The Effects of Message Recipients' Power Before and After Persuasion: A Self-Validation Analysis

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In the present research, the authors examined the effect of a message recipient's power on attitude change and introduced a new mechanism by which power can affect social judgment. In line with prior research that suggested a link between power and approach tendencies, the authors hypothesized that having power increases confidence relative to being powerless. After demonstrating this link in Experiment 1, in 4 additional studies, they examined the role of power in persuasion as a function of when power is infused into the persuasion process. On the basis of the idea that power validates whatever mental content is accessible, they hypothesized that power would have different effects on persuasion depending on when power was induced. Specifically, the authors predicted that making people feel powerful prior to a message would validate their existing views and thus reduce the perceived need to attend to subsequent information. However, it was hypothesized that inducing power after a message has been processed would validate one's recently generated thoughts and thus influence the extent to which people rely upon their thoughts in determining their attitudes.

Keywords: power, persuasion, attitudes, self-validation, metacognition

In accord with most of the social psychological literature, *power* can be defined as an individual's relative capacity to modify the states of other people by providing or withholding rewards or administering punishments (e.g., Emerson, 1962; Fiske, 1993; Thibaut & Kelley, 1959). Power has been recognized as a central motivating force in human relationships and action (e.g., Emerson, 1962; Turner, 2005; for a review see Keltner, Gruenfeld, & Anderson, 2003). For example, power has been shown to play an important role in people's propensity to take action (Galinsky, Gruenfeld, & Magee, 2003) and to stereotype others (Fiske, 1993).

Persuasion and Power of the Source

Although the importance of power as a construct has been recognized in social psychology, there is surprisingly little research available that has examined the relationship between power and persuasion. Furthermore, the few studies that have been conducted in the domain of attitude change have focused exclusively on the power of the source of persuasion. For instance, powerful sources have been found to produce more attitude change and persuasion than powerless sources (e.g., Festinger & Thibaut, 1951; French & Raven, 1959). The initial classic work suggested that the impact of powerful sources reflected mere compliance and would be attenuated in the absence of the powerful source (e.g., Kelman, 1958; for a discussion of potential mechanisms underlying that effect, see Petty & Wegener, 1998).

Persuasion and Power of the Message Recipient

Although there have been initial forays into understanding how powerful, versus powerless, message sources influence recipients of a persuasive attempt, there is, to our knowledge, no prior research directly examining how power held by the recipient of a persuasive attempt affects how persuaded the recipient is. That is, how does feeling powerful or powerless influence the impact of a persuasive message? For example, it might seem plausible that powerful message recipients would resist persuasion more than would powerless recipients. Power might be used as an indication

that one is correct in one's beliefs, and therefore the person should not yield to the persuasive attempts of others. Alternatively, given their potential lack of concern with consequences (Fiske, 1993; Neuberg & Fiske, 1987), powerful individuals might be generally more open to changing their opinions than powerless individuals.

In the present research, we attempt to provide an initial answer to these issues by examining how power can affect two distinct psychological processes on the basis of whether recipient power is induced before or after receiving a message. When message recipients are made to feel powerful *before* receiving a persuasive message, we hypothesize that it will influence persuasion by affecting information processing. When message recipients are made to feel powerful *after* receiving a persuasive message, we argue that it can influence attitude change by affecting the extent to which people rely on their thoughts to the message. As we explain in more detail shortly, these predictions are based on the notion that power affects one's confidence, and this confidence makes people rely more on whatever mental constructs are salient. We suggest that when power is induced before a persuasive message is received, it affects confidence in one's current views. This premessage confidence then affects the extent of subsequent information processing. When power is induced after a persuasive message has been processed, it affects the confidence in the recently generated thoughts to the message, increasing reliance on them. We base our predictions on two separate lines of research: one relating power to an action or confidence orientation and the other relating confidence to persuasion. We review each of these lines of research next.

The Influence of Power on Action

Galinsky et al. (2003) have proposed that possessing and experiencing power increases the propensity to act in accord with one's desires. For example, in one experiment, high-power participants were more likely to act and move an annoying fan (in a situation where it was unclear whether they were allowed to do so) than were low-power participants. The authors concluded that power leads to action by activating the behavioral-approach system and that the power–action associations are functional and well-learned.

These findings are consistent with prior correlational evidence that power increases the link between internal psychological experience and observable behavior. For example, personality and behavior seem to be more highly correlated for high- than for low-power individuals (e.g., Anderson, John, Keltner, & Kring, 2001). Also consistent with the idea that powerful individuals behave more in accordance with their idiosyncratic desires, high-power individuals are more likely to approach subordinates at inappropriate interpersonal distances, to engage in more touching behavior, and even to flirt more than low-power individuals (e.g., Gonzaga, Keltner, Londahl, & Smith, 2001; Guinote, Judd, & Brauer, 2002; see Keltner et al., 2003, for a review). High-power (vs. low-power) individuals have been also found to display a greater propensity to initiate a negotiation and to make the first move in competitive scenarios (Magee, Galinsky, & Gruenfeld, 2007).

Finally, Anderson and Berdahl (2002) found a significant relationship between dominance and expression of attitudes, such that individuals lower in personality dominance inhibited the expression of their attitudes more than did those who scored higher in dominance. Complementary to these findings, low-power individuals tend to inhibit the direct expression of ideas, to speak out less and behave more passively in public debates, and to display inhibited postural and facial expressions and reduced gestures (e.g., Anderson & Berdahl, 2002; Ellyson & Dovidio, 1985; Moreland & Levine, 1989). In addition, low-power individuals have shown more hesitations in their speech (Holtgraves & Lasky, 1999; Hosman, 1989).

The Influence of Power on Confidence

Why does high power lead to action more consistent with internal desires than does low power? We suggest that one explanation for such an effect is that enhanced power leads to more confidence in whatever actions one is considering. *Confidence* can be thought of as a subjective sense of conviction about one's beliefs and opinions (Gross, Holtz, & Miller, 1995; Petty, Briñol, Tormala, & Wegener, 2007). People may associate power with confidence because of their prior experiences with powerful versus powerless others. Specifically, just as high-power individuals often act as if they are confident, so too might one's own experiences of high power activate confidence. In a similar vein, people who lack power act as if they lack confidence. As noted earlier, literature confirms that high-power (vs. low-power) individuals display behaviors that are perhaps best described as "confident," such as engaging in more touching and flirting behavior, expressing their opinions in public, interrupting others, breaking social norms, and so forth (e.g., Gonzaga et al., 2001; Guinote et al., 2002). In observing these and other related behaviors, people might naturally conclude that powerful individuals are confident. Conversely, low-power individuals have been found to speak out less and behave more passively, showing more hesitations in their public behavior. These are all indications of low confidence (Holtgraves & Lasky, 1999; Hosman, 1989). Thus, on the basis of these learned associations, one's own experience of power might activate confidence, and feelings of powerlessness might automatically activate doubt.

In addition, social psychological work on spontaneous trait inference (see Skowronski, Carlston, Mae, & Crawford, 1998) has clearly shown that people tend to draw dispositional trait inferences when observing others' behavior. When people observe others acting in a powerful way, one likely trait inference is "confidence," leading to a strong linkage between power and confidence over time (much as people naturally infer happiness from observations of smiling, whether the smiling occurs in others or themselves; Strack, Martin, & Stepper, 1988; also Hecht, & LaFrance, 1998).

In sum, previous correlational and experimental research has shown that there is a link between power and action, such that power increases the likelihood of people acting on whatever they have in mind at a given moment in time. Indeed, in most cases, to act effectively, people must not have any doubt (Gollwitzer, 1996; Moskowitz, Skurnik, & Galinsky, 1999). Furthermore, one potential underlying mechanism for this relationship is the ability of power to influence confidence. That is, power may lead people to feel confident in whatever they are thinking, which in turn causes them to act in accordance with those thoughts.

Confidence and Validation

A large body of research now suggests that confidence plays an important role in validating people's beliefs (e.g., Briñol & Petty, 2004; Petty et al., 2007). The particular beliefs that are salient, and thus validated, will vary depending upon when confidence is induced—before or after receipt of a message.

Premessage Confidence

When deciding how much effort and how many resources one should devote to thinking about a message, an important component is level of confidence (Tiedens & Linton, 2001; Weary & Jacobson, 1997). When people are confident prior to their receipt of a message, they rely on their existing opinions. That is, when confident, one's current views are seen as correct, and there is therefore little need to process additional information on the subject. Conversely, when people are not confident, they doubt their current opinions and views, leading them to perceive that their opinions might be incorrect. This doubt leads to greater information processing. As a result, even for a novel topic, the extent of information processing people engage in should decrease as their general sense of confidence increases.

It is important to note that one's initial level of confidence can either increase or decrease persuasion depending on the nature of the message received. When the message contains strong (i.e., convincing) arguments, confidence will be associated with less persuasion, as people are less likely to recognize the true merits of the message when thinking is low rather than high. On the other hand, when the message contains weak (i.e., specious) arguments, confidence will be associated with more persuasion, as people are less likely to recognize the flaws in the arguments when thinking is low rather than high (Petty & Cacioppo, 1986). In short, as confidence in one's premessage position increases, this signals that those beliefs can be relied upon, and thus the need to attend carefully to subsequent information is reduced.

Postmessage Confidence

When people are made to feel confident or doubtful immediately following receipt of a message, the situation changes. Considerable research has demonstrated that when people think carefully about an issue, their thoughts to the message are salient, and these thoughts determine the attitudes formed. In particular, over the past 30 years, numerous studies have documented that both the number and valence of thoughts to a message are important determinants of the postmessage attitudes expressed (see Eagly & Chaiken, 1993; Petty, Ostrom, & Brock, 1981; Petty & Wegener, 1998, for reviews). Thus, a person who generates five positive thoughts to a message is generally more favorable than a person who generates only two positive thoughts. More recently, research on the self-validation hypothesis (Petty, Briñol, & Tormala, 2002) has suggested that, in addition to number and valence, it is also important to consider the confidence people have in their thoughts.

According to the self-validation framework, any variable that increases confidence in thoughts is likely to increase reliance on those thoughts in determining attitudes. Thus, increased confidence in favorable thoughts toward the persuasive proposal will result in more positive attitudes, whereas increased confidence in unfavorable thoughts will result in less positive attitudes. Conversely, any variable that instills doubt in thoughts is likely to decrease reliance on those thoughts in determining attitudes. Increasing doubt in favorable thoughts to a message's proposal will result in less favorable attitudes, whereas increasing doubt in unfavorable thoughts to a proposal will result in more favorable attitudes. Thus, even if people generate the same number and valence of thoughts to a message, their attitudes can differ if thought confidence differs.

Several studies have provided support for the role of thought confidence in persuasion (e.g., Briñol & Petty, 2003; Briñol, Petty, & Tormala, 2004; Tormala, Petty, & Briñol, 2002). In one experiment (Petty et al., 2002), for instance, participants were exposed to a message containing strong or weak arguments and were given a typical thought-listing task (see Cacioppo & Petty, 1981). Then, in a purportedly separate study, the participants were asked to think about situations in which they had felt confidence or doubt in their thinking. Those who generated instances of confidence became more certain of the validity of their thoughts to the persuasive message than did those who generated instances of doubt. Furthermore, this confidence led to greater persuasion when the message arguments were strong and to less persuasion when the arguments were weak. This is because confidence, as opposed to doubt, led people to rely on the favorable thoughts generated in response to strong arguments and the unfavorable thoughts generated in response to the weak arguments, even though the number and valence of thoughts were the same for those induced to feel confidence as for those induced to feel doubt.[1]

Power, Validation, and Timing

Given that power validates whatever mental content is salient to people, we propose that recipient power will have different effects depending on when power is induced in the persuasion process. First, prior to processing a message, individuals should rely on their general sense of confidence in their current views to determine how much thinking they will do about the message. When people feel confident, they should perceive a reduced need to process subsequent information deeply, as their current views or first impressions are likely to be viewed as correct. Indeed, prior research and theory on power (i.e., Fiske, 1993) and certainty (e.g., Tiedens & Linton, 2001) are consistent with this perspective. As a result, feeling high in power prior to receiving a message should reduce subsequent information-processing efforts than should feeling low in power. Thus, high power would lead to a smaller argument-quality effect on attitudes than would low power.

In contrast, if power is induced just after information processing has occurred, individuals should be focused on the thoughts they have just had to the persuasive message and whether or not these can be relied upon. If power induced after a message increases confidence in one's thoughts to the message, then on the basis of research on thought validation (e.g., Petty et al., 2002), feeling powerful should increase reliance on one's thoughts, compared with low power. Thus, high power would lead to a larger argument-quality effect on attitudes than would low power.

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[1] It is worth noting that the self-validation findings just described have been most pronounced under high thinking conditions (for a review, see Briñol & Petty, 2004; Petty et al., 2007).

Overview of the Present Research

The goal of the present research was to examine for the first time the impact of message-recipient power on attitude change. In our first experiment, we sought to demonstrate a psychological link between power and confidence. In our second experiment, we aimed to demonstrate that when power is induced before receipt of a persuasive message, high power decreases information processing. In our third and fourth experiments, we investigated the consequences of power induced after receipt of a persuasive message. In this situation, high power was expected to increase reliance on one's thoughts. Finally, in Experiment 5, we examine pre- and posteffects of power in the same experiment. In doing so, we aimed to demonstrate not only that power can influence confidence, but also that the specific effects of power on persuasion depend upon when power is induced.

Experiment 1: Power and Confidence

Experiment 1 was designed with the primary goal of examining whether being in a powerful position affects people's general sense of confidence. In this study, participants were assigned either to a low- or high-power role. Following this, they reported how confident they felt. Our hypothesis was that people engaged in a powerful role would express greater confidence than people engaged in a less-powerful role.

Method

Participants and Design

Eighty undergraduate psychology students at the Universidad Autónoma de Madrid participated for extra credit. Participants were randomly assigned to conditions (high power vs. low power), and the dependent measures assessed were power and confidence.[2]

Procedure

Participants entered the lab in pairs and were informed they were going to take part in a study about social roles, which in reality constituted the power manipulation. After completing the role-playing scenario, participants were told they would answer some general measures about their feelings in order to control for the effect of those feelings on their nonverbal behavior. Participants then completed a questionnaire that included the manipulation check for power, a general measure of confidence, and several ancillary items.

Independent Variable: Power Manipulation

Participants were informed they were going to participate in a study about nonverbal behavior associated with different roles. Each participant was randomly assigned to either a boss role (high-power condition) or an employee role (low-power condition) and asked to engage in a role-playing task in which they had to role play one meeting they might have at work. That is, the role-playing task required one person to be the manager and the other to be the subordinate. The manager was given instructions that emphasized acting as if he or she had complete control over the work process, the evaluation of the subordinates, and the division of reward.

Participants assigned to the role of subordinate were instructed to act as if they had no control over how the work was done, the evaluation processes, or the division of resources. Also, to fit with the cover story, the person assigned to play the role of the manager was sitting down in a taller and better-looking chair than was the person playing the role of the subordinate. Previous research (e.g., Kipnis, 1972; Overbeck & Park, 2001) has demonstrated the effectiveness of this kind of role playing in inducing high- and low-power states. Previous research has also revealed that merely behaving (Schubert, 2004) or thinking (e.g., Galinsky et al., 2003) *as if* one possesses power can create differential levels of perceived power.

Dependent Measures

Participants completed the confidence measure and several filler items assessing general acting experience and preferences. Participants rated their general confidence in themselves on a 9-point semantic-differential scale anchored with *not confident at all* and *extremely confident*. Finally, after completing the confidence and filler measures, participants completed a manipulation-check item that asked them to rate how powerful they felt during the interaction, anchored with *not powerful at all* and *extremely powerful*.

Results

Dependent measures were submitted to an analysis of variance (ANOVA) with power as the independent variable.

Manipulation Check

As expected, there was an effect of power on the measure of perceived power. The ANOVA showed that participants who were assigned to the high-power condition reported feeling more powerful ($M = 4.46$, $SD = 1.42$) than did participants who were assigned to the low-power condition ($M = 3.82$, $SD = 1.19$), $F(1, 79) = 4.81$, $p = .03$.

Confidence

Results of the ANOVA on the confidence item also revealed a significant effect of power, $F(1, 79) = 6.31$, $p = .01$. As hypothesized, participants in the high-power condition reported a greater degree of confidence ($M = 4.98$, $SD = 1.44$) than did participants in the low-power condition ($M = 4.17$, $SD = 1.39$).

Discussion

Experiment 1 confirmed that assigning participants to a high-power role, compared with a low-power role, increased perceptions of confidence. Given that a state of power is associated with confidence, the next step was to ascertain whether recipient power could have different effects on persuasion depending on when it was induced in a message recipient. To begin, we examined the impact of recipient power when power was induced before receiving a persuasive message. Specifically, according to our validation

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[2] Participants' gender was recorded in Experiments 1 and 4 and did not produce any significant effects. Thus, this variable is not discussed further.

perspective, inducing power before receipt of a message should lead people to perceive themselves to be generally confident about their existing views and opinions. As a result, people should feel a reduced need to process subsequent information, consistent with prior research on thinking, power, confidence, and information processing (Fiske, 1993; Tiedens & Linton, 2001).

Experiment 2: Manipulating Power Prior to a Message

In Experiment 2, we aimed to show for the first time that power induced prior to a message affects information processing and thus produces an interaction with message quality on attitudes. Specifically, we first assigned participants to relatively high- or low-power conditions; and then after the power induction, we assessed the extent to which participants processed information by varying the quality of the arguments contained within a persuasive message and by measuring the impact of these arguments on attitudes. It is important to note that if power reduces processing of the message arguments, as it should if it induces confidence prior to message receipt, it should result in smaller argument-quality effects on attitudes. That is, if people are thinking less about the arguments when they have power, they should be less influenced by the quality of those arguments. Considerable prior research has shown that when people are either unable (e.g., because of distraction; Petty, Wells, & Brock, 1976) or unmotivated (e.g., because of low personal relevance of the message; Petty & Cacioppo, 1979) to process a message, the impact of the quality of the arguments is less than when motivation and ability to process are high (Petty & Cacioppo, 1986).

Method

Participants and Design

Seventy-eight undergraduates at the Universidad Autónoma de Madrid participated in the study for extra credit. Participants were randomly assigned to the cells of a 2 (Power: low or high) × 2 (Message Quality: strong or weak arguments) between-participants design.

Procedure

Participants went into the laboratory in pairs and were first randomly assigned either to the high- or low-power condition. As in the previous experiment, they were told that they would take part in two different studies. The first study was portrayed as being about social roles. Participants at this point performed the same role-playing task used in Experiment 1 to induce high- and low-power conditions. Following the power manipulation, participants were asked to evaluate an advertisement as part of a research study for a new cell phone marketing campaign. We assessed the extent to which participants processed information by varying the quality of the arguments contained within the persuasive message and measuring the impact of these arguments on attitudes. Thus, participants received a strong or weak message for a new cell phone and were asked to report their attitudes toward the product.[3]

Independent Variables

Power. Before reading the cell phone message, participants engaged in the same power manipulation used in Experiment 1.

Argument quality. Participants received a persuasive message consisting of an advertisement for a new mobile phone. The manipulation was designed to assess whether or not participants were processing the message carefully, so the message they received contained either strong or weak arguments (see Petty & Cacioppo, 1986, for additional details of this procedure). Examples of the strong arguments in favor of the mobile phone included that the battery could be recharged in 5 min and that the material with which it was made was ecologically safe and completely unbreakable. Examples of the weak arguments in favor of the mobile phone included that it had a broad currency converter and that the PIN code was just two digits long. The arguments selected were adapted from previous research (Briñol, Petty, & Tormala, 2004).

Dependent Measures

Participants' attitudes toward the mobile phone were assessed with eight 7-point semantic differential scales (e.g., bad–good, undesirable–desirable). Ratings were highly intercorrelated (α = .95) and averaged (after reverse scoring as appropriate) to create a composite attitude index. The attitude index was scored such that 1 was the most unfavorable and 7 was the most favorable.

Results

Results of the 2 (Power: high or low) × 2 (Argument Quality: strong or weak) ANOVA conducted on the attitudes measure revealed a main effect of argument quality, such that participants who received strong arguments held more favorable attitudes toward the proposal ($M = 4.41$, $SD = 1.38$) than did those who received weak arguments ($M = 3.36$, $SD = 0.89$), $F(1, 74) = 15.02$, $p < .001$.

A significant Argument Quality × Power interaction also emerged, $F(1, 74) = 4.34$, $p < .05$. As illustrated in Figure 1 (top panel), the differentiation of strong ($M = 4.93$, $SD = 1.38$) from weak ($M = 3.35$, $SD = .96$) arguments was only significant in the low-power conditions, $F(1, 74) = 19.27$, $p < .001$, but not in the relatively high-power conditions ($M = 3.89$, $SD = 1.19$ vs. $M = 3.38$, $SD = .84$, respectively), $F(1, 76) = 2.09$, $p = .15$.

Discussion

Consistent with our hypothesis that power can influence attitude change by validating people's position prior to message exposure, participants with relative high (vs. low) power showed less differentiation of strong and weak arguments, revealing a decrease in elaboration among these participants. These findings are also consistent with previous research showing that individuals who are confident prior to receipt of a message are less attentive to argument-quality differences (e.g., Briñol, Petty, & Wheeler, 2006; Petty, Tormala, Briñol, & Jarvis, 2006; Tiedens & Linton, 2001).

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[3] To assess the potential role of demand characteristics in all of our experiments, we included debriefings and suspicion probes at the end of each study. Across studies, nobody expressed concern about the research, and no one was able to identify our hypothesis. All participants appeared to accept the cover story at face value.
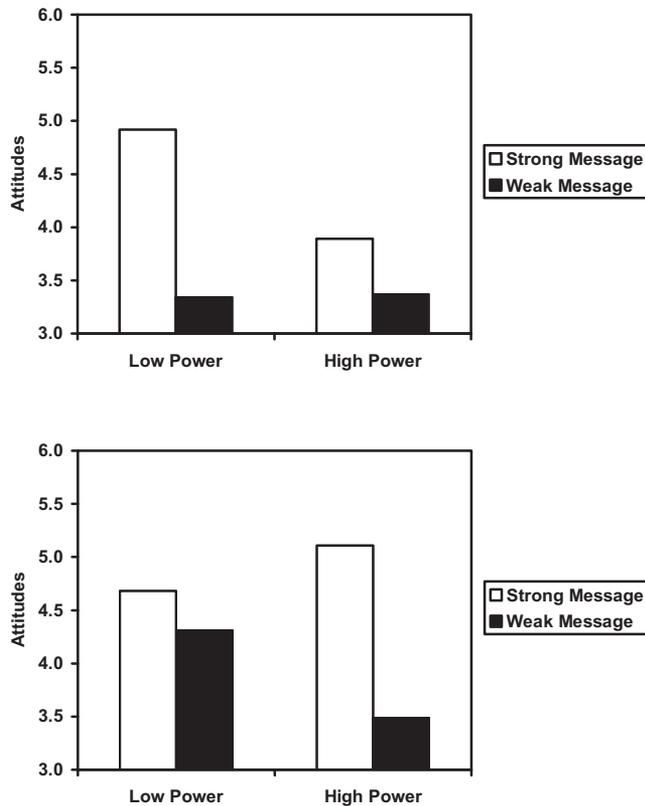
Figure 1. Attitudes as a function of argument quality and power, when power comes before the message (Experiment 2, top panel) and when it comes after the message (Experiment 3, bottom panel).

Experiment 3: Manipulating Power After Message Reception

Experiment 3 tests the notion that, when power is induced after message processing, participants' thoughts to the message should be the salient mental content, leading power to validate one's thoughts in response to the message. If power validates the thoughts people have in response to a message, we expected to find that confidence in one's own thoughts would lead to greater argument-quality effects. That is, the validation hypothesis predicts that because of the impact of power on thought confidence, power will interact with argument quality to influence attitudes. The effect of argument quality on attitudes should be greater when people are in the high-power, rather than the low-power, condition, because high-power individuals should rely on their favorable (to strong arguments) and unfavorable (to weak arguments) thoughts more when forming their attitudes. Furthermore, because of this greater reliance on thoughts, high-power individuals should show a greater attitude–thought correspondence.

It important to note that we do not predict differences in the number or actual content of participants' thoughts as a function of power. That is, it is not the type of thoughts that participants are generating but whether the thoughts are held with confidence that determines their effect on attitudes. Notably, because the power manipulation was introduced *after* participants had read the message and listed their thoughts, the power manipulation could not

influence the amount of information processing during message exposure or exert an influence on the type of thoughts listed (for a similar procedure, see Petty et al., 2002). Nonetheless, to account for differences because of a failure of random assignment, we had participants list their thoughts and coded these thoughts with regard to valence (e.g., positivity/negativity), number (e.g., amount of thoughts), quality (e.g., how developed the thoughts were), abstraction (e.g., mentions of concrete examples or abstract concepts), and self-relatedness (e.g., relating thoughts to oneself, such as "I think").

Method

Participants and Design

Eighty undergraduate psychology students at the Universidad Autónoma de Madrid were randomly assigned to the cells of a 2 (Power: low or high) $\times$ 2 (Message Quality: strong or weak arguments) between-participants design.

Procedure

Participants were brought into the lab two at a time and were randomly assigned either to the high- or low-power condition. They were then told that they would take part in two independent studies. The first study was described as an advertising study designed to gather students' opinions about a new mobile phone. To foster high thinking conditions, we told participants that their attention to the task was very important. Participants then read the strong or weak advertisement for the mobile phone described in Experiment 2 and wrote down the thoughts that went through their minds while reading it. After they had finished listing their thoughts, they were told that the questionnaires in which they had to express their opinions about the mobile phone were not photocopied yet, because of some problems with the copier. They were informed that, while waiting for the questionnaires to be finished copying, they would complete the second study so no time would be lost. The second study was portrayed as being about social roles. At that point, participants did a task that was ostensibly focused on role playing but that was in actuality the procedure through which power was manipulated. Once participants finished the role playing, someone came into the lab with the copies of the questionnaires. The questionnaires included measures that assessed attitudes as well as additional items.

Independent Variables

Argument quality. Participants read the same strong or weak cell phone messages used in Experiment 2. As described previously, the argument-quality manipulation is a procedure typically used to assess amount of thinking induced by variables that precede the message. In this study, however, power was manipulated after message processing. Thus, the purpose of the argument-quality manipulation in this study was to vary the dominant valence of thoughts that could be validated (i.e., favorable thoughts to strong arguments and unfavorable thoughts to weak arguments).

Power. The manipulation of power was the one used in Experiments 1 and 2.

Dependent Measures

Thoughts. Following the reading of the message, participants were instructed to list the thoughts that went through their minds as they were reading the advertisement. Ten boxes were provided, and participants were told to write one thought per box and not to worry about grammar or spelling. After listing their thoughts for 3 min, participants completed the role-playing task. After the role-playing task, participants were instructed to go back to their thoughts and rate them as being favorable, unfavorable, or neutral toward the proposal. An index of favorability of message-related thoughts was formed by subtracting the number of unfavorable message-related thoughts from the number of favorable message-related thoughts and dividing by the total number of message-related thoughts (see Cacioppo & Petty, 1981, for additional details on the thought-listing and scoring procedure). In addition, two independent coders, blind to conditions, were instructed to code thoughts on the dimensions described earlier. Agreements on these dimensions were 90% or better, and disagreements were resolved through discussion.

Attitudes. The attitude items used in Experiment 2 served as our dependent measures ($\alpha = .96$).

Additional measures. Participants completed the same manipulation check on power that was used in the first experiment.

Results

All dependent measures were submitted to 2 (Power: high or low) × 2 (Argument Quality: strong or weak) ANOVAs.

Manipulation Check

Participants assigned to the high-power condition reported a greater feeling of power ($M = 4.08$, $SD = 1.37$) than did participants in the low-power condition ($M = 3.38$, $SD = 1.17$), $F(1, 76) = 6.06$, $p < .05$.

Thoughts

Analysis of the thought index yielded a significant main effect of argument quality, $F(1, 76) = 7.41$, $p < .01$. Participants' thoughts were more favorable toward the advocacy after receiving the message containing strong arguments ($M = .08$, $SD = .60$) than after receiving the message containing weak arguments ($M = -.34$, $SD = .72$). As we anticipated, there was no main effect of power or a Power × Argument Quality interaction on the type of thoughts generated ($ps > .34$). In addition, power had no effect on the number of thoughts, $F(1, 76) = 0.33$, $p = .57$, quality of thoughts, $F(1, 76) = 1.14$, $p = .29$, level of abstraction, $F(1, 76) = 0.20$, $p = .66$, or self-relatedness, $F(1, 76) = 0.68$, $p = .41$.

Attitudes

Results of the 2 × 2 ANOVA revealed a main effect of argument quality, such that participants who received strong arguments held more favorable attitudes toward the message ($M = 4.89$, $SD = 1.37$) than did those who received weak arguments ($M = 3.90$, $SD = 1.53$), $F(1, 76) = 10.76$, $p < .005$. Moreover, a significant Argument Quality × Power interaction emerged, $F(1, 76) = 3.81$, $p = .05$. As seen in Figure 1 (bottom panel), the interaction indicated that power amplified the effect of thoughts on attitudes, so the difference between the persuasive effect of the strong message ($M = 5.11$, $SD = 1.38$) and the weak message ($M = 3.49$, $SD = 1.35$) was significant only in the high-power condition, $F(1, 76) = 12.78$, $p < .001$. On the other hand, for the group of participants in the low-power condition, there was no significant difference between those who received the strong message ($M = 4.68$, $SD = 1.36$) and those who received the weak message ($M = 4.31$, $SD = 1.62$), $F(1, 76) = 0.66$, $p = .42$.

Finally, consistent with the self-validation logic, we examined whether there was a stronger correlation between thoughts and attitudes when people were high, as opposed to low, in power. Consistent with expectations, participants' valenced thoughts were more predictive of their attitudes in the high-power ($r = .81$, $p < .001$) than in the low-power condition ($r = .57$, $p < .001$). A Fisher R to Z confirmed that the difference in these two correlations was significant ($Z = 2.06$, $p = .04$).

Discussion

The results of Experiment 3 provided additional evidence for the effects of message-recipient power on persuasion. In line with prior work on the self-validation hypothesis (e.g., Petty et al., 2002), we found that the effect of argument quality on attitudes was greater when participants had high rather than low power. Thus, with relatively high power, participants relied on their thoughts in forming attitudes, but with relatively low power, participants did not use their thoughts to judge the proposal (producing a lower attitude–thought correspondence). It is important to note that power did not affect the valence, number, abstraction, self-relatedness, or quality of participants' thoughts. Rather, power affected the strength of influence thoughts had on attitudes.

Although our attitude data matched the self-validation prediction, and Experiment 1 showed a link between power and overall confidence, we have not shown any link between power and confidence in one's thoughts or that confidence in one's thoughts is responsible for the attitude effects. In Experiment 4, we examined this causal chain and addressed alternative possibilities.

Experiment 4: Evidence for Thought Confidence

Experiment 4 was designed with several objectives. Our first goal was to provide a conceptual replication of Experiment 3 regarding the impact of message-recipient power on persuasion when power is induced after a persuasive message. Our second goal was to examine whether power affects the confidence people have in their thoughts. That is, we expected power to affect thought confidence such that it would be higher when people were placed in a high-power versus low-power condition following message receipt. As a result, we predicted that increased thought confidence from power would accentuate the effect of individuals' thoughts on their attitudes. That is, the direction of participants' thoughts was expected to influence their attitudes more for those with high rather than low power. Furthermore, we expected thought confidence to mediate attitude change.

We also conducted Experiment 4 to rule out possible alternative interpretations of our effect tied to mood. Specifically, power might have influenced participants' moods, and mood, not confidence, might be responsible for the use of one's thoughts. That is,

it is possible that power induced a positive mood and that being in a positive mood served as a signal that one should rely on one's current thoughts. To examine the possible role for mood in this research, we assessed mood.

To examine our proposed mechanism more explicitly, we introduced four additional changes in Experiment 4. First, the direction of the thoughts was directly manipulated. In Experiment 4, rather than asking participants to list all the thoughts they had while reading a message, we asked them to generate and to write down only proarguments (in favor of a specific issue) or only counterarguments (against it). Previous research has shown that participants are able to comply with this instruction and that this is an effective way to create different profiles of thoughts regarding an issue (see Killeya & Johnson, 1998; Rucker & Petty, 2004). The benefit of this procedure is that it more firmly holds constant the valence of participants' thoughts across conditions.

Second, we changed the topic of the persuasive message. We did this to generalize our findings to a new issue. Third, the extent to which participants had confidence in the validity of their own favorable or unfavorable thoughts was explicitly measured. Specifically, participants were asked how confident they were in their thoughts and how valid they felt their thoughts were. Finally, a different manipulation of power was applied. Instead of a role-playing induction, participants were instructed to remember episodes of their lives in which they either had power over others or others had power over them. We implemented this change to increase generalizability by demonstrating that it does not matter how power is induced for it to affect thought confidence and, thus, persuasion.

Method

Participants and Design

Sixty-eight undergraduates at Cardiff University (Wales, United Kingdom) participated in partial fulfillment of an introductory-psychology course requirement. Participants were randomly assigned to the cells of a 2 (Power: low or high) × 2 (Thought Direction: favorable vs. unfavorable) between-participants design.

Procedure

Participants took part in the study individually. All materials were presented on computers with MediaLab, 2000 (Jarvis, 2000). Participants were told that Cardiff University was considering a new policy of vaccination for all members of the university and that the committee wanted to present several arguments supporting and opposing the policy before asking people to vote on it. Participants were then randomly assigned to generate thoughts that were either in favor of or against the policy. Participants used the computer keyboard to enter pro- or counterarguments into a series of boxes that appeared on the computer screen. These boxes were presented on the screen one at a time. Participants were allowed to enter a maximum of 10 thoughts.

Following this procedure, participants were told that they were going to take part in another study, related to memory. They were asked to recall two situations in which they either possessed power over someone else or in which someone else possessed power over them. This experimental procedure has been used successfully to

manipulate feelings of power in previous research (Galinsky et al., 2003). Next, participants were told they would answer some final questions about the vaccination policy. At this point, participants' attitudes toward the proposal were measured. Next, participants were asked to return to the thoughts they listed about the vaccination policy and report how confident and valid their thoughts were. Finally, participants reported their mood states and how much effort they had put into thinking about the issue.

Independent Variables

Direction of thoughts. Participants were instructed to list either proarguments or counterarguments regarding the policy after reading an abstract about it. The abstract indicated that Cardiff University had begun to consider implementing a new vaccination policy for students and staff. This new policy was said to require all members of the university to get a flu vaccination at the beginning of each academic year. The health center was said to be asking students to think about arguments supporting and opposing this new policy, to create a document containing a large number of reasons. In the proargument condition, participants were told to list as many favorable thoughts toward the policy as possible (i.e., positive thoughts toward the proposal); whereas in the counterargument condition, they were told to list as many unfavorable thoughts toward the policy as possible (i.e., counterarguments toward the proposal). Instructions were adapted from those used by Killeya and Johnson (1998). Examination of the thoughts listed indicated that all participants followed the instructions and wrote either all favorable or all unfavorable thoughts. Thus, this manipulation served the same purpose (i.e., to have a group with favorable thoughts and another with unfavorable thoughts toward the same proposal) as the one used in Experiment 3 but was achieved by different means.

Power. After they listed their thoughts, participants were instructed to recall two incidents in their lives related to interpersonal power. Participants assigned to the high-power condition received the following instruction:

> Please recall two particular incidents in which you had power over another individual or individuals. By power, we mean a situation in which you controlled the ability of another person to get something they wanted or were in a position to evaluate those individuals. Please describe this situation in which you had power—what happened, how you felt, etc.

Participants assigned to the low-power condition received the following instruction:

> Please recall two particular incidents in which someone else had power over you. By power, we mean a situation in which someone had control over your ability to get something you wanted or was in a position to evaluate you. Please describe this situation in which you did not have power—what happened, how you felt, etc.

Participants typed their episodes using the keyboard and were provided a separate screen for each episode.

Dependent Measures

Attitudes. Participants' attitudes toward the vaccination policy were assessed with a series of three 9-point (1–9) semantic differ-

ential scales (e.g., against–in favor, unfavorable–favorable, good–bad) on which participants rated the vaccination policy. Ratings on the different scales were highly intercorrelated ($\alpha = .82$) and were thus averaged to create a composite attitude index. The attitude measure was aggregated such that 1 was the most unfavorable someone could be and 9 was the most favorable.

Thoughts. Thoughts were coded on all the same dimensions reported in Experiment 2 (i.e., valence, quantity, quality, self-relatedness, and abstraction).

Thought confidence. To assess thought confidence, we asked participants, "How confident are you in the thoughts that you listed (1 = *not at all confident*, 9 = *extremely confident*)?" and "How valid do you believe the thoughts you listed are (1 = *not at all valid*, 9 = *extremely valid*)?" We averaged these ratings to form a single index of overall thought confidence for each participant ($\alpha = .79$).

Happiness. To assess happiness, we asked participants to indicate how they felt at the moment on a 9-point scale (1 = *very sad*, 9 = *very happy*).

Results

All dependent measures were submitted to 2 (Power: high or low) × 2 (Direction Of Thoughts: favorable or unfavorable) ANOVAs.

Attitudes

Results of the 2 × 2 ANOVA revealed a main effect of thought direction such that participants who were instructed to generate thoughts in favor of the proposal held more favorable attitudes ($M = 7.05$, $SD = 1.35$) than did those instructed to generate thoughts against the proposal ($M = 5.98$, $SD = 1.67$), $F(1, 64) = 11.32$, $p = .001$. More interesting and germane to the present concerns, an interaction emerged between direction of thoughts and power, $F(1, 64) = 4.72$, $p = .03$. The interaction, depicted in Figure 2, indicated that for participants in the high-power condition, there was a reliable difference in attitudes between participants who generated arguments in favor of the policy ($M = 7.28$, $SD = 1.08$) and those who generated arguments opposing the policy ($M = 5.25$, $SD = 1.32$), $F(1, 64) = 12.93$, $p < .001$. However, for participants in the low-power condition, there was no
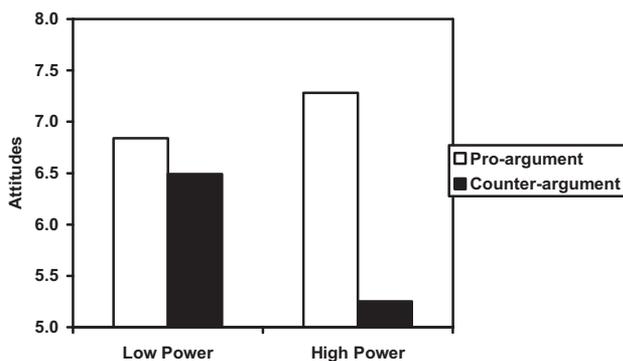
significant difference between those who generated thoughts in favor of the policy ($M = 6.84$, $SD = 1.55$) and those who generated thoughts against the policy ($M = 6.40$, $SD = 1.74$), $F(1, 64) = 0.87$, $p = .35$.

Thoughts

Computation of the index from Experiment 3 revealed a significant main effect of direction of thoughts such that those instructed to list counterarguments only listed counterarguments ($M = -1.0$, $SD = 0.0$) and those instructed to list proarguments only listed proarguments ($M = 1.0$, $SD = 0.0$, $p < .001$). There was no effect of power or a Power × Thought Direction interaction ($ps > .25$). Because participants were instructed to list arguments either in support of or against the message and all participants complied, there was no variance in the overall valence of thoughts produced. Additional analyses revealed that there were also no effects of power on the number of thoughts, $F(1, 66) = 0.18$, $p = .67$, the quality of thoughts, $F(1, 66) = 0.11$, $p = .91$, the level of abstraction, $F(1, 66) = 0.17$, $p = .89$, or the self-relatedness, $F(1, 66) = 0.84$, $p = .36$, of the thoughts.

In addition, we examined the correlation between the number of thoughts participants generated and their attitudes, reverse coding for thought direction. Consistent with the results of Experiment 3 and our overarching theoretical framework, the number of thoughts participants generated on their assigned sides exerted a stronger effect on attitudes when participants were in the high-power ($r = .66$, $p < .001$) versus the low-power condition ($r = .14$, $p = .41$). That is, as the number of negative (or positive) thoughts increased, participants' attitudes become more negative (or positive). However, this was only true for participants in the high-power condition. A Fisher R to Z confirmed that the difference in correlations was significant ($Z = 2.52$, $p = .01$).

Mood

There were no effects of power, thought direction, or their interaction on mood (all $ps > .72$). In general, participants reported being relatively happy in both the high-power ($M = 6.68$, $SD = 0.98$) and low-power ($M = 6.60$, $SD = 1.41$) conditions.[4]

Thought Confidence

Results revealed that there was a reliable main effect of power on thought confidence, $F(1, 66) = 5.85$, $p = .02$. Specifically, participants expressed greater confidence in their thoughts in the high-power ($M = 6.14$, $SD = 1.26$) versus low-power ($M = 5.21$, $SD = 1.74$) conditions. Although not germane to our present hypotheses, participants also expressed greater confidence when instructed to list favorable thoughts ($M = 6.01$, $SD = 1.69$) compared with unfavorable thoughts ($M = 5.15$, $SD = 1.43$), $F(1, 66) = 5.14$, $p = .03$. There was no Power × Thought Direction interaction ($F < 1$, $p > .90$).

Figure 2. Experiment 4: Attitudes as a function of argument direction and power, when a recipient's power is induced after information processing.

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[4] Participants completed a multi-item measure of mood (e.g., happy–sad, depressed–uplifted, excited–relaxed, unpleasant–pleasant) in Experiments 2 and 5, and there were no differences across power conditions, replicating the findings obtained with a single-item measure in Experiment 4.

Mediation Analyses

Prior to conducting our mediation analysis, we reverse coded attitudes in the negative-thought condition. The need for this can be understood by recognizing that the Thought Direction × Power interaction on attitudes is the result of a main effect of power on thought confidence. That is, power always increases confidence regardless of whether the thoughts are positive or negative. However, when thoughts are positive, the increased confidence from power leads to more favorable attitudes, but when the thoughts are negative, the increased confidence from power leads to more unfavorable attitudes. The reverse scoring of attitudes in the negative-thought condition creates an overall index of attitude extremity (for a conceptually similar example, see Briñol & Petty, 2003). That is, this recoding allows us to examine whether power increases thought confidence, which then increases attitude extremity (i.e., more favorable attitudes with positive thoughts but less favorable attitudes with negative thoughts). In addition, we dummy coded direction of thoughts so that we could still retain that variable in our analyses. Finally, we followed regression procedures for mediation using the steps outlined by Baron and Kenny (1986).

First, replicating the results of the interaction observed before reverse coding the negative arguments condition, power exerted a significant main effect on attitudes such that greater power was associated with more extreme responses, $\beta = .18$, $t(66) = 2.05$, $p = .04$. There was also a main effect of thought direction, suggesting that participants' reactions were more extreme when they were directed toward considering negative information, $\beta = -.69$, $t(66) = 8.12$, $p < .001$. However, it is important to note that power did not interact with direction of thoughts, $t(65) = .98$, $p = .33$. As already highlighted and illustrated in Figure 3, there was a significant effect of power on thought confidence, $\beta = .26$, $t(66) = 2.27$, $p = .03$. Similarly, there was a main effect of thought direction on thought confidence such that participants were less confident when instructed to generate negative thoughts, $\beta = -.24$, $t(66) = 2.11$, $p = .04$. However, there was no interaction between power and thought direction on confidence, $t(65) = 0.11$, $p = .91$. Finally, in a simultaneous regression, the relationship between thought confidence and attitudes was significant, $\beta = .22$, $t(64) = 2.55$, $p = .01$, the direct effect of power on attitudes was no longer significant, $\beta = .12$; $t(64) = 1.43$, $p = .16$, and the direct effect of thought direction on attitudes remained significant, $\beta = .64$, $t(64) = 7.61$, $p < .001$.

To provide a more formal test of mediation of thought confidence for the relationship between power and attitude extremity,
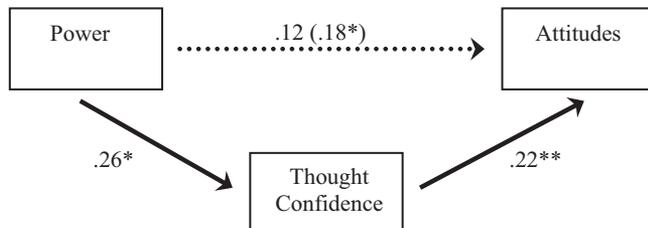
we followed the recommendations of Shrout and Bolger (2002). Specifically, to test whether mediation has occurred, Shrout and Bolger suggested using bootstrapping procedures to compute a 95% confidence interval around the indirect effect (i.e., the path through the mediator). If zero falls outside this interval, mediation can be said to be present. Results of this procedure revealed a 95% confidence interval ranging from .03 to .66. Zero clearly fell outside this interval, indicating successful mediation.

Discussion

Using a direct manipulation of thought direction and a new manipulation of power, we replicated in Experiment 4 our previous pattern of findings when power was induced after persuasion. First, high-power individuals relied on their thoughts more than did low-power individuals when making a judgment about the proposal. Second, power did not affect the nature of the thoughts participants generated in the present scenario. Indeed, because the power manipulation followed the thoughts generated, it was unlikely to influence number, quality, abstraction, or self-relatedness of the thoughts. Third, power did not affect participants' general mood. Finally and most important, power affected participants' confidence in the validity of their own thoughts, and this metacognition mediated the differences in attitudes.

Although the data from our experiments provide clear support for a thought-validation explanation of the power effects we observed when power was induced after message processing, one might still wonder whether power might have affected information processing. It is important to note that because the power induction followed (rather than preceded) information processing, this was not possible unless random assignment failed. To guard against a failure of random assignment, we coded the thoughts and confirmed that they did not vary across power conditions, replicating Experiment 3. Furthermore, and perhaps most important, Experiment 2 demonstrated that when power was manipulated *before* information processing (when it was most likely to affect the amount of information processing) low-power participants were more likely to engage in increased processing.[5]

Experiment 5: Varying Placement of the Power Induction

In this experiment, we manipulated the timing of the power induction to demonstrate the predicted consequences of both psychological processes postulated to stem from confidence (decreasing information processing and increasing the use of thoughts)

Figure 3. Experiment 3: Mediational analyses of power on attitudes. Values in parentheses indicate the direct effect of power on attitudes prior to controlling for thought confidence. $^*p < .05$; $^{**}p < .01$.

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[5] A reviewer of an earlier version of this work suggested that additional thoughts may have been generated *after* the power inductions and thought listings but before reporting attitudes. Although it is possible, we do not consider this option to be very plausible given the lack of time available for participants at that moment. Even if any additional thoughts were generated at that time, the thoughts would most likely be in the same direction as the participant's initial thoughts (e.g., see work on thought polarization; Tesser, 1978) and thus would indicate that more thinking was being caused by high than by low power, because attitudes are more polarized in the high- than the low-power conditions. However, Experiment 2 demonstrated that, if anything, more thinking occurs under low- than under high-power conditions. Thus, enhanced elaboration does not appear to provide a plausible interpretation of power manipulations that follow message presentation.

within the same experimental design. Because this study is primarily a methodological advance over our previous studies, we decided to use only one persuasive message composed exclusively of strong arguments to simplify the design. Thus, we exposed participants to the strong persuasive message used in Experiments 2 and 3. The message was presented either immediately before or after participants engaged in the power-induction role-playing manipulation. Compared with the low-power groups, we expected high-power conditions to reduce persuasion when power was induced *prior to* the presentation of the message (as in Experiment 2), because high-power individuals would be processing the strong arguments less, but to enhance persuasion when manipulated *after* the reading of the proposal (as in Experiment 3), because high-power individuals would be more reliant on their favorable thoughts to the strong arguments.

Method

Participants and Design

Sixty-six undergraduates at the Universidad Autónoma de Madrid participated in the study for extra credit. Participants were randomly assigned to the cells of a 2 (Timing: before or after message) $\times$ 2 (Power: relatively high or low) between-participants design.

Procedure

Participants went into the lab, and they were told, as in our previous studies, that they were going to take part in two different studies, one of them related to social roles and the other one related to the advertisement of a new mobile phone. For half of the participants, the persuasive message was presented immediately before they engaged in the role playing, and for the other half, the message was presented immediately after the role playing. In both cases, the impact of the message on participants' attitudes toward the message was assessed.

Independent Variables

Power. Participants engaged in the same role-playing power manipulation used in Experiments 1–3.

Timing. Following the same cover story used in previous studies, the order in which power was manipulated was varied. Half of the participants performed the power role playing before receiving the message (as in Experiment 2), whereas the other half engaged in the same role playing just after processing the message (as in Experiment 3). Thus, participants received the mobile phones advertisement containing strong arguments before or after receiving the power manipulation.

Dependent Variable: Attitudes

The same attitude items used in Experiment 2 and 3 served as our dependent measures.

Results

Ratings on the attitude scales were highly intercorrelated (α = .87), and we therefore averaged them to create a composite attitude index. The predicted interaction emerged from the 2 (Power: high or low) $\times$ 2 (Timing: before or after message) ANOVA conducted on this index, $F(1, 62) = 21.92$, $p < .001$. As illustrated in Figure 4, when power was induced *prior to* the presentation of the message, high-power individuals ($M = 3.93$, $SD = 0.91$) showed less persuasion than did relatively low-power participants ($M = 5.03$, $SD = 0.68$), $F(1, 62) = 15.89$, $p < .001$. In contrast, when power was manipulated *after* the reading of the proposal, there was more persuasion in the high-power condition ($M = 4.71$, $SD = 0.63$) than in the low-power condition ($M = 3.96$, $SD = 0.93$), $F(1, 62) = 7.05$, $p = .01$.

Discussion

The results of this experiment confirm that recipients' power can have different (and opposite) effects in persuasive settings, depending on when the manipulation is introduced. These data are consistent with the results of our prior experiments. Specifically, when power was manipulated before receipt of a message, high power reduced persuasion to strong arguments, which is consistent with our hypothesis that power would validate one's initial beliefs and thus decrease information processing (replicating Experiment 2). When power was manipulated after the processing of the message, high power increased persuasion to the strong arguments, consistent with our hypothesis that power would validate people's recently generated thoughts to the message, thereby increasing reliance on them (replicating Experiments 3 and 4). Thus, power led to the opposite pattern of results (i.e., more or less persuasion to strong arguments), depending on when it was induced—before or after message processing.

General Discussion

Power can be considered an essential concept in the study of human behavior. Although its importance to the understanding of social interactions is well documented, little research has examined the relationship between an individual's power and the extent to which that person is susceptible to persuasion. The present research provides an initial step in filling this gap. Remarkably, the few studies previously conducted in the domain of attitude change focused exclusively on the power of the source of a persuasive attempt, with high-power sources being more persuasive than their
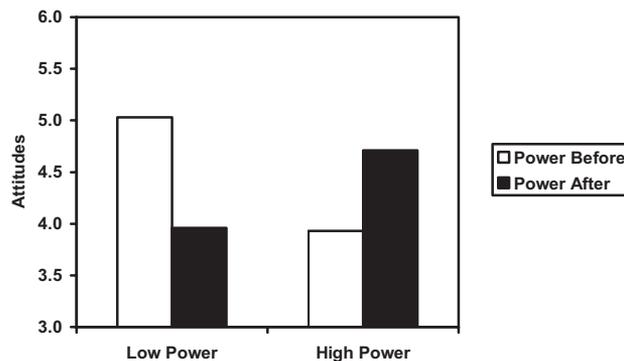
Figure 4. Experiment 5: Attitudes as a function of the time at which power is induced, before or after receiving a strong message.

low-power counterparts (e.g., Festinger & Thibaut, 1951; French & Raven, 1959; Kelman, 1958). Our research extends previous literature by examining the role of recipient power in persuasion.

As a consequence of the link between power and confidence (Experiment 1), we put forth a validation hypothesis as a potential mechanism of recipient's power affecting persuasion. An important implication is that, according to our hypothesis, power will validate whatever mental constructs are activated. As a result, we were able to make specific predictions regarding how power would affect persuasion as a function of whether power preceded or followed a persuasive message. When power preceded message processing, we hypothesized that power would validate one's initial views and impressions and therefore affect the amount of information processing, consistent with prior research perspectives on confidence induced prior to presentation of a persuasive message (e.g., Briñol, et al., 2006; Petty et al., 2006; Tiedens & Linton, 2001). As a result of reduced information processing, high-power participants showed a smaller differentiation between weak and strong arguments than did low-power participants (Experiment 2).

In contrast, when power was induced after information processing, consistent with the notion of thought validation (e.g., Petty et al., 2002), high-power participants were more likely to rely upon their recently generated thoughts (Experiments 3 and 4). As a result, high-power participants showed a larger differentiation between weak and strong arguments. Of importance is our demonstration that, when induced after persuasion, the effects of power on judgment were mediated by changes in thought confidence (Experiment 4).

Finally, Experiment 5 revealed that a recipient's power can increase or decrease persuasion to strong arguments, depending on whether power is introduced before or after the recipient processes the message. This study was important in showing that the timing of the power manipulation is critical to producing the different effects observed between Experiments 2 and 3. Consistent with the elaboration likelihood model of persuasion (Petty & Cacioppo, 1986), these results support the idea that power, like other persuasion variables, is capable of affecting attitudes in different ways in different contexts (see Petty & Wegener, 1998, for a review of multiple roles for variables in the elaboration likelihood model).

Contributions and Implications of the Present Research

Previous research has established a link between power and action (see, Keltner et al., 2003, for a review). In the current investigation, we provide a conceptual framework with which to understand these findings by suggesting that powerful individuals are simply more likely than low-power individuals to act on *whatever* they might have in mind at a given moment because of the confidence with which they hold their beliefs and thoughts. Indeed, this validation logic is also compatible with the fact that high-power individuals tend to show more variability of actions, but it raises the possibility that this is not because high-power individuals necessarily have more variety in their thoughts but that they might simply be more likely to do whatever crosses their minds because of higher confidence. Put simply, the results of our studies suggest that even if high- and low-power individuals have the same thoughts, the high-power person may be more likely to act on those thoughts.

The present work also provides an important addition to prior work on self-validation processes and social judgment. For example, in one study Petty et al. (2002) gave participants false feedback about the extent to which other people shared thoughts similar to the ones the participants just listed regarding a persuasive proposal. This social consensus affected thought confidence, increasing persuasion when the message recipients' thoughts were mostly favorable and decreasing it when the thoughts were unfavorable. The present research extends this line of research by demonstrating that recipient's power can also be amenable to a self-validation analysis, suggesting that the self-validation mechanism may provide a novel explanation for other attitude-change phenomena as well.

One of our first self-validation studies focused on the role of people's own bodily responses, revealing that head movements can influence judgment by affecting the confidence people have in their thoughts (Briñol & Petty, 2003). Given the link between overt behavior and confidence (see Briñol & Petty, in press, for a review) and also given the relationship between overt behavior (e.g., men making a fist) and power (Schubert, 2004), it is plausible to speculate that power-related behaviors might be associated with confidence influencing social judgment through a self-validation mechanism (e.g., making a fist after saying or thinking something might increase confidence in one's thoughts).

The current research also has implications for the assessment of the classic assertion that power corrupts and can lead to potentially negative outcomes (e.g., Kipnis, 1972). Our research revealed that power following receipt of a message can lead to more positive or negative evaluations of a prosocial proposal (e.g., vaccination), depending on the direction of the thoughts (favorable or unfavorable) available at the time. Thus, power is likely to produce either positive (e.g., mitigating conflicts) or negative (e.g., corruption) social outcomes, depending on the direction of the thoughts that power holders have in mind. In line with this argument, Galinsky et al. (2003) also found that power increased action regardless of whether doing so had prosocial or antisocial consequences (e.g., expanded or depleted a shared resource in a social-dilemma paradigm).

Previous literature showing that power increases the likelihood of socially inappropriate behavior also might be explained by the link between power and confidence. For example, prior research has found that power is associated with a variety of profligate behaviors, socially inappropriate styles of eating, aggression, teasing, and sexual harassment (see Keltner et al., 2003, for a review). However, power has been also associated with other behaviors that, although they also might violate social norms, do so in a much more prosocial way, such as intervening in emergencies or helping other in distress and expressing approval and affection (e.g., Keltner, Young, & Buswell, 1997). It seems that power might be associated with either positive (e.g., helping behavior, monetary donations, or altruism) or negative (e.g., corruption, aggression, teasing, or harassment) social outcomes, depending on the direction of the thoughts that power holders have in mind. Indeed, using an individual-differences approach, Chen, Lee-Chai, and Bargh (2001) found that people who were generally communal in their orientation acted in a more socially responsible way when primed with power, whereas people who were more independent in orientation acted in a more self-interested manner when primed

with power. In each of these instances, it could be that power enhanced confidence in thoughts and, thus, action.

It is important to note that the present research might also shed light on previous findings in the literature on a source's power and persuasion. Indeed, when a source of a message is very powerful, the recipients are relatively powerless and vice versa. That is, power involves a relative relationship between two or more individuals. Because of this, research and theory on powerful sources might even be used to make inferences about the power of message recipients. For example, if powerful message sources are proposed to induce greater processing than powerless ones (Fiske, Morling, & Stevens, 1996), this implies that powerless message recipients would engage in greater message processing than would powerful recipients. Although in the current research we take a more direct approach and vary the power of the message recipient directly, we found precisely this pattern of findings in Experiment 2.

Ecological Validity of This Research

One might wonder if in the real world power invariably precedes information processing, as instantiated in Experiments 2 and 5, or if it sometimes follows information processing, as in our Experiments 3 and 4. Although inducing power after message processing (Experiment 3) or thought generation (Experiment 4) had the methodologically desirable feature of holding the number, quality, and direction of thoughts constant across power conditions, does power ever follow processing in real life? We suspect that there are indeed many situations in which power is assigned or made salient following (rather than preceding) thinking. For example, consider a situation in which different members of a group have different thoughts in response to a given proposal, and *following* their analysis of the situation, one person is directly assigned to be the chair of that committee. Or consider a situation in which a person is reminded of his or her position (pretenure at a university, not partner in a law firm) *after* having expressed his or her ideas (e.g., "but you are only an assistant professor"). In these circumstances, the salience of one's relative power will follow thought generation and, according to the present research, its effect on judgment can be understood in terms of self-validation processes. Other life situations might involve thinking about issues (e.g., this might or might not be a good opportunity to invest money), people (e.g., I think she might or might not like me), policies (e.g., this proposal is or is not a great one), or risk choices (e.g., I should or should not use a condom) before experiencing or activating power. As a consequence, the self-validation effects of power would have important implications for a variety of social phenomena, ranging from risk decision making to sexual harassment. For example, if a supervisor is attracted to an employee and then he or she remembers who is really in charge, he or she might decide to rely on those thoughts and approach that employee.

Another practical implication of the present research is the demonstration that in some cases powerful message recipients might be more open to persuasion. That would likely be the case, for example, when the salience of one's power follows the reception of a strong message and when it precedes the reception of a weak message. This greater susceptibility to persuasion of the powerful might seem somewhat ironic, because power might be used as an indication that one is correct and therefore should not yield to the persuasive attempts of others. Consistent with this reasoning, the present research has also shown that powerful (vs. powerless) message recipients were more resistant to change, for example, when the reminder of power followed the reception of a weak message and when it preceded the processing of a strong message.

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