology Bulletin*, *31*, 454–466.
- Lewin, K. (1941). Regression, retrogression and development. *University of Iowa Studies of Child Welfare*, *18*, 1–43.
- Lorenz-Cioldi, F. (1993). They all look alike, but so do we, sometimes: Perception of ingroup and outgroup homogeneity as a function of gender and context. *British Journal of Social Psychology*, *32*, 111–124.
- Maheswaran, D., & Chaiken, S. (1991). Promoting systematic processing in low-motivation settings: Effects of incongruent information on processing and judgment. *Journal of Personality and Social Psychology*, *1*, 13–25.
- Mannix, E. A., & Neale, M. A. (1993). Power imbalance and the pattern of exchange in dyadic negotiation. *Group Decision and Negotiation*, *2*, 119–133.
- Menon, G., & Raghuram, P. (2003). Ease of retrieval as an automatic input in judgments: A mere-accessibility framework. *Journal of Consumer Research*, *30*, 230–243.
- Operario, D., & Fiske, S. T. (2001). Effects of trait dominance on powerholders' judgments of subordinates. *Social Cognition*, *19*, 161–180.
- Overbeck, J. R., & Park, B. (2001). When power does not corrupt: Superior individuation processes among powerful perceivers. *Journal of Personality and Social Psychology*, *81*, 549–565.
- Overbeck, J. R., & Park, B. (2006). Powerful perceivers, powerless objects: Flexibility of powerholders' social attention. *Organizational Behavior and Human Decision Processes*, *99*, 227–243.
- Pam, M. T., Cohen, J. B., Pracejus, J. W., & Hughes, G. D. (2001). Affect monitoring and the primacy of feelings. *Journal of Consumer Research*, *28*, 167–188.
- Park, B., & Judd, C. M. (1990). Measures and models of perceived group variability. *Journal of Personality and Social Psychology*, *59*, 173–191.
- Pittman, T. S. (1993). Control motivation and attitude change. In G. Weary,

- F. Gleicher, & K. Marsh (Eds.), *Control motivation and social cognition* (pp. 157–175). New York: Springer-Verlag.
- Powlishta, K. K. (1995). Intergroup processes in childhood: Social categorization and sex role development. *Developmental Psychology, 31*, 781–788.
- Raghubir, P., & Menon, G. (2005). When and why is ease of retrieval informative? *Memory and Cognition, 33*, 821–832.
- Richeson, J. A., & Ambady, N. (2003). Effects of situational power on automatic racial prejudice. *Journal of Experimental Social Psychology, 39*, 177–183.
- Rodriguez-Bailon, R., Moya, M., & Yzerbyt, V. (2000). Why do superiors attend to negative stereotypic information about their subordinates? Effects of power legitimacy on social perception. *European Journal of Social Psychology, 30*, 651–671.
- Rothman, A. J., & Hardin, C. D. (1997). Differential use of the availability heuristic in social judgments. *Personality and Social Psychology Bulletin, 23*, 123–138.
- Rothman, A. J., & Schwarz, N. (1998). Constructing perceptions of vulnerability: Personal relevance and the use of experiential information in health judgments. *Personality and Social Psychology Bulletin, 24*, 1053–1064.
- Ruder, M., & Bless, H. (2003). Mood and the reliance on the ease of retrieval heuristic. *Journal of Personality and Social Psychology, 85*, 20–32.
- Schwarz, N. (1998). Accessible content and accessibility experiences: The interplay of declarative and experiential information in judgment. *Personality and Social Psychology Review, 2*, 87–99.
- Schwarz, N. (2004). Metacognitive experiences in consumer judgments and decision making. *Journal of Consumer Psychology, 14*, 332–348.
- Schwarz, N., Bless, H., Strack, F., Klumpp, G., Rittenauer-Schatka, H., & Simons, A. (1991). Ease of retrieval as information: Another look at the availability heuristic. *Journal of Personality and Social Psychology, 61*, 195–202.
- Schwarz, N., & Bohner, G. (2001). The construction of attitudes. In A. Tesser & N. Schwarz (Eds.), *Blackwell handbook of social psychology: Intraindividual processes* (Vol. 1, pp. 436–457). Oxford, United Kingdom: Blackwell.
- Schwarz, N., & Clore, G. L. (1996). Feelings and phenomenological experiences. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 433–465). New York: Guilford Press.
- Schwarz, N., & Vaughn, L. A. (2002). The availability heuristic revisited: Ease of recall and content of recall as distinct sources of information. In T. Golovitch, D. Griffin, & D. Kahneman (Eds.), *Heuristics and biases: The psychology of intuitive judgment* (pp. 103–119). Cambridge, United Kingdom: Cambridge University Press.
- Simon, B., & Brown, R. (1987). Perceived intragroup homogeneity in minority-majority contexts. *Journal of Personality and Social Psychology, 53*, 703–711.
- Smith, P. K., & Trope, Y. (2006). You focus on the forest when you are in charge of the trees: Power priming and abstract information processing. *Journal of Personality and Social Psychology, 90*, 578–596.
- Spence, J. T., Helmreich, R. L., & Holahan, C. K. (1979). Negative and positive components of psychological masculinity and femininity and their relationship to self-reports of neurotic and acting out behaviors. *Journal of Personality and Social Psychology, 37*, 1673–1682.
- Stevens, L., & Fiske, S. T. (2000). Motivated impressions of a powerholder: Accuracy under task dependency and misperception under evaluation dependency. *Personality and Social Psychology Bulletin, 26*, 907–922.
- Strack, F. (1992). The different routes to social judgments: Experiential versus informational strategies. In L. L. Martin & A. Tesser (Eds.), *The construction of social judgments* (pp. 249–275). Hillsdale, NJ: Erlbaum.
- Thibaut, J. W., & Kelley, H. H. (1959). *The social psychology of groups*. New York: Wiley.
- Tormala, Z. L., Petty, R. E., & Briñol, P. (2002). Ease of retrieval effects in persuasion: A self-validation analysis. *Personality and Social Psychology Bulletin, 28*, 1700–1712.
- Tversky, A., & Kahneman, D. (1973). Availability: A heuristic for judging frequency and probability. *Cognitive Psychology, 5*, 207–232.
- 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*, 658–672.
- Vescio, T. K., Snyder, M., & Butz, D. A. (2003). Power in stereotypically masculine domains: A social influence Strategy × Stereotype match model. *Journal of Personality and Social Psychology, 85*, 1062–1078.
- Wänke, M., & Bless, H. (2000). The effects of subjective ease of retrieval on attitudinal judgments: The moderating role of processing motivation. In H. Bless & J. P. Forgas (Eds.), *The message within: The role of subjective experience in social cognition and behavior* (pp. 143–161). Philadelphia: Psychology Press.
- Wänke, M., Bless, H., & Biller, B. (1996). Subjective experience versus content of information in the construction of attitude judgments. *Personality and Social Psychology Bulletin, 22*, 1105–1113.
- Wänke, M., Bohner, G., & Jurkowitsch, A. (1997). There are many reasons to drive a BMW: Does imagined ease of argument generation influence attitudes? *Journal of Consumer Research, 24*, 170–177.
- Whittlesea, B. W. A., & Williams, L. D. (1998). Why do strangers feel familiar, but friends don't? A discrepancy-attribution account of feelings of familiarity. *Acta Psychologica, 98*, 141–165.
- Wiggins, J. S., Trappnell, P., & Phillips, N. (1988). Psychometric properties and geometric characteristics of the Revised Interpersonal Adjective Scales (IAS-R). *Multivariate Behavioral Research, 23*, 517–530.
- Williams, J. E., & Best, D. L. (1982). *Measuring sex stereotypes: A thirty-nation study*. Berkeley, CA: Sage.
- Wilson, T. D., & Hodges, S. D. (1992). Attitudes as temporary construction. In L. L. Martin & A. Tesser (Eds.), *The construction of social judgments* (pp. 37–66). Hillsdale, NJ: Erlbaum.
- Wilson, T. D., Wheatley, T., Meyers, J. M., Gilbert, D. T., & Axsom, D. (2000). Focalism: A source of durability bias in affective forecasting. *Journal of Personality and Social Psychology, 78*, 821–836.
- Winkielman, P., & Schwarz, N. (2001). How pleasant was your childhood? Beliefs about memory shape inferences from experienced difficulty of recall. *Psychological Science, 12*, 176–179.
- Winkielman, P., Schwarz, N., & Bellig, R. F. (1998). The role of ease of retrieval and attribution in memory judgments: Judging your memory as worse despite recalling more events. *Psychological Science, 9*, 124–126.
- Yee, M., & Brown, R. (1994). The development of gender differentiation in young children. *Child Development, 33*, 183–196.

Received October 27, 2006

Revision received June 30, 2007

Accepted November 6, 2007 ■