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Power Differences in the Construal of a Crisis:
The Immediate Aftermath of September 11, 2001

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Abstract

In this research, we examine the relationship between power and three characteristics of construal—abstraction, valence, and certainty—in individuals' verbatim reactions to the events of September 11, 2001 and during the immediate aftermath of the terrorist attacks. We conceptualize power as a form of social distance and find that position power (but not expert power) was positively associated with the use of language that was more abstract (vs. concrete), positive (vs. negative), and certain (vs. uncertain). These effects persist after controlling for temporal distance, geographic distance, and impression management motivation. Our results support central and corollary predictions of Construal Level Theory (Liberman, Trope, & Stephan, 2007; Trope & Liberman, 2003) in a high-consequence, real-world context, and our method provides a template for future research in this area outside of the laboratory.

KEYWORDS: power, construal, abstraction, psychological distance, confidence, text analysis

In the days immediately following the terrorist attacks on the World Trade Center and the Pentagon on September 11, 2001, people across the United States tried to comprehend a situation that was unlike any they had ever experienced. The 9/11 attacks required individuals to make sense of what had happened both as a way of coming to terms with their psychological trauma (e.g., Pyszczynski, Solomon, & Greenberg, 2002; Skitka, Bauman, & Mullen, 2004; Updegraff, Silver, & Holman, 2008) and as a way of figuring out how to respond individually and collectively (e.g., Dumont, Yzerbyt, Wigboldus, & Gordijn, 2003; Penner, 2004). Perhaps because the events of that day left an impression so deep and long-lasting, research has tended to focus on the long-term psychological impact of the attacks on individuals rather than on how individuals interpreted and made sense of the events as they were occurring and in their immediate aftermath (e.g., Cohn, Mehl, & Pennebaker, 2004; Fraley, Fazzari, Bonannon, & Deckel, 2006; Fredrickson, Tugade, Waugh, & Larkin, 2003). These studies have been invaluable in revealing the downstream psychological consequences of the terrorist attacks; however, capturing people's interpretations immediately following the attacks could provide insight into how people mentally represented what they saw, heard, and felt at the climax of the crisis, which could have shaped their short-term responses to the event. Given the complexity of what was happening in the days after 9/11 and the different roles that people occupied in relation to the disaster, from ordinary individuals to rescue personnel and government officials, it seems unlikely that all people construed the events in the same way. The current research seeks to analyze how a particular feature of individuals' roles—their power—shaped their construal.

Although there is little research on the determinants of differences in individuals' construal during crises, research on collective responses to disasters can shed some light on this issue. Weick (1993), for example, has argued that when groups and organizations confront surprising events, their members engage in "sense-making" processes, characterized by individual and collective information processing and interpersonal communication. Because surprising events are difficult to fit into pre-existing categories associated with routinized responses, sense-making processes help individuals develop a shared understanding of what is happening and determine emergent, collective responses (Weick, 1993).

Even with strong motivation to reach a collective understanding, not all people engage in sense-making in the same way. The social structure of the group or organization can dramatically affect the focus of each person's attention, with people in different positions paying attention to different issues (Weick, 1993). We argue that power, a critical variable that differentiates roles in most social systems (Blau, 1964), could be an important determinant of how people make sense of, or construe, events. In support of this proposition, a number of studies have demonstrated that whether or not an individual possesses power can affect various cognitive processes, including the representation and interpretation of information (e.g., Anderson & Galinsky, 2006; Milliken, Magee, Lam, & Menezes, 2009; Smith, Jostmann, Galinsky, & van Dijk, 2008; for reviews see Fiske & Berdahl, 2007; Keltner, Gruenfeld, & Anderson, 2003). For example, Guinote (2007) has shown that powerless individuals tend to focus on peripheral elements at the expense of global features of stimuli, and Smith and Trope (2006) have found that individuals in high-power conditions tend to form high-level, abstract representations, whereas individuals in low-power conditions represent stimuli in more concrete ways.

On 9/11 and the days that followed, an inter-related social system comprised of individuals, groups, and organizations attempted to understand what had happened and how to respond. The positions that people occupied in the aftermath of 9/11 were differentiated, in part, by the amount and type of power associated with each role. People who were victims of the

attacks and other ordinary citizens had little, if any, power in the situation, whereas individuals with occupational roles connected to the disaster (e.g., government officials, managers working on Wall Street, and military personnel) had some capacity to influence the situation as it unfolded. The central goal of this study is to analyze whether or not the power that people possessed in these different roles was associated with differences in how individuals construed the events in the aftermath of 9/11.

THEORETICAL BACKGROUND

Power

Consistent with previous research, we conceptualize power as asymmetric control over valued resources in social relations (Magee & Galinsky, 2008; see also Fiske & Berdahl, 2007; Keltner et al., 2003). Power can be derived from many sources (French & Raven, 1959; Yukl & Falbe, 1991) and is determined by the situation and the relationships within which individuals are embedded (Emerson, 1962). One source of power is legitimate power (French & Raven, 1959), which can be derived from an individual's position or role and legitimated by policies, rules, and laws (Astley & Sachdeva, 1984; Weber, 1947). Two other sources of power that often go hand in hand with legitimate power are the ability to provide rewards (reward power) and the capacity to punish others (coercive power) (French & Raven, 1959; Keltner et al., 2003; Thibaut & Kelley, 1959). Yukl and Falbe (1991) have argued that legitimate, reward, and coercive power are all characteristics of organizational positions, and empirically they have found that these bases are significantly and positively correlated. Indeed, within organizations involved in the aftermath of 9/11, these bases of power were positively associated with each other because high-level officials and managers with legitimate power by virtue of their position in their organizations typically controlled resources to reward and punish lower-level employees. Accordingly, we will develop our hypotheses from Yukl & Falbe's (1991) framework, referring to combinations of legitimate, reward, and coercive power as *position power*.

People responding to the 9/11 attacks clearly had different amounts of position power. Federal officials and military personnel held legitimate positions with significant capacity to use political and military force in the international response. State and city government officials also had significant position power at a more local level. Business executives had positions near the top of organizational structures as well as the capacity to promote (reward) and fire (punish) lower level employees. People in other roles, such as firefighters, doctors, and psychologists had the capacity to provide valuable assistance, and police officers and lawyers had the capacity to punish people who violated the law. Most of these individuals also held position power over victims and other ordinary people.

In many situations, expertise is a valuable resource, especially when other people are dependent on one's knowledge and skills (Finkelstein, 1992). Thus, valuable expertise can be described as *expert power* (French & Raven, 1959). During the aftermath of 9/11, for example, there were many individuals who had considerable expertise but little position power relative to other individuals. Illustrative examples include safety experts, pilots, and university professors.

In summary, power during the aftermath of 9/11 was determined by two important bases; people could have position power or expert power, or both. We attempt to isolate the bases of power that each of the individuals in our sample possessed, which allows us to build new theory and test novel hypotheses by exploring which bases of power are associated with differences in construal.

Construal Level Theory

Our hypotheses are based on a theory of how the experience of psychological distance

that comes with possessing power affects the way in which individuals represent, or construe, situations (Liberman, Trope, & Stephan, 2007). According to Construal Level Theory (CLT) (Trope & Liberman, 2003), psychological distance exists when an object or experience is far away in time (temporal distance) or space (spatial/geographic distance), belongs to another person (social distance), or is unlikely to materialize or occur (hypotheticality) (Liberman & Trope, 2008). Psychological distance matters for construal because it reduces the accessibility of concrete information related to target stimuli (Liberman et al., 2007). With reduced access to concrete information, individuals who are thinking about psychologically distal stimuli use high-level, abstract representations compared to individuals who are thinking about psychologically proximal stimuli, using low-level, concrete representations (Trope & Liberman, 2003; Vallacher & Wegner, 1987). The events of 9/11, for example, could be described as “an evil attack against humanity” or as “attacks on thousands of people who were passengers on airplanes or who worked in the World Trade Center and Pentagon.” The former, high-level construal is a schematic, abstract representation of the attack; these global features could be used in a description of any terrorist attack. The latter, lower-level construal is characterized by a description of the concrete details related specifically to the attacks on 9/11.

An impressive program of experimental research has demonstrated that various types of psychological distance affect construal level, which, in turn, influences perceptual, inferential, and decision-making processes (for a review, see Liberman et al., 2007). For example, individuals describe stimuli that are spatially distant in more abstract terms than proximal stimuli (Fujita, Henderson, Eng, Trope, & Liberman, 2006). Temporal distance exerts similar effects on construal: people tend to construe issues and events in the distant future more abstractly than those in the present or near future (Henderson, Trope, & Carnevale, 2006; Liberman, Sagristano, & Trope, 2002). In these situations, concrete details of the spatially or temporally distant objects and events are inaccessible relative to the details of stimuli that are close in space or time.

Important for the current research, Smith and Trope (2006) and Liberman et al. (2007) have argued that possessing power typically increases one’s sense of social distance and, thus, raises one’s construal to a higher level. In one experiment supporting this notion of power as a form of psychological distance, high-power individuals displayed a greater tendency to construe behaviors in terms of their high-level meanings than did individuals under low-power or control conditions, who tended to focus on the low-level actions needed to perform the behaviors (Smith & Trope, 2006, Experiment 2). Smith and Trope (2006) conceptualized power exclusively as reward or legitimate power, which leaves open the issue of whether or not those bases are necessary for power to operate as a psychologically distancing force. In the aftermath of 9/11, we have claimed that power was multifaceted, and the crisis provides a naturalistic situation in which we can explore whether position power and expert power had different effects on construal.

HYPOTHESES

Using CLT and the notion that possessing power increases a sense of social distance, we predict that power systematically affected how individuals mentally represented information about the events surrounding 9/11. In the section below, we articulate our hypotheses about the relationship between two bases of power—position and expert power—and three characteristics of construal. The first characteristic is *abstraction*, which is the core characteristic for CLT. From this prediction, we derive hypotheses about the other two characteristics—*valence* and *certainty*—by further explicating how psychological distance reduces the accessibility of negative information and contextual information in crisis situations such as the 9/11 attacks.

In generating our predictions, we draw on some research grounded in the Approach/Inhibition Theory of Power (Keltner et al., 2003), which posits that, compared to low-power individuals, high-power individuals focus disproportionately on rewards relative to threats. Using the Approach/Inhibition Theory, one would predict the same effects of power on valence and certainty that we will generate from CLT; however, one could not make our central prediction about abstraction. Thus, we use empirical research based on the Approach/Inhibition Theory to support our predictions only for valence and certainty.

Abstraction

The central issue for CLT is whether or not the base of power creates a sense of disconnectedness (i.e., social distance) and independence for the power-holder (Lee & Tiedens, 2001; Smith & Trope, 2006). We contend that both position power and expert power tend to create social distance. Positions of legitimate power create social distance by giving the power-holder authority that is not granted to others. Perquisites of power, such as large offices for executives and uniforms for the police and military, symbolize and reinforce this disconnectedness. Furthermore, by controlling the flow of valuable resources through their position of power, power-holders have less need to be connected to others because they do not depend on other people to determine their outcomes (Emerson, 1962). Similarly, expert power gives people possession of valuable knowledge (an important resource) which makes them less dependent on others.

Based on these lines of reasoning, we would expect that both position power and expert power would tend to be positively associated with abstraction; however, expertise has another feature that may be associated with the opposite tendency, to represent information concretely. An essential quality of having expertise is having more, rather than less, accessibility to concrete details within one's domain of knowledge. It is this specialized, deep knowledge that gives experts power. To the extent that experts during the 9/11 aftermath—intelligence personnel, researchers, and others—were focused on making sense of information in their domain of expertise, we would expect them to have been more detailed and specific in their construal. Thus, we would expect the effects of psychological distance and concrete knowledge to counteract each other for individuals who possess expert power, which would result in expert power having no significant effect on the degree of abstraction in their construal of the aftermath of 9/11.

In summary, we hypothesize that individuals with position power, but not expert power, construed the crisis more abstractly than did individuals without position power.

Valence

According to CLT (Liberman & Trope, 2008), predicting the valence of an individual's construal depends on whether that individual forms a relatively high- or low-level construal and which level of construal is more positive (less negative). For a given event, if an abstract construal is more positive than a concrete construal, then people who experience more psychological distance, and thus form an abstract representation of the event, would tend to see it in a more positive light than people who experience less psychological distance and form a concrete representation. In the context of 9/11, as is the case in most disasters or crises, we argue that a low-level construal, focusing on the myriad horrible details, was more negative than a high-level construal.¹ Thus, we propose that perceivers with position power, who experienced social distance and abstracted up from these negative details, represented the event in more positive (less negative) terms than perceivers without position power. Anderson and Berdahl's (2002) finding that, in task-oriented dyads, high-power individuals tend to perceive their partner's emotions as less negative than their partner's actual emotional experience supports this

proposition. Therefore, we hypothesize that the possession of position power (but not expert power) was associated with more positive construal.

Certainty

The experience of psychological distance tends to increase individuals' confidence in making predictions (Nussbaum, Liberman, & Trope, 2006) because it directs individuals' attention away from specific details that might present potential roadblocks or contingencies for reaching desired outcomes. A wealth of evidence demonstrating that people have more confidence in their distant future predictions than in their near future predictions supports the notion that temporal distance increases certainty and confidence (for a review, see Wilson & Gilbert, 2003). We propose a similar phenomenon exists but with power as a form of social distance. Consistent with the notion that power increases certainty, Anderson and Galinsky (2006) have found that high-power individuals are more risk-taking than low-power individuals, and Fast and colleagues (Fast, Gruenfeld, Sivanathan, & Galinsky, in press) have shown that manipulating power increases an illusion of control. Thus, we hypothesize that position power, which increases social distance, was associated with greater certainty in individuals' construal.

Although it might seem that experts would be more certain than non-experts because having knowledge can increase one's confidence, the extant evidence on this point is actually mixed, in part, because expertise appears to heighten attention to contextual and contingent information (e.g., Brauer, Chambres, Niedenthal, & Chatard-Pannetier, 2004; McKenzie, Liersch, & Yaniv, 2008). In keeping with our hypotheses about abstraction and valence, we do not expect expert power to affect certainty.

METHOD

Overview

To capture how people thought about the events during the aftermath of 9/11, we analyzed the content of individuals' accounts of the events during the 10-day span from September 11, 2001, the day of the terrorist attacks, to September 20, 2001. The accounts of interest to us were direct quotations produced by people who were talking about any topic related to the events. These people included individuals who reacted and responded to the events via their occupations as well as victims and other ordinary people. We drew quotations from five media sources that varied on a number of dimensions (e.g., location of headquarters, medium) to select a representative sample of what was said in the aftermath of 9/11. We then submitted these quotations to a series of quantitative coding procedures to measure our independent variables (position and expert power), three dependent measures (abstraction, valence, and certainty), and relevant control variables.

Our use of verbally communicated language to analyze construal indicates that we believe that individuals' verbal reports about a situation are indicative of how they mentally represent that situation. This does not mean that we assume perfect correspondence between language and mental representation. Rather, we assume that language maps onto and reveals how people construe the world, even as it is simultaneously shaped by social interaction (e.g., Hardin & Higgins, 1996). We acknowledge that speakers can use language to present themselves in a particular way to an audience, and that such impression management can partially decouple the relationship between mental representations and verbal descriptions (Goffman, 1959; Leary & Kowalski, 1990). Empirically, our challenge is to account for social forces that motivate strategic use of language, to identify a reliable trace of speakers' mental representations. To address these concerns, we develop an empirical strategy for separating out the effects of impression management from those of construal through coding and modeling, as we discuss in detail

below.

Media Source Sample

To capture a range of types of media (e.g., local versus national; print versus radio and television) and size and location of the media organizations, we chose five media sources from which to sample quotations: *The New York Times*, *Los Angeles Times*, *Chicago Tribune*, *CNN*, and *National Public Radio (NPR)*. We used the following Boolean search expression to collect transcripts of all programs on CNN and NPR that aired as well as all articles in the three newspaper sources that were published during the 10-day sampling period: “(terror OR terrorism OR terrorist OR terrorists) AND ‘world trade center’”. Out of these 2,770 transcripts and articles, we excluded all editorials and advertisements and selected a stratified random sample of 113 articles and transcripts (roughly 4%), where the strata were media source and day. These transcripts and articles were cleaned and coded for independent variables, dependent measures, and control variables.

Cleaning and Processing Data

UNIT OF ANALYSIS

For each article, one coder recorded the media source and date the program aired or article was published. This coder then identified all verbatim, direct quotations (henceforth, quotations) attributed to individuals; we removed quotations attributed to groups or organizations (at this stage, $n = 1,007$). Individual “speakers” were each assigned a unique identifier (at this stage, $n = 454$). We used paragraph markers to distinguish each unit of analysis; thus, we used the reporter’s or transcriber’s decision about where to break up long running quotations into multiple units of speech. We ensured that there were no duplicate quotations and removed quotations for which the entire content was not directly related to 9/11 or a reaction or response in its aftermath (e.g., salutations such as “Good morning”). Speakers could have one or more quotations, and we developed a coding strategy to capture important variables at the quotation level and the speaker level.

SELECTING THE SAMPLE OF SPEAKERS

One coder classified each speaker’s role at the time the speaker produced the quotation, using his or her job title and organization when those data were available as well as the content of the quotation. The speaker role categories were as follows: (a) ordinary persons (31%); (b) academic and medical experts (6%); (c) religious figures (3%); (d) various professionals and aid providers (34%); (e) police officers and firefighters (3%); (f) current officials in local or state government (3%); (g) military and intelligence personnel (4%); (h) current officials in federal government (8%); (i) former officials in local, state, or federal government (2%); and (j) celebrities and journalists (2%); (k) non-US/international (3%); and (l) miscellaneous (2%). Due to our interest in power as it related to the disaster, we excluded categories (i), (j), (k), and (l) from our analyses.² The remaining categories varied in whether or not the individuals occupying those roles had position and expert power in responding to the 9/11 attacks. These bases of power were coded in the next step of our analysis.

Coding Variables

SPEAKER BASES OF POWER

To capture the speakers’ bases of power, two independent coders determined whether or not each speaker possessed each of four bases: legitimate, reward, coercive, and expert. We assumed that speakers in the Ordinary Person category had no bases of power, and these variables were set to zero for those speakers. The coding guidelines and some examples of speaker roles coded as possessing each base of power are provided in the Appendix. For six

speakers, at least one coder was unable to determine whether or not the speaker possessed one or more bases of power, and we omitted these speakers from further analyses. Reliability analyses were conducted only for the remaining sample of non-Ordinary Person speakers ($n = 261$): for legitimate power, Cohen's $\kappa = .94$; for reward power, Cohen's $\kappa = .86$; for coercive power, Cohen's $\kappa = .90$; and for expert power, Cohen's $\kappa = .92$. Speakers could be assigned, and typically were assigned, more than one base of power. Within each coder, legitimate power, reward power, and coercive power were strongly associated ($.72 < \Phi_s < .80$, $ps < .001$); thus, we created a position power variable, which was set equal to one if a speaker had been scored as having at least one of these bases of power by both coders and was set to zero otherwise. For expert power, disagreements were resolved through discussion between the coders. Within the subsample of non-Ordinary Persons, position power and expert power were not significantly associated, $\Phi = .02$, $p = .73$.

DEPENDENT MEASURES

Two raters who were blind to our hypotheses and the identity of the speakers, and who were not involved in the other coding in this project, coded each of the quotations on 5-point scales to measure the three characteristics of construal: abstraction, valence, and certainty (e.g., 1 = *very concrete*, 2 = *somewhat concrete*, 3 = *equally concrete/abstract*, 4 = *somewhat abstract*, 5 = *very abstract*). The coding scheme, coder instructions, and inter-coder reliability are described in Table 1. To create our final measures of construal, we averaged across both raters' scores on each of these three variables.

CONTROL VARIABLES

In the coding of our control variables, we generated some by computer and others manually. For all variables that required manual coding, two coders independently assigned their codes and resolved disagreements through discussion.

Topic of quotation. One potential alternative explanation for our hypotheses is that powerful and powerless individuals focused on different aspects of the disaster and that the topics of focus for powerful people were characterized by greater abstraction, valence, and certainty. To rule out this explanation, we wanted to control for the topic of the quotation in our analyses. The coders classified the topic of each quotation into one of the five following categories: victims/personal reaction, infrastructure (e.g., economic, built environment, transportation), terrorists, organizations and the coordination of resources, or miscellaneous. The coding scheme and inter-coder reliability are described in Table 1. For analysis, we created four quotation-level dummy variables with "victims/personal reaction" as the reference topic.

Location of speaker at time of quotation. A second possible alternative explanation for our predictions is that speakers had access to different information because of their geographic distance from the events. To deal with this possibility, the coders used the articles and transcripts to classify the location of each speaker at the time he or she produced the quotation into one of the four following categories: in the metropolitan area of a disaster site (i.e., New York City, Arlington, VA, and Shanksville, PA), on the East Coast of the US but outside of the metropolitan areas of the disaster sites (Far), not on the East Coast of the US (Very Far), or unknown (Cohen's $\kappa = .91$). For the purposes of analysis, we created three quotation-level dummy variables, including one for "unknown." The reference location was "in the metropolitan area of a disaster site."

Future orientation of quotation. A third potential alternative explanation is that speakers differed in their temporal orientation, and those who were focused on the future were more abstract, positive, and certain than those who were focused on the present or recent past (i.e.,

previous few days). Although the “topic of quotation” control variable captures a range of topics that differ in their temporal orientation, we took a more direct measure of temporal orientation to rule out this alternative explanation by counting the number of words in each quotation associated with a future orientation using the Linguistic Inquiry and Word Count (LIWC) software (Pennebaker, Francis, & Booth, 2001). The count for a majority of quotations was equal to zero; thus, we transformed future orientation into a binary variable (0,1) representing the absence versus presence of future orientation in each quotation.

Length of quotation. To generate an objective measure of the length of the quotations, we counted the number of words in each quotation using the LIWC software. We performed a natural log transformation of this variable because its distribution was positively skewed. We expected that shorter quotations would be more abstract than longer quotations, and this concern was borne out in the analyses.

Verbal ability of speaker. Using the LIWC software, we also counted the number of words greater than six letters long (i.e., “big” words) in each quotation. We measured verbal ability at the speaker level by dividing the sum of a speaker’s big words by the sum of his or her word count across quotations. Pennebaker and Stone (2003) have found that this measure of verbal ability can be related to how people interpret situations, so it seemed important to include as a control variable in our analyses.

Gender of speaker. We coded the gender of the speakers because some research has found that women tend to express more hesitation and uncertainty in their speech (for a review, see Mulac, Bradac, & Gibbons, 2001). Based on information in the transcripts and articles and from internet searches, the coders were able to identify the speakers’ gender reliably (Cohen’s $\kappa = .98$). The gender of twenty-one speakers could not be identified (e.g., “one doctor,” “Qantas worker”). These speakers and their quotations ($n = 25$) were removed from all remaining analyses.

Speaker public role. Although we hypothesize a difference in mental representation along the characteristics of construal, one could argue that impression management concerns of powerful individuals would produce the same pattern of results as we have predicted for abstraction, valence, and certainty. If public leaders and other people in positions of power were trying to manage others’ impressions via the language they used, they might have tried (a) to summarize the gist of the most important events related to 9/11 to help people understand its more general meaning, (b) to focus on positive aspects emerging from the aftermath, and (c) to appear confident and in control. To deal with this alternative explanation, the coders indicated whether or not each speaker’s role involved interfacing with the public (see Appendix for coding guidelines). This dummy variable constituted an indicator of whether a speaker was concerned with trying to manage others’ impressions. As with the bases of power variables, the speaker public role variable was set to zero for Ordinary Persons because we assumed that no ordinary persons were in public roles. Reliability was adequate (Cohen’s $\kappa = .76$). Within the subsample of non-Ordinary Persons, public role was positively associated with position power, $\Phi = .44, p < .001$, and negatively associated with expert power, $\Phi = -.25, p < .001$. These relationships suggest that it was indeed important to control for speaker public role in our analyses.

ANALYSES

Our final sample consisted of 856 unique quotations produced by 382 unique speakers. Thirty-three percent of the quotations were from CNN, 31% were from The New York Times, 18% were from the Los Angeles Times, 10% were from NPR, and 8% were from Chicago Tribune. The day with the highest count of quotations in our sample was September 13 ($n =$

124), and the day with the lowest count was September 11 ($n = 21$). Table 2 contains the descriptive statistics and Pearson correlations for the measured variables at the quotation level and the speaker level.

To test our hypotheses about the effects of position power on abstraction, valence, and certainty, we analyzed the data using multilevel linear regression models to account for non-independence of the quotations (Level 1) nested within speakers (Level 2). All models included fixed effects for Day and Media Source of the quotation. We intended the Day fixed effects to pick up any unobserved variation across the news days, and the Media Source fixed effects to pick up any unobserved differences between print, television, and radio media, as well as possible differences in construal due to location because the headquarters of the media organizations might bias the perspectives solicited for or included in the final article or program (e.g., The New York Times might include more quotations from local people). We also included the following control variables in all models: the log-transformed measure of the length of the quotation, quotation topic dummy variables, the dummy variable for future orientation of the quotation, speaker location dummy variables, the speaker's verbal ability, and the dummy variable for speaker gender.

We ran four models for each dependent measure, presented in Tables 3-5. In each table, the first model includes our independent variables—position power and expert power—along with the control variables listed above. The second model adds in the dummy variable indicating whether or not each speaker was in a public role, which is a control for impression management concerns. In the third model, we attempt to account for impression management concerns in a different way: we remove quotations that we identified as strategically prepared by the speakers who produced them ($n = 110$). Most of these quotations were from the start of press conferences or news briefings and, thus, were produced mostly by powerful individuals. In the fourth model, we removed all quotations produced by speakers in the Ordinary Person category ($n = 241$) to reduce heterogeneity in speakers' emotional and psychological involvement in the disaster, which could provide an alternative explanation for our results. People who were more psychologically affected typically had less power than those who were less affected and might have been more concrete, more negative, and more uncertain in their construal simply because of their psychological involvement rather than their lack of power. Although the third and fourth models have some important analytic advantages, they also have a significantly reduced sample size, which could weaken the reliability of the coefficients.

RESULTS

In describing the results, we will highlight the findings that are consistent across the majority, if not all four, of our models for each construal characteristic. This approach gives us confidence that the effects we describe are reliable across various specifications and, thus, robust in the context of our study.

Abstraction

Across Models 1-4 in Table 3, there is strong support for our hypothesis that people who had position power were more abstract in their construal of the events in the aftermath of 9/11 than those who did not have position power. Speaker position power had a statistically significant association with abstraction in Models 1-3; only in Model 4, with reduced statistical power because of the removal of all ordinary persons from the sample, was the coefficient for position power reduced to marginal significance. The quotations presented in Table 6 by a friend of a victim and a Senior Vice President at Bloomingdale's provide examples of this difference. Consistent with our expectations, expert power was not significantly associated with abstraction,

and there was no evidence that impression management concerns were associated with abstraction, as measured by the coefficient for whether or not the speaker occupied a public role.

As predicted by CLT, temporal orientation was associated with construal level: Models 1-4 in Table 3 show that future-oriented quotations were significantly more abstract than quotations that did not focus on the future. The topic of the quotation and the location of the speaker also influenced the level of abstraction. Lending some support to the notion that geographic distance increases construal level, speakers who were far away (but, surprisingly, not those who were very far away) tended to be more abstract than those who were near a disaster site. Also, quotations that discussed terrorists tended to be more abstract than quotations about victims/personal reactions. In summary, even after controlling for physical distance from the disaster, temporal orientation, the topic of focus, and whether or not the speaker was in a public role, position power was positively related to speakers' construal level.

Valence

The models in Table 4 support our hypothesis that speakers with position power were more positive in their construal of the events surrounding 9/11 than were speakers without position power. This difference was statistically significant in two of the models (see Models 1 and 4). Taking into account whether or not the speaker was in a public role reduced the coefficient for position power (see Models 2 and 3), but there was no significant effect of occupying a public role. The selected quotations by the Chairman of the SEC and a father of a victim in Table 6 illustrate a difference in valence of the language used by the chairman of an organization and a victim's father, respectively.

Similar to the results for abstraction and consistent with CLT, the models in Table 4 show that future-oriented quotations were more positive than quotations not focused on the future. For the remaining control variables, the results show that when individuals were focusing on infrastructure or organizational/resource coordination issues, they were significantly more positive than when they were focusing on victims/personal reactions. Finally, expert power was not significantly associated with the valence of individuals' construal. In summary, even after controlling for the effects due to the temporal orientation and the topic of the quotations, position power was associated with more positive construal of the disaster.

Certainty

All of the models in Table 5 support our hypothesis that individuals with position power were more certain than individuals without position power in their construal of events in the aftermath of 9/11. In Table 6, the quotations by a real estate employee and an official at the Pentagon highlight this contrast in certainty between individuals with and individuals without position power. Expert power was not significantly related to certainty in people's construal, and none of the control variables exerted consistent, significant effects on certainty.

DISCUSSION

In this study, we found overwhelming support for our hypotheses that power was associated with three characteristics of construal during the aftermath of 9/11. We found that people with position power, but not expert power, tended to construe the events surrounding 9/11 in more abstract terms than did people who had no position power. This finding is consistent with the notion that possessing power creates social distance and follows the core prediction of CLT that any form of psychological distance raises one's level of construal. The results indicating that position power was also associated with the valence and certainty of construal add significant support to this argument. Two corollary predictions in a model of psychological distance as the most proximal determinant of construal level are that, as psychological distance

increases in the context of a negative event, construal tends toward positivity and toward certainty because negative and contingent details are less accessible. Our findings that position power was positively associated with valence and with certainty in people's construal are aligned with these corollary predictions.

The coherence of these results and the parsimony of the “power-as-social-distance” explanation are appealing from a theoretical viewpoint; however, it is possible that position power could have been conflated with another variable, which determined some of our results. We made four choices in our modeling strategy that are informative in addressing this concern. First, by randomly sampling quotations and then nesting quotations within speakers, we limited the possibility that our results are due to a particular individual or set of individuals that happened to generate a large number of quotations conforming to our hypotheses. Second, we carefully measured and included in our models other variables that could explain construal, such as the topic of focus, temporal orientation, geographic distance, and whether or not the speaker occupied a public role in which he or she would have been motivated to manage others' impressions. Third, to further strip away any possible effects of impression management concerns, we removed quotations that seemed like they might have been strategically prepared. Fourth, to limit unobserved heterogeneity in our sample of speakers, we removed all speakers who did not have an occupational role related to the disaster or ensuing crisis. Our findings were remarkably stable across multiple models that integrated various aspects of this analytic strategy. Position power was significantly associated with abstraction, valence, and certainty over and above the effects of any control variables and regardless of which subsample of data was selected.

Despite the strengths of our research design, the cross-sectional approach does not allow us to determine the causal direction of the relationship between power and construal. It is possible either that people who speak abstractly, positively, and with certainty are selected into powerful positions through various social and organizational mechanisms (e.g., voting, promotions), or that one's position of power causes the construal differences that we observed in our study. We emphasize that our data establish an association, not a causal relationship, between power and construal; however, we have framed our study in CLT, which makes a clear prediction that differences in power would cause differences in construal. Even CLT, however, allows for a reciprocal relationship between power and construal (Lieberman et al., 2007; Lieberman & Trope, 2008). We think that both causal relationships are intriguing possibilities. The extant experimental research has shown that power causes abstract thinking (Smith & Trope, 2006), and we are unaware of any research that shows that observers judge others who speak with abstract language as more powerful than those who speak in concrete terms. Consequently, we prefer to focus on the interpretation that power causes more abstract, positive, and certain construal, favoring this explanation for its parsimony and its support from prior experimental results. Until future research tackles both directional relationships, it is theoretically plausible that both processes work in a reciprocal fashion, reinforcing power hierarchies over time (Magee & Galinsky, 2008).

Contributions and Future Research

Our study is a rare comprehensive test of the relationship between power and three characteristics of construal using archival methods in an important real-world social context. In addition to laying out a methodological template for how to tackle research of this kind, our study contributes to theory on power and construal in several ways and suggests a number of implications for future research in these areas.

CONSTRUAL LEVEL THEORY

We have contributed directly to CLT by showing that differences in three characteristics of construal—abstraction, valence, and certainty—are associated with differences in position power. These results are noteworthy because most previous empirical research conceptualizing power as social distance (e.g., Smith & Trope, 2006) has only looked at construal level (i.e., abstraction), not the corollary construal characteristics of valence and certainty, and has not explored the potential for different effects associated with different bases of power.

Although previous theoretically integrative summaries of research on CLT have discussed studies of abstraction in perception, categorization, and inferences; valence in evaluation; and certainty in prediction (Liberman & Trope, 2008), the current research finds similar patterns for all three characteristics within the same study. These results suggest that it would be useful to conceptualize construal like a trident, with abstraction as the central, leading prong, and valence and certainty as ancillary prongs. Regardless of how it is conceptualized, one might find effects on valence and certainty wherever one looks for effects on abstraction, something for researchers to keep in mind when designing future studies of construal.

By measuring construal through language as it occurred in a natural context, we have argued that construal seeps out of one's mind and into the world through communication. We hope this study linking construal to communication anticipates many future studies that could look at the interplay of individual cognition and social interaction. A potential process involved in "socially shared cognition" (Thompson & Fine, 1999) and the establishment of "shared reality" (Hardin & Higgins, 1996) between interacting individuals is that one individual's construal communicated to another person may shape that person's construal, and so on. This notion of construal as a shared process in social context warrants further exploration into when it serves a social coordination function.

POWER AND PSYCHOLOGICAL DISTANCE

A significant contribution of our study is the empirical demonstration that not all types of power seem to operate in the same manner: position power, not expert power, was associated with construal. These results are consistent with our proposition that position power is experienced as a social distancing force, and expert power is not. Future research could test this proposition more directly by manipulating position power and subsequently measuring individuals' subjective experience of social distance.

It is also interesting to speculate whether psychological distance and construal played a role in the international conflict that was sparked by the terrorist attacks on 9/11. The responses to the terrorist attacks by government officials and the military were the result of significant strategic decisions by very powerful people. We do not have data to address whether power-holders' high-level construal affected these decisions, but it is worthwhile to consider what our data in combination with theory would predict and see if that outcome is consistent with what actually happened. Hypothetical situations tend to be construed abstractly (Wakslak, Trope, Liberman, & Alony, 2006), and, when people are thinking abstractly, they tend to focus on whether or not a plan is desirable at the expense of considering its feasibility (Liberman & Trope, 1998). Indeed, Liberman et al. (2007) have argued that abstract construal is one factor responsible for the planning fallacy (Buehler, Griffin, & Ross, 1994), the tendency to underestimate the time needed to achieve task-related goals, because one tends to ignore the peripheral constraints on one's plans in the future. Given that America's strategic decision-makers also had power domestically, geopolitically, and militarily, and power would have further heightened their construal level, it seems likely that they would have overestimated their

chances of achieving their goals. As it turns out, in the aftermath of 9/11, the government began an escalation of military aggression that it is still seeking to resolve at the time of this writing. Our study opens up the question of whether or not this was due in part to the construal processes of government and military officials, influenced by the hypothetical nature of the situations they were considering and the power they held.

Limitations

We have argued that communicated language does in fact correspond to how individuals mentally represent the world, and we have used a number of empirical strategies to account for how various factors might have influenced language, independent of the speakers' mental representations. A separate issue is the possibility of journalistic selection bias whereby reporters might have chosen quotations to include in their articles and programs that were more abstract, positive, and certain for individuals who had position power. This concern suggests that journalists possess either a sophisticated stereotype of how high- and low-power individuals typically talk along the dimensions of abstraction, valence, and certainty, or a lay theory that people prefer to read, for example, more abstract quotations from high-power officials and more concrete quotations from ordinary people. We do not know of any existing research that would lend support to these rather complicated alternative explanations for our results. Furthermore, we conducted supplementary regression analyses on the isolated subsample of quotations from CNN, a "live" media source subject to less editorializing relative to the other sources, and our hypotheses were still supported. Still, future archival research using media sources could investigate the extent of these issues.

Another type of journalistic bias could emerge in the language that reporters use in asking questions of high-power versus low-power individuals. For example, if people with position power were asked more abstract or more positive questions than people without position power, then our results could be due to reporters' prompts rather than power per se. Indeed, de Poot and Semin (1995) have found that more abstract questions elicit more abstract answers, although their operationalization of abstraction was quite different from ours. To address this issue, we were able to locate reporters' prompting statements/questions (hereafter, prompts) for 210 of our quotations. We coded the level of abstraction, valence, and certainty in these prompts on the same 5-point scales used for our dependent measures and conducted independent samples t-tests to investigate whether or not reporters prompted speakers with position power in systematically different ways than speakers without position power. There was no significant difference in the abstraction or certainty of reporters' prompts to high versus low-power individuals ($ps > .2$), and, for valence, reporters' prompts for speakers with position power tended to be less, rather than more, positive than their prompts for speakers without position power ($p = .005$). These results suggest that reporters' prompts were unlikely to have produced the effects attributed to position power in Tables 3-5. Moreover, supplementary regression analyses indicated that the effects of position power on abstraction, valence, and certainty remained significant even after controlling for the nature of the prompts to the speaker.

Our research setting is noteworthy, particularly in the tradition of CLT, because of the real-world, high-consequence nature of the context, but it is also noteworthy because it is unusual. This raises a question about whether or not our results generalize to other situations. The wealth of evidence showing that different forms of psychological distance increase construal level in myriad domains (Liberman et al., 2007) suggests that power would be positively associated with abstraction in other settings. There is less evidence, however, to support the generalizability of our findings for certainty and valence. Temporal distance seems to be

positively associated with certainty, and CLT clearly predicts that the possession of power, as a form of social distance, would increase one's certainty, regardless of the domain in which construal occurs. Future research could test whether this prediction of a positive relationship between power and certainty holds in other situations.

Although the predictions for abstraction and certainty extend beyond the current context, according to CLT, the prediction for valence is entirely dependent on the context and the valence of a high- versus low-level construal. One of the defining features of the 9/11 terrorist attacks was the negativity of the concrete details in the situation. In the aftermath of 9/11, a high-level construal abstracted up from the negative details, and, consequently, the representation was rendered less negative than a low-level construal. Other contexts are clearly more positive at a concrete level. In a situation with a series of very positive events, CLT would predict that a high-level construal would abstract up from relevant positive details and, therefore, would be less positive than a low-level construal. Thus, in a context with a great number of positive details, CLT would predict that high-power individuals would construe events in less positive terms than would low-power individuals. By contrast, Keltner et al. (2003) would predict that high-power individuals, regardless of context, pay more attention to positive, rewarding information relative to negative, threatening information and that low-power individuals tend to do the opposite. Clearly, an event with an abundance of positive concrete details would present an opportunity to test these competing predictions generated by two different theoretical perspectives. We urge researchers to test these hypotheses and others by exploring how people construe and talk about issues in other contexts.

CONCLUSION

In this study, we examined how people made sense of the events that took place during a national crisis. The particular context—the aftermath of the attacks on the World Trade Center and the Pentagon on September 11, 2001—changed the course of US history, and bringing psychological theory to bear on that context has yielded important insights. We found that individuals' position power was associated with three characteristics of their construal—abstraction, valence, and certainty. In these construal differences, we have argued there is evidence that people in positions of power experience greater social distance than those who are powerless, shedding light on how the structure of society is intertwined with individual cognition in the context of a societal event. These construal differences based in power may be important for understanding the reactions of ordinary citizens as well as the decisions made by leaders who have the power to influence societies and change the world forever.

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APPENDIX

Coding Guidelines for Speakers' Bases of Power and Public Role

Variable	Guidelines	Examples (code = 1)
<i>Legitimate Power</i> ^a	<ul style="list-style-type: none"> Occupied a role or title that appears to have formal authority recognized by others 	government official, police officer, upper management, military personnel
<i>Reward Power</i> ^a	<ul style="list-style-type: none"> Controlled valuable material or psychological resources and the capacity to reward others with them 	government official, religious leader, firefighter, management level, psychologist
<i>Coercive Power</i> ^a	<ul style="list-style-type: none"> Had the capacity to punish others or influence them through the use of force 	government official, police officer, management level, military personnel
<i>Expert Power</i>	<ul style="list-style-type: none"> Possession of valuable knowledge or expertise 	professor, religious leader, terrorism expert
<i>Public Role</i>	<ul style="list-style-type: none"> Representative whose role, in part, is to interface with the public 	high-ranking government official, religious leader, chief executive, spokesperson

Note. All variables are binary (0,1) and were coded at the speaker level.

^aThese bases of power were positively associated and were combined into Position Power.

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Notes

1. Theoretically, it is possible that a real world event consensually labeled as negative, such as a disaster or crisis, could be construed at a low level in less negative terms than at a high level. In practice, however, we have not been able to identify an event like this. If researchers could identify such an event, it would provide a useful context in which to test the extent to which the valence of construal depends on construal level.

2. Although former government officials typically possessed expertise related to an aspect of the aftermath, whether or not they had position power was more ambiguous. To eliminate this ambiguity, we took the cleanest analytic approach, excluding these eight speakers and 24 quotations. Including former government officials in analyses, coded as having expert power where appropriate (for 7 out of 8 of them) but not position power, did not change the pattern of results across the dependent measures.

Table 1
Coding scheme for construal characteristics and topic of quotation

Variable	Guidelines	Reliability
<i>Construal Characteristic</i>		
Abstraction	<ul style="list-style-type: none"> • Abstract is the expression of high-level, conceptual, or global features. • Concrete is the expression of concrete details, minutiae, or numbers. 	.84 ^a
Valence	<ul style="list-style-type: none"> • Valence is the degree of negativity or positivity in tone. 	.82 ^a
Certainty	<ul style="list-style-type: none"> • Certainty is the expression of assuredness or confidence. • Uncertainty is the expression of doubt, hesitation, or having incomplete knowledge. 	.76 ^a
<i>Topic of Quotation</i>		
Victims/Personal Reaction	The human/personal/psychological impact, or immediate/appropriate personal responses Answers questions: How were people affected? How did/should individuals respond as human beings?	.80 ^b
Infrastructure	The physical, infrastructural, economic, or environmental conditions or damage caused, and any related discussion of recovery, or appropriate recovery Answers questions: How did the attacks affect the physical infrastructure/economy/environment? How should the individual/nation respond to the infrastructure/economy/environment?	
Terrorists	Any discussion of the terrorists themselves, their training or planning, as well as appropriate responses to the threat of terrorism Answers questions: What did the terrorists do? How should the nation respond to terrorism?	
Organizations/Resources	Organizational/group responses and the distribution/coordination of resources by government agencies and other organizations and groups. Answers questions: What organizational processes are/should be in place to respond? How were resources coordinated/distributed? How should they be?	
Miscellaneous	Does not fit in other categories	

^aCronbach's α . ^bCohen's κ

Table 2
Descriptive statistics and intercorrelations

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
<i>Level 1 (quotation, n = 856)</i>											
1. Infrastructure topic (0,1)	.13	.34	—								
2. Terrorists topic (0,1)	.23	.42	-.21*	—							
3. Org./Resources topic (0,1)	.11	.31	-.14*	-.19*	—						
4. Miscellaneous topic(0,1)	.19	.40	-.19*	-.27*	-.17*	—					
5. Far location (0,1)	.32	.47	-.10*	.32*	.07*	.02	—				
6. Very far location (0,1)	.16	.36	-.05	.04	-.05	-.04	-.29*	—			
7. Unknown location (0,1)	.15	.36	.10*	.01	.05	.09*	-.29*	-.18*	—		
8. Word count (LN)	3.18	.90	-.02	.20*	.15*	-.44*	.12*	-.07	-.03	—	
9. Future orientation (0,1)	.34	.47	.05	.15*	.16*	-.13*	.08*	-.06	.01	.31*	—
10. Concrete-Abstract	2.67	1.03	.00	.17*	.03	.06	.22*	-.06	.00	-.25*	.10*
11. Negative-Positive	2.75	.73	.14*	.00	.10*	.03	.12*	-.05	.02	.06	.15*
12. Uncertain-Certain	3.08	.68	-.01	.13*	.09*	-.01	.14*	-.05	.04	.04	.10*
<i>Level 2 (speaker, n = 382)</i>											
13. Female speaker (0,1)	.23	.42	-.06	-.20*	-.12*	-.01	-.24*	.08*	-.06	-.06	-.11*
14. Verbal ability	.17	.10	.09*	.12*	.10*	.07*	.17*	-.05	.16*	-.02	.04
15. Public role (0,1)	.41	.49	.01	.12*	.23*	.03	.41*	-.26*	.04	.06	.13*
16. Expert power (0,1)	.37	.49	.13*	.15*	.09*	-.04	.14*	-.12*	.09*	.14*	.09*
17. Position power (0,1)	.44	.50	.01	.14*	.20*	-.02	.28*	-.21*	.08*	.12*	.16*
Variable	10	11	12	13	14	15	16	17			
10. Concrete-Abstract	—										
11. Negative-Positive	.15*	—									
12. Uncertain-Certain	.19*	.24*	—								
13. Female speaker (0,1)	-.15*	-.15*	-.16*	—							
14. Verbal ability	.10*	.05	.10*	-.09	—						
15. Public role (0,1)	.27*	.23*	.15*	-.22*	.17*	—					
16. Expert power (0,1)	.08*	.09*	.10*	-.23*	.16*	.17*	—				
17. Position power (0,1)	.28*	.24*	.21*	-.27*	.16*	.65*	.37*	—			

* $p < .05$

Table 3

Abstraction: Multilevel maximum likelihood regression models estimating effects of speaker bases of power

Independent Variable	Full Sample		No Prepared Quotes	No Prepared Quotes & No Ordinary Persons
	Model 1	Model 2	Model 3	Model 4
Position power	.35*** (.09)	.26* (.12)	.25* (.12)	.22 [†] (.12)
Expert power	.11 (.09)	.12 (.09)	.07 (.10)	.03 (.11)
<i>Controls</i>				
Public role		.14 (.11)	.07 (.11)	-.02 (.13)
Future orientation	.22** (.07)	.22** (.07)	.27** (.07)	.25** (.09)
Female speaker	.11 (.10)	.12 (.10)	.13 (.10)	.34* (.15)
Verbal ability	-.09 (.47)	-.14 (.47)	.00 (.49)	.19 (.71)
Word count (LN)	-.31*** (.05)	-.31*** (.05)	-.35*** (.05)	-.31*** (.06)
Infrastructure topic	-.08 (.11)	-.09 (.11)	-.03 (.12)	.03 (.15)
Terrorists topic	.31** (.10)	.30** (.10)	.33** (.11)	.27 [†] (.15)
Org./Resources topic	.06 (.12)	.04 (.12)	.17 (.13)	.19 (.15)
Miscellaneous topic	.04 (.12)	.14 (.10)	-.11 (.11)	.08 (.15)
Far location	.38*** (.11)	.36** (.11)	.33** (.12)	.06 (.14)
Very far location	.10 (.11)	.10 (.11)	.11 (.11)	-.35* (.17)
Unknown location	.04 (.12)	.03 (.12)	-.01 (.12)	-.25 [†] (.15)
Constant	2.96*** (.30)	2.97*** (.30)	2.85*** (.39)	3.14*** (.49)
% variance attributed to speaker (Level 2)	23.4%	24.0%	23.4%	24.5%
-2 Log Likelihood	2240.1	2241.0	1936.5	1324.2
Level-1 <i>n</i> , Level-2 <i>n</i>	856, 382	856, 382	746, 363	505, 232

Note. All models include Day and Media Source fixed effects. Coefficients are restricted maximum likelihood estimates with standard errors in parentheses.

[†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 4

Valence: Multilevel maximum likelihood regression models estimating effects of speaker bases of power

Independent Variable	Full Sample		No Prepared Quotes	No Prepared Quotes & No Ordinary Persons
	Model 1	Model 2	Model 3	Model 4
Position power	.22** (.07)	.17 [†] (.09)	.16 [†] (.09)	.20* (.09)
Expert power	-.04 (.07)	-.04 (.07)	-.06 (.08)	-.08 (.08)
<i>Controls</i>				
Public role		.07 (.09)	.07 (.09)	.04 (.09)
Future orientation	.13* (.05)	.13* (.05)	.12* (.06)	.12 [†] (.06)
Female speaker	-.03 (.08)	-.03 (.08)	-.02 (.08)	-.03 (.11)
Verbal ability	-.44 (.37)	-.46 (.37)	-.52 (.38)	-.19 (.51)
Word count (LN)	.01 (.04)	.01 (.03)	-.01 (.04)	-.07 (.04)
Infrastructure topic	.47*** (.09)	.47*** (.09)	.49*** (.09)	.50*** (.11)
Terrorists topic	.03 (.08)	.03 (.08)	.05 (.09)	.09 (.10)
Org./Resources topic	.28*** (.10)	.26** (.10)	.34*** (.10)	.37*** (.11)
Miscellaneous topic	.23** (.08)	.23** (.08)	.26** (.08)	.23* (.10)
Far location	.13 (.08)	.12 (.08)	.05 (.09)	.05 (.10)
Very far location	.09 (.08)	.09 (.08)	.08 (.09)	-.01 (.12)
Unknown location	.02 (.09)	.02 (.09)	.12 (.10)	.09 (.11)
Constant	2.21*** (.23)	2.22*** (.23)	2.22*** (.30)	2.19*** (.36)
% variance attributed to speaker (Level 2)	25.8%	25.6%	29.6%	30.7%
-2 Log Likelihood	1823.8	1826.2	1551.0	993.4
Level-1 <i>n</i> , Level-2 <i>n</i>	856, 382	856, 382	746, 363	505, 232

Note. All models include Day and Media Source fixed effects. Coefficients are restricted maximum likelihood estimates with standard errors in parentheses.

[†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5

Certainty: Multilevel maximum likelihood regression models estimating effects of speaker bases of power

Independent Variable	Full Sample		No Prepared Quotes	No Prepared Quotes & No Ordinary Persons
	Model 1	Model 2	Model 3	Model 4
Position power	.15* (.07)	.20* (.08)	.22* (.09)	.27** (.09)
Expert power	.06 (.07)	.05 (.07)	.02 (.07)	.01 (.09)
<i>Controls</i>				
Public role		-.08 (.08)	-.11 (.08)	-.13 (.10)
Future orientation	.04 (.05)	.04 (.05)	.03 (.06)	.03 (.07)
Female speaker	-.08 (.07)	-.09 (.07)	-.09 (.07)	-.18 (.11)
Verbal ability	.28 (.34)	.31 (.35)	.40 (.36)	.66 (.53)
Word count (LN)	.01 (.03)	.01 (.03)	.01 (.04)	-.01 (.05)
Infrastructure topic	.00 (.08)	.01 (.08)	.03 (.09)	.12 (.11)
Terrorists topic	.13 [†] (.08)	.13 [†] (.08)	.10 (.09)	.11 (.11)
Org./Resources topic	.13 (.09)	.14 (.09)	.22* (.10)	.22 [†] (.11)
Miscellaneous topic	.02 (.07)	.02 (.08)	.08 (.08)	.12 (.11)
Far location	.10 (.08)	.12 (.08)	.12 (.09)	.17 (.11)
Very far location	.04 (.08)	.04 (.08)	.06 (.08)	.08 (.13)
Unknown location	.06 (.09)	.06 (.09)	.08 (.09)	.09 (.11)
Constant	2.71*** (.22)	2.70*** (.22)	2.59*** (.28)	2.56*** (.36)
% variance attributed to speaker (Level 2)	15.6%	15.8%	15.7%	24.7%
-2 Log Likelihood	1757.4	1759.4	1548.3	1040.9
Level-1 <i>n</i> , Level-2 <i>n</i>	856, 382	856, 382	746, 363	505, 232

Note. All models include Day and Media Source fixed effects. Coefficients are restricted maximum likelihood estimates with standard errors in parentheses.

[†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 6

Selection of quotations and speakers to illustrate variance in characteristics of construal

Construal Characteristic	Quotation	Speaker
<i>Abstraction</i>		
Concrete	He's about 6'1", heavy set, big shoulders and a big chest.	Friend of a victim ^a
Abstract	We will do whatever it takes to keep these people safe.	Senior VP, Bloomingdale's ^b
<i>Valence</i>		
Negative	It's just desperate times. We will try anything you can.	Father of a victim ^a
Positive	These markets are remarkably strong and remarkably resilient.	Chairman of SEC ^b
<i>Certainty</i>		
Uncertain	I don't know how they're going to do it.	Real estate employee ^a
Certain	We are quite confident of Pakistan's support, and we're going to continue to move forward.	Unidentified Pentagon official ^b

Note. These quotations scored greater than 2 standard deviations from the grand mean on the construal characteristic that they were selected to illustrate.

^aSpeakers who were coded as possessing no position power in their roles. ^bSpeakers who were coded as possessing position power in their roles.