Organization Science

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Using a thematic text analysis of the initial letters to shareholders following a CEO succession event, we analyze whether CEO charismatic visions portrayed in this organizational discourse influence securities analysts' recommendations and forecasts. The results suggest that such projections of CEO charismatic visions are associated with the favorability of individual analyst recommendations and the uniformity of recommendations across analysts, but they also appear to be positively related to errors in individual analysts' forecasting of future firm performance.

Key words: CEO charisma; securities analysts; stock market as a social construction; discourse analysis
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The business press and stock market actors alike see CEO charisma as a key to shareholder wealth. For instance, a *New York Times* article on the ousting of Morgan Stanley CEO Philip J. Purcell maintained, "[W]hat seems to have really hurt Morgan Stanley was that Mr. Purcell did not have the charisma to make his vision...function effectively" (Anderson 2005). Securities analysts also exalt charisma, as shown by a Dillon Read analyst celebrating the appointment of C. Michael Armstrong to AT&T's head post in 1997: "AT&T appears to have gotten the superstar CEO it needs to firmly guide the company" (Khurana 2002, p. 78). Of course, such institutional intermediary proclamations implicitly presuppose that CEO charisma is related to organizational performance, a question receiving growing attention by researchers, though so far with equivocal results (Agle et al. 2006, Flynn and Staw 2004, Khurana 2002, Tosi et al. 2004, Waldman et al. 2001).

But this latter relationship (or lack of) notwithstanding, work by Khurana (2002) and Fanelli and Misangyi (2006) on CEO charisma, as well as that on social construction processes such as CEO celebrity (Hayward et al. 2004, Meindl and Thompson 2005, Wade et al. 2006), points to the importance of examining CEO charismatic effects on institutional intermediaries in their own right, as a social construction process. In short, because external observers "experience" the characteristics of CEOs and their organizations through

organizational discourse (Rindova and Fombrun 1998), the charismatic relationship with institutional intermediaries occurs primarily through the projection of such discourse portraying the CEO's personal characteristics in charismatic terms and/or conveying a charismatic vision (Fanelli and Misangyi 2006). Thanks to the appetite of the business community for images that reinforce antideterministic beliefs (Chen and Meindl 1991, Deephouse 2000), such projections stand to influence institutional intermediaries' evaluations. In essence, charismatic images projected by firms afford institutional intermediaries "with a cognitive shortcut that allows them to reduce their evaluative uncertainty," thereby influencing the refracted images put out by institutional intermediaries (Fanelli and Misangyi 2006, p. 1053). Thus an understanding of charismatic effects on institutional intermediaries is of clear importance, especially given the latter's influence on organizations and other stakeholders (Deephouse 2000; Pollock and Rindova 2003; Rindova and Fombrun 1999; Zuckerman 1999, 2000). Yet beyond anecdotal evidence (e.g., Khurana 2002), no systematic research has been done to examine this issue.

It is precisely this proposition that we aim to examine: *does the projection of charismatic language in organizational discourse influence the judgments of institutional intermediaries*? To do so, we focus upon the projection of CEO visionary language and examine whether it

has an effect on a particular type of institutional intermediary: securities analysts. Securities analysts serve as influential critics whose recommendations and forecasts greatly affect investors' perceptions and firms' market valuations (Barber et al. 2001, Zuckerman 1999). Analysts are a major target of investor-relations campaigns and managerial efforts to influence investor demands (Useem 1996, Rao and Sivakumar 1999). By utilizing the three dimensions widely considered to be the main mechanisms through which analysts affect investors and market valuations—the favorability and uniformity of recommendations and forecast accuracy (Francis and Soffer 1997)—we develop hypotheses that explore two basic research questions: (1) whether or not CEO visions portrayed in charismatic language *do* influence analyst evaluations and (2) whether or not they *should* influence them. First, we suggest that projections of CEO charismatic visions (CCV, hereafter) influence analysts' cognitive categorizations of CEOs and their organizations and thus analysts' evaluations. We test this by examining whether CCV affect the favorability of individual analyst recommendations and the uniformity of recommendations across all analysts following the firm. Second, although organizational discourse influences those outside the organization (Rindova and Fombrun 1999), it may be disconnected from substantive organizational practices (Pfeffer 1981) and thus not provide information that is useful to analysts. We examine this issue by looking at analyst forecast errors: if CCV are merely symbolic action, then they should adversely affect analyst forecast accuracy. We test these hypotheses using thematic text analysis of new CEOs' first letters to shareholders on a sample of 367 U.S. CEO successions during the period 1990–1999.

CEO Charismatic Language and Securities Analysts

Theory suggests that CEO charismatic attributions stem from characteristics of both CEOs (i.e., particular CEO *personae* and/or behaviors) and observers (i.e., attribution processes) (Fanelli and Misangyi 2006, Khurana 2002, Waldman and Yammarino 1999), thereby connecting and extending previous "leader-centric" and "follower-centric" approaches to charisma. According to the former, charisma is a relationship in which "leaders' behaviors form the basis of followers' attributions" (Conger and Kanungo 1987, p. 645; Agle et al. 2006; Flynn and Staw 2004; Tosi et al. 2004). The latter sees charisma as mainly a social construction by observers (Meindl 1995, Meindl and Thompson 2005). Theory on CEO charisma instead embraces the notion that charisma resides "in the *relationship* between a leader who has charismatic qualities and those of his or her followers who are open to charisma within a charisma-conducive environment [italics in original]" (Klein and

House 1995, p. 183) and incorporates both the leader and follower sides of the CEO charismatic attribution process. For example, Khurana (2002) suggests that CEO charisma is a relationship based upon both the personal characteristics of CEOs (i.e., "communicating an essential optimism, confidence," p. 71) as well as the needs of organizational participants (i.e., who have a "need for 'vision' and 'leadership,'" p. 72).

For the purposes of the current study, it is also important to recognize that though the CEO's relationship with external organizational participants differs from that with internal organizational members, the former relationship exists nonetheless (Fanelli and Misangyi 2006). In the case of securities analysts, for example, once an analyst adopts coverage of a firm's security, a very real relationship exists between analyst and CEO (Zuckerman 1999, 2000). In general, the difference across relationships centers upon authority: the internal relationship is characterized by the CEO's rational-legal authority over subordinates, whereas the relationship between CEO and external participants occurs "within a network structure of non-hierarchical relations...[and] because their [i.e., CEOs'] power over outsiders is relatively unstructured and unpredictable...symbolic management represents a primary means by which executives attempt to buttress their relatively less powerful position" (Fanelli and Misangyi 2006, p. 1052). Once a leader is physically, socially, or psychologically distant from his/her followers, symbolic skills become of primary importance (cf. Antonakis and Atwater 2002). Visionary statements are one of the fundamental symbolic actions through which charisma has its effects (e.g., House and Aditya 1997, Shamir et al. 1993).

Vision statements tend to incorporate similar elements— the leader's evaluation of the status quo, his/her formulation and articulation of organizational goals, and his/her projected means to achieve the goals (Cheney and Christensen 2001). Charismatic visions present these elements in a particular way: "[C]harismatic leaders are very critical of the status quo" (Conger and Kanungo 1998, p. 51); they "articulate a 'transcendent' goal which ...is ideological, rather than pragmatical, and is laid with moral overtones" (House 1977, p. 197), and their means to achieve the goal show a strong "concern for followers' needs" (Conger and Kanungo 1998, p. 55). Therefore, although the "leaders' side" of the charismatic attribution process may be composed of both the CEO's persona and vision (Fanelli and Misangyi 2006, Khurana 2002), we give a central position to the latter. As Shamir (1995, p. 28) and others (e.g., House et al. 1991, Katz and Kahn 1978) have argued, language describing the leader's vision and mission "is the main medium of communication and influence in" distal charismatic effects. Indeed, its potential influence on analyst judgments is particularly acute, as organizational

discourse forms the core basis of analysts' evaluations (Clemente 1988).[1]

Because this conception of CEO charismatic effects is in part a social construction by observers, it is worth examining how it relates to other social constructions such as CEO celebrity (e.g., Hayward et al. 2004, Meindl and Thompson 2005, Wade et al. 2006). In essence, the latter has been conceptualized in a manner consistent with a "follower-centric" construction of leadership (e.g., Meindl 1995) that is primarily built upon positive past performance: CEO celebrity arises "when journalists broadcast the attribution that a firm's positive performance has been caused by its CEO's actions" (Hayward et al. 2004, p. 639). In other words, in their attempts to account for past positive firm performance, journalists create CEO celebrity (see also Meindl and Thompson 2005) by attributing firm actions to the CEO's volition (via perceptions of the distinctiveness and consistency of those actions with regard to the CEO; i.e., Kelly 1972). Once constructed, celebrity status creates an expectation of positive future performance because it influences the perception of celebrity CEO and firm stakeholders alike that the CEO has control over future firm performance (Hayward et al. 2004). The evidence to date suggests, however, that CEO celebrity is related to negative firm performance outcomes because celebrity status may lead to CEO overconfidence (Hayward and Hambrick 1997, Malmendier and Tate 2008) or to higher expectations among stakeholders than can be met by the CEO (Wade et al. 2006).

This social construction process of celebrity points to the commonalities, as well as the differences, between the CEO celebrity and CEO charisma concepts. First, the constructs are related in that past positive performance undoubtedly also affects charismatic attributions (Agle et al. 2006, House et al. 1991). Moreover, charisma too is susceptible to the deliverance of positive performance: the charismatic's "mission must prove itself by *bringing well-being* to his faithful followers; if they do not fare well, he obviously is not the god-sent master [italics in original]" (Weber 1947; cf. Khurana 2002, p. 261). A second connection between CEO celebrity and charisma is that the projection of charismatic language by CEOs and their firms (i.e., the leader's side of the charismatic attribution process; Fanelli and Misangyi 2006) will most surely afford celebrity status to the CEO (Khurana 2002). The Rindova et al. (2006) definition of firm celebrity—that celebrity occurs when firms attract attention and elicit positive emotional responses—suggests that many charismatic features (e.g., extraordinary emotional expressiveness, risk taking, "symbolic and emotionally appealing leader behaviors"; House and Aditya 1997, p. 440) will contribute to leaders who exhibit such qualities becoming celebrities. The reverse, however, is not true: the work of Meindl and Thompson (2005) clearly suggests that not

all social constructions of CEO celebrity entail charismatic attributions. Although the attribution of a CEO as charismatic "is perhaps one of the most celebrated and romanticized constructions of leadership" (Meindl and Thompson 2005, p. 18), charisma is but one type of CEO celebrity construction, the latter being guided by a variety of alternative leadership archetypes and inputs that "include meeting an audience's needs for gossip, fantasy, identification, status, affiliation, and attachment" (Rindova et al. 2006, p. 51). This highlights an essential difference between the constructs: whereas the projection of charismatic attributes acts as a potential input into the broader celebrity construction process, CEO charismatic attributions result from the projection of specific CEO characteristics (i.e., charismatic vision for the future) and have particular effects on external observers' assessments of the CEO and organization (Fanelli and Misangyi 2006).

In short, CEO visionary statements weaved with charismatic language present an optimistic, coherent, value-laden, and empowering "vivid image of the future" (Shamir et al. 1993, p. 585), thereby framing the future expectations about the firm and its performance in a potentially appealing manner to external organizational participants. This is an important feature distinguishing CEO charismatic attributions from the construction of CEO celebrity: the projection of the CEO's vision in charismatic language influences external actors' categorizations and future expectations of the firm, even in the absence of a past history of performance that can be attributed to the CEO.[2] Such framing is especially appealing to institutional intermediaries because they are "open to charisma" (i.e., antideterministic bias; Chen and Meindl 1991, Meindl and Thompson 2005). The CEO-institutional intermediary relationship exists within a "charisma-conducive" environment: the significance of the "corporation, commitment to the job, and teamwork…has become quasi-religious, as suggested by the importation of terms such as *mission* and *values* into the contemporary corporate lexicon [italics in original]" (Khurana 2002, p. 71). The contemporary business *milieu* is thus a social context particularly disposed to the visionary aspects of charismatic leadership, especially among stock market actors: "[I]f the shareholders understand your strategy, they'll bear with you. If you have a down quarter, they are not going to be worrying about it, because they know what your future plans are" (investor relations director as quoted by Useem 1996, p. 203). Given this theoretical background, we now investigate the relationships between CEO charismatic language and securities analysts' judgments.

CEO Charismatic Visions and Favorable Analyst Recommendations
Much work has looked at the business press's attributions and social constructions of organizations and CEOs

(e.g., Chen and Meindl 1991, Deephouse 2000, Hayward et al. 2004, Meindl and Thompson 2005, Pollock and Rindova 2003, Wade et al. 2006), yet relatively less attention has been given to these processes among securities analysts. The work of Zuckerman is instructive here: because the quality of a stock is unobservable and ambiguous, financial securities are "social goods"— their value "reflects the set of beliefs held by investors about one another's beliefs" (Zuckerman 2000, p. 594). Therefore, stock evaluation is "necessarily an interpretive exercise" (Zuckerman 1999, p. 1431), and securities analysts serve as "expert" critics between firms and investors in this interpretive process (Zuckerman 2000). The firm-analyst link outweighs the firm-investor link: "[S]ellers [firms] may become players only when recognized as such by critics. Thus sellers must gain acceptance for their view of their product's identity. Failure to gain recognition as a player lowers a product's [firm's stock] chance of success" (Zuckerman 1999, p. 1405). This view of the stock market is consistent with sociological (e.g., Fligstein 2001, White 1981) and cognitive perspectives (e.g., Porac and Thomas 1990, 1994) of markets as social constructions and points to the fundamental role of cognitive categorization processes in facilitating stock valuations. Actors within the stock market interpret one another's actions by comparing them with those deemed acceptable for their particular social positions, and social objects are judged by their congruence to accepted categories (Zuckerman 1999); legitimacy and evaluation are governed by the perception of congruence with appropriate categories. As Zuckerman (1999, p. 1399) found, "unclassifiable actors and objects suffer social penalties": a lack of coverage of a firm's stock by industry securities analysts resulted in an "illegitimacy discount"; the firm's "industrial identity" was not endorsed by "industry specialists."

There are at least two reasons, then, to believe that organizational discourse conveying the CEO's visions in a charismatic manner (CCV) are likely to favorably influence analysts' cognitive categorization processes and thus their stock recommendations. First, CCV should lead analysts to categorize the CEO as charismatic by matching their implicit leadership theories (e.g., Lord 1985). That is, people determine what constitutes a leader, including charismatic ones, through a common set of categories (Shamir 1995, Meindl and Thompson 2005). Evidence suggests that such categorizations are influenced by the projection of language surrounding leaders' visions. Shamir (1995) found that distant charismatic leaders (i.e., distal relationships) were more frequently characterized by their rhetorical skills, ideological orientation, and sense of mission (as compared to proximal relationships). Steyrer (1998) suggests that charismatic presentations by leaders activate automatic recognition processes among their followers, leading to charismatic categorizations. Therefore, the projection of

CCV triggers such categorization (Fanelli and Misangyi 2006). Furthermore, distinctive CEO actions or visions are a key characteristic contributing to charismatic attributions (Conger and Kanungo 1998, Shamir et al. 1993). As such, this restricts the number of charismatic attributions that can be formed in any particular constructive field (i.e., industry; Meindl and Thompson 2005); thus such a categorization affords a higher status for the CEO, thereby enhancing the organization's identity, and analysts' evaluations of it, in a favorable manner (Podolny 1993).

The second way that CCV stand to influence categorization processes is through the construction of organizational identity. In general, CEO visions "contribute to shaping organizational identities, in that they differentiate one organization from other organizations in the eyes of managers and stakeholders" (Scott and Lane 2000, p. 45). Such social identification processes are central to charismatic effects (House 1977, Shamir et al. 1993): by defining the boundaries of their collectivities in a manner that is congruent with the values, interests and goals of participants, projections of charismatic language create a "social category" with which participants can identify. By presenting a clear and strong image of the organization's identity and the path toward future performance, charismatic visions define the boundaries of the organization in a manner that emphasizes "its distinctiveness, prestige, and competition with other groups" (Shamir et al. 1993, p. 586). As such, CCV should influence analysts' categorizations of the firm. At the same time, there is a potential gain to analysts for conveying, as "stock critics," such distinctiveness: "[C]onstructing charisma allows analysts and CEOs alike to manage their reciprocal interdependence while raising their standings in their respective labor markets" (Fanelli and Grasselli 2006, p. 824). Thus CCV should influence analyst categorizations of the organization and its stock in a favorable manner.

In short, CCV influence analysts in their intermediary role because they increase the likelihood of analysts categorizing the CEO and firm as a "product" worth supporting, thereby resulting in favorable recommendations for the firm's stock.

Hypothesis 1. *The projection of CEO charismatic visions in organizational discourse is positively related to the favorability of individual analyst recommendations.*

CCV and the Uniformity of Analyst Recommendations

CCV are also likely to engender uniformity in recommendations *across multiple analysts* following the same firm because the structural characteristics of the CEO-analyst relationship should lead to homogeneous categorizations of the CEO as charismatic. Klein and House (1995, p. 188) suggest that "homogeneity in charisma"

results when the following three conditions exist (pertaining to the leader, followers, and charisma-conducive environment, respectively): (1) the leader treats followers in a consistent fashion (as opposed to a variety of dissimilar dyadic relationships); (2) followers share similar values and orientations to work and social relations (in regard to each other as well as the leader); and (3) the context is such that followers can freely choose to join (and leave) the leader (i.e., as opposed to leader and followers being "stuck with each other," Klein and House 1995, p. 190) and that it is open to social contagion (i.e., Meindl 1990) or social influence (i.e., Salancik and Pfeffer 1978) effects. The CEO-analyst relationship tends to satisfy all of these conditions.

First, as already discussed, analysts experience the leader's treatment primarily via language projected in organizational discourse (Fanelli and Misangyi 2006), which they are compelled to use in drafting their evaluations (Clemente 1988). Furthermore, although analysts' access to CEOs may vary widely (Reingold 2006), consistent treatment of analysts is mandated by regulations and by public scrutiny, for "selective disclosure has long been criticized as a scourge plaguing information dissemination" (Arya et al. 2005, p. 244). Therefore for any given firm, analysts should tend to receive rather consistent treatment by the firm's CEO. Of course, this is true for all firms with regard to charismatic language projected in organizational discourse.

Second, analysts' values and orientations are affected by strong standard-setting professional bodies (such as the Chartered Financial Analyst Institute); by the homogeneity of their demographic and educational backgrounds (e.g., more than two thirds of the candidates to the CFA examination are male and below 35 years of age: Chartered Financial Analyst Institute 2005); and by public scrutiny and rankings such as the annual *Institutional Investor All-Americans* poll. Analysts also clearly value "leadership" (Khurana 2002) and, like journalists, have a need for clear narratives: "[T]he bottom line is that financial analysts want companies…to 'tell the corporate story' to external users" (Epstein and Palepu 1999, p. 51). Analyst reports contain summary judgments that are irrevocable, volitional, and public, thereby engendering a consistency motive similarly to other media (i.e., business press, Chen and Meindl 1991). The cognitive categorization processes triggered by the projection of CCV fit in well with this need for consistency; once a CEO is categorized as charismatic, analysts will be more likely to seek information that confirms the beliefs they already have rather than falsifies them, thus making it less likely for diverging evaluations to appear. When people expect certain behaviors from a stimulus person (i.e., a charismatic CEO), they notice and recall them more than they do unexpected but equally available ones (Feldman 1981). For example, Awamleh and Gardner (1999) found that subjects exposed to a strongly

visionary speech assessed organizational performance data in a manner favorable to the CEO, inferring success from charismatic language rather than actually evaluating it: "when [people] attribute charisma to a leader, effectiveness may be simultaneously inferred, *even if evidence to the contrary is readily available* [emphasis in original]" (p. 361). The aggregate effect of this individual-level "positive hypothesis testing" is that it limits the degree of dissenting opinions and evaluations, and thus a uniform consensus among analysts materializes to the point that "charisma typifies the group as a whole" (Klein and House 1995, p. 187). In short, the framing provided by CCV engenders positive hypothesis testing as an individual analyst heuristic favoring the transformation of the "vision of the CEO into a collective project" (Fanelli and Grasselli 2006, p. 827).

Finally, the issuance and discontinuation of recommendations about a firm both are "free" individual decisions made by analysts as well as are highly susceptible to "social proof" (Rao et al. 2001), and this context should contribute to uniformity in recommendations. Klein and House (1995) argue that uniform charismatic effects are more likely in situations when subordinates can freely choose or leave their leader. Subordinates repelled by the values and moral overtones making up the leader's charismatic message, and who have alternative options, can and do leave the leader. The network relationships and competitive communications characterizing the context of the relationship between CEO and external constituents (Fanelli and Misangyi 2006) create this condition. Furthermore, environments in which social influence processes operate are also conducive to uniform charismatic attributions (Meindl 1990, 1995) because such processes fan "the fire of charisma" (Klein and House 1995, p. 190). Given the uncertainty involving stock evaluations, social influence processes operate among securities analysts (i.e., "herding behavior;" Rao et al. 2001, Welch 2000).

In short, given these characteristics of the CEO-analyst relationship meet the conditions for homogeneous charismatic attributions, "differences of opinion are likely to be rare" (Klein and House 1995, pp. 191–192). Given the influence that such cognitive categorization processes have on analysts' evaluations of firms, CCV should also therefore be associated with a uniformity of recommendations across analysts following the firm. Formally,

HYPOTHESIS 2. *The projection of CEO charismatic visions in organizational discourse is positively related to the uniformity of analyst recommendations across all analysts following the organization.*

CCV and Analyst Forecast Errors
The foregoing arguments suggest that firms' projections of CCV affect analysts' evaluations because CEO visions articulated in a charismatic manner evoke in

the minds of analysts a cognitive categorization of the firm as one that will produce positive results. CCV thus constitute a form of symbolic action. As such, it is possible that it could become disconnected (i.e., decoupled; Meyer and Rowan 1977) from actual organizational practices. Evidence suggests that organizational discourse and formal policy announcements may be decoupled from implemented practices (e.g., Westphal and Zajac 1995, 1998, 2001) and that this nevertheless influences external constituents' impressions in a manner favorable to the firms projecting the symbolic action (e.g., Zajac and Westphal 2004). The decoupling of symbol from substance provides a "rational (as well as practical)" (Scott 1995, p. 129) means by which organizations implement practices when there is a high degree of process and goal uncertainty and ambiguity (Meyer and Rowan 1977). Because the policy offered in CEO charismatic visions engenders such uncertainty and indeterminacy—i.e., CCV offer an ideological and moral articulation of goals and an "empowering" means to achieve the goal—at least some disconnection between CCV and actual organizational practices and outcomes is likely to occur.

To the extent that such a disconnection occurs, it would diminish analysts' ability to accurately forecast future firm performance. The prediction of future firm performance by analysts would seem difficult at best. This of great importance to analysts because they routinely forecast the future levels of several indicators of firm performance and because forecast accuracy is a measure of the analyst's ability to correctly inform investors' decisions (Hunton and McEwen 1997), a "measurable performance characteristic that establishes analyst reputation" (Stickel 1992, p. 1813). Thus although it is well beyond the purview of the current study to directly examine the potential decoupling processes that may underlay CCV, it is in our interest to examine the implication that this issue has for analyst forecast accuracy. Theoretically, it appears likely that CCV as a form of symbolic action may be decoupled from more substantive organizational actions; doing so would have an adverse effect on analysts' ability to forecast future firm performance, thereby decreasing their forecast accuracy. Therefore, a positive relationship between CCV and analyst forecast errors would suggest that analysts should *not* incorporate CCV into their judgments.

Hypothesis 3. *The projection of CEO charismatic visions in organizational discourse is positively related to analyst forecast error.*

Methods

Data and Sample
The sample consists of all CEO succession events that occurred between 1990 and 1999 within a random sample of 800 U.S. publicly traded corporations comprising 30 industries (four-digit SIC). We identified 725 CEO succession events occurring in this sample using the ExecuComp® database. We then excluded cases in which attributions of charisma could be confounded by extraordinary succession events (e.g., mergers and acquisitions, bankruptcy, etc.) or the vision could not be attributed to one single individual, as in the case of extraordinary appointments (e.g., co-CEO, interim CEO, etc.), thus bringing the sample to 419 events. Availability of public relations documents about the succession brought the final sample to 367 CEO succession events.

We focus on CEO succession events for several reasons. First, a major problem in studying the charismatic relationship is that attributions of charisma are affected by the leader's previous performance (House et al. 1991); thus we focus on organizational discourse issued immediately following a CEO succession. Because analysts are evaluating a newly appointed CEO, attributions of charisma are not tainted by previous CEO performance within the same firm. Second, the hiring of a new CEO is a time when the vision becomes of central concern for all stakeholders (Cannella and Shen 2001). Finally, while charismatic attributions are most likely to emerge in conditions of crisis (e.g., House 1977), "a variety of environmental conditions, which simply arouse uncertainty but do not constitute real crises, may also engender the development of charismatic leadership" (Klein and House 1995, p. 185)—conditions including CEO successions (Khurana 2002, Waldman and Yammarino 1999).

Dependent Variables

Favorability of Analyst Recommendations. We collected all of the recommendations issued by each of the analysts covering each of the 367 firms within one year after the release of the letter to shareholders (I/B/E/S and FirstCall® databases). This time frame was based upon Hambrick and Fukutomi's (1991) suggestion that CEOs remain relatively faithful to their original paradigm in the first phase of their tenure (i.e., approximately one year). What constitutes the appropriate time frame to examine discourse effects is unclear; thus we used two different time frames within this period to measure the favorability of each analyst's recommendations by calculating the 6-month and 12-month average recommendation for each analyst. Both I/B/E/S and FirstCall map recommendations onto a standard five-point scale (1 = strong buy; 2 = buy; 3 = hold; 4 = underperform; 5 = sell), and thus favorability of recommendations was measured on a five-point scale (1 = very favorable, 5 = very unfavorable).

Uniformity of Recommendations Across Analysts. Analyst recommendation uniformity was measured for each firm as the standard deviation from the consensus (mean) recommendation across all analysts following the

firm, as this is the commonly used measure by previous studies (e.g., Christie and Huang 1995, Lang and Lundholm 1996). We collected this variable from the I/B/E/S database, where it is calculated on a monthly basis, thereby representing the monthly dispersion of recommendations for all of the analysts following each firm. As with the favorability measure, we collected this monthly data up to one year after the release of the first letter to shareholders and examine the uniformity of recommendations at 6 months and 12 months after the release of the letter.

Analyst EPS Forecast Error. Although analysts forecast several firm performance variables (e.g., sales, growth, profits), we used forecasts of earnings per share (EPS) because they are the most widely used measure in studies of forecast accuracy (e.g., see Beaver et al. 2008). We calculated the average forecast error ($E_{a, y, t}$) of each individual analyst following the firm:

$$E_{a, i, y(t)} = |A_{i, y(t)} - F_{a, i, y(t)}|,$$

where $E_{a, i, y(t)}$ is the absolute average forecast error of analyst a following firm i for fiscal year t, $A_{i, y(t)}$ is the actual EPS for firm i in year t, and $F_{a, i, y(t)}$ is the forecast of analyst a of EPS of firm i for fiscal year t. Data were collected from the I/B/E/S Detail + History database. For each of the firms in the sample, we collected all analyst forecasts and actual EPS, starting from the release of the first letter to shareholders to up to one year after the release of the letter; the EPS forecast error for each individual forecast was calculated following the above formula. We then obtained a single measure of EPS forecast error for each analyst for two time frames by using the six month and one year averages of these values for each analyst. Following previous studies (e.g., Beaver et al. 2008), we then standardized this measure to allow comparability across different firms by dividing each aggregate analyst score by the relevant firm stock price at the date corresponding to the filing of the first letter to shareholders, as reported by I/B/E/S.

Independent and Control Variables

CEO Charismatic Visions (*CCV*). CEO charismatic visions were measured through a thematic text analysis of the first letter to shareholders signed by the newly appointed CEO for each of the 367 companies (obtained from ABI/INFORM®, LexisNexis®, and Compact Disclosure). The first letter to shareholders issued after the appointment represents the first formal communication between a new CEO and shareholders that is comparable across firms. Hence the vision of the new CEO can be expected to be extremely salient in this document (Hambrick and Fukutomi 1991). Furthermore, the letter to shareholders presents several characteristics that

make it very suitable to the current inquiry: it is relatively free from legal restrictions about its form or content (Abrahamson and Park 1994); it communicates both facts and beliefs in a form that is directly approved by the CEO (D'Aveni and MacMillan 1990); and it reflects managerial attributions, locus of attention, and framing strategies (D'Aveni and MacMillan 1990, Porac et al. 1999, Staw et al. 1983).

Thematic text analysis measures the frequency of occurrence of the concepts under study, as evidenced by particular terms or expressions, within given conceptual nodes. A conceptual node is a subset of the document that includes all text units (sentences, in this case) sharing a given topic, such as a dimension of the theoretical construct being measured (Popping 2000). This type of analysis has been used in previous studies to assess the charismatic language in presidential speeches (Emrich et al. 2001) and it is an excellent means of assessing CEO charisma as perceived by distant followers (Waldman and Yammarino 1999). We used this technique to measure the degree to which each letter portrayed a CEO charismatic vision; the technique involves three distinct stages of analysis (Popping 2000): (1) the identification of conceptual nodes and the coding of sentences in each letter to shareholders to a particular node, (2) the construction of search dictionaries containing terms that theoretically represent the occurrence of the concepts within the conceptual nodes, and (3) the actual measurement and construction of an overall CCV score for each CEO.

In Stage 1, we defined three conceptual nodes corresponding directly to the three dimensions proposed by charismatic leadership theory to lead to charismatic attributions. The first node, "assessment of the past" ("Past" hereafter), was constructed to capture that part of the letters relevant to the *Evaluation of the Status Quo* dimension of CCV. For Conger and Kanungo (1998), charismatic CEOs delegitimize the past, emphasize crisis if present, and invoke the need for radical change: "Charismatics often present the status quo as intolerable" (Gardner and Avolio 1998, p. 46; see also House 1977). The second node, "plans for the future" ("Future" hereafter), was aimed at capturing the *Formulation and Articulation of Goals* CCV dimension, which for charismatic CEOs is characterized by ideological, moral, and emotional overtones (Ashforth and Humphrey 1995, Conger and Kanungo 1998, Shamir et al. 1993). Indeed, the thematic text analysis of Emrich et al. (2001) that employed an image-based dictionary found that terms evoking emotions and morality significantly correlated with ratings of charisma. The purpose of the third conceptual node, "shareholders, employees, and organizational capabilities" ("SEOC" hereafter), was to capture the portions of text dealing with the *Means to Achieve the Vision* dimension of CCV. Charismatic leaders portray the means toward achieving their goals in a manner that empowers members and the collective (Conger and Kanungo 1998,

Shamir et al. 1993). Charismatic leaders "make references to the collective, and use inclusive terms, such as 'we,' 'us,' and 'our' in describing goal and achievement" (Gardner and Avolio 1998, p. 46). They also emphasize "collective efficacy"—the collective's capability in accomplishing success—in their communications, which works to increase the "effort-accomplishment expectancies" among organizational participants (Shamir et al. 1993, p. 582). Although previous theory has primarily focused upon leaders and followers internal to organizations, we expect that visions communicated primarily toward the external would also emphasize their concern for organizational stakeholders, their belief in the collective's efficacy, and their positive and optimistic view of the future.

We then coded each sentence within each of the 367 letters to one of these nodes. Having three distinct conceptual nodes within each letter allowed us to perform subsequent word counts separately on each node rather than on the whole document, thereby increasing the internal validity of the final measure of CCV (Wade et al. 1997). The coding of sentences to the three nodes was conducted by one of the authors and one undergraduate student assistant, who scanned all of the 367 letters, assigning sentences with the QSR N6® software. The assistant underwent two training sessions of one hour each, in which coding rules were explained and tested directly on actual letters. We intentionally assigned neutral labels to the nodes (i.e., Past, Future, SEOC) in order to avoid cueing the student coder about the underlying theory. Subsequent coding disagreements were resolved through direct discussions until complete agreement was achieved. The criteria used for assigning sentences to the nodes were as follows: for Node 1 (Past), we coded all sentences that described and evaluated some event initiated in the past and concluded at the time of the letter. Of particular interest was the CEO's assessment of the firm's past performance. For Node 2 (Future), we coded all sentences that (a) referred to the CEO's strategy, vision, mission, for the years to come; (b) referred to actions initiated in the past and still ongoing in the present; and (c) contained an exhortation (e.g., "we must achieve a stronger market positioning") or a prediction of the future state of the firm, either tangible (e.g., "we will reduce debt by 12% within the end of the year") or intangible (e.g., "What we're doing, really, is building a new [company name]—new culture, new directions, new spirit"). For Node 3 (SEOC), we coded all sentences that (a) referred to internal *or* external stakeholders and (b) described the strengths of the organization as a whole (e.g., "engineering capabilities") to capture expressions of CEO concern for, and confidence in, the collective. Sentences not pertaining to any of the dimensions were not coded and thus not incorporated into the analysis.

In Stage 2 of the thematic text analysis, we constructed specific search dictionaries used to capture each CCV dimension (e.g., "charismatic evaluation of the status quo") within its respective conceptual node (e.g., "assessment of the past"). A dictionary is a set of search terms that serves as a concrete representation of the underlying theory (Popping 2000, p. 44); the terms' appearance within a conceptual node indicates the insistence of the speaker on a theoretically relevant theme—i.e., the three dimensions of the CEO's charismatic vision. As an analogy, each dictionary is equivalent to a scale measuring each particular CCV dimension, and the terms included in the dictionaries are analogous to the scales' individual survey items. As shown in Table 1, we constructed these dictionaries by drawing upon the dictionary used in Abrahamson and Park (1994), the Lasswell Value Dictionary (LVD), and the Harvard IV Dictionary (HIVD) (Weber 1988) as well as terms obtained inductively by scanning a sample of letters to the shareholders. Appendix A provides a more in depth explanation of the construction of these dictionaries as well as several assessments of their validity.

In Stage 3, we used the search dictionaries to analyze the conceptual nodes through the text analysis software Diction®, which allowed for the calculation of an overall CCV score for each CEO. We conducted a separate analysis of each of the three conceptual nodes on each letter to shareholders, using the dictionaries specifically constructed to capture the particular dimensions of CEO charismatic visions. The analyses generated separate raw word counts within each letter for each dictionary and for each node (number of hits). Raw counts were then divided by the total number of words within each letter, thus measuring the relative frequency of use of a given dictionary (Popping 2000). The use of relative frequency controls for the overall length of the letter, thereby capturing the presence of a charismatic theme. Its usage is similar to previous studies that have used computer-aided text analysis to "detect frequencies of high level 'concepts' in naturally occurring text" (Wade et al. 1997, p. 648). Table 1 presents raw counts and frequencies for each dictionary and each node.

Finally, an overall CCV score was obtained for each CEO by summing relative frequencies across all dictionaries, thereby measuring the relative intensity of the charismatic language within each letter. The three dimensions of CCV were summed because CEO charismatic visions are most appropriately modeled as having "formative indicators"—the dimensions are "viewed as coming together to 'cause' or 'form' the construct" (Podsakoff et al. 2003, p. 617). Charismatic leadership and leaders' articulation of a vision include distinct dimensions that are "not all interchangeable" and "would not necessarily covary" because the antecedents and consequences of the distinct leader behaviors or activities that form these dimensions "would not necessarily be expected to be the same" (Podsakoff et al. 2003, p. 650). In other words, each dimension exists

Table 1 Construction of Search Dictionaries and CCV Measurement

CCV dimension (Node)	Dictionaries* used to measure CCV dimension	Number of included search terms and examples	Dictionary		Node/Overall			
			Average no. hits (std. dev.)	Average freq. (no. of hits/letter)	Average word length (std. dev.)	Average no. hits (std. dev.)	Average freq. (no. of hits/letter)	
Evaluation of status quo (Past)	Abrahamson and Park (56)	56 negative words (e.g., "sluggish," "disappointing," "downturn," "inability," "worst")	1.76 (2.59)	0.0014				
	NegAff category, LVD (193)	93 words of negative affect (e.g., "awful," "collapse," "detrimental")	0.26 (0.66)	0.0002	402.9 (243.4)	2.7 (3.5)	0.0022	
	Negative terms, inductive (35)	35 negative assessment words (e.g., "bureaucratic," "unacceptable," "terrible," "lags")	0.68 (1.31)	0.0003				
Formulation and articulation of goals (Future)	Rectot category, LVD (310)	98 rectitude words (e.g., "believe," "discipline," "duty," "sincere," "trust," "pledge")	4.96 (5.23)	0.0039				
	Ought category, HIVD (26)	18 "ought" words (e.g., "must," "should," "ought," "imperative")	1.65 (3.57)	0.0014				
	Moral and ideology terms, inductive (30)	30 ideological or moral words (e.g., "leadership," "vision," "transformation," "tough")	0.95 (3.39)	0.0039				
	Ovrst category, HIVD (696)	313 overstatement words reflecting emotional expressiveness (e.g., "always," "clear," "coherent," "decisive," "indisputable," "urgent")	0.25 (3.30)	0.0002	575.3 (411.7)	22.5 (33.4)	0.0178	
	Emot category, HIVD (311)	169 emotion-related words (e.g., "excited," "enthusiasm," "feel," "faith," "passion," "regret")	1.11 (3.95)	0.0008				
	Arousal category, HIVD (166)	53 words indicating arousal of affiliation and hostility (e.g., "challenge," "inspiration," "motivate," "optimism," "ready")	3.47 (4.47)	0.0003				
	Feel category, HIVD (49)	30 feelings words (e.g., "fervor," "resolute," "vigilant")	2.21 (4.07)	0.0018				
	Afftot category, LVD (196)	111 affection and friendship words (e.g., "allegiance," "care," "loyalty," "zeal")	0.86 (3.73)	0.0007				
	Emotion terms, develop. inductively (33)	33 emotional words and expressions (e.g., "dramatic," "exciting," "milestone," "record setting," "spectacular")	7.02 (7.02)	0.0054				
Means to achieve vision (SEOC)	PosAff category, LVD (126)	60 words of positive affect (e.g., "bright," "rejoice," "reward")	1.37 (3.65)	0.0011				
	Affil category, HIVD (557)	323 affiliation and supportiveness words (e.g., "admire," "affection," "cohesion," "passion")	1.90 (4.36)	0.0014	176.6 (252.8)	25.3 (33.9)	0.0189	
	Stakeholder terms, inductive (152)	152 words of concern for shareholders (23; e.g., "accountability"), employees (84; e.g., "empowerment"), customers/suppliers (18; e.g., "satisfaction"), society/government (27; e.g., "community")	22.03 (29.26)	0.0163				
Overall CCV score					1,302.9 (707.8)	50.5 (55.1)	0.0389	

Source. LVD = Lasswell Value Dictionary; HIVD = Harvard IV Dictionary. Parentheses indicate total number of terms within each source dictionary.

as a somewhat unique aspect of the CEO vision, and any particular CEO vision could exhibit characteristics of one dimension without exhibiting characteristics of the others. For example, a CEO vision could be negative about the past without creating an optimistic bridge to the future or empowering organizational participants in implementing the vision. Thus it is the *combination* of all three of the dimensions underlying CCV that theoretically leads to charismatic attributions and charismatic effects (Conger and Kanungo 1998). As such, the CCV construct is an "aggregate multidimensional construct" in that it is "formed by its dimensions," and thus the dimensions may be combined algebraically regardless of their relation to each other (Law et al. 1998, p. 745).

As Table 1 shows, a typical first letter to shareholders devotes about 30% of the letter to assessing the past (i.e., on average, the word length of the Past node is 402.9 words out of 1,302.9 average total words), while 44% of the typical letter describes the plans for the future (on average, 575.3 words in the Future node) and 13% refers to implementation issues (on average, 176.6 words in the SEOC node). Also shown in Table 1 is the "typical" CCV score in these letters: the average letter contained 50.5 (standard deviation $= 55.1$) of the terms in total across all nodes (relative frequency of 0.0389), with 5.3% of this language pertaining to the *Evaluation of the Status Quo* (Past node; 2.7 words on average [std. dev. $= 3.5$]; relative frequency of 0.0022), 44.5% in framing the *Formulation and Articulation of Goals* (Future node; 22.5 words on average [std. dev. $= 33.4$], relative frequency of 0.0178), and 50.2% of the terms in describing the *Means to Achieve the Vision* (SEOC node; 25.3 words on average [std. dev. $= 33.9$], relative frequency of 0.0189). Finally, Table 1 also shows the contribution of each of the individual dictionaries to these scores. For instance, in the Past node, the terms from the Abrahamson and Park dictionary had the highest relative frequency (0.0014 as compared to 0.0002 and 0.0003 for the NegAff and inductive dictionaries, respectively).

Prior Firm Performance. Past firm performance is an important element that analysts consider when evaluating a firm's potential. Thus we controlled for the effects of presuccession firm performance in two ways. First, we incorporated *prior firm performance change,*[3] operationalized as the three-year presuccession change in return on assets (ROA), following the equation $(ROA_{t-4} - ROA_{t-1})/ROA_{t-4}$, where ROA was calculated as the firm's net income divided by total assets for each year. By looking at the presuccession change in ROA, we aimed at capturing situations of sustained firm crisis, because these affect the timing and choice of successor (Cannella and Lubatkin 1993, Ocasio 1999), as well as capturing the "performance legacy" of the predecessor, a factor that affects how an incoming CEO is perceived by the stock market (e.g., Laing 1999). Second, because such a change measure does not capture the

volatility of presuccession firm performance, which may also affect analysts' forecast accuracy and recommendations, we included *prior firm performance volatility,* measured via the coefficient of variation in ROA over the four years prior to the succession—that is, the standard deviation of ROA divided by the average ROA over the time period in consideration. For both measures, we used an accounting-based rather than a market-based measure of firm performance because analysts generally consider accounting measures as "performance fundamentals" and thus as more informative of the future performance of the firm than past stock performance (Clemente 1988). Furthermore, in order to control for industrywide situations of crisis, we standardized our measure by converting observations of ROA for each firm in each year to an industry *z*-score based upon the mean and standard deviation of ROA for all firms in each industry as contained in the Compustat database, consistent with previous research (Tosi et al. 2004).

Contender, Outsider, and Follower Status. To control for the context of the succession, we used predecessor age, predecessor board membership, and incoming CEO board membership to distinguish contender, outsider, and insider successions. As Shen and Cannella (2002, p. 719) argued, "[T]he appointment of an inside successor does not necessarily reflect intent to maintain strategic continuity," but may occur following the "quiet removal" of a nonperforming CEO. Indeed, companies tend to avoid the negative publicity of a CEO dismissal and thus often prefer such "contender" successions—which involve "resignations" or "retirements" before age 64 as well as the relinquishment of the dismissed CEO's responsibilities on the board. Furthermore, CEOs appointed from outside the company, as compared to insiders, "are perceived to be more able to initiate and implement strategic change" (Cannella and Lubatkin 1993, p. 763) and more likely to be attributed charisma. Therefore Shen and Cannella (2002) suggest that the context of the succession is better characterized by distinguishing contender successions, outside successions, and ordinary inside successions (follower succession). Thus we constructed two dummy variables distinguishing these successor types. For the first, *contender successor,* all insider successions in which an executive who was an officer of the firm was promoted to the CEO position, and in which the departing CEO terminated his/her service as both the CEO and a director of the firm before the age of 64, were coded as 1 (0 otherwise). The second variable, *outsider successor,* when an executive who was not an employee of the focal firm assumed the CEO position, was coded as a 1 (0 otherwise). The omitted category, *follower successor,* included all other inside successions. Determining succession type was accomplished by screening press releases of the succession event, supplemented by data from the Compact Disclosure, LexisNexis®, Compustat ExecuComp, ORBIS, and Factiva databases.

CEO Reputation. Following Pollock and Rindova (2003), we included two measures of CEO reputation (*volume* and *tenor*) by collecting and content-analyzing all articles mentioning each CEO in our sample published by seven nationally renowned newspapers (*Atlanta Constitution, Boston Globe, Chicago Tribune, Los Angeles Times, New York Times, Wall Street Journal, Washington Post*) as well as by industry magazines and periodicals from two years before to one year after the succession. Articles were obtained from LexisNexis and ABI/INFORM. We measured *volume* as the total number of articles about each CEO, and we obtained the *tenor* of media coverage using the Janis-Fadner coefficient of imbalance (Deephouse 2000, Janis and Fadner 1965): Tenor $= (P^2 - PN)/V^2$, if $P > N$; 0, if $P = N$, and $(PN - N^2)/V^2$, if $N > P$, where P is the number of positive articles about a firm, N is the number of negative articles about it, and V is the total volume of articles about it, including articles that are neutral in tenor. The range of this variable is -1 to 1, where -1 equals "all negative coverage" and $+1$ equals "all positive coverage." As has been done in prior research (Deephouse 2000), each paragraph of each article was read and coded by one of the authors as positive, negative, or neutral in its discussion of a CEO. Articles were then coded as positive or negative based on the number of instances of positive versus negative paragraphs.

CEO Certification. Following Wade et al. (2006), we assessed CEO certification by looking at the results of *Financial World*'s annual *CEO of the Year* award. Each year, the magazine surveys a large group of business analysts and CEOs in order to produce ratings of about 3,000 CEOs per year, awarding bronze, silver, and gold medals. We incorporated two measures using this data: *medal in current year*, a dummy variable measuring whether the incoming CEO had won any level of medal (coded 1 if gold, silver, or bronze; 0 otherwise) in the 12 months preceding the appointment, and *medals won in the previous five years*, capturing the total number of awards over the five years preceding the appointment. Because these data are only available through 1997, we report results only for the latter variable. Nevertheless, analyses using the *medal in current year* variable on the reduced sample (because all of 1999 appointments had to be omitted for missing data) did not find different results.

Other Control Variables. We collected (through an analysis of the press releases of the succession events complemented with a search on Compact Disclosure) and controlled for several variables that could theoretically influence attributions of charisma: *CEO age* (as a signal for experience) and *CEO duality* (as a proxy for power within the firm; dummy variable with dual position of CEO and Chairman of the board = 1) could both potentially influence attributions of charisma. *Predecessor disposition* (dummy variable with predecessor

remaining with the firm in any role = 1, 0 otherwise) was included to capture whether or not the previous CEO stayed with the firm. *CEO tenure at the time of the release* of the letter to shareholders (number of days between the appointment date, as indicated in the press release, and the filing date of the letter to shareholders) was included to control for changes in language at different stages of the CEO's mandate (e.g., a longer tenure before filing the first letter to shareholders makes it harder for the CEO to criticize past results). *Firm size* (log of sales in the year prior to succession) was included because size may be associated with attributions of charisma (Tosi et al. 2004).

Several analyst control variables were included. *Pre-succession recommendations* and *forecast errors* were assessed by obtaining all the recommendations and forecasts issued by each analyst for one year before the release of the letter to shareholders and then calculating the 6- and 12-month averages for each analyst to obtain a single measure for each of the time frames analyzed. Again, presuccession forecast errors were scaled by dividing by the relevant firms' stock prices. Because we reasoned it would naturally affect our dependent variables and the depth of knowledge of each analyst concerning the specific firm, we included *number of estimates*, the number of data points forming the average recommendation and average forecast error for each analyst and the number of data points (analysts) forming the standard deviation of the recommendations used in the uniformity analyses. *Forecast horizon* refers to the time horizon for which the analyst is constructing his or her predictions, in months. It is logical to assume that forecasts referring to time further into the future might be less accurate then short-term forecasts, so we calculated this variable as the number of days between the estimate date and the forecast period end date (data from I/B/E/S). *Analyst forecast ability* was measured by comparing each analyst's forecast performance across all firms followed to other analysts covering the same firms. Following Hong et al. (2000, pp. 126–128), we calculated the absolute forecast errors for each analyst included in the I/B/E/S data file by year for all firms he or she covered. We next ranked analysts within each firm-year, from the most accurate (low rank) to the least accurate (high rank), and then constructed an ability score by adjusting the ranks for the differences in coverage across firms (score $= 100 - [\text{rank} - 1/\text{n.analysts} - 1] \times 100$; Hong et al. 2000). Consistent with Hong et al. (2000), analyst forecast ability was then calculated as the average score over the three years preceding the filing of the letter to shareholders. *Number of analysts* refers to the total number of subjects issuing recommendations or forecasts for each firm.

Finally, we included the *mean recommendation and its square* in the analysis of the effect of CCV on the uniformity of recommendations. We did this for two reasons. First, as discussed earlier, there is evidence to suggest

that analyst recommendations are subject to social information processes (Rao et al. 2001, Welch 2000). Therefore, because we are interested in examining whether CCV contribute to the uniformity of recommendations, the inclusion of the mean recommendation in this analysis helps to control for the general herding behavior among analysts; it allows us to examine the effect of CCV on uniformity above and beyond general social information processes (as captured by the mean recommendation). Second, because recommendations are assessed on a five-point scale, dispersions of recommendations are forced to be somewhat uniform whenever the mean score for favorability is either high or low (i.e., ceiling and floor effects prevent a large standard deviation); thus an inverted U-shaped relationship between favorability and uniformity can be expected. In other words, because there is a restricted range of variance when the mean recommendation is either high or low, the observation of uniformity across analysts may simply be the result of more extreme recommendations (i.e., high or low mean) rather than agreement between analysts, and the inclusion of the mean recommendation and its square should help to account for this.

Analytical Technique
This study includes variables collected at different levels of analysis and thus *hierarchical linear modeling* (HLM; Bryk and Raudenbush 1992) was utilized. HLM incorporates the nesting of the data inherent in the current analyses—the tests of Hypotheses 1 (favorability of analyst recommendations) and 3 (analyst EPS forecast error) both involve observations of individual analysts nested within firms, and the test of Hypothesis 2 (uniformity of analyst recommendations across analysts) incorporates observations of the dispersion of recommendations over time nested within firms. In all of the analyses, the coefficients of variables that vary over analyst or across time are simultaneously estimated in a cross-sectional analysis at the firm level as dependent variables. Doing so permits us to estimate the effects that CCV, controlling for other firm-level variables, have on the average evaluations produced by each analyst (favorability), the dispersion of analyst recommendations (uniformity), and the forecast error of each analyst, while controlling for factors that vary across time or analysts (Level 1). Thus, HLM incorporates the dependence among the Level 1 observations. This is especially important for the analysis regarding Hypothesis 2 because it allows for the examination of the uniformity across analysts with regard to each specific firm while accounting for the lack of independence across analyst recommendations of the same firm.

Results
Means, standard deviations, and intercorrelations for all of the Level 2 (cross-sectional) variables measured in the study are presented in Table 2.

Table 3 presents the results concerning the effects of CEO charismatic visions on the favorability and uniformity of recommendations and on analyst EPS forecast error. Standardized regression coefficients are reported throughout, to give an appreciation of the relative effect sizes. To obtain standardized coefficients, we used the standard deviations of the criterion variables (i.e., the square root of the σ^2 and τ_{00} values) and the standard deviations of the predictor variables. The robust standard errors automatically generated by HLM were used throughout because these correct for departures from the assumptions of the variance-covariance matrix (i.e., heteroskedasticity; Raudenbush et al. 2000). For instance, Hypothesis 2 suggests that the variance in analyst recommendations is smaller (i.e., uniform recommendations) when CEO visions are charismatic than when CEO visions are not charismatic—and thus that the variance in recommendations is not constant across observations in the test of Hypothesis 1 (i.e., heteroskedasticity; Greene 1997). The table is formatted as follows: each analysis was performed for two different time frames (6 and 12 months); for each time frame, Model 1 includes only the control variables, and Model 2 represents the final estimation incorporating CCV. The likelihood ratio (LR) statistic for each model, which has a chi-square distribution and measures the model fit, is also reported. Finally, sample sizes differ across the analyses based upon the data availability for the dependent variables, and thus final samples sizes for each analysis are noted in Table 3.

With respect to the favorability of recommendations, the results support Hypothesis 1, which predicted that CCV would be associated with more favorable analyst recommendations. The coefficient for CCV was negative[4] and significant ($p < 0.05$) in both time frames. We also calculated the amount of variance explained by CCV (not reported in Table 3): the total amount of variance in analyst recommendations accounted for by CCV is 2.3% and 1.1% for the six-month and one-year analyses, respectively. Thus the effect sizes of this relationship between CCV and the favorability of analyst recommendations are not negligible ($r = 0.15$ and $r = 0.10$, respectively, based upon the total variance) because they are well within the realm of a "medium" effect size (i.e., Cohen 1992 defines a medium effect size as 0.15).[5] Furthermore, although it is difficult to assess the practical significance of our findings, they suggest that an increase of one standard deviation in the use of CCV language will result, *ceteris paribus*, in approximately a tenth of a point increase in analyst recommendations distributed over 6 to 12 months (standardized coefficients of 0.08 and 0.11 for the 6-month and 1-year analyses, respectively; see Table 3). The finance literature suggests that such an increase in recommendations may translate quite substantially in terms of market value (Bauman et al. 1995, Stickel 1995, Womack 1996). For example,

Table 2   Descriptive Statistics and Correlations

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. Favorability of recommendations[a]	2.10	0.64	1.00																				
2. Uniformity of recommendations[a]	0.67	0.35	0.21**	1.00																			
3. EPS forecast error[a]	0.31	0.60	0.09	−0.05	1.00																		
4. CCV	0.04	0.02	0.03	−0.06	0.08	1.00																	
5. Prior firm performance change	0.99	10.80	−0.14*	−0.12*	−0.09	−0.02	1.00																
6. Prior firm performance volatility	0.01	14.80	−0.00	0.12*	−0.05	0.01	0.04	1.00															
7. CEO age	50.60	6.90	0.16*	0.04	0.03	−0.02	−.07	−0.04	1.00														
8. CEO duality	0.31	0.46	0.05	0.04	−0.01	−0.07	−0.00	−0.06	0.23**	1.00													
9. Outsider successor	0.34	0.47	0.01	−0.15**	0.09	−0.02	0.06	−0.01	0.05	0.01	1.00												
10. Contender successor	0.07	0.26	0.09	0.08	0.01	−0.02	−0.05	−0.00	0.11*	0.24**	−0.20**	1.00											
11. Predecessor disposition	0.76	0.43	0.03	−0.05	−0.04	0.08	0.06	0.09	−0.12*	−0.33**	0.06	−0.50**	1.00										
12. CEO tenure	219.20	140.90	0.09	0.03	−0.03	−0.04	0.06	−0.02	−0.02	0.07	0.05	0.01	0.02	1.00									
13. CEO reputation (volume)	1.20	3.40	−0.01	0.06	−0.05	0.01	0.03	0.01	−0.04	0.10	0.02	−0.02	−0.04	0.06	1.00								
14. CEO reputation (tenor)	0.21	0.43	0.12	0.07	−0.07	−0.01	0.05	0.03	−0.01	0.08	0.00	0.08	0.02	0.08	0.28**	1.00							
15. CEO certification	0.03	0.24	−0.04	0.04	0.00	−0.07	−0.02	−0.01	0.03	0.02	0.08	−0.04	−0.01	0.02	0.08	0.07	1.0						
16. Firm size	6.10	2.20	0.11	0.28**	−0.01	0.07	0.04	−0.12*	0.10*	0.09	−0.19**	0.09	−0.06	0.04	0.27**	0.20**	0.02	1.00					
17. Forecast horizon	253.90	77.20	0.03	0.15*	−0.06	−0.05	0.05	0.07	−0.01	−0.07	−0.15**	0.05	−0.06	0.03	0.11*	0.03	0.05	0.21**	1.00				
18. Presuccession recommendations[a]	0.33	0.71	0.26**	0.21**	0.06	0.03	0.06	−0.00	−0.04	0.02	0.02	0.05	−0.11	0.02	−0.03	−0.03	0.05	0.09	0.07	1.00			
19. Presuccession EPS forecast error[a]	2.70	0.64	0.14*	−0.08	0.66**	0.03	−0.02	−0.01	0.09	0.01	−0.01	0.04	−0.09	0.01	−0.06	−0.06	−0.00	−0.03	0.05	0.05	1.00		
20. Analyst forecast ability	48.70	8.40	0.11	0.24**	0.04	0.02	−0.05	0.03	−0.08	0.05	−0.05	0.08	−0.09	0.04	0.08	0.09	−0.03	0.11*	0.01	0.16*	0.00	1.00	
21. Number of analysts	3.60	4.30	0.09	0.28**	−0.12*	−0.02	−0.03	−0.00	0.02	0.03	−0.14*	0.09	−0.04	0.01	0.28**	0.18**	0.05	0.40**	0.16**	0.02	−0.11	0.08	1.00
22. Number of estimates[a]	2.50	6.20	0.18**	0.37**	−0.14**	−0.04	0.03	0.03	0.04	0.08	−0.17**	0.11*	−0.06	0.15*	0.37**	0.22**	0.03	0.63**	0.29**	0.10	−0.14*	0.19*	0.71**

Notes. Cross-sectional (between firms). $N = 367$ for all except analyst recommendations ($N = 233$), uniformity of analyst recommendations ($N = 233$), previous analyst forecast accuracy ($N = 325$), forecast horizon ($N = 321$), and previous analyst recommendations ($N = 222$).
[a]Six-month measure.
*$p < 0.05$, **$p < 0.01$; two-tailed tests.

Table 3   Results of the Analyses of the Effect of CCV on Favorability, Uniformity, and Analyst EPS Forecast Error

Variables	Favorability of recommendations[a]				Uniformity of recommendations[b]				EPS forecast error[c]			
	First 6 months after release of letter		First year after release of letter		Month 6 after release of letter		Month 12 after release of letter		First 6 months after release of letter		First year after release of letter	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Intercept γ_{00}	2.12***	2.11***	2.16***	2.16***	0.55***	0.55***	0.50***	0.51***	0.01***	0.01***	0.01***	0.01***
Presuccession recommendation[d]	0.16*	0.17*	0.15***	0.15***								
Mean recommendation					2.26***	2.26***	2.26***	2.26***				
(Mean recommendation)^2					−2.37***	−2.37***	−2.37***	−2.37***				
Time[e]					−0.10**	−0.10**	−0.13+	−0.13+				
(Time)^2					−0.03	−0.03	−0.05	−0.05				
Presuccession forecast error									0.07***	0.07***	0.16***	0.15***
Forecast horizon									0.19***	0.19***	0.16***	0.17***
Analyst forecast ability									0.01*	0.01*	−0.01*	−0.01*
Number of estimates	0.76	0.75	0.03	0.03					−0.04***	−0.04***	−0.01***	−0.01***
Number of analysts[f]	0.03	0.03	0.03	0.02	1.10***	1.10***	1.10***	1.10***	−0.08*	−0.08*	−0.03	−0.02
Prior firm performance change	−0.45**	−0.44**	−0.39**	−0.39**	−0.17**	−0.18**	−0.17**	−0.18**	−0.19+	−0.19+	−0.09	−0.09
Prior firm performance volatility	0.05	0.05	0.13**	0.13**	0.13*	0.13*	0.13*	0.13*	−0.03	−0.03	0.00	0.01
CEO age	0.13+	0.13*	0.03	0.03	−0.08	−0.09	−0.08	−0.09	0.06*	0.06*	0.01	0.01
CEO duality	−0.06	−0.07	0.07	0.07	0.09	0.09	0.09	0.09	0.00	0.00	0.02	0.03
Outsider successor	0.00	−0.02	−0.01	−0.02	−0.01	−0.01	−0.01	−0.01	−0.02	−0.02	0.00	0.00
Contender successor	0.08	0.08	0.04	0.04	0.03	0.04	0.03	0.04	0.02+	0.02+	0.01	0.01
Predecessor disposition	0.04	0.06	−0.01	0.00	−0.01	0.02	−0.01	0.02	0.02	0.02	0.05*	0.04*
CEO tenure	0.12*	0.11*	0.06	0.05	0.02	0.02	0.02	0.02	−0.04+	−0.04	−0.03+	−0.03+
CEO reputation (volume)	−0.05+	−0.07+	−0.06	−0.07	−0.03	−0.02	−0.03	−0.02	0.00	0.00	0.00	0.00
CEO reputation (tenor)	0.11*	0.12*	0.07	0.07	0.00	−0.01	0.00	−0.01	−0.01	−0.01	0.00	0.00
CEO certification	−0.04	−0.03	−0.05	−0.04	−0.01	−0.02	−0.01	−0.02	−0.06**	−0.06*	0.00	0.00
Firm size	−0.01	−0.01	0.06	0.07	0.08	0.10	0.08	0.10	0.04	0.03	0.01	0.05*
CEO charismatic vision (CCV)		−0.11*		−0.08*		−0.11*		−0.11*		0.00		0.05*
LR ratio (χ^2)	1,964.9***	1,975.3***	3,219.4***	3,224.4***	4,098.6***	4,102.9***	4,110.5***	4,114.9***	1,129.3***	1,129.9***	2,444.1***	2,423.0***

Notes. Standardized coefficients; [a]$N = 315$; average $n_j = 3.1$ analysts/firm; [b]$N = 367$; average $n_j = 16.5$ firm/month observations. [c]$N = 345$; average $n_j = 11.8$ analysts/firm; [d]time span for presuccession recommendations matches the dependent variable (i.e., six months/one year); [e]effect coded such that intercept represents the dispersion of recommendations at Month 6 and Month 12, respectively; [f]for favorability and EPS forecast error analyses, this is a Level 2 variable, whereas for uniformity analysis it is a Level 1 variable.
$^+p < 0.10$; $^*p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$; all two-tailed tests.

Womack (1996) found that an upward revision of one point by one individual analyst increased stock prices on average 3% over a three-day window and by 2.4% over the first month following the revision. Overall, our results suggest that a higher use of CCV is related to more favorable analyst recommendations and that this effect lasts for at least one year.

With respect to the uniformity of recommendations across analysts, the results support Hypothesis 2 because the coefficient for CCV was negative[6] and significant for both time frames ($p < 0.05$; Table 3). In short, the higher the use of charismatic language in portraying the CEO's vision, the smaller the standard deviation of recommendations across all analysts, and this effect appears to last for one year. The total variance in the uniformity of analyst recommendations explained by CCV is 0.9% and 0.5% for the Month 6 and Month 12 analyses, respectively (not in Table 3). While the effect sizes ($r = 0.10$ and $r = 0.07$, respectively; total variance) are somewhat smaller than those with regard to the favorability of recommendations, they still constitute substantive effects (Cohen 1992, 0.05).[7]

Finally, Hypothesis 3 investigated whether CCV, as a form of symbolic action, were associated with increased analyst forecast error. As shown in Table 3, the results show partial support for this hypothesis: although the relationship is not significant at six months, it is significant ($p < 0.05$) for the one-year period and indicates that analysts issuing forecasts for firms projecting a higher frequency of charismatic language tend to incur larger errors in their forecasts, either overestimates or underestimates. The total amount of variance in analyst forecast error explained by CCV is 17% (and it explained 19.2% of the between-firm variance) for the one-year time period, a rather large effect size (Cohen 1992) whether based upon total variance ($r = 0.42$) or between-firm variance ($r = 0.44$).

Discussion

Whether CEO charisma and its symbolic expression influence external organizational participants is an understudied area in the organizational literature. In this study, we examined the influence that CEO charismatic visions (CCV), projected in letters to shareholders, have on a key external constituency in the stock market: securities analysts. The results suggest that CCV are related to the individual and collective judgments of securities analysts because they are associated with favorable analyst stock recommendations and uniformity across analysts. Furthermore, it appears that CCV, as a form of symbolic action, adversely affect analysts' forecasts of future firm EPS.

First, our finding that the charismatic portrayal of the CEO's vision in the letter to shareholders yields favorable analyst recommendations is of great import

given that investor decisions, and therefore stock prices, are strongly influenced by analyst recommendations and forecasts (Barber et al. 2001, Francis and Soffer 1997, Stickel 1995, Womack 1996). We thus provide empirical support for a CEO charismatic relationship that extends beyond the internal members of the organization, and this points to one way that CEO charisma may affect organizational effectiveness (Fanelli and Misangyi 2006, Flynn and Staw 2004). At least in part, the securing of external resources (i.e., legitimacy and capital) entails effectiveness in the meaning thread, a consistent activation and maintenance of the social construction processes occurring at different levels. CEO charismatic visions seem to provide such threading in a manner that successfully engages participating actors who are not hierarchically subject to the leader. In the current study, CCV appear to mobilize the support of an institutional intermediary—securities analysts—critical to the firm valuation process and thus the securing of necessary resources.

Second, the effect of CCV appears to extend to analysts' collective perceptions of the firm: organizations projecting CCV receive less dispersed recommendations across securities analysts, thereby presenting investors with consensus estimates that are perceived as more reliable. These findings contribute to opening an entire domain of inquiry: the variance in perceptions of charisma among internal and external followers as a key dependent variable in the study of charisma (Klein and House 1995, Meindl 1990). Studying how such collective perceptions of charisma operate outside of the firm might have a higher practical relevance than studying this phenomenon within the firm. Subordinates are much more likely to be captive to the CEO, and their behaviors and therefore job performance are bounded to a large degree by hierarchical structures, work roles, etc. (Simon 1945), so the social contagion of charisma may have limited effects on work behaviors and job performance. In the external context, in contrast, stakeholder reactions are not as bounded by these structural constraints (Fanelli and Misangyi 2006), and social contagion effects, as collective perceptions, may drive individual investment decisions, with far-ranging consequences for corporations and society (Davis and McAdam 2000). With regard to securities analysts, an interesting implication of observing uniformity across analyst judgments is that it appears possible to distinguish both the vertical and horizontal effects on such "mimesis-based adoptions" (Rao et al. 2001, p. 503)—discourse originating from the leader and social proof among analysts. Although our primary interest was in discerning the effects of CCV as an instance of the former influence process, both types are present in the "heuristics toolbox" analysts use to facilitate their evaluation tasks.

Third, we found some evidence to suggest that CCV increase analysts' EPS forecast errors. Analysts covering firms with higher CCV were more prone to misestimating future performance than those following firms with less charismatic CEO visions, though this relationship was only found to be significant in the one year time frame. In other words, consistent with sociological approaches (Ashforth and Humphrey 1995, Weber 1947), charismatic language engenders among analysts more extreme judgments, both positive and negative, than noncharismatic language. To further investigate this issue, we performed several *ex post* analyses. In the first set of analyses, we disaggregated the forecast error measure into analyst forecasts and firm actual EPS, and we separately examined whether CCV were associated with either (i.e., we ran two separate analyses with each of the latter as a dependent variable in the same modeling and time frames as in Table 3). CCV were found to be positively related to analysts' forecasts of EPS in both time frames (standardized coefficients of -0.05 and -0.04; both $p < 0.01$) but not related to firms' actual EPS in either time frame. In a second ex-post analysis, we split the sample between low-ability (first two quartiles of the analyst forecast ability variable) and high-ability analysts (third and fourth quartiles) to examine whether ability differences across analysts affected the relation of CCV and analyst forecast error. The findings suggest that low-ability analysts give more credence to CCV than do high-ability analysts as the relationship between CCV and forecast errors was positively related for the former in both time frames ($p < 0.10$, six months; $p < 0.05$, one year) but not related in either time period for the latter. Furthermore, the accuracy of analysts with different ability levels seems to be affected by a different set of variables: predecessor disposition had a positive effect ($p < 0.05$) on forecast error for low-ability analysts (and none for high-ability), whereas CEO tenure had a negative effect ($p < 0.05$) for high-ability analysts (but not low-ability).

In total, these findings suggest that CCV, as a form of symbolic action, operate within the stock market in a manner consistent with sociological views (e.g., cognitive categorization; Zuckerman 1999, 2000); CCV were found to be positively related to securities analysts' recommendations and forecasts. This furthers previous research in the finance literature suggesting that such "soft" criteria and qualitative disclosure from and about the CEO influence analysts' judgments (e.g., Francis et al. 1997) and tends to refute claims that such judgments are only impacted by "hard" criteria (e.g., quantitative analysis; Sinha et al. 1997). At the same time, the incorporation of CCV into analysts' judgments has an adverse impact on their capacity to accurately predict future firm performance. Given that forecast accuracy is crucial to analyst reputation (Stickel 1992), our results imply that CCV may have negative consequences for

analysts' judgments and ultimately for their careers; it appears that analysts should be wary of incorporating CCV into their evaluations. Nevertheless, the disparate relationship between CCV and forecast errors across low- and high-ability analysts suggests that the latter may be more able to account for charismatic language in their evaluations. In some respects our findings are similar to Khurana's (2002), which found that corporate boards hired charismatic CEOs only to find later that actual results were not always justified by the initial enthusiasm. As with art critics, what distinguishes a good analyst from a bad one is the tacit capacity to deal with soft information and to convey it to investors.

Our findings have several further implications for research on CEO charisma. First, they support the view that symbolic action plays an important role in the charismatic relationship (Conger and Kanungo 1998, Gardner and Avolio 1998) and that it extends beyond the internal members of the organization. Second, most studies of charismatic leadership "have often blurred the distinction between the behaviors of a leader and their effects on followers" (Shamir et al. 1998, p. 404). The current study is a first step toward unraveling these two sides of the charismatic relationship. Measuring charismatic images conveyed by organizational communications to external audiences not only is possible but also is a viable way of separating the measurement of the "leader's side" of the charismatic relationship from the perceptions and attributions of followers. Separating these two elements not only allows a clearer distinction between the predictor and the outcomes but also permits the study of specific classes of charismatic behaviors, such as verbal behaviors, that are so integral to the charismatic relationship (Gardner and Avolio 1998), of the processes linking the leader and the followers, and of the interaction between follower-centered phenomena and leader-centered ones. Ultimately such an extension allows the development of a perspective on charisma that is genuinely *relational*. Third, the results pertaining to the uniformity of recommendations suggest that herding among analysts may be *triggered* by symbolic actions such as the use of words and text that project a charismatic vision. Although not tested directly, this finding lends support to *a revised view of social contagion*, whereby "charismatics may work actively to orchestrate and facilitate social contagion processes in order to spread their message" (Gardner and Avolio 1998, p. 52). The perspective taken here as well as the findings suggest that the conventional view of the social contagion process as a follower-only phenomenon (Meindl 1990, 1995) be extended to incorporate leader behaviors and discourse as integral to the social contagion process.

Finally, there are implications for the study of the stock market from a sociological and social psychological perspective as well as for the study of organizational discourse. First, this study adds to the evidence

suggesting the important role that cognitive categorization processes play in the social construction of markets (i.e., Fligstein 2001; Porac and Thomas 1994; Zuckerman 1999, 2000). Second, this study adds to the growing evidence that symbolic actions on the part of management are one way through which organizations affect their environments (Pfeffer 1981, Zajac and Westphal 2004). By constructing and projecting through discourse managers' charismatic visions of organizations' futures, organizations are able to favorably influence stock market actors. This study points to charismatic language as an important component of the discursive arena set up about, around, and with the contribution of corporate executives. Third, these latter two points have implications for the influence that institutional intermediaries exert in the business community (i.e., on firms' reputations, celebrity, etc.; Deephouse 2000, Hayward et al. 2004, Pollock and Rindova 2003, Rindova et al. 2006): to the extent that firms' projections of discourse affect the cognitive categorization processes of these influential outsiders, firms play an active role in setting their agenda. A related implication touches directly upon the securities analyst's job as critic: our finding that attending to charismatic language seems to lead to larger forecast errors points to the limitations of the evaluation tools accepted and institutionalized within this profession. If analysts are to successfully serve as critics in the face of executives who can rely on charisma to tilt the balance of power within the stock market in their favor, the profession needs to reflect on how it deals with charismatic language and charismatic executives. That high-ability analysts appear able to discount charismatic language suggests that the tacit skills needed to correctly assess the contribution of the charismatic phenomenon to shareholder wealth, as well as to hedge against its risks, exist and can be learned.

Finally, whether or not firms purposefully attempt to harness and manage these influence processes is a subject in much need of further study. For example, to the extent that CCV represent symbolic action merely designed to manipulate analysts' perceptions, it may also be reasonable to expect that such firms would be more likely to partake in "earnings management"—"the strategic exercise in managerial discretion in influencing the earnings figure reported to external audiences" (DeGeorge et al. 1999, p. 2). Thus, given that firms that project high CCV influence analysts' EPS forecasts, future research could investigate whether such firms are also more apt at managing earnings to meet these expectations. In any case, although our *ex post* finding that CCV are not related to firms' actual EPS in the first year after their projection leaves open the possibility that there may be a disconnect between CCV and actual organizational practices, future research designed to examine whether and how such decoupling underlies CCV seems clearly warranted.

Limitations and Conclusion

Like any study, this one has its limitations. First, while our focus on new CEOs allowed us to control for many of the problems associated with researching charismatic language, the results of the study may not generalize to all CEOs. The projection of charismatic visions may not be as effective in influencing securities analysts when there is less uncertainty surrounding the direction of the firm (e.g., when the CEO's leadership for the firm is well established). Thus future studies' testing samples comprising CEOs with longer tenures are necessary to better understand the effects of CEO charismatic visions projected in organizational discourse. Second, we intentionally focused upon the visionary aspect of the charismatic relationship. While visionary constructions are a key part of charismatic leadership (Conger and Kanungo 1998, Shamir et al. 1993), and are especially influential among distant observers (Shamir 1995), future studies investigating the effect that projections of the CEO's persona (i.e., descriptions of the CEO's traits and characteristics) may have on external stakeholders may also prove to be insightful. For instance, although securities analysts may be influenced by charismatic visions, research on the "romance of leadership" (e.g., Meindl 1990, 1995; Meindl and Thompson 2005) suggests that charismatic images of the CEO's persona projected in organizational discourse may also influence their evaluations. Indeed, the focused nature of this study means that we intentionally left out several elements important to a more complete understanding of the effects of CEO charisma on external organizational participants (i.e., external stakeholders; Fanelli and Misangyi 2006), and thus future research is still needed to investigate these other relationships. For example, do CCV have a direct effect on investors? Third, our study also focused upon a particular medium of organizational discourse—letters to shareholders—but the perceptions of external organizational participants may potentially be influenced by a host of media (e.g., press releases, annual reports, advertising, logos, etc.; Rindova and Fombrum 1998, 1999). Therefore, future research may address the role and varying importance that such other discursive vehicles play in the influence processes that organizational discourse has on external organizational constituencies. Fourth, our results on forecast error hinge upon a specific time frame (one year), a specific performance measure (earnings per share), and a relatively noisy scaling procedure (dividing an aggregate measure by stock prices at the beginning of the period). Longer time frames, different measures of performance, and more fine-grained scaling procedures may answer several questions left open by this study: Why do CCV decrease forecast accuracy? What are the specific strategies enacted by some analysts to successfully incorporate charismatic language into their evaluations? Last, as the study was conducted in the United States, its results rely on the specific cultural factors and

implicit leadership theories operating within this context. Further research investigating the CEO-analyst charismatic relationship within other contexts may thus prove fruitful.

In conclusion, despite these limitations, the findings of the current study contribute to the study of CEO charisma and to the study of the social psychology of markets. By examining the effect that projections of CEO charismatic visions have on securities analysts, we move beyond the internal focus of previous charismatic research and provide evidence that charismatic discourse affects the external environments upon which organizations rely for the resources and legitimacy critical to their survival and success. Thus this study presents a step forward on the way to understanding the complex relationship between CEO charisma and organizational effectiveness and, especially in the stock market, the key role that symbolic action has in this relationship.

Acknowledgments

Appendix A. Further Discussion on the Measurement of CCV

Illustrating the Dimensions of CCV

CCV involves three separate dimensions (see Table 1): *Evaluation of the Status Quo, Formulation and Articulation of Goals*, and *Means to Achieve the Vision*. To measure the first dimension, *Evaluation of the Status Quo*, we constructed three dictionaries tapping the degree to which the letter to shareholders uses negative language about the firm's past (56 words from Abrahamson and Park 1994, p. 93; terms from the NegAff category of the Lasswell Value Dictionary; and a set of 35 words developed inductively). Table A.1 lists the most frequently occurring terms for each of the dimensions (nodes), along with their respective dictionaries. As an example of what a charismatic vision may look like with regard to this first dimension, the following is an extract from a letter to shareholders that has a high occurrence of negative terms (which are italic in the text):

Fiscal year 1998 was a *difficult* year for the Company and XYZ shareholders. [...] After the Company had produced *poor* results in the first and second quarters, the Board had planned to either sell the Company or to find an equity partner. These efforts were *unsuccessful*. [...] By the end of October 1998 the Company had run out of cash and attempts to raise funding from third parties proved *unsuccessful*. The Company's survival was in *jeopardy*. [...] At this point the Company was in a *precarious* position with respect to cash, *unable* to raise cash from operations, *unable* to access its line of credit and

unable to raise equity at a price close to the market price of its common stock. [...] Under these circumstances, the Company has made fundamental changes in management during the past several months. The Board named me as President of XYZ in September.

For the second dimension, *Formulation and Articulation of Goals*, we used three dictionaries to capture the moral/ideological aspect of this dimension (98 rectitude words from the LVD Rectot category, 18 words from the Ought category of the Harvard IV Dictionary, and 30 words developed inductively) and six dictionaries to measure the emotional aspect of this dimension (30 overstatement words derived from the HIVD Ovrst category reflecting emotional expressiveness, 169 emotion-related words from the HIVD Emot category, 53 words from the HIVD Arousal category, 30 feelings words from the HIVD Feel category, 111 affection words from the LVD Afftot category, and 33 words developed inductively). Tables 1 and A.1 have more details on the construction of the dimensions and the highest frequency terms, respectively. The following extract from a letter to the shareholders exemplifies a high occurrence of moral/ideological and emotional terms (italic in text):

In 1998, we completed our transition into a top tier drug *discovery* organization fully *capable* of completing the *journey* from idea to clinically active pharmaceutical candidate. [...] This next phase is very *exciting* for all of us. We are now in position to *pursue* our *mission* by leveraging the *strengths* we have created. YZX's *mission*: The rapid *discovery* and early development of novel pharmaceutical products. Our focus: We are a product company. Our product is a drug candidate. Our customer is the worldwide pharmaceutical industry. [...] We *believe* we can meet our goals. [...] In short, we are *confident* we can compete in a *challenging* environment. [...] We *believe* that YZX is in the *right* place at the *right* time with the *right* mix of business and science. [...] We expect YZX to make a *significant contribution* to global health-care through this next *exciting* phase of our growth, and we look forward to your continued support.

For the third dimension, *Means to Achieve the Vision*, we used three dictionaries measuring the degree to which the CEO's vision emphasizes the collective and shows concern for and confidence in internal and external organizational participants (60 positive affect words from the LVD PosAff category, 323 affiliation and supportiveness words from the HIVD Affil category, and 152 stakeholder terms developed inductively) (see Tables 1 and A.1). The following is an example of a letter to shareholders with a high occurrence of affiliation and stakeholder terms (italic in text):

If you've had any experience with *our* company, you know that *customer* mind-*sharing* is a corollary of our Guiding *Principles*. At ZYX, *we* take this set of *principles* very seriously. As you'll see, it is the creed by which thousands of ZYX *associates* around the world practice their daily business lives. *We* believe that *customer satisfaction* is created and sustained by *employees* who have a *passion* for their *work*. Late last year, three ZYX Company *associates* literally broke through a wall to *help* two *customers*. [...] *We* believe that *people* make

Table A.1   Text Analysis Results: Terms with Highest Frequencies

Node 1: Past			Node 2: Future			Node 3: SEOC		
Term	Hits	Dictionary	Term	Hits	Dictionary	Term	Hits	Dictionary
loss	208	Abrahamson and Park	new	1,466	Moral inductive	our	1,546	Stakeholder inductive
losses	56	Abrahamson and Park	believe	348	Rectot, LVD	we	1,088	Stakeholder inductive
difficult	53	Abrahamson and Park	strong	306	Ovrst, HIVD	customers	245	Stakeholder inductive
gross	52	NegAff, LVD	significant	265	Ovrst, HIVD	employees	239	Stakeholder inductive
disappointing	38	Abrahamson and Park	major	230	Ovrst, HIVD	shareholders	175	Stakeholder inductive
problems	36	Abrahamson and Park	important	228	Ovrst, HIVD	support	164	Affil, HIVD
negative	18	Abrahamson and Park	success	211	Emotion inductive	us	160	Stakeholder inductive
tough	16	Abrahamson and Park	people	197	Moral inductive	value	141	Stakeholder inductive
weak	16	Abrahamson and Park	must	165	Ought, HIVD	team	135	Affil, HIVD
lost	14	Abrahamson and Park	leadership	161	Moral inductive	people	128	Stakeholder inductive
depressed	11	Abrahamson and Park	change	149	Moral inductive	thank	112	Affil, HIVD
severe	11	NegAff, LVD	care	148	Afftot, LVD	work	94	Stakeholder inductive
weakness	11	Abrahamson and Park	goal	146	Moral inductive	customer	85	Stakeholder inductive
adversely	10	Abrahamson and Park	best	144	Emotion inductive	sales	73	Stakeholder inductive
poor	10	Abrahamson and Park	vision	134	Moral inductive	well	72	PosAff, LVD
delays	9	Abrahamson and Park	commitment	121	Rectot, LVD	commitment	70	Affil, HIVD
suffered	9	Abrahamson and Park	committed	117	Moral inductive	world	68	Stakeholder inductive
turn	9	NegAff, LVD	successful	115	Emotion inductive	performance	65	Stakeholder inductive
problem	8	Abrahamson and Park	exciting	104	Emotion inductive	experience	62	Stakeholder inductive
unprofitable	8	Abrahamson and Park	great	98	Ovrst, HIVD	focus	61	Stakeholder inductive
difficulties	7	Abrahamson and Park	should	96	Ought, HIVD	provide	57	Affil, HIVD
disappointment	7	Abrahamson and Park	critical	78	Ovrst, HIVD	forward	54	PosAff, LVD
lack	7	Abrahamson and Park	right	78	Rectot, LVD	marketing	53	Stakeholder inductive
negatively	7	Abrahamson and Park	necessary	75	Ovrst, HIVD	dedicated	47	Stakeholder inductive
unable	7	Abrahamson and Park	record	72	Emotion inductive	dedication	46	PosAff, LVD
adverse	6	Abrahamson and Park	confident	70	Emot, HIVD	shareholder	45	Stakeholder inductive
concern	6	Abrahamson and Park	excellent	70	Emotion inductive	confidence	43	Affil, HIVD
disappointed	6	Abrahamson and Park	move	70	Arousal, HIVD	environment	43	Stakeholder inductive
weaker	6	Abrahamson and Park	challenge	69	Arousal, HIVD	meet	43	Affil, HIVD
worst	6	Abrahamson and Park	mission	67	Moral inductive	care	41	Affil, HIVD
delay	5	Abrahamson and Park	substantial	67	Ovrst, HIVD	help	41	Affil, HIVD
downturn	5	Abrahamson and Park	emphasis	65	Ovrst, HIVD	part	38	Affil, HIVD
weakened	5	Abrahamson and Park	clear	64	Rectot, LVD	share	38	Affil, HIVD
bad	4	Abrahamson and Park	lead	63	Ovrst, HIVD	competitive	36	Stakeholder inductive
delayed	4	Abrahamson and Park	ensure	62	Ovrst, HIVD	investment	36	Stakeholder inductive
failed	4	Abrahamson and Park	aggressive	57	Emot, HIVD	stockholders	36	Stakeholder inductive
terrible	4	NegAff, LVD	rapid	54	Ovrst, HIVD	better	35	PosAff, LVD
unfortunately	4	Abrahamson and Park	primary	53	Ovrst, HIVD	partners	35	Stakeholder inductive
concerned	3	Abrahamson and Park	possible	51	Ovrst, HIVD	training	34	Stakeholder inductive
inability	3	Abrahamson and Park	confidence	50	Emot, HIVD	lead	32	PosAff, LVD
sluggish	3	Abrahamson and Park	unique	48	Ovrst, HIVD	need	32	Stakeholder inductive
collapse	2	NegAff, LVD	ever	46	Ovrst, HIVD	return	32	Affil, HIVD
crisis	2	Abrahamson and Park	establish	43	Ovrst, HIVD	focused	31	Stakeholder inductive
deficit	2	Abrahamson and Park	primarily	43	Ovrst, HIVD	pleased	31	Affil, HIVD
inadequate	2	Abrahamson and Park	always	42	Ovrst, HIVD	ability	30	Stakeholder inductive
lose	2	Abrahamson and Park	entire	41	Ovrst, HIVD	appreciate	29	Affil, HIVD
losing	2	Abrahamson and Park	especially	40	Ovrst, HIVD	hard	28	Stakeholder inductive
sudden	2	NegAff, LVD	home	40	Afftot, LVD	potential	28	Stakeholder inductive
unfavorable	2	Abrahamson and Park	far	38	Ovrst, HIVD	proud	28	Affil, HIVD
worse	2	NegAff, LVD	speed	37	Ovrst, HIVD	good	27	PosAff, LVD
wrong	2	NegAff, LVD	action	36	Moral inductive	quarter	27	Affil, HIVD
concerns	1	Abrahamson and Park	extensive	36	Ovrst, HIVD	associates	26	Stakeholder inductive
dangerous	1	NegAff, LVD	human	36	Afftot, LVD	excellent	26	PosAff, LVD
ill	1	Past inductive	excited	35	Emot, HIVD	excellence	25	Stakeholder inductive
malignant	1	Past inductive	revolution	35	Moral inductive	clients	22	Stakeholder inductive

Table A.1 (cont'd.)

Node 1: Past			Node 2: Future			Node 3: SEOC		
Term	Hits	Dictionary	Term	Hits	Dictionary	Term	Hits	Dictionary
troubled	1	Abrahamson and Park	satisfaction	34	Emot, HIVD	expertise	22	Stakeholder inductive
unrealized	1	Abrahamson and Park	fundamental	31	Moral inductive	benefit	21	Affil, HIVD
			proud	31	Emot, HIVD	working	21	Stakeholder inductive
			everything	30	Ovrst, HIVD	responsible	20	Stakeholder inductive
			comprehensive	28	Ovrst, HIVD	staff	20	Stakeholder inductive
			essential	28	Ovrst, HIVD	suppliers	20	Stakeholder inductive
			feel	28	Emot, HIVD	investors	19	Stakeholder inductive
			least	28	Ovrst, HIVD	satisfaction	19	Stakeholder inductive

a difference. [...] *We* believe that *everyone* is capable of continuous *growth* within an environment that fosters personal *development*. [...] *We recognize* people who can and will initiate change, and demonstrate a high tolerance for any *honest* resulting failures. [...] *We* take prompt action on opportunities, problems and conflicts. [...] *We appreciate* effective *team*-builders. [...] *We share* information widely and openly. As *we hope* you can tell, ZYX cherishes these Guiding *Principles*. They remind *us* who *we* are and how *we* are to behave. *We*'re convinced that staying close to *our customers*, *sharing* their business opportunities and challenges, and living these *principles* daily will continue to create value for all *our constituents*: *customers*, *associates*, and *shareholders* alike.

Assessing the Validity of the CCV Measure

We assessed the validity of this text-based measure of CCV in several ways. First, to ensure that what we measured as charismatic visions would be distinct from other information affecting analyst predictions, we manually checked each of the 2,630 terms included in the original LVD and HIVD categories, removing from each of the dictionaries all terms that (a) were inconsistent with the theory underlying the study (e.g., "saint," "just"); (b) might assume different meanings in the context of the letter to the shareholders (e.g., "share," "above," "strike," "interest"); (c) were industry-specific and business-specific terms (e.g., "anomaly," "billion," "board," "capital," "exempt"); and (d) were present across two or more categories included in the same dictionary. Table 1 shows the number of original terms in each dictionary and the number of terms used in constructing our dictionaries. For instance, of the 193 original terms in the LVD NegAff category, we used 93 terms (or 51%).

Second, we manually checked a randomly selected subset of letters (38; 10.3% of the total) to verify the reliability of the computer-based text analysis according to the procedure of Wade et al. (1997). We performed a separate Key Word In Context (KWIC) analysis for each of the three nodes, looking for instances of "misses" (terms included in the dictionaries but not captured by the software) and "false hits" (terms in the dictionaries found in the letters but not related to the construct within the context of the discourse). For each node, a hit rate (*number of hits/(number of hits + number of misses)*) and a false hit rate (*number of false hits/(number of hits + number of misses)*) were each calculated separately. Validation is judged by how well measurement conforms to acceptable error rates (e.g., 80% hit rate and 5% false hit rate; Wade et al. 1997).

The hit rates for each of our three nodes (average hit rate of all dictionaries making up each node) were all at an acceptable level of error (i.e., Wade et al. 1997): 84% for the Past node, 92% for the Future node, and 99% for the SEOC node. The false hit rates were for the most part also acceptable: 5% for the Past node, 6% for Future node, and 4% for the SEOC node. Although the error rate for the Future node slightly exceeds the 5% rate adopted by Wade et al. (1997) in their study, we found this to be an acceptable rate in the current study because none of the terms upon which false hits were identified were consistently false—in other words, terms that were false hits in one letter were found to be valid hits in others (for example, "care" was found to be a false hit in one letter but a valid hit in others). Therefore, we decided to accept a slightly higher false hit rate rather than eliminate seemingly valid terms.

Third, we ran a principle components factor analysis for each dimension, thereby assessing the extent to which the specific dictionaries "form" each specific CCV dimension (Podsakoff et al. 2003, pp. 622–623). The results were confirmatory: all three dictionaries measuring the *Evaluation of the Status Quo* dimension loaded on one factor (factor loadings from 0.49 to 0.80), as did those measuring the *Formulation and Articulation of Goals* dimension (factor loadings of 0.77 to 0.96) and the *Means to Achieve the Vision* dimension (factor loadings of 0.62 to 0.94).

Endnotes

[1] Institutional intermediaries, and particularly securities analysts, occasionally have direct access to CEOs (e.g., conference calls), and these carefully scripted events undoubtedly contribute to CEO charismatic attributions (Fanelli and Misangyi 2006, Gardner and Avolio 1998). Organizational documents nevertheless remain the primary source of information for external observers (Rindova et al. 2004), especially for securities analysts, who are compelled to use publicly available documents as the basis of their evaluations (Clemente 1988).

[2] We thank an anonymous reviewer for pointing us to this particular distinction between the constructs.

[3] We also examined a modeling that incorporated the absolute value of prior performance (three year average, two year average, and one year) instead of the change in prior performance, but because the results remain unchanged across all specifications, we only report the results with regard to change in performance.

[4] Because the coding involves 1 = strong buy and 5 = strong sell, a negative relationship supports H1.

[5]Indeed, if we consider that the CCV variable explained 14.5% and 6.4% of the between-firm variance (the level of analysis that CCV potentially explains variance) in analyst recommendations in the six-month and one-year analyses, respectively, then this effect is quite "large" ($r = 0.38$ and $r = 0.25$; Cohen 1992).

[6]Because the dependent variable for this analysis is the standard deviation of recommendations, a negative coefficient is consistent with the hypothesis that recommendations will be more *uniform*.

[7]Again, if we consider that the CCV variable explained 1.6% and 0.8% of the between-firm variance in the uniformity of analyst recommendations in Month 6 and Month 12 after the release of the letter to shareholders, respectively, these effects are even more substantial ($r = 0.13$ and $r = 0.09$, respectively).

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