An exploration of the relationship between language choice in CEO letters to shareholders and corporate reputation

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ABSTRACT

This paper proposes a taxonomy to assist in more clearly locating research on aspects of the association between corporate reputation and corporate accountability reporting. We illustrate how our proposed taxonomy can be applied by using it to frame our exploration of the relationship between measures of reputation and characteristics of the language choices made in CEO letters to shareholders. Using *DICTION 5.0* software we analyse the content of the CEO letters of 23 high reputation US firms and 23 low reputation US firms. Our results suggest that company size and visibility each have a positive influence on the extent to which corporate reputation is associated with the language choices made in CEO letters. These results, which are anomalous when compared with those of Geppert and Lawrence (2008), highlight the need for caution when assessing claims about the effects on corporate reputation arising from the language choice in narratives in corporate annual reports.

Keywords: CEO, *DICTION,* Impression management, Language, Letter to shareholders, Reputation, Taxonomy

1. Introduction

We respond to the challenge by Adams (2008) to refine knowledge of the extent to which corporate reporting influences corporate reputation. We begin by proposing a taxonomy of prior studies that have analyzed the association between corporate reputation in a corporate accountability reporting context. Influenced by Schwaiger's (2004) contention that any identification of factors influencing corporate reputation should be based on reliable empirical evidence, we then draw upon our proposed taxonomy for two purposes. First, to demonstrate how our research enquiries can be located and understood; and second, to contribute empirical evidence that will help to develop a better understanding of the relationship between the word choice in annual report CEO letters to shareholders and corporate reputation. A particular feature of this paper is the juxtaposing of our results with those reported in a study in which Geppert and Lawrence (2008) identified some language factors likely to influence the level of corporate reputation. Thus, theoretically and empirically, we explore the extent to which language choice in a corporate reporting and accountability narrative influences corporate reputation.

This paper builds on the work of Geppert and Lawrence (2008) who measure narrative disclosures in corporate reports as a proxy for corporate reputation. First, we contextualize the Geppert and Lawrence (2008) study, and other similar papers, in the form of an overarching taxonomy to apply to research linking corporate narrative disclosures and corporate reputation. Second, we replicate the Geppert and Lawrence (2008) study to the extent possible, and extend that study, where feasible, given our contradictory findings. We were concerned about the findings they reported because extant research into the written discourse of CEOs prompted doubts about the reliability of those results. In particular, their findings that high reputation firms use less complex (shorter), less varied and more concrete words appeared simplistic. We believe that the association between CEO text and corporate reputation is much more subtle and nuanced than advanced by Geppert and Lawrence (2008); and that such association is dependent heavily on company context.

Organizations are "discourse constructions" (Fairhurst & Putnam, 2004). As such, it seems appropriate to study (as we do here) how the language used in corporate reports might construct corporate reputation. In particular, we are intrigued by the implications of results reported by Geppert and Lawrence (2008): that is, that a high reputation might accrue to a company simply from adopting a communications (or accountability) strategy that involves a more relaxed

writing style, more desirable words (such as those associated with honesty, virtue and self-sacrifice), more present tense verbs, and a focus on immediate concerns of everyday life. As part of our enquiries, we replicate the Geppert and Lawrence study, to the extent possible, using (as they did) data sourced in *Fortune* magazine's annual *America's Most Admired Companies* survey, and in CEO letters to shareholders in annual reports of major US companies. However, unlike Geppert and Lawrence, we found no statistically significant associations between chosen language-related variables and corporate reputation.

The important influence that corporate communications can exert on corporate reputation has been highlighted in argument that "communications was one of the 'six key drivers' of corporate reputation" (the others were competitive effectiveness, marketing leadership, customer focus, familiarity/favourability, and corporate culture) (Greyser, 1999, p.179). In an increasingly competitive global economy, companies are keen to identify the drivers of corporate reputation so that they can acquire a sustainable competitive advantage (Schwaiger, 2004). Thus, it is not surprising that corporate reputation, and how it can be sustained and improved, has become an important element in the strategic communications of companies (Dolphin, 2004). Corporate annual reports (and the CEO shareholder letters they contain) are used not only for accountability purposes but also to create corporate reputation, corporate image and corporate credibility.

However, corporate reputation is not synonymous with either corporate image (Dutton & Dukerich 1991, p.537) or corporate legitimacy (Bebbington, Larrinaga-González & Moneva-Abadía, 2008b). Whereas image describes attributes members of a firm believe outsiders use to distinguish a firm, reputation describes the actual attributes outsiders ascribe to a firm. Following Schwaiger (2004, p. 48), a reputation is formed based on information about a firm's relative positioning in an organizational field, on marketing and accounting signals concerning performance, on institutional signals concerning social norms, on signals concerning firm strategy, and on attributes based on a firm's past actions. Because reputation is based on information and signals about a firm, corporate reporting is an ideal medium for communicating that information and those signals.

Gotsi and Wilson (2006) tease out the differences between the dynamic concepts of corporate reputation and corporate image. They conclude that there is a bilateral relationship between corporate reputation and corporate image. Corporate reputations are largely dependent on everyday impressions people form of companies, based on firm behavior, communication and

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symbolism. Different stakeholders are likely to assess corporate reputation differently, depending on their economic, social and personal background. Gotsi and Wilson (2006, p. 29) conclude with a definition of corporate reputation as:

> …a stakeholders' overall evaluation of a company over time. This evaluation is based on the stakeholder's direct experiences with the company, any other form of communication and symbolism that provides information about the firm's actions and/or a comparison with the actions of other leading rivals.

Analysis and debate in accounting and accountability reporting literature about matters of corporate reputation have usually been conducted within a framework of legitimacy theory – and the need to build and maintain organizational legitimacy. Deephouse and Carter (2005) argue that organizational legitimacy focuses on a social acceptance that is derived from conforming to social norms and expectations − whereas organizational reputation involves social comparison. He and Baruch (2010) consider organizational identity and organizational legitimacy simultaneously. They observe that organizational identity is not fixed but depends on the social context in which organizational identity is narrated. They maintain that legitimacy can be created, maintained and repaired by choice of environment and social referents; and, importantly in the context of the present study, they identify external communications (such as impression management tactics, verbal accounts and stakeholder information disclosure) as the means of achieving this (He & Baruch, 2010, p. 44).

Table 1 compares the three concepts of reputation, image and legitimacy. In the present context, it is important to acknowledge that managers use their annual reports "to construct and maintain desired images … and thus to shape the interactional frames from which reputations emerge" (White & Hanson, 2002, p. 291) − this is what Abrahamsson, Englund, and Gerdin (2011, p. 347) refer to as managers' "desired future image."

In the context of CEO letters to shareholders, we should also be alert to the possibility that a halo effect operates: that the reputation of the CEO extends to exert a positive reputation effect on the company as well. That possibility is consistent with the findings of an eight country study by Kitchen and Lawrence (2003) that CEO reputation is the third most important factor influencing

corporate reputation; and with the view that CEO reputation and corporate reputation are intertwined increasingly, particularly as the CEO is the chief communicator for the corporation.

Table 1
Organizational reputation, image, and legitimacy

Concepts	Key aspects	Time dimension	Definition
Organizational reputation	• Whole organization • Quality • Evaluation	• Short-term • Stable	A general, temporally stable, shared evaluative judgment about a firm
Organizational image	• Aspect of the organization (e.g., investment image) • Quality • Evaluation	• Short-term • Dynamic	A dynamic perception of a specific area of organizational distinction
Organizational legitimacy	• Whole organization or industry • Social norms and rules • Appropriateness	• Long-term • Stable	A shared general judgment about normative appropriateness

Reproduced from Brennan and Merkl-Davies (2012) and adapted from Table 1 of Highhouse, Brooks and Gregarus (2009, p.1487)

2. Taxonomy and literature review

Consistent with Bebbington et al. (2008b), we advocate the use of multiple theoretical perspectives to examine the relationship between corporate reputation and corporate reporting. In Fig. 1 we present a taxonomy of prior research on reputation in corporate narratives. Our taxonomy highlights the broad perspectives adopted, offers explanations for why those perspectives were adopted, and categorizes the methods of analysis and the sources of data used.

We apply the taxonomy in Fig. 1 to review prior empirical literature (summarized in Table 2).

Table 2
Prior empirical studies measuring reputation using corporate reports and corporate communications

Study	Corporate communication	Sample	Measuring reputation	Findings
(1) Incremental information perspective: corporate narratives as a proxy for corporate reputation				
Geppert & Lawrence (2008)	CEO letters to shareholders	25 high reputation, 14 low reputation firms, using three ratings services	Content analysis based on word variety and thematic content	High reputation firms use less varied, shorter and more concrete words. They concentrate on realism and a matter-of-fact style
(2) Impression management perspective: (i) reputation enhancement				
White & Hanson (2002)	Annual reports of Amcor, a multinational forestry and paper company	Number of annual reports analyzed not specified	Analysis of the construction of corporate reputation, using Goffman's (1959) impression management lens	Impression management is used to construct a corporate reputation. Readers need to collude with Amcor's self-characterization for the impression management to be successful
Erickson et al. (2010)	Merck's responses to media questions following allegations that Vioxx had dangerous side effects	Language used by company representatives in 21 media excerpts in the *Wall Street Journal* and *New York Times*	Critical analysis using Benoit's (1995) image restoration typology	Corporate responses are critical in determining the damage to the firm's image during the crisis
Othman et al. (2011)	Annual reports	117 Malaysian listed companies	Index based on 40 constructs derived from GRI guidelines	Regulatory efforts are significant in promoting CSR reputation
(2) Impression management perspective: (ii) reputation risk management				
Bebbington et al. (2008a)	Shell's 2002 CSR report	(i) Disclosures focusing on reputation	(i) Close reading using conceptualizations of reputation from six reputation ranking surveys	The CSR report appeared to link elements of reputation together in "constellations of reputation" (p. 351)
		(ii) Disclosures in CSR report	(ii) Close reading using Benoit's (1995) image restoration strategies	
(2) Impression management perspective: (iii) symbolic public relations exercise				
We are unaware of studies explicitly linking the measurement of reputation as a symbolic public relations exercise				
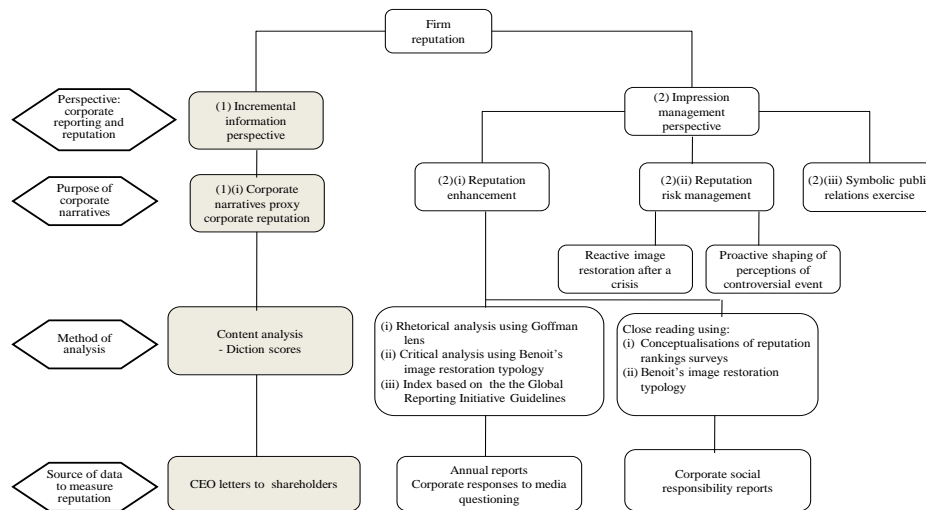
Key: Shading represents the perspective and underlying assumptions adopted in this paper

Fig 1: Taxonomy of prior research on reputation in corporate narratives

2.1. Two broad explanations for discretionary narrative disclosures

In investigating the relationship between corporate communications and corporate reputation, we begin by considering the two broad explanations posited by Merkl-Davies and Brennan (2007) for discretionary narrative disclosures in CEO letters to shareholders. First, that discretionary narrative disclosures contribute to better decision making by overcoming information asymmetries between managers and external stakeholders of a firm: that is, they provide *incremental information.* Second, that discretionary narrative disclosures constitute opportunistic behavior whereby managers exploit information asymmetries between them and external stakeholders by engaging in biased reporting: that is, they engage in *impression management.*

Several studies reviewed in Merkl-Davies and Brennan (2007) test both the incremental information and the impression management hypotheses. In general, the reviewed studies favour an impression management explanation for discretionary accounting narratives. However, biased reporting can also be due to managerial hubris. Whereas impression management constitutes opportunistic managerial behaviour with the purpose of manipulating organizational audiences' perceptions of firms and their performance, hubris constitutes self-deception or egocentric bias (e.g., by managers being biased towards their own performance). Finally, in an accountability context, particularly in annual reports, biased reporting, particularly in the form of performance attributions, can also be the result of retrospective managerial sense-making. This entails

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managers providing an account of organizational actions and events by retrospectively assigning causes to them (Aerts, 2005). The competing incremental information and impression management explanations are not mutually exclusive, necessarily. As discussed below, Geppert and Lawrence (2008) adopt both perspectives. It is beyond the scope of this study to test between the two competing explanations and corporate reputation.

In Section 2.2 we explore the next level in our taxonomy: the multiple purposes corporate narratives can serve. That is, as a proxy for corporate reputation; to enhance reputation to help in reputation risk management; and as part of a symbolic public relations exercise.

2.2. *The multiple purposes of corporate narratives*

Corporate communication is central to corporate reputation. The relationship between corporate reputation and corporate social responsibility (CSR) positioning has attracted particular attention. For example, Du, Bhattacharya, and Sen (2010) have proposed a framework of CSR communication in which reputation is identified as a contingency factor influencing communication outcomes.

2.2.1. Corporate narratives as a proxy for corporate reputation

By reference to the taxonomy presented in Fig. 1, we can see that Geppert and Lawrence (2008, pp. 285–86) adopt an *incremental information* perspective when they state that "discretionary narrative disclosures … contain important and useful information"; and an *impression management* perspective when they state that "Management controls the content of these disclosures, so these disclosures are directly influenced by the image management wants to convey."

Geppert and Lawrence (2008) (whose findings are a particular empirical focus of this paper) assume corporate narratives are a proxy for corporate reputation and that language in corporate communications varies between high and low reputation firms. They examine whether discretionary disclosures in CEO letters to shareholders can predict independent measures of reputation such as those captured in *Fortune* magazine's *Most Admired Companies* surveys. They find significant variations in the linguistic choices high reputation firms and low reputation firms make in respect of discretionary narrative disclosures. Geppert and Lawrence (2008) report strong statistically supported results, determined from a small sample (n = 39) and cross-

sectional data, to sustain a view that high reputation firms used "more relaxed writing style", "more desirable words" (such as those associated with "honesty, virtue and self-sacrifice"); more present tense verbs; and focused more on "immediate concerns of everyday life" (Geppert & Lawrence, 2008, pp. 291–294). They found that "firms with a high corporate reputation use less varied, shorter and more concrete words than the low reputation firms …[and]… concentrate on realism with a matter-of-fact style" (p. 285).

2.2.2. Reputation enhancement

Most prior research into the relationship between corporate (including social responsibility and sustainability) reporting and corporate reputation adopts an impression management perspective. White and Hanson (2002) conclude that Amcor (an Australian forestry, paper-making and packaging company) used annual reports to sustain its standing among investors and other stakeholders by maintaining an appearance as a helpful provider of information – and as a company with a capacity to render a "fuzzy meeting of expectations" (p.286).

Several theories explain the relationship between corporate reporting and reputation. Benoit (1995), for example, regards reputation risk management as an image restoration activity for firms that have suffered a crisis. Erickson, Stone, and Weber (2010) analyze corporate responses by Merck to media coverage of a crisis involving allegations that one of its products [Vioxx] had dangerous side effects. They invoke Benoit's Image Restoration Typology, social legitimacy theory and the assumption that organizations need the support of stakeholder audiences for continued success. Of the 14 communication strategies Merck considered, its most common communication strategy was one of image bolstering in an attempt to rebuild its reputation.

In examining the influence of regulatory authorities on CSR reporting activities that were directed to enhance firm reputation, Othman, Darus, and Arshad (2011) constructed a weighted index of 40 potential CSR disclosure items based jointly on the Global Reporting Initiative [GRI] (2008) Guidelines and the Reputation Institute (2009) RepTrak^{TM} model. They concluded that the Malaysian Government's introduction of mandatory CSR reporting in 2006 was a significant factor in promoting CSR reputation.

2.2.3. Reputation risk management

Corporate reporting can also be used to manage reputational risks (Bebbington, Larrinaga, & Moneva, 2008a). Thus, CSR reporting specifically can be viewed as an outcome of, and as a part of, reputation risk management. Bebbington et al. (2008a) analyzed Shell's 2002 CSR report using a reputation risk management lens and concluded that such a lens could assist in understanding CSR reporting research. Cho, Guidy, Hageman, and Patten (2012) build on Bebbington et al.'s (2008a) concepts by characterizing voluntary environmental disclosure as a lens to filter and shape perceptions. They find environmental disclosure to be related significantly to reputation.

2.2.4. Symbolic public relations exercise

Corporate reporting (especially corporate social responsibility reports) and CEO letters to shareholders may be a symbolic and emblematic activity, rather than substantive activity. Under this view, corporate reporting is merely a public relations exercise to manage impressions and to improve company reputations in a broad sense (for examples in the context of Corporate Social Reporting, see Adams, 2008).

2.3 Measuring reputation

Berens and van Riel (2000) categorize reputation measures in terms of the *social expectations* people have of the behavior of firms; the *corporate personality* traits people attribute to companies; and matters of *trust* (the perceptions people have of a company's honesty, reliability and benevolence).

Many studies in the social expectations category use the *Fortune Most Admired Companies* annual survey of corporate reputation (e.g. Herremans, Akathaporn, & McInnes, 1993) or the Reputation Institute's *Reputation Quotient* (e.g. Bebbington et al., 2008a). Cho et al. (2012) used environment reputation scores from a survey by *Newsweek* to measure reputation. *Newsweek*'s environment reputation scores are based on a much broader group of respondents than the *Fortune Most Admired Companies* annual survey and rely on respondents' opinions concerning environmental issues. Deephouse (2000) developed a measure based on media reputation: that is, the overall evaluation of a firm as presented in the media. Deephouse (2000) argued that the

media does more than signal reputation (as suggested by Fombrun & Shanley, 1990) but is a proactive participant in socially constructing reputation. Deephouse (2000) classified media articles mentioning firms as being favourable, unfavourable or neutral and developed a coefficient of media favourableness measures expressed as the quotient of favourable articles to unfavourable articles.

2.3.1. Content analysis – DICTION scores

Three categories of reputation measurement are outlined in the taxonomy in Fig. 1. These involve the use of a variety of content analysis methods to measure reputation. Unlike the derived measures of reputation discussed above, this suggests that reputation can be measured more directly using disclosures in corporate documents. In the remainder of this paper we adopt essentially an incremental information perspective (and the premise that corporate narratives are a proxy for corporate reputation) to analyse the relationship between the scores emerging from a *DICTION*-based content analysis of CEO letters to shareholders and levels of corporate reputation.

Because CEO personality is often a proxy for *corporate personality*, studies of CEO letters to shareholders and corporate reputation can be included in Berens and van Riel's (2000) corporate personality category. In many companies, as Amernic and Craig (2010, p. 89) and Amernic, Craig, and Tourish (2010, p.41) argue, the prevailing coursing metaphor in CEO narrative is that "THE CEO IS THE COMPANY".

The importance of CEO letters in offering insights on companies, on their managers, and (directly or indirectly) on corporate reputation, has been illustrated by Fiol (1989), Kendall (1993), Palmer, King, and Kelleher (2004), Prasad and Mir (2002), Fanelli and Grasselli (2005), among others. Amernic et al. (2010, p. 27) contend that "the CEO letter to shareholders is an important medium [that]… serves essential strategic and accountability functions." Barnett, Jermier, and Lafferty (2006) point to the strong influence a chairman's [CEO's] letter can have in enhancing the asset value of a firm's reputation. Geppert and Lawrence (2008, p. 287) acknowledge that asset value could be affected simply through the Chair [or CEO] "announcing that the firm will undertake some investor desired activity, even if the activity is not subsequently implemented."

The Geppert and Lawrence (2008) study of the association between narrative content of the CEO's (or chair's) letter in a company annual report and measures of that company's reputation classified each of 39 sampled companies as having either a high reputation or a low reputation. Their sample included 17 companies (10 high reputation and 7 low reputation) chosen from *Fortune* magazine's *Most Admired Companies 2002*; 14 companies (7 high reputation and 7 low reputation) chosen from the *Harris Interactive 2002 Corporate Reputation Survey*; and 8 companies (all high reputation) chosen from *Business Ethics* magazine's *100 Best Corporate Citizens Report* (p. 288). Thus, the three data sources used to assess reputation were derived from differing instruments and measures.

2.3.2. Content analysis – other methods

A variety of other content analysis approaches have been used to measure reputation. These include rhetorical analysis (White & Hanson 2002), critical analysis (Erickson et al., 2010), the construction of a reputation index (Othman et al., 2011), and a close reading approach (Bebbington et al., 2008a). The latter study utilized conceptualizations of reputation in reputation ranking studies that comprised five categories of reputation (financial performance; quality of management; social environmental, community and ethical issues; employee related factors; and quality of goods and services) together with Benoit's (1995) image restoration framework.

3. Method

We focus now on exploring the language factors that influence corporate reputation. We apply the research approach of Geppert and Lawrence (2008) to a later and larger data set and compare results.

We draw on a sample of 92 of the top 100 companies in the 2006 *Fortune 500* listing of America's largest corporations according to annual revenues. Eight firms were omitted because a full set of requisite data was unobtainable for them.[2] The 92 sampled companies were ranked in terms of their industry-based social responsibility rating. We acknowledge that reputation based on social responsibility may differ from reputation based on financial performance or other

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[2] The companies not included were Albertsons, Caremark, Johnson Control, Delphi, International Paper, Hospital Corporation of America, Sysco and Washington Mutual.

measures based on other sources, consistent with Mäkelä and Laine (2011). Using *Fortune* social responsibility rankings, companies in the uppermost quartile were assigned to a high reputation sample group (n = 23) and companies in the lowest quartile were assigned to a low reputation sample group (n = 23). Thus, the final analysis sample consisted of two groups comprising 46 firms. There were 23 companies in the high reputation group[3] (Geppert & Lawrence: 25 companies) and 23 companies in the low reputation group[4] (Geppert & Lawrence: 14 companies).

Data were obtained from *Fortune* magazine's *America's Most Admired Companies* survey for 2008 and from CEO annual report letters to shareholders for 2006. The 2006 CEO letters were published in 2007. Consistent with Geppert and Lawrence (2008), reputation data were chosen from the next annual *Fortune* magazine's *America's Most Admired Companies* study published after the annual report in which the CEO letter appeared: that is, the 2008 survey published in early 2008. This survey comprised reputation rankings of individual companies that were based on attitude surveys of approximately 3,700 executives, directors and analysts. We explore the association between *Fortune* magazine's *America's Most Admired Companies* survey reputation data and reputation as reflected in the text of the CEO's annual report letter to shareholders for 2006.

3.1. Conjectured associations between DICTION variables and corporate reputation

DICTION 5.0 text analysis software was used to analyze the letters to shareholders in the high reputation and low reputation sample groups. *DICTION* software was initially developed by Hart (2000, 2001) to analyse political discourse. Detailed guidelines on its application are now available (Hart & Carroll 2011). *DICTION* analyses verbal tone in narratives based on five master scores (certainty, activity, realism, optimism and commonality) and 35 sub-scores. *DICTION* has been used in prior content analysis of corporate reports by Sydserff and Weetman (1999, 2002), Yuthas, Rogers, and Dillard (2002), and Linsley and Slack (2010). Further information on *DICTION 5.0* software and detailed descriptions of the *DICTION* variables of

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[3] These were Altria, American Express, AT and T, Bank of America, Berkshire Hathaway, Caterpillar, Chevron, Costco, Deere, DuPont, Fedex, GE, IBM, Intel, Johnson and Johnson, Lowe's, Medco Health, Morgan Stanley, Proctor and Gamble, Target, UPS, Walt Disney and Wellpoint.

[4] These were AIG, AmeradaHess, Amerisourcebergen, Archer Daniels, Boeing, Citigroup, CVS, Dell, Ford, General Motors, Merrill Lynch, MetLife, Nationwide, Northrop Grumman, Pfizer, Sears, Sprint Nextel, State Farm, Sunoco, TIAA-CREF, Time Warner, Tyson Foods and Wachovia.

interest in this paper can be found in Hart (2000, 2001), Short and Palmer (2008), and Geppert and Lawrence (2008). We chose the *DICTION 5.0* option that analyzes a block of text averaged into 500 word sections. We measured the same six *DICTION* variables that Geppert and Lawrence (2008) considered to be related to reputation: Variety, Inspiration, Present Concern, Concreteness, Complexity and Realism. The definitions for each of these variables are provided in Table 3.

The conjectures of Geppert and Lawrence (2008, p. 294) are summarized as follows:

> … the set of high reputation firms on average use less variety of words, shorter words and more concrete words than the set of low reputation firms. These firms concentrate on realism with a matter-of-fact style.

3.2 Reasoning underlying variable selection

The reasoning Geppert and Lawrence (2008) provide to support the selection of each variable is summarized below.

Variety: A high score for *variety* "indicates a speaker's avoidance of overstatement and a preference for precise molecular statements" (p. 291). *Variety* was selected based on conjecture that "Perceived credibility of the chairman [and thus, presumably, the company] may, thus, be enhanced by using a more relaxed writing style and a lower variety index" (p. 291).

Inspiration: Because this *DICTION* variable measures such desirable words as "honesty, virtue and self-sacrifice; qualities such as courage, mercy and dedication; and ideals such as patriotism, success, education and justice" (p. 293) high reputation firms are conjectured to use more of these words than low reputation firms.

Table 3
Definition of DICTION variables

Variable Sub-categories	Definition	Interpreting the score	Examples
Variety	Divides the number of different words in a passage by the passage's total words.	A high score indicates a speaker's avoidance of overstatement and a preference for precise molecular statements. The score is a ratio. Values range between 0.0 and 1.0.	Geppert and Lawrence (2008) and Short and Palmer (2008)
Inspiration	Abstract virtues deserving of absolute respect. Most of the terms in this dictionary are nouns isolating desirable moral qualities (*faith, honesty, self-sacrifice, virtue*) as well as attractive personal qualities (*courage*, *dedication*, *wisdom*, *mercy*). Social and political ideals are also included: *patriotism, success, education, justice*.	Presence of words from a set of 122 desirable words (Geppert & Lawrence, 2008, p. 293)	Hunter (2003) and Geppert and Lawrence (2008)
Present Concern	A selective list of present tense verbs…all … occur[ing] with great frequency in standard American English. The dictionary is not topic-specific but points instead to general physical activity (*cough, taste, sing, take*), social operations (*canvass, touch, govern, meet*), and task-performance (*make, cook, print, paint*).	Presence of words from a set of 269 words, mainly present tense verbs (Geppert & Lawrence, 2008, p. 293)	Geppert and Lawrence (2008)
Concreteness	A large dictionary possessing no thematic unity other than tangibility and materiality. Included are sociological units (*peasants, African-Americans, Catholics*), occupational groups (*carpenter, manufacturer, policewoman*), and political alignments (*Communists, congressman, Europeans*). Also incorporated are physical structures (*courthouse, temple, store*), forms of diversion (*television, football, CD-ROM*), terms of accountancy (*mortgage, wages, finance*s), and modes of transportation (*airplane, ship, bicycle*). In addition, the dictionary includes body parts (*stomach, eyes, lips*), articles of clothing (*slacks, pants, shirts*), household animals (*cat, insects, horse*) and foodstuffs (*wine, grain, sugar*) and general elements of nature (*oil, silk, sand*).	Presence of words from a set of 745 words, with no thematic similarity other than tangibility and materiality (Geppert & Lawrence, 2008, p. 293)	Geppert and Lawrence (2008)
Complexity	Borrows … [the] notion that convoluted phrasings make a text's ideas abstract and its implications unclear.	Measure of the average number of characters-per-word in a given input file.	Geppert and Lawrence (2008)
Master variable			
Realism	Language describing tangible, immediate recognizable matters that affect peoples' everyday lives.	Composite score based on the relative proportion of terms describing tangible everyday matters and those describing complex concepts (Yuthas et al., 2002, p. 150)	Yuthas et al. (2002) and Geppert and Lawrence (2008)

Source: Unless otherwise specified, DICTION 5.0 manual (pp. 43-47). Available from: www.dictionsoftware.com/files/dictionmanual.pdf. Accessed 01.08.11

Present Concern: "High reputation firms use present tense because they feel they can state what they do, whereas low reputation firms implicitly accept that they are not very successful by implying what they are attempting to do" (p. 293).

Concreteness: The text of CEO letters of high reputation firms reflects a "straightforward, matter-of-fact style" that is indicated by the *DICTION* variable, *Concreteness*. The latter is based on "745 words with no thematic similarity other than tangibility and materiality" (p. 293).

Complexity: Firms using longer and more complex words are more likely to be low reputation firms.

Realism: A higher score on this master variable suggests that the rhetoric in discussing everyday matters is immediate, tangible and familiar to the reader (Short & Palmer, 2008, p. 732). Geppert and Lawrence contended that high reputation firms will score more highly on this variable because it "represents tangible, immediate concerns of everyday life" (p. 294).

Table 4 summarizes these conjectures.

Table 4
Prediction of impact of Reputation Status on DICTION variables

DICTION 5.0 variable	High reputation firms	Low reputation firms
Variety	Low	High
Inspiration	High	Low
Present Concern	High	Low
Concreteness	High	Low
Complexity	Low	High
Realism	High	Low

Differences between the high reputation and low reputation firms were tested using *t*-tests on average scores for the *DICTION* variables of interest (*Variety, Inspiration, Present Concern, Concreteness, Complexity* and *Realism*). This was done whilst mindful that any computer-assisted statistical content analysis of CEO letters, however robust, ideally should be accompanied by close readings of those CEO letters. Although close readings (for example, based upon metaphor analysis) are very labor-intensive, they have strong capacity to provide

richer insights to apparent meaning (and likely reputation) than computer-assisted content analysis based solely on word-counts (; Amernic, Craig, & Tourish, 2007; Craig & Amernic, 2004).

4. Results

Descriptive statistics are shown for the high and low reputation groups, and a logistic regression model was run to identify the variables that distinguish the two groups.

4.1 Descriptive statistics

Table 5 presents the average scores for the *DICTION* variables.

Table 5
Mean *DICTION* scores for the six reputation measures

DICTION 5.0 category (unit of measurement)	Average for high reputation group n=23	Average for low reputation group n=23	*p*-Value, two sided *t,* equal variance	*p*-Value, two sided *t,* unequal variance
Inspiration (desirable words)	10.03	9.21	0.57	0.57
Present concern (present tense verbs)	9.66	9.64	0.98	0.85
Concreteness (words suggesting tangibility and materiality)	16.98	14.69	0.32	0.32
Variety (ratio of different words to total words)	0.52	0.53	0.20	0.21
Complexity (average characters /word)	5.00	5.05	0.50	0.50
Realism	46.79	46.32	0.45	0.45
No *p*-values are significant at the 1%, 5% or 10% levels.				
Definitions of the six measures of reputation are shown in Table 3.				

The mean for the high reputation group is greater than the mean for the low reputation group for *Inspiration*, *Present Concern*, *Concreteness* and *Realism*. The mean for the high reputation group is slightly lower than the mean for the low reputation group for *Variety* and *Complexity*. No statistically significant associations were found. Nonetheless, the results reveal a degree of stability between the high ranked firms and between the low ranked firms in both this study and the Geppert and Lawrence (2008) study. The three strongest results (with the three lowest *p*-values) are found for *Variety*, *Concreteness* and *Realism*. The three weakest results (with the three highest *p*-values) are found for *Present Concern, Inspiration* and *Complexity*.

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We explored whether conjectured associations between the text of a CEO letter and corporate reputation could be explained for each company through bivariate correlations between *overall* (rather than industry-based) *most admired reputation* and relevant *DICTION* scores. The overall reputation scores for the 46 companies sampled in the present study ranged between 4.02 and 8.48 (where zero is a poor reputation and 10 is an excellent reputation) with a mean of 6.72.

Table 6 reveals no evidence of a high (or significant) correlation between overall company reputation and any of the *DICTION* variables of interest.

Table 6
Correlation of six reputation measures and overall score as a most admired company, 2006

	Most admired overall company score	Inspiration	Present Concern	Concreteness	Variety	Complexity	Realism
Most admired overall company score	1						
Inspiration	-0.02	1					
Present Concern	0.05	0.09	1				
Concreteness	-0.12	0.07	-0.02	1			
Variety	0.12	-0.13	0.05	-0.11	1		
Complexity	0.05	0.24	-0.16	0.11	0.18	1	
Realism	-0.07	-0.06	0.54	0.19	-0.12	-0.63	1

Key: Definitions of the six measures of reputation are shown in Table 3.

Although Geppert and Lawrence (2008) contend that the higher the reputation, the higher would be *Inspiration*, *Present Concern*, *Concreteness* and *Realism*, the negative sign of the correlation coefficients between *Most Admired Overall Company Score* and *Inspiration*, *Concreteness* and *Realism* is inconsistent with such contention. The only variable for which the sign of the coefficient is consistent with Geppert and Lawrence's conjecture is *Present Concern*.

4.2 Logistic regression

A logistic regression model was developed to classify firms as high reputation or low reputation. The dependent variable was classified as 1 for a high reputation group firm and 0 for a low reputation group firm. The independent variables included in the regression (*Variety*,

Complexity and *Concreteness*) are the same as those included by Geppert and Lawrence (2008). In Table 7, the logit estimates are compared.

Table 7
Inter-study comparison of logit estimates*

Variables	B		SE		Significance	
Variety	-19.48	*(-35.52)*	12.50	*(16.08)*	0.12	*(0.03)*
Complexity	0.46	*(-7.88)*	1.24	*(3.17)*	0.71	*(0.01)*
Concreteness	0.01	*(0.60)*	0.04	*(0.35)*	0.76	*(0.09)*
Constant	7.81	*(59.71)*	8.85	*(23.83)*	0.38	*(0.01)*

* Results of Geppert and Lawrence (2008) are in parentheses and italicized

The positive sign of the coefficient for *Complexity* is not consistent with Geppert and Lawrence's conjectures.

A conclusion that higher scores for *Complexity* lead to greater probability of a low reputation classification cannot be made. Firms with logit values >0.5 were classified as high reputation firms, and those with logit values of <0.5 as low reputation firms.

Table 8 compares logit classifications.

Table 8
Inter-study comparison of logit classification results[a]

	Predicted low reputation No. firms	Predicted high reputation No. firms	Predicted correctly %
Actual low reputation	8 (*11*)	15 (*3*)	34.8 (*78.6*)
Actual high reputation	5 (*4*)	18 (*21*)	78.2 (*84.0*)

[a] Results of Geppert and Lawrence (2008) are in parentheses, italicized. Cut off value = 0.5 in determining whether classification is correct or not.

The overall level of correct classification was 26 out of 46 (56.5%) versus 32 out of 39 (82%) for Geppert and Lawrence. A naïve classification would be correct in 50% of the cases.

The analysis we conducted is performed on a larger treatment sample (n = 46 versus n = 39), more recent data (2006/2007 versus 2001/2002), and data from only one of the three sources

used by Geppert and Lawrence. The study is important in helping to establish the external validity of prior purported relationships (Easley, Madden, & Dunn, 2000).

5. Conclusions

The empirical study we have conducted is important because of its capacity to inform corporate communications and narrative corporate reporting practice by inferring credibility (or otherwise) to prior reported research-based generalizations (Eden, 2002). Our study is important in helping to preserve the integrity of the cumulative empirical foundation of corporate communications knowledge (Hubbard & Vetter, 1991). The importance of studies such as this was emphasized in an editorial in the *Academy of Management Journal* which stressed that "the value of empirical management research is profoundly augmented … by encompassing a large number of high-quality replication studies" (Eden 2002, p. 841).

Although our sample size is larger than Geppert and Lawrence (2008), we nonetheless accept that it is based on a relatively small sample size. We acknowledge Bamber, Christensen, and Gaver (2000) and express caution in generalizing the study results.

The results we report raise doubts about the reliability of the findings reported by Geppert and Lawrence (2008). One explanation for the difference is a "maturation effect." The Geppert and Lawrence study used data for 2001/2002 whereas data used in the present study are for 2006/2007. Mäkelä and Laine (2011), in their longitudinal study of one company, find evidence of change in reporting style over time, suggesting that a replication for a different time period can be expected to lead to differing results. Indeed, conceivably, the American business environment following the implosion of Enron in December 2001, and the enactment of the *Sarbanes-Oxley Act 2002*, was one of greater respect for corporate governance and ethical propriety. This possibly rendered corporate reputation less susceptible to corporate communication strategies that rely on the words CEOs use in letters to shareholders.

Another explanation is that Geppert and Lawrence (2008) have studied firms that are more likely to be at the extremes of a high reputation / low reputation ranking continuum. In contrast, the present study classifies those in the upper quartile of a reputation ranking as high reputation, and those in the lower quartile as low reputation, thereby potentially diluting the results observed.

A further explanation is that the present study is focused tightly on the top 100 *Fortune* companies, whereas the Geppert and Lawrence (2008) sample is drawn from companies spread across the top 500 *Fortune* companies. Although Geppert and Lawrence (2008) provide only partial sample selection details, 10 companies in their high reputation sample group can be identified: these range from Home Depot (ranked 18 in the *Fortune 500* listing in 2002) to Harley Davidson (ranked 466 in the Fortune 500 list for 2002). Five of the 10 identifiable companies are ranked between 100 and 500 in the *Fortune 500* listing. A similar profile is evident in the seven companies identifiable in the low reputation sample group of Geppert and Lawrence (2008). The difference in results seems explainable by Geppert and Lawrence (2008) having analyzed US companies that are smaller and less prominent than those analyzed here. Thus, the results suggest that the extent to which corporate reputation is associated with the textual characteristics of CEO letters may be influenced by company size and visibility.

Whether there is a relationship between the words in CEO letters and corporate reputation is an important matter for corporate communicators — and one that deserves fuller analysis based on longitudinal data, a sounder theoretical base, stronger statistical design, and a commitment to analyze text in specific corporate context. However, further research should not rely solely on software-based quantitative analysis of words in CEO letters, but should embrace qualitative techniques (such as close reading) as well. A combination of quantitative and qualitative techniques will be conducive to the provision of valuable, comprehensive and potentially mutually reinforcing insights to, and understandings of, corporate reputation. Explanations for discretionary narrative disclosures as a proxy for corporate narratives also deserve more attention. Are disclosures for the purpose of providing shareholders and stakeholders with incremental useful information, or are they motivated by managers creating impressions that influence stakeholders' perceptions of firm reputation?

It is likely that the association between CEO text and corporate reputation is much more subtle and nuanced than Geppert and Lawrence (2008) would lead us to believe, and dependent heavily on company context. Several avenues for further research arise. First, it would be beneficial to explore the extent of the relationship, if any, between reputation and the motive for discretionary narrative disclosures. There would seem to be strong intuitive grounds to expect the relationship to be stronger where the overriding objective is to engage in impression management, rather than to provide incremental information. Second, our results highlight the

need for further inquiry into the extent to which firm size is a mediating variable between corporate communications and corporate reputation.

Generally, the effect of language choice on reputation and on the effectiveness of accountability in corporate annual reports warrants on-going enquiry. To that end, the taxonomy we propose should be facilitative.

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