

Use of Linguistic Markers in the Identification and Analysis of Chief Executives' Hubris

by

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ABSTRACT

This research seeks to provide an insight into the identification and understanding of linguistic markers of Chief Executive Officer (CEO) hubris. It analyses spoken and written discourse samples of CEOs deemed to be hubristic and benchmarks the results against those of a sample of non-hubristic CEOs. In doing so it explores the hypothesis that the linguistic utterances of hubristic CEOs show consistent differences from the language produced by CEOs who have not been identified as possessing hubristic tendencies.

This thesis presents a review of academic literatures pertaining to personality, hubris and natural language use. The review of these three domains leads to the conclusion that certain personality traits are antecedents to hubris and can be identified in one's language use. The word count strategies are reviewed in depth as a framework for measuring hubris at-a-distance through the assessment of CEO's linguistic utterances. In addition to word count strategies, this thesis also proposes a new approach – applying machine learning techniques to the analysis of language - for identifying CEO hubris.

The research consists of a Pilot Study and three main studies (Study 1, Study 2, Study 3 (comprising two sub-studies, 3a and 3b)). It describes in detail the process, methods and materials used, summarises findings and explains the implications of the results obtained for further research into linguistic markers of hubris. For the purpose of this research, Hubris Syndrome is conceptualised as proposed by Owen and Davidson (2009), including all 14 proposed symptoms for Hubris Syndrome (Owen & Davidson, 2009). This research focuses explicitly on leaders who occupy or have occupied the position of CEO for a significant amount of time and were identified by other researchers, subject matter experts and media as having exhibited the features of Hubris Syndrome during their time in office.

This research proposes several innovative techniques to identify the differences between hubristic and non-hubristic language, and documents subtle differences identified. Findings from this doctoral study suggest that the high use of impersonal pronouns, the total count of pronouns, auxiliary verbs, common verbs and tentative tone indicate CEO hubris.

All in all, exploring if and how hubris' symptoms manifests in CEO language use and what are characteristic features of hubristic discourse, contributes to wider research regarding the diagnosis and prevention of this phenomenon. This study seeks to mitigate the risk of potentially destructive CEO behaviour for the organisation and prevent organisational failures induced or aggravated by Hubris Syndrome.

STATEMENT OF ORIGINALITY

This thesis and the work to which it refers are the results of my own efforts. Any ideas, data, images or text resulting from the work of others (whether published or unpublished) are fully identified as such within the work and attributed to their originator in the text, bibliography or in footnotes. This thesis has not been submitted in whole or in part for any other academic degree or professional qualification. I agree that the University has the right to submit my work to the plagiarism detection service TurnitinUK for originality checks. Whether or not drafts have been so-assessed, the University reserves the right to require an electronic version of the final document (as submitted) for assessment as above.

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ABBREVIATIONS

Abbreviation	Description
APD	Acquired Personality Disorder
BSC	Business Source Complete
CEO	Chief Executive Officer
CSE	Core self-evaluation
DSM	The Diagnostic and Statistical Manual of Mental Disorders
GP	General Population
HBR	Harvard Business Review
HCEO	Hubristic CEO sample
HDS	Hogan Development Survey
HPD	Histrionic Personality Disorder
HS	Hubris Symptom
LIWC	Linguistic Inquiry and Word Count
LTA	Leadership Trait Analysis
MBTI	Myers-Briggs Type Indicator
MCEO	Linguistic marker of CEO language
NHCEO	Non-hubristic CEO sample
NH	Non-hubristic
NPD	Narcissistic Personality Disorder
PTSD	Post-traumatic Stress Disorder
WEKA	Waikato Environment for Knowledge Analysis
SMHP	Strong Marker of Hubris by Presence
SMHA	Strong Marker of Hubris by Absence
WMHP	Weak Marker of Hubris by Presence
WMPA	Weak Marker of Hubris by Absence

1. INTRODUCTION

1.1. Background and research rationale

Research suggests that the personality of Chief Executive Officers, hereafter CEOs, is an important factor in determining a CEO's judgements (Picone, Dagnino & Mina, 2014), thereby affecting the company's strategic decision-making process (Carpenter & Fredrickson, 2001; Hambrick & Mason, 1984; Hiller & Hambrick, 2005; Peterson, 2002) and ultimately having an impact on the company's performance (Nadkarni & Herrmann, 2010). What is more, CEO personality traits, such as excessive confidence, have been linked with financially unsuccessful corporate mergers and acquisitions (Roll, 1986) and other mis-judged financial decisions, including overestimated positive outcomes of various business decisions (Al Rahahleh & Wei, 2012; Hiller & Hambrick, 2005).

According to Hogan (2009), an individual's personality can be defined through personality traits. Traits are often referred to as relatively stable "habitual patterns of perceiving reality and behaving" (Caprara et al., 2006, p.4) that account for one's typical behaviours, emotional patterns and thoughts. As suggested by the Hogan Development Scale (Hogan, 2009), an individual's personality can be determined through an analysis of personality traits such as overconfidence, overestimation of one's abilities, grandiosity and being ignorant to other people's requests, among several others. Moreover, in order to understand the impact that one's personality has on one's behaviour, it is important to distinguish between the 'bright side' (an individual's best social performance) and 'dark side' (potentially negative, co-existing personality traits that become apparent under certain circumstances) traits (Hogan & Kaiser, 2005).

For example, according to the trait approach of leadership, such traits as confidence, extraversion, and integrity, among several other traits, have been found to be positively associated with

leadership (Stogdill, 1948). In addition, a review of trait perspective in leadership research by Judge et al (2002) found that confidence emerged as a trait “related to leadership in a majority of these reviews” (p.766). However, the leader’s confidence, a personality trait that is usually attributed to successful leadership as it pushes a person to take risks and strive for the best outcomes, could also have a downside if overplayed (i.e., the implementation of over-ambitious strategies, spontaneous decision-making, and ignorance for advice from others) (Shipman & Mumford, 2011).

Similarly, for example, narcissistic tendencies can help one to achieve leadership success as such a leader can be seen as charismatic and exiting, however strong narcissistic propensities can result in a distorted view of the world (de Vries, 1994). Because of these reasons, some researchers suggested that hubris is a paradox that can be seen as a ‘dark side’ trait (i.e., overconfidence leading to unintended negative outcomes) (Haynes, Hitt & Campbell, 2015; Judge, Piccolo & Kosalka, 2009) as well as having a ‘bright side’ (i.e., a determined pursuit of the ambitious vision is often seen as a characteristic of a leader) (Picone, Dagnino & Mina, 2014).

Given the above, analysing hubris in the business management context is particularly interesting as business decisions and actions are being taken in a public space where the outcomes of these decisions or actions can be observed and analysed by others. Moreover, it is important to identify and understand the tipping point from which an authentic leader’s strengths, such as confidence and ambition, become hubristic weaknesses, such as overconfidence, excessive pride and other dysfunctional behaviours (Sadler-Smith et al., 2016).

With this in mind, it is important to establish a reliable way to identify early warning signs of CEO hubris and to allow for the possibility of timely intervention (Sadler-Smith et al., 2016). To date there are no flawless tools or techniques for individuals and organisations to implement in order

to be able to easily identify the risk and the actual development of hubris. When asked, people can usually point to hubristic leaders and mention various examples in business, sports, politics and other fields showing the presence of hubris. Characteristics such as contempt for others, exaggerated self-belief and pride, vanity, extreme confidence, arrogance and core self-evaluation are usually the most commonly cited descriptors for hubris (Hayward & Hambrick, 1997; Hiller & Hambrick, 2005; Li & Tang, 2010).

However, researching the field of CEO hubris is, in general, problematic in that any study is necessarily confined to a small sample size. Furthermore this group is, unsurprisingly, difficult to reach and might also be unwilling to participate in a study regarding a phenomenon that is generally perceived as negative (Sadler-Smith et al., 2016). Because of this, at-a-distance analysis of CEO's personality becomes a viable and practical approach to access leader hubris.

According to the theory of natural language use, psychological changes can be associated with distinctive patterns of spoken and written discourse (Pennebaker & Graybeal, 2001). People differ in their speaking manner – the specific words they use and how they structure sentences – and this linguistic expression has the potential to reveal a great deal about an individual's personality, as well as their social and psychological world (Pennebaker, Mehl & Niederhoffer, 2003). Some personality traits (i.e., pride) can also be recognised across different cultures and as such traits can be expressed verbally they can therefore be explored through one's verbal communication (Tracy & Robins, 2014). In other words, one's personality is directly expressed through spoken language (Fast & Funder, 2008).

As noted by Groom and Pennebaker (2002), the combination of language, accent and dialect could often indicate one's nationality, city of residence or even their birthplace. It seems that in certain circumstances language can work as a 'DNA' sample or a 'fingerprint' – it is sufficiently unique

to identify not only the personal characteristics of the author of the discourse, but also to signify their identity (Groom & Pennebaker, 2002). Moreover, it has been argued that the linguistic structures people use are unconscious behaviours or ‘honest signals’ through which individuals express their attitudes, beliefs and motivations (Pentland, 2008). In addition, speakers are often unaware of these subtle linguistic features and patterns in their language that signify their true personality (Garrard et al., 2014).

Executive leaders of business organizations, it will be argued, express their personality through their verbal and written discourses. Statements they make in public speeches, interviews, press releases, letters to shareholders, reports or in other documents or settings are reflections of their personalities which predispose their behaviour and cognition (Amernic, Craig & Tourish, 2010). What is more, spoken or written utterances of CEO language reveal complexities of their personal world and convey “symbolic, emotional, cultural and political overtones” (Amernic, Craig & Tourish, 2010, p.25). These utterances also allow for identifying and observing changes in one’s personality, cognition and psychological modes (Pennebaker et al., 2003).

Moreover, as researchers often lack direct access to such leaders, it will be argued that at-a-distance analysis can provide a valid and reliable insight into a leader’s personality, cognition and actions as well as helping to solve the problem of lacking direct access to such leaders (Taber, 2000; Winter, 2003). The core assumption of any at-a-distance analysis approach is that the spoken or written discourse of the leader provides an insight into their personality characteristics, views, attitudes and styles (Mondak & Halperin, 2008).

Consequently, if language provides a source of valid and reliable data that can be used to analyse personality and personality change, behavioural features of hubris (e.g., overconfidence) are likely to be reflected in the discourse of those acquiring such behaviours, manifesting in a variety of

linguistic features (Garrard et al., 2014). Furthermore, given that hubris has been hypothesised as a personality trait which becomes more prominent over time if a position of power is held (Judge, Piccolo & Kosalka, 2009; Haynes, Hitt & Campbell, 2015; Owen & Davidson, 2009; Owen, 2016), it is unsurprising that the symptoms of hubris (i.e., overconfidence) are expressed in one's personality as traits, and therefore language provides a tool to identify and analyse such hubristic traits.

For example, as noted by Garrard et al (2014), at least five of the 14 symptoms of hubris (Owen & Davidson, 2009) imply lexical choices, influence language complexity or give rise to distinctive vocabulary: need for power (1st symptom); use of the third person/'royal we' (6th symptom); excessive confidence (7th symptom); exaggerated self-belief (8th symptom 8); and supposed accountability to God or history (9th symptom).

Although so-called linguistic markers have been used by clinicians to analyse the hubris of political leaders (Garrard et al., 2014), the use of linguistic analysis in determining the presence of hubris in business leaders is limited (Brennan & Conroy, 2013; Craig & Amernic, 2014). To date there is a small body of research that has analysed speeches, CEO letters to shareholders and transcribed debates in order to identify the manifestation of hubris in various verbal patterns (i.e., the use of first-person singular pronouns, 'keyness' value) whilst additional research in this field is still underway (Amernic, Craig, & Tourish, 2010; Garrard et al., 2014). What is more, researchers seem to have ignored the question of what the antecedents of hubris are and what personality factors might predispose the development of hubristic tendencies, such as possession of 'dark side traits' (Krasikova, Green & LeBreton, 2013).

Given all the above, the concept of hubris and its expression through language is under-researched. Furthermore, quite often the realisation that a leader has succumbed to hubris comes only once a

myriad of harmful effects is apparent. As noted by Sadler-Smith et al (2016), “Hubris is, therefore, to some extent a ‘rear mirror’ phenomenon interpreted and analysed after-the-fact” (p.15). What is more, the potential negative outcomes of hubris can often be ‘economically significant’ (Babiak & Hare, 2006; Boddy, 201; Brunnermeier & Pedersen, 2009; Hayward & Hambrick, 1997; Petit & Bollaert, 2012), thus confirming the necessity of the research in this field.

In order to prevent the deleterious consequences of the leader hubris, there is a need to explore more comprehensively and rigorously the potential of linguistic markers to reveal CEO hubris as a precursor to taking action. Currently the research in this field is under-developed, therefore presenting some opportunities for researchers to use CEO language as a means to identify early warning signs as to the emergence of hubris. This would allow for the mitigation of the above-mentioned ‘rear mirror’ phenomenon, where hubris is identified too late for any interventions to be made (Amernic, Craig, & Tourish, 2010).

This doctoral study builds on the psychiatric perspective of hubris (see section 2.3.3 in Chapter 2 for further details) first outlined and explored by Owen and Davidson (2009). The authors label leaders who display three or more of their 14 proposed symptoms as exhibiting symptoms of hubris to the extent that they can be described as demonstrating what the authors term ‘Hubris Syndrome’. In addition, this perspective conceptualises Hubris Syndrome as a trait (Owen, 2016; 2017) that is expressed in one’s personality through a collection of the above-mentioned symptoms, many of which are similar to, or the same as those of, narcissism (NPD) while five are unique. This thesis offers no conclusions as to whether or not demonstration of these symptoms is indicative of a personality disorder, acquired or otherwise.

To summarise the above, understanding the behavioural manifestations and measuring the linguistic attributes of executive hubris contributes to wider research regarding the diagnosis and

prevention of potentially destructive leader behaviour. It could also help to militate against the failure of business organisations accruing from undiagnosed and unbridled executive hubris. Moreover, if intoxication by power is the main trigger of hubris as established in literature (Brennan & Conroy, 2013), this means that it is a risk that every leader faces.

1.2. Intended contributions

The intended theoretical, methodological and applied contributions of this research are summarised below:

1.2.1. Theoretical contributions

1. Advance academic and empirical knowledge as to the nature of the linguistic markers of CEO hubris;
2. Develop an understanding regarding tools and techniques to identify linguistic markers of CEO hubris;
3. To contribute to the understanding of the theory of Hubris Syndrome.

1.2.2. Methodological contributions

1. Explore the usefulness of computer assisted content analysis in the context of assessing Hubris Syndrome at-a-distance from spoken and written samples of CEO discourse;
2. Investigate the possibility of adapting Hermann's Leadership Trait Analysis Framework for the assessment of Hubris Syndrome at-a-distance;
3. Explore the application of the theory of natural language use in order to establish a framework to identify linguistic markers of hubris;
4. Investigate the potential of a machine learning approach to automatically recognise and identify written language utterances as hubristic or non-hubristic.

1.2.3. Applied contributions

1. Increase awareness in business and management regarding the potentially destructive consequences of CEO hubris;
2. Provide knowledge that could be used to militate against the failure of business organisations suffering from undiagnosed and unbridled CEO hubris.

1.3. Thesis Outline

This thesis is divided into nine chapters. Summaries for each of the nine chapters in the thesis can be found below:

Chapter 1. Introduction

The first chapter of this thesis introduces the research setting and provides an overview of the research background and the rationale for undertaking the research. It also summarises the intended theoretical, methodological and applied contributions of the research. Chapter 1 also provides a brief summary for each of the nine chapters of this thesis.

Chapter 2. Literature Review

This chapter details the theoretical framework used in the research, introduces three key inter-related concepts – personality, Hubris Syndrome and natural language – and explains the underlying relationship between these concepts as a basis for the research.

In addition, it explores the research undertaken to date in three fields relevant to this study – personality, Hubris Syndrome and natural language use. Finally, Chapter 2 introduces at-a-distance analysis techniques and provides some insight into the potential applicability of such techniques for the field of hubris.

Chapter 3. Research Method

This chapter summarises the process undertaken in the design of the study, explains the rationale behind the methodological choices taken in the research and details the philosophical orientation of the study. It explains why this research takes an objectivist ontological position and reasons why the best-fitted epistemological stance for this research is positivism. Next, it describes the research design and strategy used in each of the studies described in this research (the Pilot Study and three main studies).

Chapter 4. Sample Profiles

Chapter 4 provides an overview of the profiles for each CEO shortlisted as hubristic or non-hubristic based on the sampling strategy described in Chapter 3. A total of 11 profiles have been provided. Each profile contains a brief summary of the CEO's business career and offers justification for the classification of a given CEO's propensity to, or lack of, hubris. The aim of Chapter 4 is to provide readers of this thesis with some background information about each CEO and also to provide them with the knowledge and understanding as to why a given CEO has been categorised as a hubristic or non-hubristic individual.

Chapter 5. Pilot Study, Hubristic Language Identification using Hermann's Leadership Trait Analysis Framework

This chapter summarises the Pilot Study that was undertaken to confirm the validity and applicability of methodological choices detailed in Chapter 3. Two different types of materials

were chosen for analysis (interviews and letters to shareholders) and three techniques for analysis were used (close reading technique, DICTION and ProfilerPlus software). In addition to summarising the methods and process of conducting the Pilot Study, Chapter 5 also lists the results obtained from the three different analysis techniques and notes implications from the Pilot Study outcomes for the further three studies of this research.

Chapter 6. Study 1, Hubristic Language Identification Statistical Analysis

Chapter 6 summarises the first main study, Study 1, which used an alternative research design to address the Pilot Study's shortcomings. The key difference in terms of research strategy for the Pilot Study and Study 1 was the amended Research Methods (content analysis using LIWC and statistical analysis using SPSS instead of Hermann's LTA framework).

Chapter 6 is comprised of two parts. The first part outlines a simple descriptive analysis used to compare findings with the results from previous studies on the linguistic markers of hubris. The second part of the chapter describes the application of standard statistical tests (e.g., *t*-test, Kolmogorov-Smirnov, binary logistic regression) to further analyse the data. In addition to summarising the methods and process of conducting Study 1, Chapter 6 also presents the results obtained and discusses implications from Study 1 outcomes for the further two studies described in this thesis.

Chapter 7. Study 2, Identification of Linguistic Markers of Hubris using LIWC based framework

This chapter describes Study 2 of this thesis which evolved as a result of the Pilot Study and Study 1 described in previous chapters. Because the Pilot Study and Study 1 described in Chapter 5 and Chapter 6 provided only limited insights into the linguistic markers of CEO hubris, Study 2

adopted an inductive approach where the secondary data collected was analysed and, as a result, a new framework for identifying linguistic markers of hubris was proposed.

Such an approach was built on the natural language use theoretical foundation and findings from the Pilot Study and Study 1. In line with the previous research on hubris and language, Study 2 has confirmed that linguistic markers have a potential to reveal CEO hubris through subtle changes in their language.

Chapter 8. Study 3, Identification of Linguistic Markers of Hubris using Machine Learning Approach

Chapter 8 summarises the final study (Study 3) conducted as a part of this thesis. Study 3 proposes an alternative approach – use of machine learning techniques - for the identification of linguistic markers of hubris and is subdivided into two parts, Study 3a and Study 3b. This chapter explores the potential of machine learning techniques to classify transcribed interview samples into hubristic or non-hubristic utterances using textual data. It also builds on the natural language use theoretical foundation outlined in previous chapters and research findings from Studies 1 and 2.

To the best of the author's knowledge, the area of using linguistic cues for the automated recognition of linguistic markers of CEO hubris with machine learning algorithms has never been attempted before. Chapter 8 describes the process of conducting the study, the results obtained, and the implications for future studies of the linguistic markers of CEO hubris using machine learning techniques.

Chapter 9: Research Findings and Conclusion

Chapter 9 is the final chapter of this thesis dedicated to the theoretical interpretation of the findings obtained in the Pilot Study and Studies 1, 2 and 3. It discusses the variety of methods, approaches

and techniques used in four studies and summarises the drawbacks and benefits of each. In addition, this chapter outlines the various limitations faced in the studies described above and suggests a number of recommendations for further work on the identification of linguistic markers of hubris.

Appendices

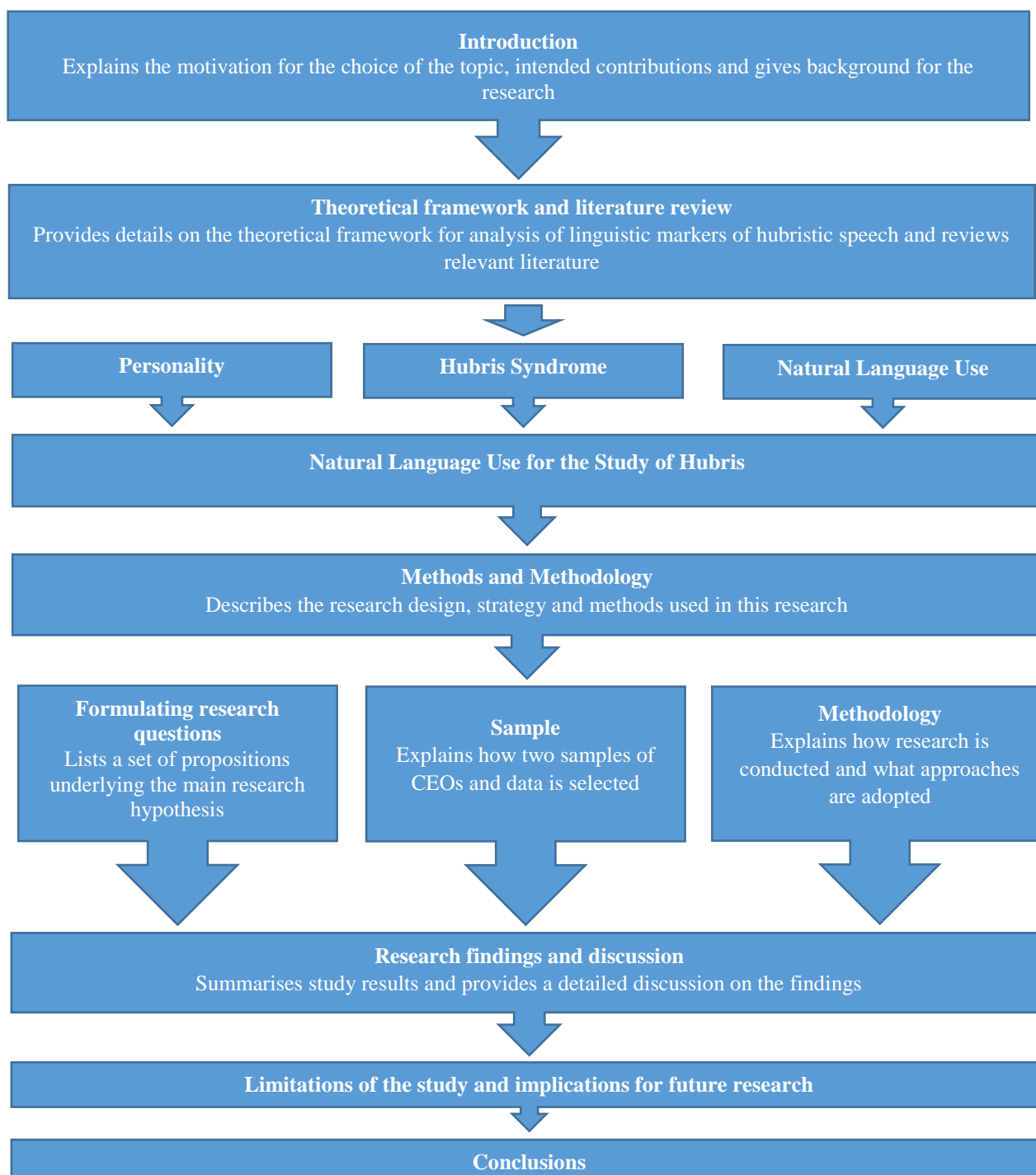
The appendices include a detailed list of the type and source of materials used in the Pilot Study and Studies 1, 2, 3a and 3b, a full corpus of transcribed interviews used in this research, the full list of results obtained across four studies as well as other supporting material (i.e., justification of the choice of certain LIWC categories in Studies 1 and 2).

References

The final part of this thesis contains the bibliography with a list of all of the sources used while completing the literature review, summarising research methods, outlining sample profiles and conducting research studies described in previous chapters.

Additional notes

Development of the arguments throughout the research and the logical construction of the thesis are schematically explained in the following page.

Figure 1.1. Construction of the logic for the thesis

2. LITERATURE REVIEW

2.1. Theoretical Framework

The theoretical framework used for the literature review is based on three key and inter-related concepts – personality (Hermann, 2005; Hogan & Hogan, 2001), Hubris Syndrome (Owen & Davidson, 2009; Owen, 2016) and natural language use (Pennebaker et al., 2003).

From previous research into natural language use and personality (Pennebaker et al., 2003), it is clear that there is a strong link between these two domains. For example, several studies have found a positive correlation between the Big Five personality dimensions (extraversion, neuroticism, agreeableness, conscientiousness and openness to experience) and word choice (Fast & Funder, 2008; Pennebaker & King, 1999; Yarkoni, 2010). Similarly, previous research has explained hubris as a personality change that is triggered by an external factor – power – and expressed through a number of behaviours (i.e., contempt for the advice of others, overconfidence) (Owen & Davidson, 2009; Owen, 2016).

Because this personality change – hubris – appeared to be expressed as a group of symptoms occurring consistently and due to its similarities to other mental health disorders (i.e., Narcissistic Personality Disorder (NPD)), this change has been framed within a psychiatric perspective as a potentially new acquired personality disorder (APD) (Owen & Davidson, 2009), labelled ‘Hubris Syndrome’. However, over the years the understanding of Hubris Syndrome has developed and recently it has been suggested that hubris is “an acquired personality trait rather than an acquired personality disorder” (Owen, 2017, p.23).

However, the definition noted above is only one among the myriad of distinct understandings of hubris (for review see: Picone, Dagnino & Mina, 2014). Drawing on the organisational behaviour,

strategic management, behavioural finance and psychiatric perspectives, researchers developed various definitions of this concept (see Table 2.1 below).

Table 2.1. Definitions of hubris

Research	Hubris definition
Roll (1986)	Hubris is having an excess of confidence about being correct or achieving a certain outcome which leads to overestimation of one's performance, abilities and probability of success.
Hayward & Hambrick (1997)	Hubris is an "exaggerated pride or confidence often resulting in retribution" (p.106).
Hiller & Hambrick (2005)	"A very high level of CSE may exactly correspond to what is colloquially referred to as hubris" (p.306).
Hayward, Shepherd & Griffin (2006)	Hubris is a "'dark side' of overconfidence" (p.160), which leads to overconfident decisions and, subsequently, to failed business ventures.
Owen & Davidson (2009)	Hubris is a "disorder of the possession of power, particularly power which has been associated with overwhelming success, held for a period of years and with minimal constraint on the leader" (p.2). Such condition is termed 'Hubris Syndrome'.
Owen (2016)	Hubris (as above, termed 'Hubris Syndrome') a personality trait that "is acquired following exposure to power" (p.8).

The research described in this thesis takes the psychiatric understanding of hubris. It conceptualises this phenomenon as "an acquired personality trait" (Owen, 2017, p.23) that is associated with 14 proposed symptoms (Owen & Davidson, 2009) (see Table 2.4), is triggered by possession of significant power, and that builds upon previous personal experiences (Owen, 2012).

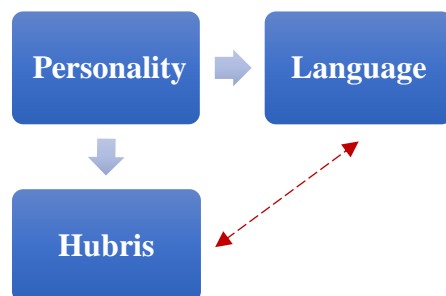
As the research on this basis was undertaken from a psychiatric perspective (see section 2.3.3 of this chapter), the terms 'hubris' and 'Hubris Syndrome' will be used interchangeably, against the background provided by the working definition noted above and within the narrower context that is offered by Owen and Davidson's formulation of Hubris Syndrome and its proposed symptoms (Owen, 2008).

In order to connect with the broader personality literature, the literature review also considers 'dark side' personality traits (potential 'derailers') and destructive leadership in relation to hubris. In doing so, the review makes a connection between the psychiatric perspective which Owen and

Davidson (2009) have taken and the psychological perspective taken by leadership researchers such as Hogan, Hogan and Kaiser (2010).

Building on the above, if there is a link between personality and naturally occurring word use (Pennebaker et al., 2003), as well as a link between personality and hubris (hubris being a personality trait (Owen, 2016)), this inevitably allows one to question whether hubris and language domains are inherently inter-connected (as indicated by the red arrow in the Figure 2.1 below).

Figure 2.1. Relationship between personality, hubris and natural language



Based on the assertion that one's personality can be expressed through 'honest signals' (subtle linguistic features and patterns in their language) in one's spoken language (Fast and Funder, 2008; Pennebaker et al., 2003; Pentland, 2008), this research argues that hubris – which is hypothesised as being part of one's personality (Owen, 2016) - can also be revealed in distinctive patterns in one's spoken and written discourse (or, in other words, in one's natural language (Pennebaker et al., 2003)). Hence personality becomes a way to access hubris via language (see section 2.5 of this chapter for further explanation of the theory of the natural language use (Pennebaker et al., 2003) and its applicability for hubris research).

Figure 2.2. Accessing hubris via language

With this in mind, the proposed theoretical framework for the research described in this thesis has two main components:

- 1) To understand the theory of natural language and its potential to reveal one's personality traits and in turn, one's hubris;
- 2) To provide some insight into the lexicon of hubris (specific examples representing hubristic speech).

In summary, the proposed framework suggests that a CEO's hubris can be assessed at-a-distance through the manifestation of various 'honest signals' in a person's natural language (Pennebaker et al., 2003; Pentland, 2008). This assumption is built on the trait approach to personality (Ewen, 1998; Hogan, 2009; Winter, 2011), Hermann's Leadership Trait Analysis Framework (Hermann, 1980, 2005), word count approaches for the assessment of personality at-a-distance (Pennebaker et al., 2003) and Hubris Syndrome as conceptualised by Owen and Davidson (2009). Further explanation and justifications on the relationships between hubris, personality and language are provided in the subsequent sections of this chapter.

2.2. What is Personality?

In order to explain why people behave the way they do, researchers proposed a variety of different theories to understand one's personality (Briggs, 1976; Hermann, 2005; McCrae & Costa, 1999).

The personality framework that this doctoral study is based on is understanding personality as a compound of traits, including ‘dark side’ traits. Given that in this doctoral research Hubris Syndrome is conceptualised as a personality trait (Owen, 2016), the following section provides further explanation on personality understanding from the trait perspective and the relationship between traits and Hubris Syndrome.

2.2.1. Understanding personality as a compound of traits

A definition for personality was introduced by Allport in 1937, who conceptualised personality as a “dynamic organization within the individual of those psychophysical systems that determine his unique adjustments to the environment” (Allport, 1937, p.48). He also suggested that personality determines an individual’s unique characteristic behaviour and thoughts. According to Allport’s (1960) theories, one’s personality is influenced by two forces, called genotypes (internal force or the way an individual uses the information to communicate with the surrounding) and phenotypes (external force, or the way surrounding influences individual’s behaviour).

Overall, there are a number of personality theories covering different personality domains such as traits, motivation, cognition and others (Ewen, 1998). One of the most prominent understandings of personality is through defining it as a compound of various traits (Briggs, 1976; Hermann, 2005; McCrae & Costa, 1999). Traits are often referred to as “habitual patterns of perceiving reality and behaving” (Caprara et al., 2006, p.4) that remain relatively stable across the person’s lifespan. In other words, traits can be understood as a reason, or a cause of, why individuals differ from one another as they account for one’s typical behaviours, emotional patterns and thoughts.

In terms of personality theories that conceptualise personality as a compound of various traits, the literature tends to assume that the first such personality theory was proposed by philosopher Hippocrates, upon which the Greek physician Galen expanded to derive his ‘Hippocrates/Galen

personality (temperament) theory'. This theory divides people into four categories according to humor and temperament types: phlegmatic (calm), melancholic (depressed), choleric (angry) and sanguine (happy) (Chamorro-Premuzic, 2007).

Building on the idea of temperament, psychologist Hans Eysenck developed a personality theory to assess two traits of one's temperament - Introversion / Extroversion and Neuroticism / Stability (Eysenck, 1950). Later he expanded on his ideas proposing the 'Gigantic tree' theory which has now become one of the most prominent theories in the assessment of personality traits. According to Eysenck's 'Gigantic tree', sometimes also called 'PEN' theory, individuals can be classified as being high or low in three major traits – Psychoticism, Extraversion and Neuroticism (Eysenck, 1991).

Cattell (2001) proposed another personality theory, arguing that in order to achieve a clear and accurate picture of one's personality, a wider number of traits should be taken into consideration. This research proposed 16 major personality dimensions that are common to all people (Cattell, 2001). These words can be thought of as 'personality adjectives' and summarised in 16 dimensions (i.e., warmth, dominance, openness to change). His effort in theorising personality has resulted in the creation of the now well-known 16PF (personality factor) questionnaire that is used to identify and understand individual behavioural patterns, such as self-esteem, attitude towards power and authority, cognitive processing style and others (Cattell, 2001).

Similarly to Cattell's model, the Five-Factor or so called Big Five personality model (see Table 2.2 below), conceptualises personality as a combination of five major traits: Neuroticism, Extraversion, Openness to Experience, Agreeableness and Conscientiousness (McCrae & Costa, 1999). These five traits represent the core of one's personality and can be further divided into sub-facets. For instance, Neuroticism is explained through the following six traits (sub-facets) -

anxiety, hostility, depression, self-consciousness, impulsiveness and vulnerability. Overall, a very significant body of research supports the Big Five model for its reliability in predicting people's behaviour and for its cross-cultural applicability (Robbins et al., 2013; Salgado & Tauriz, 2014).

Table 2.2. Summary of Big Five personality model

Trait	Conceptualisation
Neuroticism (depression; a tendency to experience dysphoric affect – sadness, hopelessness, guilt).	Low self-esteem, irrational perfectionistic beliefs, pessimistic attitudes.
Extroversion (gregariousness; a preference for companionship and social stimulation).	Social skills, numerous friendships, enterprising vocational interests, participation in team sports, club memberships.
Openness to Experience (actions; a need for variety, novelty and change).	Interest in travel, many different hobbies, knowledge of foreign cuisine, diverse vocational interests, friends who share tastes.
Agreeableness (compliance; a willingness to defer to others during interpersonal conflict).	Forgiving attitudes, belief in cooperation, inoffensive language, reputation as a pushover.
Conscientiousness (achievement striving; strong sense of purpose and high aspiration levels).	Leadership skills, long-term plans, organised support network, technical expertise.

Note: Adapted from McCrae & Costa (1999), p.164.

On the other hand, depending on social and situational contexts and some other factors like age, personality profiles assessed with the Big Five measures show inconsistent variations (Polzehl, Moller, & Metze, 2010). Despite the latter, the majority of research has proved reliable correlations between Big Five personality dimensions and the words individuals use (i.e., first-person singular pronouns are linked with neuroticism whilst positive emotion words represent extroversion) (Fest & Funder, 2008; Pennebaker & King, 1999; Pennebaker et al., 2003).

Similarly to the above-mentioned Big Five model, the Myers-Briggs Type Indicator (MBTI) (Briggs, 1976), also looks at certain traits in order to understand one's personality. The MBTI, which is commonly used for personality assessment in the business field, represents Jung's (1971) personality taxonomy where the dimensions of Extraversion (E) – Introversion (I), Intuition (N) –

Sensing (S), Thinking (T) – Feeling (F) and Judgement (J) - Perception (P) by means of self-report are assessed. Based on the MBTI, one's personality is falls in one of the 16 personality types as identified by one trait from each of the four pairs (e.g., ENFJ) (Robbins et al., 2013). The basic premise of the MBTI is the argument that although humans might seem to exhibit a wide range of differences, these differences, are actually orderly and consistent, allowing for the classification of individuals into 16 pre-determined categories based on the way people perceive the surrounding and make decisions (Briggs, 1976).

Finally, according to Hermann (2005), personality is a compound of seven traits (i.e., belief in one's ability to control events, conceptual complexity, need for power, distrust of others, in-group bias, self-confidence, and task orientation (see Table 2.3)) that is marked in an individual's natural language use and can be identified at-a-distance (see section 2.2.4.2 for further details). As indicated in Table 2.3 below, some of these traits (i.e., self-confidence, need for power) have been previously described as key attributes of Hubris Syndrome (Owen & Davidson, 2009), which makes Hermann's (2005) leadership trait analysis model a promising tool in the research of linguistic markers of hubris (see Chapter 5).

Table 2.3. Summary of Hermann's (2005) personality model

Trait	Conceptualisation
Belief in one's ability to control events	View of the world in which individual perceives some degree of control over situation involved in.
Conceptual complexity	Degree of differentiation which an individual show in describing or discussing other people, policies, ideas, or things.
Need for power	Concern for establishing, maintaining, or restoring one's power, i.e., desire to control, influence, or have impact on other persons or groups.
Distrust of others	General feeling of doubt, uneasiness, misgiving, and wariness about others - an inclination to suspect the motives and actions of others.
In-group bias	View of the world in which one's own group holds center stage; strong emotional ties to one's own group with emphasis on group honor and group identity.
Self-confidence	One's sense of self-importance in terms of ability to cope adequately with objects and persons in the environment.
Task orientation	Relative emphasis on interaction with others on getting the task done versus focussing on feelings and needs of others.

Note: Adapted from Hermann (1980), p.338.

Overall, the author argues that people differ in terms of how stable their personality traits are across different situations and how strongly one's personality can be affected by the environment (Hermann, 2005). In other words personality marks individual differences and human individuality (Chamorro-Premuzic, 2007).

In short, a trait is a personality variable and different individuals can manifest different levels of a particular trait (Haslam, 2007). As a result, traits that are revealed in certain individual tendencies allow others to assume that an individual will act in a specific way if placed in a certain kind of situation. Even though some research points out that most traits fall along a 'consistency continuum' and are often influenced by situational factors, most traits have been evidenced to show consistency across time and context (Gustavsson et al., 1997; Pennebaker et al., 2003; Winter, 1980).

Researchers tend to see various human behaviours as caused by static, unchanging dispositions that lie deep within the person (McDougall, 2003). Hence if traits are dispositions that underlie specific human behaviours, then human behaviour can also be explained to a certain degree through traits (Gintis et al., 2003). As noted by Rutter (2006), an individual's genetics have a huge influence on one's behaviour and, in turn, on various behavioural traits.

Lastly, it is worth noting that quite often situational factors are also important because underlying traits cannot always explain one's behaviour. One of the major debates in the field of personality research focuses on the importance of one's traits versus the importance of situational factors as a main predictor of human behaviour. As argued by McAdams (1995), traits reflect only a certain

part of personality and in order to measure or assess one's personality, it is necessary to pay attention to other personality aspects as well, such as motives, values or interests.

2.2.2. Understanding personality as a compound of 'dark side' traits

Although personality traits are what makes people unique, not all personality traits are positive. Some traits have been called 'dark side' personality traits and these include Machiavellianism (Christie & Geis, 1970), narcissism (Raskin & Terry, 1988) and psychopathy (Hare, 1985). The term 'Machiavellianism' refers to the manipulative and deceitful personality that disregards morals and is focused on achieving self-interest (Christie & Geis, 1970). Similarly to Machiavellianism, narcissists also tend to focus on themselves, however such focus comes from an egoistic self-love, a tendency to grandiosity and a strong feeling of entitlement (Raskin & Terry, 1988). Finally, psychopathy is characterised by limited empathetic qualities, antisocial behaviour and high impulsivity (Hare, 1985). The commonality between these three 'dark side' personality traits is that people with these traits tend to have malicious qualities, including but not limited to aggressiveness, emotional coldness, self-promotion and deceitfulness (Paulhus & Williams, 2002).

In terms of the roots of 'dark side' personality traits and whether these traits arise because of nature or nurture remains unanswered. Some researchers argue that these traits appear to be evident from an early age (Lau & Marsee, 2013) whilst others suggest that experience and environment contributes to the development or strong manifestation of these traits (Furnham, Richards & Paulhus, 2013). What is evident is that outcomes associated with the 'dark side' personality traits are mainly negative (Hogan, 2007).

Although the above-mentioned 'dark side' personality traits are often referred to as maladaptive, Paulhus and Williams (2002) suggest that "no personality trait is universally adaptive or maladaptive" (p.561). Deciding on what is 'normal' or 'abnormal' in terms of one's personality

has always been a challenging question (Allport, 1937). Moreover, all personality traits might have both a 'bright' (desirable) and 'dark' (undesirable) side to them. As summarised by Jones and Paulhus (2011), "Dark Triad members have unique personality styles favouring different life outcomes. Each member has a unique social engagement style that might prove adaptive in some situations but maladaptive in others" (p.682).

For example, narcissism is commonly referred to as a negative trait (Furnham, Richards & Paulhus, 2013). A study by Judge, LePine and Rich (2006) found that narcissistic managers rated themselves significantly high on leadership effectiveness whilst their colleagues evidenced the opposite. This trait has also been linked with a variety of negative consequences like increased risk taking (Campbell, Goodie & Foster, 2004), and extreme and irregular company performance (Chatterjee & Hambrick, 2007). At the same time, this 'dark side' personality trait can also lead to positive outcomes. Some researchers argue that some narcissistic traits (i.e., high egoism and self-confidence) is important for good leaders (Paunonen et al., 2006) and that "Narcissism may be a functional and healthy strategy for dealing with the modern world" (Campbell, 2001, p.215). This example just confirms the complex nature of personality traits.

As noted by Kaiser, LeBreton, and Hogan (2015), overuse of a particular strength can cause it to become a weakness. If overused, ambitiousness and self-confidence can lead to self-absorption and unwillingness to accept mistakes made; strong and independent personality can turn into an aloof and unapproachable character; traits of expressiveness and extraversion can lead to attention-seeking (Hogan, 2009). As commented by Hogan (2007), the creator of Hogan Development Scale which measures dark side personality characteristics, "the personality characteristics that help launch promising careers can turn into crippling derailers down the line" (p.1).

This ‘derailer’ is a personality trait that is normally seen as a strength, however under certain conditions (i.e., stress, pressure) it becomes a weakness that has damaging effects on one’s career (see Table 2.6) (Hogan, Hogan & Kaiser, 2010). Furthermore, if a person who developed ‘derailers’ is a company CEO, the deleterious consequences affect not only the leader, but the organisation as well, leading to impaired decision-making and flawed leadership behaviours (Hogan & Hogan, 2001). These flawed leadership behaviours, in turn, can be one of the key triggers that leads to the development of destructive leadership.

2.2.3. Destructive Leadership as a consequence of ‘dark side’ traits

Leadership is a universal phenomenon which is defined as an influential process, usually, but not always, carried out by one person (Jordan et al., 2013). As summarised by Howell (2013), “the leader influences a group, who view the influence as legitimate, towards the achievements of some goal or goals” (p.4).

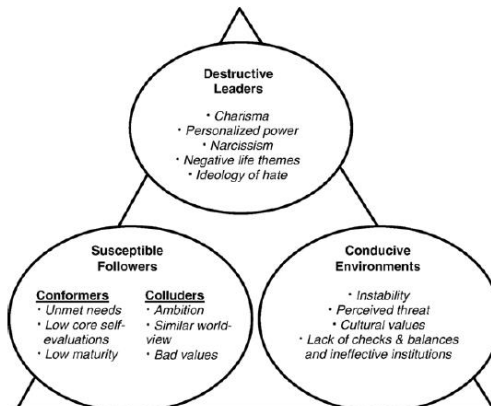
To date researchers have focused on various leader characteristics and behaviours, resulting in numerous distinct leadership theories being proposed (Howell, 2013). Although fundamentally leadership is conceptualised as a constructive and encouraging process, leadership is not always a positive phenomenon. Moreover, as suggested by Schyns and Schilling (2013), “some leaders behave in ways that are detrimental to their followers and often the organization as a whole” (p.138). Consequently, due to the ever-increasing interest in this topic, research of leadership has evolved to include leadership theories and approaches that were not considered before the twentieth century such as the destructive leadership (Einarsen, Aasland & Skogstad, 2007).

Schyns and Schilling (2013) define destructive leadership as “a process in which over a longer period of time the activities, experiences and/or relationships of an individual or the members of a group are repeatedly influenced by their supervisor in a way that is perceived as hostile and/or

obstructive” (p.141). In addition, Einarsen, Aasland and Skogstad (2007) suggest that destructive leadership involves the “systematic and repeated behaviour by a leader, supervisor or manager that violates the legitimate interest of the organisation” (p.208). Such leadership is associate with negative organisational outcomes (Schyns & Hansbrough, 2010) and destructive leaders, inevitably, play a key role in it.

According to Padilla, Hogan and Kaiser (2007), characteristics of destructive leaders include charisma (expressing a vision that enhances leader’s personal power), personalized use of power (use of power for personal gain), narcissism (grandiose aspirations and ignorance of the external environment), negative life themes (negative or traumatic early life experiences) and an ideology of hate (inner source of anger and resentment). Such leaders display a number of antisocial behaviours like deception, humiliation, harassment, manipulation and cause some damaging effect for the organisation by displaying an abrasive style of leadership, being overly ambitious and failing to adapt (Einarsen, Aasland & Skogstad, 2007).

As noted by Krasikova, Green and LeBreton (2013), “leaders with the dispositional tendency to emphasize their self-interest over interests of others and at the expense of others are more likely to engage in destructive leadership” (p.1323) and therefore ‘dark side’ personality traits can inevitably predispose one’s inclination towards destructive leadership. According to Padilla, Hogan and Kaiser (2007), possession of certain ‘dark side’ traits (i.e., narcissism) is one of the key components of the ‘toxic triangle’ (see Figure 2.3 below), or, in other words, key aspects of the leader’s traits, follower’s personality, and environmental contexts that give rise to destructive leadership. In addition, the above-mentioned ‘toxic triangle’ has been used to examine toxic leadership in the military, demonstrating the applicability of this framework in various research fields (Dagless, 2018).

Figure 2.3. The Toxic Triangle model

Source: Padilla, Hogan & Kaiser (2007), p.180.

Building on the link between ‘dark side’ personality traits and destructive leadership, Judge, Piccolo and Kosalka (2009) suggested that hubris also belongs to the category of ‘dark side’ traits given that individuals possessing this trait are “more likely to get ahead and less likely to get along” (p.863). In addition, the Haynes, Hitt and Campbell (2015) study theorised that leader hubris as a ‘dark side’ trait negatively affects entrepreneurial success and therefore leads to suboptimal performance of the leader and subsequently to poor financial results of the organisations. The authors have also pointed to the thin line between a trait being a strength or a weakness: in order to be successful, leaders have to be highly confident, however overconfidence in one’s abilities breeds hubris (Haynes, Hitt & Campbell, 2015).

Research seems to support the idea that the best leaders exhibit a happy medium between the ‘too much’ and ‘too little’ of a certain trait. For example, several studies found that the most optimal for the organisation are moderately confident individuals – both underconfident (diffident) and overconfident managers perform worse (Campbell et al., 2011; Goel & Thakor, 2008).

Achieving the happy medium of the trait and avoiding the trap of ‘dark side’ traits is a difficult task for the leader. As Haynes, Hitt and Campbell (2015) noted, this “may require enacting an

internal moral compass by the entrepreneurial leader and/or other checks on the leader's behaviour through external governance mechanism" (p.496). As well-summarised by Fioravante (2013), perhaps an effective leadership does actually require a unique balance of the 'bright' and 'dark' side personality traits.

2.2.4. Leader's personality assessment at-a-distance

2.2.4.1. Previous research into at-a-distance personality assessment

A leader's individual characteristics (in terms of one's personality) can have a major impact and influence on one's behaviours and decisions (Winter, 2005). What is more, when a leader holds power in his/her hands, the influence or impact of the leader's personality becomes even more significant (Greenstein, 2014). Hence, a psychological interpretation of the personality of the leader can provide an insight into understanding the behaviours and decisions made by leaders.

Over the years a number of at-a-distance methods to measure an individual's personality have been developed by personality researchers (Winter et al., 1991). These methods measure various personality characteristics at-a-distance through systematic content analysis of spoken and written discourse. Although at-a-distance personality assessment techniques have been used widely to study political leaders (Hermann & Milburn, 1977; Hermann, 1980) and their policy decision-making (Schafer, 2000), the use of linguistic analysis with regards to business leaders has been limited (Brennan & Conroy, 2013).

One of the earliest attempts to study personality at-a-distance was conducted by Allport (1942) who used personal documents such as autobiographies, questionnaire responses, verbatim recordings, diaries and letters to determine the personality of the owners of these documents.

McCurdy (1947) conducted a similar research to assess the personalities of novelists from their published novels.

Donley and Winter (1970) used the inaugural addresses of American Presidents from 1905-1969 to assess their Need for Achievement and the Need for Power motives and evidenced the usefulness of such a technique. In addition, Hermann, a well-known researcher into political leadership, conducted a number of studies into the leadership style and leadership traits of political leaders based on a variety of spoken and written discourse samples and concluded that personality traits affect a leader's political behaviour (Hermann, 2005). Moreover, together with some other researchers, Hermann explored her ideas further whilst measuring the cognitions, motives and traits of well-known political leaders such as George Bush and Mikhail Gorbachev, and confirmed her initial prediction that the personality profiles of these leaders have significant implications on the policy decisions they make (Winter et al., 1991). In addition, researchers have evidenced the usefulness and validity of various techniques in the assessment of personality variables at-a-distance – Hermann's Leadership Trait Analysis being one of the techniques used.

All in all, at-a-distance personality assessment has proven to be a valid and reliable method to research various characteristics of leaders without the need to have direct access to leaders.

2.2.4.2. Hermann's Leadership Trait Analysis Framework

Amongst the most prominent of the at-a-distance techniques is Hermann's Leadership Trait Analysis (LTA) framework (Hermann, 1980, 2005). This technique conceptualizes personality as a combination of seven traits: belief in one's ability to control things; conceptual complexity; need for power; distrust of others; in-group bias; self-confidence; and task orientation (Hermann, 2005).

Six of these seven traits are applicable in hubris research (all with exception of task orientation), because according to Owen's (2009) proposed symptoms for Hubris Syndrome, the degree (or absence) of these specific traits indicate one's level of hubris. In other words, the theoretical basis for this assertion lies in Owen's (2009) conceptualisation of hubris, as six out of seven traits in Hermann's LTA framework coincide with ten out of the 14 hubris symptoms in Owen's proposed symptomology for hubris (Hermann, 1980, 2005; Owen, 2006, 2008). The number of overlapping symptoms is not equal (seven against ten), because some of Hermann's variables cover several of Owen's symptoms. For example, Hermann's variable 'Self-confidence' covers three hubris symptoms – 7th ("Excessive confidence in the individual's own judgement"), 10th ("An unshakable belief that in that court they will be vindicated") and 14th ("Hubristic incompetence, where things go wrong because too much self-confidence...") (Owen & Davidson, 2009, p.3).

Explicit details of linking Hermann's and Owen's theories and the proposed application of Hermann's LTA framework for the study of hubris is summarized in Chapter 5 (see Table 5.2). In addition, descriptions for each applicable trait (an attribute of LTA) and detailed justification for the functional relationship to hubris are summarized below.

Belief in ability to control events

Belief in controllability of events is conceptualized as internal versus external locus of control and refers to the extent to which an individual believes that events around them can be controlled (internal locus) as opposed to the belief that events around them are controlled by external factors, such as faith or chance (external locus) (Rotter, 1990). In other words, it is an individual's belief that what happens around them can be influenced (Hermann, 2005). In the corporate world, belief in the controllability of the events is claimed to be one of the key attributes of hubris which leads to a perceived sense of omnipotence in what one can achieve (Owen, 2007; 2011). See Table 5.2

in Chapter 5 for the mapping of Hubris Syndrome symptoms to the ‘belief in ability to control events’ personality variable for use in the Pilot study of this research.

Openness to contextual information

Openness to contextual information indicates the leader’s openness to listen to the inputs and ideas of others in their decision-making processes. According to Hermann (2005), this trait often leads to a leader’s preoccupation with ideas about unlimited success and a tendency to take more extreme decisions than the ones the leader’s group perceive as necessary. People who are closed to contextual information generally show contempt for the advice of others, are not responsive and tend to interpret the environment to “fit their view of the world” (Hermann, 2005, p.205). All of the above is also used as proposed diagnostic criteria for Hubris Syndrome, especially in 7th and 13th symptoms (Owen & Davidson, 2009). See Table 5.2 in Chapter 5 for the mapping of Hubris Syndrome symptoms to the ‘openness to contextual information’ personality variable for use in the Pilot study of this research.

Need for power

The power motive indicates an individual’s desire to establish, maintain and restore their power as well as their concern about having an impact on others (Winter & Barenbaum, 1985). In a corporate world this would translate to a high need by the corporate executive to control the company’s direction and environment through manipulating it, and to appear as a ‘winner’. Usually people with a high need for power tend to involve themselves in impulsive decisions, aggressiveness, and extreme risk taking with little regard for the people around them (Winter & Stewart, 1977). Furthermore, Owen and Davidson (2009) suggest that obtaining substantial power is a key trigger for the occurrence of Hubris Syndrome, which is also often referred to as “intoxication by power”

(Owen, 2007, p.6). See Table 5.2 in Chapter 5 for the mapping of Hubris Syndrome symptoms to the ‘need for power’ personality variable for use in the Pilot study of this research.

Level of confidence

Self-confidence reflects the extent to which an individual has confidence in him/herself and highlights their sense of self-importance (Hermann, 2005). It also implies one’s belief in one’s ability to succeed, to be an instigator of an activity and an authority figure (Ziller et al., 1977). People naturally tend to compare themselves to others; hence this trait becomes a frame of reference for leaders to position themselves in a particular context or setting. Hubris is often linked with the person exhibiting excessive, unwarranted overconfidence and it is therefore proposed as linking to the LTA ‘level of confidence’ trait (Owen, 2006). See Table 5.2 in Chapter 5 for the mapping of Hubris Syndrome symptoms to the ‘self-confidence’ personality variable for use in the Pilot study of this research.

Distrust of others

The distrust of others variable can be described as “a general feeling of doubt, uneasiness, misgiving, and wariness about others” (Hermann, 2005, p.215). In other words, it is one’s tendency to suspect and mistrust other people, their motives and intentions or to express concerns regarding the actions of certain people or groups. Naturally, continuous mistrust for others may make leaders rely and believe mostly in themselves and the correctness of their own decisions. This links to the hubristic tendency of ignoring the advice of others and progressive isolation (Owen, 2008). See Table 5.2 in Chapter 5 for the mapping of Hubris Syndrome symptoms to the ‘distrust of others’ personality variable for use in the Pilot study of this research.

In-group bias

Feeling that one's social, political, ethnic (or any other) group holds the 'centre stage' and is constantly emphasised as being the best is called 'in-group bias'. This variable also reflects a strong wish to ensure the maintenance of the "separate identity of the group at all costs" (Hermann, 2005, p.214). In-group bias often leads to a 'black and white' perspective on the world when individuals start to see the surrounding as 'we' and 'them'. This variable is often linked to distrust for others as research shows that a higher level of in-group bias tends to increase mistrust towards other groups and people (Hermann, 2002). In hubris research in-group bias is usually understood as one's complete identification with the nation or organization (Owen & Davidson, 2009). See Table 5.2 in Chapter 5 for the mapping of Hubris Syndrome symptoms to the 'in-group bias' personality variable for use in the Pilot study of this research.

Reliability and validity of Hermann's personality trait assessment

In terms of reliability, across a number of at-a-distance studies the inter-coder agreement for the traits described in section 2.2.4.2 ranged from 0.78 to 1.00 between coders and the author (see Hermann, 1980, 1984; Hermann & Hermann, 1989). Therefore, Hermann's coding system for traits is suitable for application in a variety of research contexts. What is more, even when translated material was used for the research, the agreement between a native speaker's coding text versus translated text was 0.92 across all traits (Hermann, 2005).

Furthermore, to determine validity of the LTA technique, Hermann assessed 21 leader and indicated rating scales. Whilst comparing scales established by Hermann with other scales established by researchers who were able to interact with those particular leaders, a correlation averaging 0.84 suggests a high validity of Hermann's at-a-distance technique (Hermann, 1980,

1984, 2005). Consequently, this opens up the potential for Hermann's framework to be applied in a wider research context. For example, research into hubris.

Besides Hermann, who did a number of precise validity and reliability tests on the LTA technique described above, a number of researchers used this at-a-distance technique in various research contexts. Despite the issues identified by some researchers with the use of at-a-distance techniques in general (for review see: Dille (2000), Schafer (2000), Winter (2005)), the validity and reliability of the LTA technique was confirmed by a large number of various research studies (for details see: Boettcher (2005), Dyson (2006), Winter et al. (1991)).

2.3. What is Hubris?

Although the word 'hubris' originates in Ancient Greece, in recent years it has often been ascribed to the personalities of those who have led their businesses to failure (Robinson, 2016). What is more, over the last decade the phenomenon of 'hubris' has been studied from various perspectives, including behavioural finance (Roll, 1986), organisational behaviour and strategic management (Hayward & Hambrick, 1997; Hiller & Hambrick, 2005) and psychiatry (Owen & Davidson, 2009). Due to the variety of different perspectives on the understanding and conceptualisation of hubris, this section is structured chronologically as follows.

Firstly, hubris is discussed from the behavioural finance perspective in terms of overconfidence and its relationship to hubris. Secondly, hubris is reviewed from an organisational behaviour and strategic management perspective, including an overview of the link between hubris and core self-evaluation (CSE). Thirdly, hubris is examined from a psychiatric perspective in order to introduce the concept of hubris as an acquired personality trait (Hubris Syndrome) following the attainment

of significant power. Finally, this section is concluded by offering a delineation between Hubris Syndrome and the related concept of Narcissistic Personality Disorder.

2.3.1. Defining hubris from the behavioural finance perspective

In management literature, concept of 'hubris' first appeared in the 1980s as a descriptor for excessive confidence (certainty) about being correct or achieving a certain outcome (Roll, 1986; Fischhoff, Slovic & Lichtenstein, 1977). It was also used as a descriptor for excessive pride that leads to an overestimation of one's performance, abilities and probability of success (Fischer, 1982; Moore & Healy, 2008).

Building on this link between hubris and overconfidence, Roll (1986) proposed the 'hubris hypothesis' which described the effects that CEO hubris might have in terms of corporate decision-making, such as value destroying acquisitions. In such instances CEOs, blinded by hubris, overestimate the value of the target company they are about to acquire thus resulting in material losses for their company (Roll, 1986).

The key notion of Roll's (1986) 'hubris hypothesis' was that such behaviour is mainly influenced by a CEO's overconfidence, which made overconfidence the main tenet of the 'hubris hypothesis'. He suggested that "individuals do not always make rational decisions under uncertainty" (Roll, 1986, p.199) and described hubris as "the overbearing presumption of bidders that their valuations are correct" (p.200).

The above-mentioned 'hubris hypothesis' has received a lot of attention in business and management research and therefore an extensive body of behavioural finance research exists on this topic (Al Rahahleh & Wei, 2012; Ashta, Patil & Seguin, 2007; Brooke & Oliver, 2005; Chen & Wang, 2012; Lin et al., 2008; Malmendier & Tate, 2005). For example, building upon Roll's

(1986) ‘hubris hypothesis’, Malmendier and Tate (2008) suggested that CEOs overconfident in their abilities “are likely to overvalue the acquisition of a target company because they overestimate the returns they can generate in the combined firm. They are also likely to overvalue their contribution to their own company” (p.22).

Overall, most researchers agree that unchecked hubris leads to inflated arrogance and contempt for the advice of others. This in turn leads to impaired convictions and ungrounded decisions (e.g., value destroying acquisitions as postulated in Roll’s (1986) hubris hypothesis of mergers and acquisitions) (Brennan & Conroy, 2013).

Although the ‘hubris hypothesis’ provided some important insights into the understanding of hubris and its consequences, some research suggests that Roll’s (1986) explanation of hubris as manifested through overconfidence is oversimplified (Sadler-Smith et al., 2016; Stein, 2013). This research further postulates that more complex explanations of the effects of hubris on mergers and acquisitions are required (Aktas et al., 2016).

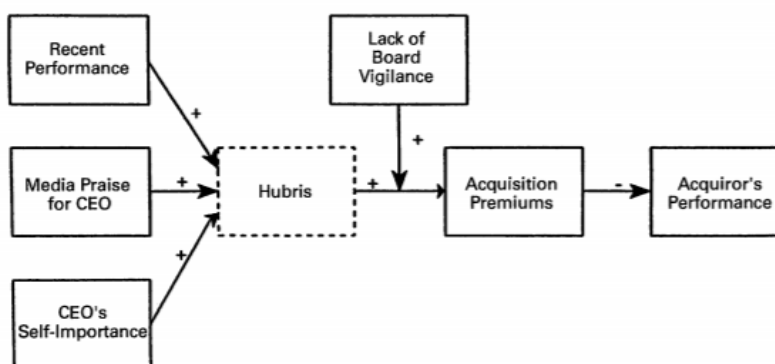
2.3.2. Defining hubris from the organisational behaviour and strategic management perspective

Building on the ‘hubris hypothesis’, Hayward and Hambrick (1997) found a link between CEO hubris and the premiums paid for corporate acquisitions. The authors concluded that the “greater the CEO hubris and acquisition premiums, the greater the shareholder losses” (Hayward & Hambrick, 1997, p.103). Based on these findings, the authors have associated hubris with failure when the leader’s over-ambition and disregard of the suggestions and advice of others lead to negative personal and organisational consequences. They have therefore defined hubris as

“exaggerated pride or confidence often resulting in retribution” (Hayward & Hambrick, 1997, p.106).

Furthermore, the authors derived a measure of hubris that they called the ‘hubris factor’ which consists of three indicators of hubris: media praise, a CEO’s sense of self-importance and recent organisational success (see Figure 2.4 below). Moreover, Hayward and Hambrick (1997) concluded that the greater each of the three indicators, the larger the premium paid for the acquisition.

Figure 2.4. Hayward and Hambrick’s (1997) model of hubris and acquisitions



Source: Hayward and Hambrick (1997), p.111.

In addition to the above, Hiller and Hambrick (2005) suggested that core self-evaluation (CSE) (an individual’s self-esteem, self-efficacy, locus of control and emotional stability) plays an important role in conceptualising CEO hubris. The authors argued that “a very high level of CSE, or hyper-CSE, aligns closely with what is often colloquially called ‘hubris’” (Hiller & Hambrick, 2005, p.297).

What is more, individuals in executive positions tend to be overconfident and may be prone to hyper-CSE (Goel & Thakor, 2008). As suggested by Picone, Dagnino and Mina (2014), hubris would therefore manifest as an “overestimation of one’s abilities and the probabilities of one’s

being successful; over-precision in one's own beliefs; and over-placement of one's own performance relative to that of others" (p.449).

In recent years hubris has usually been described as having disregard for advice and criticism, presumption, arrogance and overconfidence (Claxton, Owen & Sadler-Smith, 2014; Li & Tang, 2010; Sadler-Smith et al., 2016). According to Button (2011), "hubris entails the assertion of superiority through the exuberant, unabashed, and contemptuous violation of another person's equal moral standing..." (p.312). Hubristic individuals usually exhibit a high degree of self-esteem and self-evaluation, unwarranted self-belief, delusional optimism and, due to this, often lose contact with reality (Bodolica & Spraggon, 2011; Moore & Healy, 2008; Oskamp, 1965).

Furthermore, the concept of hubris is also closely linked with the concept of pride and is often described as "excessive pride in individuals" (Hayward & Hambrick, 1997, p.11). Moreover, hubristic CEOs tend to engage in risk-taking behaviours because of the above-mentioned tendency to overestimate the likelihood of their success and to downplay the possibility of failure (Sadler-Smith, 2016). As noted by Li and Tang (2010), "the present research provides empirical evidence that CEO hubris spurs firms to make more risky decisions" (p.60).

In addition to the above, it seems that social context and the organisation's culture itself might also have a share in the development of hubris as it may encourage hubristic tendencies to grow (e.g., attributing good business performance solely to the CEO's managerial skills) and have an influence on a leader's behaviours and attitudes (Robbins et al., 2013). There is some research to suggest that corporate culture (as a conducive environment), behaviours of the other members of an organisation (e.g., having no objections or limited constraints to exercise power and authority), susceptible followers, a co-opted board in an organisation and employee groupthink might also

contribute to the development of hubris (Hayward & Hambrick, 1997; Li & Tang, 2010; Stein, 2013).

In summary, based on the organisational behaviour and strategic management perspective, hubris is conceptualised as clouded judgement and biased decision-making which is often associated with the possession, or acquisition, of significant position power. In addition, prior success and the praise of influential third parties, such as media, appears to influence development of hubris.

2.3.3. Defining hubris from the psychiatric perspective

Owen and Davidson (2009) suggested that the intoxication of leaders by power can lead to significant changes in self-perception to such a degree that the mental health of the individual leader may even be called into question. Owen and Davidson (2009) termed this 'Hubris Syndrome' and proposed that even though hubris has some characteristics in common with narcissism and similar recognised personality traits, it is something that may be seen to develop over time and which becomes more marked the longer the person is able to exercise significant power. Owen and Davidson (2009) suggested that obtaining substantial power is a key trigger for the occurrence of Hubris Syndrome, hence when an individual loses power or leaves the position of power, the syndrome may tend to abate.

In addition, Owen and Davidson (2009) distinguished 14 possible symptoms of Hubris Syndrome; nine of those overlap with criteria for other personality disorders whilst five are unique. Those that are linked with other personality disorders as classified in the fourth version of Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) are: Narcissistic (1st to 4th and 7th to 9th symptoms); Antisocial (11th symptom); and Histrionic personality disorders (14th symptom). Owen and Davidson (2009) proposed that where a leader consistently demonstrates three or more of the proposed symptoms with at least one being unique, that individual might be regarded as suffering

from Hubris Syndrome. However, it should be noted that diagnosing a leader as affected by Hubris Syndrome can only be made if there are no other psychiatric conditions (e.g., organic brain disease, bipolar disorder, substance abuse) that might otherwise explain the individual's behaviour.

Owen and Davidson's (2009) proposed criteria for Hubris Syndrome, and their correspondence to features of cluster B personality disorders in DSM-IV, are listed in Table 2.4. below.

Table 2.4. Symptoms of Hubris Syndrome as proposed by Owen and Davidson (2009)

#	Description criteria	Link to other personality disorders
1	A narcissistic propensity to see their world primarily as an arena in which to exercise power and seek glory.	NPD.6
2	A predisposition to take actions which seem likely to cast the individual in a good light—i.e., in order to enhance image.	NPD.1
3	A disproportionate concern with image and presentation.	NPD.3
4	A messianic manner of talking about current activities and a tendency to exaltation.	NPD.2
5	An identification with the nation, or organization to the extent that the individual regards his/her outlook and interests as identical.	Unique
6	A tendency to speak in the third person or use the royal 'we'.	Unique
7	Excessive confidence in the individual's own judgement and contempt for the advice or criticism of others.	NPD.9
8	Exaggerated self-belief, bordering on a sense of omnipotence, in what they personally can achieve.	NPD.1 and 2
9	A belief that rather than being accountable to the mundane court of colleagues or public opinion, the court to which they answer is: History or God.	NPD.3
10	An unshakable belief that in that court they will be vindicated.	Unique
11	Loss of contact with reality; often associated with progressive isolation.	APD.3 and 5
12	Restlessness, recklessness and impulsiveness.	Unique
13	A tendency to allow their 'broad vision', about the moral rectitude of a proposed course, to obviate the need to consider practicality, cost or outcomes.	Unique
14	Hubristic incompetence, where things go wrong because too much self-confidence has led the leader not to worry about the nuts and bolts of policy.	HPD.5

*NPD: Narcissistic personality Disorder, ** APD: Anti-Social Personality Disorder, *** HPD: Histrionic Personality Disorder

Source: Owen and Davidson (2009), p.3.

The 14 symptoms of Hubris Syndrome are, by definition, descriptions of behaviours that are pathological (Rodgers, 2011). It seems that this syndrome is mostly a result of excessive power that is usually reinforced by experience in a powerful position and minimal constraints on the

authority the leader exercises (Owen, 2006). This unconstrained power negatively affects one's mental health leading to a drug-like effect on the brain that leads to distorted judgement, cognition and behaviours (Martin, 1999; Robertson, 2012). As noted by Owen (2008), Hubris Syndrome is "an illness of position as much as of the person" (p.428), given that in order for a leader to develop it, both the position of power and the context in which this power is exercised is important.

Owen and Davidson (2009) proposed that Hubris Syndrome is an acquired personality disorder on the basis that its development is similar to psychological understandings of other personality changes (e.g., post-traumatic stress disorder (PTSD)). The proposition to consider Hubris Syndrome as a mental health disorder was based on the idea that this potential 'syndrome' has a set of recognisable symptoms that can be evoked by a specific trigger such as holding a position of significant power (Garrard et al., 2014; Owen & Davidson, 2009).

According to The Diagnostic and Statistical Manual of Mental Disorders (DSM-V), the American Psychiatric Association's classification and diagnostic tool, a personality disorder is an "enduring pattern of inner experience and behaviour that deviates markedly from the expectations of the individual's culture, is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time, and leads to distress or impairment" (American Psychiatric Association, 2013, p.645).

As noted above, Owen and Davidson (2009) mapped Hubris Syndrome against personality disorders recognised in DSM-IV (an earlier version of DSM-V) and came to the view that it is, potentially, a new disorder. A list of Hubris Syndrome symptoms and descriptions of equivalent symptoms of other related disorders are cross-mapped and summarised in Table 2.5 below. Symptom descriptions are taken from DSM-IV. There are no changes in terms of symptom descriptions or classifications for Narcissistic, Antisocial and Histrionic personality disorders in

the 4th manual (DSM-IV-TR) as used by Owen and Davidson (2009) and DSM-V which is the current edition of the DSM published in 2013.

Table 2.5. Mapping symptoms of Hubris Syndrome with associated personality disorders

#	Hubris Syndrome		DSM-IV-TR / DSM-V
1	A narcissistic propensity to see their world primarily as an arena in which to exercise power and seek glory.	NPD.6	Is interpersonally exploitative (i.e., takes advantage of others to achieve his or her own ends).
2	A predisposition to take actions which seem likely to cast the individual in a good light— i.e., in order to enhance image.	NPD.1	Has a grandiose sense of self-importance (e.g., exaggerates achievements and talents, expects to be recognised as superior without commensurate achievements).
3	A disproportionate concern with image and presentation.	NPD.3	Believes that he or she is ‘special’ and unique and can only be understood by, or should associate with, other special or high-status people (or institutions).
4	A messianic manner of talking about current activities and a tendency to exaltation.	NPD.2	Is preoccupied with fantasies of unlimited success, power, brilliance, beauty or ideal love.
5	An identification with the nation, or organization to the extent that the individual regards his/her outlook and interests as identical.	Unique	N/A
6	A tendency to speak in the third person or use the royal ‘we’.	Unique	N/A
7	Excessive confidence in the individual's own judgement and contempt for the advice or criticism of others.	NPD.9	Shows arrogant, haughty behaviours and attitudes.
8	Exaggerated self-belief, bordering on a sense of omnipotence, in what they personally can achieve.	NPD.1 and 2	Has a grandiose sense of self-importance (e.g., exaggerates achievements and talents, expects to be recognised as superior without commensurate achievements). Is preoccupied with fantasies of unlimited success, power, brilliance, beauty or ideal love.
9	A belief that rather than being accountable to the mundane court of colleagues or public opinion, the court to which they answer is: History or God.	NPD.3	3. Believes that he or she is ‘special’ and unique and can only be understood by, or should associate with, other special or high-status people (or institutions).
10	An unshakable belief that in that court they will be vindicated.	Unique	N/A
11	Loss of contact with reality; often associated with progressive isolation.	APD.3 and 5	Impulsivity or failure to plan ahead. Reckless disregard for safety of self and others.
12	Restlessness, recklessness and impulsiveness.	Unique	N/A
13	A tendency to allow their ‘broad vision’, about the moral rectitude of a proposed course, to obviate the need to consider practicality, cost or outcomes.	Unique	N/A
14	Hubristic incompetence, where things go wrong because too much self-confidence has led the leader not to worry about the nuts and bolts of policy.	HPD.5	Has a style of speech that is excessively impressionistic and lacking in detail.

Although Hubris Syndrome has characteristics in common with Narcissistic, Antisocial and Histrionic personality disorders, it is distinct in the way that it may be seen to develop over time and becomes more marked the longer the person is able to exercise significant power, but may abate when the leader is no longer in power (Owen & Davidson, 2009).

However, since the ‘birth’ of Hubris Syndrome in 2009, the understanding of it has developed. Even though originally Hubris Syndrome was seen as a mental health disorder, recently it has been suggested that hubris is, indeed, an acquired trait and not a disorder (Owen, 2016; 2017). As noted by Owen (2016), “The hubris trait is acquired following exposure to power” (p.8). Furthermore, the author has acknowledged that hubris should be called a trait because it is “a psychological tendency across time not a symptom” (p.8), it has “an opposing pole (could be depression)” (p.8) and is “continuously distributed in a population” (p.8). Moreover, Furnham (2018) suggests that a distinction should be made between personality disorders and acquired traits, given that traits “come and go depending on the context. In contrast, personality disorders are enduring and pervasive across contexts” (p.80).

There are plentiful of studies that support the above-mentioned conceptualisation of Hubris Syndrome. For example, hubris is argued to be a “part enduring trait” (Hayward and Hambrick, 1997, p.124), an “inherent character trait within each individual” (Smith, 2013, p.1), a “personality trait following from narcissism” (Brennan & Conroy, 2013, p.176), a “prominent character trait of many corporate executives” (Tang et al., 2015, p.1346) and a “typical example of a trait that has shown to trigger uncooperative, arrogant behaviour in a leader” (Brown, 2017, p.2).

In addition to the above, there is also some research which suggests that hubris can be perceived as a ‘dark side’ personality trait (Judge, Piccolo & Kosalka, 2009) alongside the ‘dark triad’ traits (Machiavellianism, narcissism, and psychopathy) (Paulhus & Williams, 2002). Such assumption

is based on the findings that possession of the above-mentioned traits is linked with negative implications for organisations and leaders themselves (Judge, Piccolo & Kosalka, 2009). As Haynes, Hitt and Campbell (2015) note, “there is a fine line between being highly confident in their abilities to be successful in an entrepreneurial endeavour and exhibiting hubris” (p.496). In addition, this research suggests that hubris should be kept in check for the organisations to be successful and for the “benefits of entrepreneurial behaviour to be realized” (Haynes, Hitt & Campbell, 2015, p.499).

What is more, the Hogan Development Survey (a survey that is designed specifically to describe one’s ‘dark side’ of personality) suggests that an individual’s personality consists of a variety of traits, including ‘dark side’ traits (see Table 2.6 below).

Table 2.6. HDS scales, descriptors and personality disorders they resemble

HDS theme		DSM-IV Personality Disorders Themes	
Excitable	Moody and hard to please; intense but short-lived enthusiasm for people, projects, or things.	Borderline	Inappropriate anger; unstable and intense relationships alternating between idealization and devaluation.
Skeptical	Cynical, distrustful, and doubting others' true intentions.	Paranoid	Distrustful and suspicious of others; motives are interpreted as malevolent.
Cautious	Reluctant to take risks for fear of being rejected or negatively evaluated.	Avoidant	Social inhibition, feelings of inadequacy, and hyper-sensitivity to criticism or rejection.
Reserved	Aloof, detached, and uncommunicative; lacking interest in or awareness of the feelings of others.	Schizoid	Emotional coldness and detachment from social relationships; indifferent to praise and criticism.
Leisurely	Independent; ignoring people's requests and becoming irritated or argumentative if they persist.	Passive-Aggressive*	Passive resistance to adequate social and occupational performance; irritated when asked to do something he/she does not want to do.
Bold	Unusually self-confident; feelings of grandiosity and entitlement; over-evaluation of one's capabilities.	Narcissistic	Arrogant and haughty behaviors or attitudes; grandiose sense of self-importance and entitlement.
Mischievous	Enjoying risk taking and testing the limits; needing excitement; manipulative, deceitful, cunning, and exploitative.	Antisocial	Disregard for the truth; impulsivity and failure to plan ahead; failure to conform with social norms.
Colorful	Expressive, animated, and dramatic; wanting to be noticed and needing to be the center of attention.	Histrionic	Excessive emotionality and attention seeking; self-dramatizing, theatrical, and exaggerated emotional expression.
Imaginative	Acting and thinking in creative and sometimes odd or unusual ways.	Schizotypal	Odd beliefs or magical thinking; behavior or speech that is odd, eccentric, or peculiar.
Diligent	Meticulous, precise, and perfectionistic; inflexible about rules and procedures; critical of others' performance.	Obsessive-Compulsive	Preoccupations with orderliness, rules, perfectionism, and control; overconscientious and inflexible.
Dutiful	Eager to please and reliant on others for support and guidance; reluctant to take independent action or go against popular opinion.	Dependent	Difficulty making everyday decisions without excessive advice and reassurance; difficulty expressing disagreement out of fear of loss of support or approval.

*From DSM-III-R

Source: Hogan (2009), p.5.

Moreover, some of the above-mentioned trait descriptors (i.e., overconfidence, overestimation of one's abilities, grandiosity and being ignorant to other people's requests) appear to be similar, or the same, as symptoms of Hubris Syndrome as proposed by Owen and Davidson (2009) (see Table 2.4). This indicates that hubris might, indeed, be a trait of one's personality, which, if overplayed, becomes a 'dark side' trait causing damaging consequences for the organisation and for the leader.

What is clear is that not every leader develops Hubris Syndrome. Certain personality traits (i.e., common sense, humour, decency, scepticism) and close relationships with trusted advisors or 'alter egos', may enable leaders to counter the development of hubris (Bollaert & Petit, 2010). It is also suggested that development of an authentic leadership style (a leadership approach that emphasises honesty in the leader's relationship with followers) fosters positive self-development, stresses that authentic leaders should "lead from their own personal point of view" (Avolio & Gardner, 2005, p.321) and might therefore prevent the development of hubris (Petit & Bollaert, 2012).

The final point to consider is that Owen's proposed 14 symptoms of Hubris Syndrome have been criticized as requiring further refinement, greater conceptualisation of the definition and clearer establishment of the links with other related concepts (Russell, 2011). In a number of research studies the concept of hubris is not clearly distinguished from other concepts, such as overconfidence and narcissism, and this creates confusion and misunderstandings (Bollaert & Petit, 2010). What is more, it impacts on the methodological choices researchers make in hubris research because without a clear and rigorous definition it is very difficult to measure this phenomenon.

Even though hubris still lacks a more precise scientific definition, for the purpose of this research Hubris Syndrome is conceptualised as a personality trait (Owen, 2016; 2017) that is triggered by possession of significant power, and that builds upon previous personal experiences (Owen, 2012).

Individuals who have the hubris trait appear to be displaying a number of Owen and Davidson's (2009) symptoms of Hubris Syndrome. This is in alignment with the proposed development of 'dark side' traits by the Hogan Development Survey (2018) which suggests that 'dark side' qualities "emerge in times of increased strain and can disrupt relationships, damage reputations, and derail peoples' chances of success. By assessing dark-side personality, you can recognize and mitigate performance risks before they become a problem" (p.1).

2.3.4. Negative consequences of leader hubris

Researchers frame hubris as a unique paradox which has both 'bright and dark' sides (Judge, Piccolo & Kosalka, 2009). In most cases, an individual's leadership style stems from the behaviours that have proved to be useful in securing their success in first place. As a result, as the leader relies on these behaviours to achieve prospective successes, such behaviours become more reinforced over time (Bass & Stogdill, 1990).

Applying this example in the field of hubris, it could be argued that some of the attributes of hubris (e.g., overconfidence) has some socially desirable aspects and might be important in achieving success in certain occupations (e.g., becoming and being a CEO). However, positive traits that allow an individual to become a leader in the first place may ultimately become maladaptive (Bollaert & Petit, 2010). For example, if overused, ambitiousness and self-confidence can lead to self-absorption and unwillingness to accept mistakes made (Hogan, 2009).

Building on the above, leader hubris has been cited in relation to a number of corporate collapses such as the demise of The Royal Bank of Scotland (RBS) and the fall of the Lehman Brothers as well as for poor performance, industrial accidents and other corporate failures (Brunnermeier & Pedersen, 2009) in addition to the failures in mergers and acquisitions attributable to CEO hubris (Roll, 1986). The Columbia space shuttle disaster at NASA in 2003 (the shuttle disintegrated once

it re-entered the Earth's atmosphere) (Mason, 2004) and the Deep Water Horizon oil spill in the Gulf of Mexico in 2010 (the largest offshore oil spill in history) have also been attributed to the negative consequences of unbridled hubris (Ladd, 2012).

Consequently, research by Hayward and Hambrick (1997) and others (for a review see: Sadler-Smith, 2016) suggests that hubristic CEOs pay an excessive premium for corporate acquisitions and that the post-acquisition performance of the company plummets. What is more, they have also concluded that if the position of CEO and Chairman is occupied by the same hubristic leader, as in the case of Richard Fuld, Chairman and CEO of Lehman Brothers, this tendency of paying excessive premiums for corporate acquisitions is amplified even further (Hayward & Hambrick, 1997). In addition, hubris may cloud a leader's assessment of risk as evidenced by Brennan and Conroy (2013) in their study of a banking failure attributed to hubris.

Furthermore, hubristic CEOs appear to base their decision-making on past successes, which in turn leads to the use of misguided diversification strategies in business, over-ambitious plans and "over-reliance on acquisition led growth and excessive debt financing" (Picone, Dagnino & Mina, 2014, p.458). CEOs that have succumbed to hubris are also said to have often based their decisions on intuition and instinct rather than objective information and facts (Claxton, Owen & Sadler-Smith, 2014).

Taking into account other proxies of hubris, such as overconfidence or narcissism, Chatterjee and Hambrick (2007) found that narcissistic CEOs tend to make acquisitions more often. The same conclusion applies to research on acquisitions of overconfident CEOs (McGue & Bouchard, 1998). Furthermore, CEO narcissism and overconfidence affect their financial and strategic decisions (Chatterjee & Hambrick, 2007). For example, Brennan and Conroy (2013) noted that "extreme hubris may constitute a risk to companies, their returns, and their reputations" (p.56) whilst Petit

and Bollaert (2012) suggested that CEO hubris is a phenomenon to be blamed for various corporate failures.

Finally, the number of times media articles have commented on leader hubris, as pertaining to the demise of number of financial organisations during the 2007 – 2008 financial crisis, is also significant (i.e., examples of RBS and Lehman Brothers) (Babiak & Hare, 2006; Brunnermeier & Pedersen, 2009). Moreover, some research argues that the financial crisis was, indeed, caused by dysfunctional leadership or, in Boddy's (2011) words, "corporate psychopaths" (p.255).

2.3.5. Distinguishing between Hubris Syndrome and Narcissistic Personality Disorder

Hubris Syndrome has a number of characteristics in common with Narcissistic Personality Disorder (NPD) but is conceptually and theoretically distinct (Claxton, Owen & Sadler-Smith, 2014). Narcissistic Personality Disorder is described as "a pervasive pattern of grandiosity, need for admiration and lack of empathy that begins in early adulthood and is present in a variety of contexts" (American Psychiatric Association, 2012, p.9). It is diagnosed when five or more out of nine established criteria are present.

Freud conceptualised narcissism as a 'pathological form of self-love' which often arises because of certain traumatic events ('psychological wounds') experienced in childhood (Sandler, Fonagy & Person, 2012). He distinguished two forms of narcissism – a primary form present in children where one's ego is dissociated with the external environment and a secondary form of narcissism which is mostly associated with the inflated ego of an adult (Sandler, Fonagy & Person, 2012). The latter form is usually referred to when talking about narcissistic leaders as they tend to put their power and image before the company's performance with a tendency to concentrate on "politically beneficial" actions (Bollaert & Petit, 2010, p.366).

Narcissistic behaviour is usually expressed through persistent attention seeking, excessive self-focus, vanity and exploitativeness in personal relationships (Lubit, 2002; Millon & Davis, 1996). Even though a certain amount of narcissism can be helpful in achieving success, an excessive amount is a diagnosable pathological condition (de Vries, 1994).

Researchers argue that Hubris Syndrome should be delineated from Narcissistic Personality Disorder on the basis that narcissists are concerned with self-love which often arise from the “unstable sense of self-esteem” (Hiller & Hambrick, 2005, p.302). Those suffering from Hubris Syndrome, however, focus on the “love of power” (Sadler-Smith et al., 2016, p.6) rather than self-love. In addition to this, from a psychiatric perspective, these two concepts could be distinguished based on the ‘stability’ of this condition. For example, NPD is a “relatively stable individual difference” (Campbell et al., 2011, p.269), whilst Hubris Syndrome is often a temporary condition, which could appear and disappear at certain points of CEO’s career (Sadler-Smith et al., 2016).

Furthermore, Hubris Syndrome is defined as a temporary behavioural transformation (emergence of the ‘hubris trait’) that arises from “the possession of power, particularly power which has been associated with overwhelming success, held for a period of years and with minimal constraint of the leader” (Owen & Davidson, 2009, p.1397). Some authors also suggest that it is a result of genetics and evolutionary selection processes and therefore should be classed among other ‘dark side’ personality traits such as social dominance and Machiavellianism (Judge, Piccolo & Kosalka, 2009).

Overall, as summarised by Craig and Amernic (2014), narcissism is an ‘inward’ condition when a narcissist sees a world reflecting his or her beauty; hubris, on the other hand, is more an ‘outward’ condition that has an aspect of status and power, where a hubristic individual tends to lower the status of others or to show his or her position of power. In addition, NPD is usually seen as a

permanent condition while hubris can be triggered at certain points of time by external stimuli and could completely disappear when the conditions that have triggered it have been removed (Chatterjee & Hambrick, 2007).

2.4. What is Natural Language Use?

According to the theory of natural language use, distinctive patterns in one's spoken and written discourse can reveal a great deal about an individual's personality (Pennebaker & Graybeal, 2001; Pennebaker et al., 2003). An individual's personality traits (i.e., pride) can also be expressed verbally and can, therefore, be explored through spoken language (Fast & Funder, 2008; Tracy & Robins, 2014).

Building on the above, this section reviews the concept of natural language and provides further justification on how various aspects of personality are revealed in one's language. By doing so, this section affirms that language is a significant marker of one's traits, provides insight into one's personality and, therefore, has the potential to be used to identify linguistic markers of hubris.

2.4.1. Understanding the concept of Natural Language

In neuropsychology and linguistics, natural language is defined as any language which arises in the human brain naturally and unpremeditated (Pennebaker & Graybeal, 2001). Reference to the 'natural' aspect of the language also implies a process of learning, meaning a language that any cognitively normal human infant is able to learn (Pinker & Bloom, 1990). It also means that such language has not been constructed manually (e.g., like Esperanto, an international auxiliary language) and has not been created to deliver a set of instructions such as programming languages (e.g., JAVA or SQL, Structured Query Language).

Natural language is the opposite to the above-mentioned artificial or constructed languages, gestural languages (e.g., British Sign Language), non-human languages (e.g., used by animals) and other communication systems in nature (e.g., bio-communication – a type of communication between species of plants, animals and other organisms in nature).

On this account, the term ‘natural language’ usually refers to any spoken or written utterance by a native speaker. As noted by Chomsky (2002), human languages are structurally adapted to the psychological nature of man. In addition, according to Pinker (1995), the ability to learn a language is a natural condition and it is rooted in the biology of a human being. According to Pinker’s language instinct hypothesis, language is a human instinct, wired into one’s brains by evolution, “like web spinning in spiders or sonar in bats” (Pinker, 1995, p.357). The author suggests that one’s natural language does not have to be specifically taught because it is a specific genetic human phenomenon (Pinker, 1995).

There are a number of classifications for natural languages. One of the fundamental classifications is genetic which refers to the language ‘family’ that is based on common ancestors. For example, Greek, Balto-Slavic, Italian and a few other language branches belong to the Indo-European language family (Buck, 2008). Other categorisations for natural languages include typological (languages grouped based on the order of the subject, the object and the verb) and areal (languages grouped on the basis on the similarity of their features) (Comrie, 2009; Croft, 2002).

Finally, natural language utterances can provide some insight into human intelligence and cognition as well as reveal important aspects of one’s innate world and personality that continuously shape one’s language (Chomsky, 2006). What is more, empirical results from a wide variety of studies (see section 2.5.2.2 of this chapter) confirm that language possesses a unique

ability to reflect an individual's personality, to unveil one's thinking style and to clearly communicate individual differences (Tausczik & Pennebaker, 2010).

2.4.2. Theories underlying Natural Language Use

That language, and more specifically word use, is a meaningful marker of one's cognitive behavioural traits is not a new concept. There is an extensive research body concerning the relationship between brain activity and language acquisition, construction and understanding (Pinker, 1995). There is also a myriad of theories underlying natural language use as a basis for understanding individual characteristics, cognition, behavioural and social processes and various aspects of personality (Pennebaker et al., 2003). Brief summaries of the key theoretical perspectives – psychoanalytical, linguistics and cognitive psychology – are listed below.

2.4.2.1. Psychoanalytic perspective

From a psychoanalytic perspective, language is a fundamental means by which mental processes are expressed through a verbal exchange between two people, usually the analyst and the patient (Freud, 1957). Language, from a psychoanalytic perspective, is seen as an integral part of the therapeutic process to access the unconscious side of the individual. The clinical work of Austrian physician Josef Breuer laid the foundation for a psychoanalytical perspective which was later developed and popularized by Sigmund Freud (Freud, 1940; Freud & Breuer, 2005).

One of the key concepts in the psychoanalytical approach to language is 'speech errors' or 'misspeaking' which refers to the conscious or unconscious, a purposely or inadvertently produced divergence from the intended form of the linguistic utterance (Fromkin, 1984). According to the research, such speech errors occur once or twice for every 1,000 words spoken (which equates to misspeaking approximately every seven minutes of continuous talk) (Pincott, 2012).

Drawing on the ideas of Sigmund Freud, common errors in speech might reveal an individual's deeper motives, fears, true underlying feelings or mark something that is intentionally withheld (Freud, 1973). The author called these errors 'slips of the tongue' or 'parapraxes' and suggested that these discrepancies between what a speaker intended to say and what he or she actually said indicates an unconscious intention (Freud, Strachey & Tyson, 1960). In Freud's words, "even apparently simple slips of the tongue could be traced to interference by a half-suppressed idea that lies outside the intended context" (Freud, 1973, p.67).

Freud also suggested that people are usually not willing to admit that they made a 'slip of the tongue' as that might reveal something the speaker did not intend to say ('self-betrayal') (Freud, 1973). For example, when two people are involved in an argument and one of them makes a 'slip of the tongue' that contradicts the meaning of what that person initially said, this automatically puts him at a disadvantage with one's opponent (Freud, 2012).

Building on Freud's psychoanalysis theories, French psychoanalyst and psychiatrist Jacques Lacan extended some of Freud's ideas and suggested that human cognition encompasses a conscious and unconscious side and that the unconscious part of the individual reveals itself through language (Lacan, 1977). He claimed that language is beyond a person's conscious control as it comes from a place ('The Other') outside of one's consciousness (Lacan, 1966).

Similarly to the above, psychiatrists Gottschalk and Gleser (1969) argued that insight into one's mental and emotional states (i.e., achievement striving, hostility) and psychiatric conditions (i.e., anxiety) can be obtained through the analysis of the phrasing of thoughts related to emotions. Their content analysis method, the Gottschalk-Gleser Verbal Content Analysis Scales (G-G), is designed for the evaluation of emotional meanings (Gottschalk, 1979).

2.4.2.2. Linguistics

One of the founders of modern linguistics, Swiss linguist Ferdinand de Saussure, introduced dualism in linguistics proposing the distinction between two concepts – ‘langue’ (language) and ‘parole’ (speaking). He suggested that parole (speech, a particular message) is produced on the basis of langue (language, a set of codes) and that linguistics should be concerned about the ‘langue’ (language), not ‘parole’ (speaking) (De Saussure, 2011).

Similarly to de Saussure’s dualistic approach, Chomsky proposed two features of language – ‘competence’ (production of sentences) and ‘performance’ (actual use of the language competency) (Lyons, 1996). He argued that the main focus should be placed on underlying language structures, that is to say language competency, as the ordinal speech is too chaotic and disorganised. Chomsky also proposed a concept of ‘universal grammar’, arguing that certain rules of grammar are genetically rooted into one’s brain and therefore could exhibit without being taught (Cook & Newson, 2014).

From a sociolinguistics perspective, language and society have interrelated effects (Romaine, 2000). The field of sociolinguistics is mainly concerned with the question of social order - how it is produced and reproduced (Cameron, 2001). In addition, the sociolinguistic perspective notes that language has the potential to index (or mark) certain social variables such as gender difference (Eckert & McConnell-Ginet, 2003), power maneuvers in family interactions (Tannen, 2003), aspects of verbal style (Tannen, 1985; 2005), ethnicity, religion, status, education and age.

According to pragmatics (Thomas, 2014), context always contributes to meaning and the transmission of this meaning is highly dependent on the context of the language utterance, any pre-existing knowledge about subjects involved in the transmission, the intentions of the speaker, and other factors. As Searle (1985) proposed in his ‘speech act’ theory, language constitutes a form

of act (i.e., asking, warning, promising, referring). Those actions come from an individual, a speaker, who has certain intentions or tries to achieve certain goals (i.e., to manipulate language for strategic purposes).

Finally, drawing on the psycholinguistic perspective, or the psychology of language, there are various psychological and neurobiological factors for language acquisition, processing, comprehension and production (Traxler & Gernsbacher, 2011). According to this perspective, certain psycholinguistic (i.e., phonetic, phonological, morphological, semantical) markers can reveal certain psychological and language impairments (Botting & Conti-Ramsden, 2003).

2.4.2.3. Cognitive psychology

The field of cognitive psychology is concerned with various mental processes that affect one's behaviour, language being one such mental process (DeKeyser, 2007). This field of study is concerned with language acquisition, formation and its relationship with various mental states like moods. From the cognitive perspective, language affects the thought process, specifically in terms how people perceive time and abstract concepts. As noted by Boroditsky (2001), "When sensory information is scarce or inconclusive (as with the direction or motion of time), languages may play the most important role in shaping how their speakers think" (p.20).

According to the cognitive linguistics perspective that emerged in the 1980s, language is a core component of human cognition that is distinctly unique to humans. Human cognition determines one's ability to store and retrieve linguistic and non-linguistic knowledge, including linguistic meaning (what is being said) and structure (the way it is said). The basic premise of this approach is that "Instead of grasping at any apparent rationale for asserting the uniqueness and insularity of language, we should try more seriously to integrate the findings of linguistics and cognitive psychology" (Langacker, 1987, p.13)

Overall the cognitive perspective is concerned with understanding various aspects of language, including the impact of sociocultural influences on language use (i.e., the way one's surrounding affects individual behaviour), the use of metaphors and contextual factors. For example, as speech usually occurs as a conversation in a social context, various verbal behaviours (e.g., 'well', 'you know', 'oh') can help one to understand the message, or indicate a in topic (e.g., 'anyway') or context (Flowerdew & Tauroza, 1995).

Cognitive psychology has many links with pragmatics – the way language is used and the differences between intended and literal meaning (Eysenck & Keane, 2010) – because both are concerned with the cognitive study of language and discourse comprehension. Given that language is a tool for communication, pragmatics also place a huge importance on the context and how it could affect the intended meaning (Leech, 2016). Not surprisingly cognition plays a role here as comprehension is involved in trying to process the discrepancy between the actual message and its real meaning.

Some other cognitive aspects of language use can be also revealing. For example, speech errors such as word-exchange errors, can suggest a speaker's engagement in the forward planning of their speech (Eysenck & Keane 2010).

2.5. Linking Hubris, Personality and Natural Language Use

2.5.1. Natural Language Use in related fields

In the 1980s, Pennebaker and Beall suggested that expressive writing about emotional turmoil in one's life is therapeutic and can be used as help to improve the writer's physical health (Pennebaker & Beall, 1986). This study laid the foundations for further developments in the use of language as

a means to access an individual's psychological state and personality as well as the application of such techniques in the medical field.

For example, analysis of the texts was used to diagnose certain neurological disorders, such as Alzheimer's disease (Garrard et al., 2004, 2009). It has also been used to identify a variety of mental health conditions, such as anxiety (Weintraub, 1989), depression (Bucci & Freedman, 1981; Rude, Gortner & Pennebaker, 2004) and even suicidal ideation (Stirman & Pennebaker, 2001). As Pennebaker et al (2003) noted, "language use can be an attractive as well as subtle diagnostic marker" (p.560).

Similarly to the above, there is a relationship between one's language and psychological conditions like need for power, affiliation and achievement (Pennebaker & King, 1999), positive versus negative mood (Pennebaker, 2012), self-esteem (Bosson et al., 2000) and even Machiavellianism (Ickes et al., 1986). All three studies found direct correlation between certain word use (i.e., use of personal pronouns) and the above-mentioned psychological conditions. In addition, Pennebaker and King's (1999) research on writing samples from college studies has also found a stable relationship between the Big Five personality dimensions (i.e., neuroticism, extroversion, agreeableness) and word use. They found, for example, a positive correlation between neuroticism and the use of negative emotion words and a negative correlation with positive emotion words.

Natural language use and at-a-distance measures have also been used extensively in narcissism research. For example, Craig and Amernic (2011) demonstrated the potential of written text to reveal destructive narcissism by analysing CEO letters to the shareholders of three well-known corporate organisations (Enron, Starbucks and General Motors). This was not the first time when letters to shareholders were used as a means to access a CEO's personality characteristics at-a-distance. For example, a study by Amernic, Craig and Tourish (2007) analysed Jack Welch's

(former CEO's of General Electric) leadership style through analysis of his metaphors over the period of 20 years.

Similarly to the above, Chatterjee and Hambrick (2007) used interviews given by CEOs to analyse CEO narcissism and found that CEOs' narcissistic tendencies are linked with the extreme and irregular performance of their company. A few years later, Aktas et al (2016) conducted a similar research and analysed transcripts of CEO speech to research the relationship between CEO narcissism and the takeover processes in organisations. Researchers found that although narcissistic CEOs tend to initiate takeover deals and accelerate negotiations, this eventually leads to a lower probability of deal completion (Aktas et al., 2016).

In strategic management research, word count approaches were used to analyse mission statements from over 400 business colleges and found significant differences between words used in the statements and the characteristics of the colleges (Short & Palmer, 2008). At-a-distance measures have been also used to investigate topics such as impression management (Arndt & Bigelow, 2000), strategic groups (Osborne, Stubbart & Ramaprasad, 2001) and joint ventures (Merchant, 2004).

More recently Ahmadian, Azarshahi and Paulhus (2017) used announcement speeches of the top nine Republican contenders in the United States' Presidential Campaign to identify factors that contributed to Donald Trump's triumph as President of United States in 2016. By using a natural language use approach and word count based software LIWC, researchers found some key characteristics distinguishing Donald Trump from his competitors: a high level of grandiosity, informality and dynamism in his language (Ahmadian, Azarshahi & Paulhus, 2017).

Jones (2015) conducted a similar type of study by analysing Hilary Clinton's speeches to investigate whether there is a link between patterns in her speaking manner and the increase in her political power. Findings of this study show that Hilary Clinton's language became more masculine over the years, reflecting the "the reality of the political environment, the masculine norms of behavior that permeate our political institutions as well as our expectations of political leaders" (Jones, 2015, p.14).

In addition to the application of natural language use in political leadership, it has also been used to research charismatic leadership. For example, research by Kovalchuk (2013) found that speeches produced by charismatic leaders contain consistent linguistic patterns (i.e., *I* to *We* ratio, type and number of pronouns used) that are also directly linked to specific personality traits exhibited by those leaders (i.e., extraversion, agreeableness).

As noted by Tausczik and Pennebaker (2010), "we are in the midst of a technological revolution whereby, for the first time, researchers can link daily word use to a broad array of real-world behaviors" (p.24). Studies conducted to date in a variety of research fields confirms the validity, applicability and usefulness of at-a-distance measures and the theory of natural language. Given the above, recent interest in utilising these methods to study linguistic markers of hubris is unsurprising and, even, expected.

2.5.2. Natural Language Use for the study of Hubris

2.5.2.1. Language as a source to identify hubris

The potential to access hubris through one's language is extremely important in the case of business leaders, given that CEOs belong to the top tier of the organisation and, they are, unsurprisingly, not an easy to reach population (Sadler-Smith et al., 2016). Because of this reason, at-a-distance measures, such as using language as a means to identify hubris, are often used. As

noted by Craig and Amernic (2011), “Assessments of a CEO and his or her leadership by any corporate stakeholder must usually be formed at-a-distance because of a lack of direct access to the CEO” (p.563).

Numerous studies suggested that language use is a means of revealing a variety of psychological conditions (Garrard et al., 2014). For example, Craig and Amernic (2011) suggested that certain personality aspects (i.e., self-confidence, need for power and other personality aspects as proposed by Hermann (2005)) can be revealed through language, hence analysing discourse has the potential to reveal narcissistic and hubristic traits. Polzehl et al (2010), in their research on personality assessment from speech, concluded that “personality is encoded in spoken communication” (p.140). In other words, language is a medium by which human cognition and personality can be directly accessed (Tausczik & Pennebaker, 2010).

What is more, Garrard et al (2014) noted that “personality might predispose to the development of Hubris Syndrome” (p.2) as certain personality characteristics can lead an individual to seek powerful leadership positions in the first place. Similarly, Runesson and Samani (2015) noted that linguistic features in secondary data materials, such as a CEO’s letter to the shareholders, “can provide cues on a CEO profile, such as hubristic traits” (p.3).

Furthermore, it has been argued that the natural linguistic structures people use and the lexical choices they make can be classified as ‘honest signals’ or unconscious behaviours by which one expresses and communicates attitudes, positions and motivations (Pentland, 2008). ‘Natural’, in this case, means responses to open-ended questions, natural day to day communication between individuals, written or spoken text. These ‘honest signals’ allow the prediction of human behaviour in groups and affects how humans engage in activities such as negotiation, persuasion and decision-making (Pentland, 2008).

As noted by Craig and Amernic (2014), language used by CEOs “reflect on them as leaders, the leadership they provide, and the ‘tone at the top’” (p.74). Authors note that a CEO’s language is a medium through which senior business leaders communicate their true attitudes, beliefs and values (Amernic, Craig & Tourish, 2010). CEO language also has the capacity to mark a ‘leadership dysfunction’ as described by Amernic and Craig (2013). The authors also note that using at-a-distance measures in the field of management research is not usual and has been applied to date in research of a similar type, such as decision-making (Amernic & Craig, 2013; Schafer, 2000).

Overall, language is a rich source of data for those who are interested in the mental and cognitive state of an individual (Garrard et al., 2014), especially where such assessment has to be made at-a-distance. Even though people tend to convey particular messages intentionally in their daily communication, certain psychological and cognitive aspects of personality are unconsciously reflected in an individual’s language and can help to gain an insight into relevant personality characteristics and features (Garrard et al., 2014).

2.5.2.2. Research to date to determine linguistic markers of hubris

Because scholars rarely possess the level of access to CEOs that would allow for direct interviewing or a psychological analysis of a leader, the natural tendency in personality, operational code and similar types of research is usually dependent on written and spoken utterances produced by the research subject. In line with above, the research into a leader’s hubris has also traditionally relied upon assessment at-a-distance with the key underlying assumption for such an investigation being the idea that no direct access is required in order to gain some accurate and insightful information about the leader’s beliefs, traits and cognition. Such investigations have relied primarily on the analysis of secondary data, mainly the CEO’s letters to shareholders, in order to gain insight into a leader’s personality, and ultimately, their hubris.

Obviously, the use of secondary data in such research raises a number of methodological questions (see Schafer (2000) for a detailed review) with a key question concerning the extent to which a leader's interview or speech is a representative of their true personality characteristics and belief system.

However, there are several reasons for using publicly spoken or written discourse in such research studies. First, it is assumed that "a leader's public behavior is constrained by his public image and that, over time, his public actions will consistently match his public beliefs" (Walker, Schafer & Young, 2003, p.223). This assumption has been validated in a number of studies that have used the at-a-distance approach in their analysis (see Table 2.7). The second, and more practical, reason is that for most leaders there are a number of publicly available spoken or written materials ready to be analysed. This helps to mitigate the issues of accessing the leader, especially given that secondary data has been proven to be a valid and reliable resource for this type of research (see section 3.8.2 for justification regarding data used).

Although there has been some previous research into linguistic markers of political leaders' hubris, the use of linguistic analysis in determining the presence of hubris in business leaders is limited (Brennan & Conroy, 2013; Craig & Amernic, 2014). As summarised in Table 2.7 below, over the past five years there has been only a very small number of studies published which have attempted to identify business leaders' hubris from their natural language use. Details of various methods used in previous research studies to explore and identify CEO hubris from spoken or written discourse samples of CEO language are summarised in Table 2.7 below.

Table 2.7. Summary of the previous research on linguistic markers of hubris

Research	Method(s)	Material analysed	Sample	Words analysed	Software
Craig & Amernic (2016). Are There Language Markers of Hubris in CEO Letters to Shareholders?	DICTION measures	Stage 1: Letters to shareholders of CEOs who were deemed to be hubristic. Stage 2: Letters to shareholders of random CEOs from FTSE 100 and FORTUNE 500 companies.	5 (3 hubristic and 2 non-hubristic CEOs). Unspecified exact number of neither hubristic nor non-hubristic CEOs used as a benchmark from FTSE 100 and FORTUNE 500 companies.	Stage 1: 34,500 (hubristic utterances). Stage 2: 334,000 (7742 words were from non-hubristic CEOs).	DICTION
Devlin & Lucey (2016). Is Executive Hubris manifested in CEO Letters to Shareholders?	Manual content analysis	Letters to shareholders in 8 annual reports of a single company over 8 years benchmarked against 1 letter to shareholders of the previous and one subsequent CEO of this organisation.	3 (1 hubristic benchmarked against 2 non-hubristic).	22,746 (hubristic utterances) and 3519 (non-hubristic utterances)	N/A
Craig & Amernic (2014). Exploring Signs of Hubris in CEO Language	DICTION measures	Speeches delivered whilst in a CEO position for one study subject and annual letters to shareholders for another study subject between 2007 and 2011.	2 (both hubristic).	332,000 (hubristic utterances for one hubristic CEO; utterances for the second hubristic CEO are not stated)	DICTION
Garrard et al (2014). Linguistic biomarkers of Hubris Syndrome	Shannon entropy, N-gram trends and Keyness metric	Transcribed samples of weekly debates at House of Commons (questions-answers session) during the term of the study subjects period of office	3 (2 hubristic and 1 non-hubristic).	Number of words is not explicitly stated	MATLAB 2010, WordSmith
Brennan & Conroy (2013). Executive hubris: the case of a bank CEO	Manual content analysis	Letters to shareholders in 8 annual reports of a single bank over 10 years benchmarked against letters to shareholders of the previous and subsequent CEOs of this bank	1 (1 hubristic benchmarked against 2 non-hubristic).	7476 (hubristic utterances) and 2612 (non-hubristic utterances)	N/A
Amernic, Craig & Tourish (2010). Measuring and assessing Tone at the Top using annual report CEO letters	DICTION and close reading of selected letters	Letters to shareholders of 91 FTSE 100 companies for 2006 and 71 for 1998; 94 FORTUNE 100 CEO letters for 2006 and 81 for 1998. Also 3 CEO letters to shareholders from 1990 to 2006 analysed in detail.	1. 3 (all hubristic). 2. Around 150 companies (approximately 600,000 words of text were analysed).	Approximately 600,000 words of text were analysed in total. Hubristic versus non-hubristic split is not specified.	DICTION

Amernic, Craig and Tourish (2010) attempted to demonstrate that analysing text samples such as CEO letters to shareholders has the potential to gain an insight into what they called ‘tone at the top’. These authors analysed letters to the shareholders of Jack Welch (General Electric), Lord Browne (British Petroleum), Skilling and Lay (Enron), and the communications of New Century Financial Corporation. After detailed analysis using DICTION, Amernic, Craig and Tourish (2010) concluded that analysing discourse has a “strong potential to add a great deal and to furnish valuable understandings of the culture of the organisations concerned and the intentions of top management teams” (Amernic, Craig & Tourish, 2010, p.10).

Brennan and Conroy (2013) raised the question of whether personality traits of a CEO can be detected at-a-distance and whether there is a way to uncover underlying cognitive traits that might contribute to the development of hubris. To answer these questions, Brennan and Conroy (2013) analysed letters to shareholders of a single bank over a period of ten years and found the evidence of ‘hubristic-speak’ (45% of the sentences they analysed met three or more symptoms of hubris). Moreover, these became more pronounced over the time. What is more, the most pronounced symptom was CEO tendency to speak in a messianic manner (4th symptom) (Brennan & Conroy, 2013). Despite the findings, this research had several methodological drawbacks such as coder subjectivity, lack of coder cross-check and a general difficulty in replicating the methods due to the before-mentioned coder subjectivity.

Garrard et al (2014), in their research on linguistic biomarkers of Hubris Syndrome, examined transcribed spoken discourse samples of three British Prime Ministers (Margaret Thatcher, Tony Blair, John Major) and concluded that there is a marginal increase with time in discourse complexity in one of the analysed Prime Ministers (Tony Blair). This was in line with the research prediction that certain features of Hubris Syndrome are reflected in increased unpredictability

within the discourse sample. On the other hand, this conclusion seems to be unrevealing given a sample size of three individuals. However, given the context the sample size is bound to be very small.

Researchers have also found that hubristic research participants increased the usage in certain word frequencies that might be indirectly associated with symptoms of Hubris Syndrome (i.e., use of words ‘sure’, ‘I’, ‘me’, ‘important’) (Garrard et al., 2014). In addition, this research provided some suggestions for ‘candidates’ for linguistic markers of Hubris Syndrome, for example ‘no’ and ‘shall’ (Garrard et al., 2014). Related to the above, the authors also aimed to identify the frequency of ‘keyness’ values (words that occur in a discourse sample with a significantly higher or lower proportional frequency) and found that the ‘keyness’ ratio of ‘we’ to ‘I’ was higher for hubristic Prime Ministers throughout their term in office. However, this finding has not since been replicated by other research studies, including the research described here. This suggests that the original proposition by Owen and Davidson (2009) that the use of royal ‘we’ is a unique symptom of Hubris Syndrome, might be tenuous and should therefore be explored with caution.

In 2014, Craig and Amernic (2014) explored the potential of linguistic software DICTION variables to identify hubristic language. Even though researchers made some reasonable predictions regarding the links between DICTION variables and Hubris Symptoms (i.e., association between DICTION variable ‘Variety’ and Hubris Syndrome), the research was exploratory in nature and reached no definite conclusions.

One of the most recent research studies into the markers of Hubris Syndrome in CEO language was conducted by the same researchers, Craig and Amernic (2016). Similar to their earlier studies in the detection of linguistic markers of hubris, they used DICTION variables to look for the markers of hubris in 193 annual letters to the shareholders of CEOs from major companies. Of

these 193 letters to shareholders, 23 were produced by CEOs that were deemed by previous studies to have succumbed to hubris: including Lord Browne (British Petroleum), Fred Goodwin (Royal Bank of Scotland) and Rupert Murdoch (News Corporation). This study found that hubristic CEOs exhibited a high level of ‘Human interest’ and ‘Realism’ (two DICTION variables), which contradicts several symptoms of Hubris Syndrome as proposed by Owen and Davidson (2009). The authors concluded that “rather than identifying DICTION markers of hubris in the CEO letters of Browne, Goodwin and Murdoch, we have revealed the language pattern of a communication genre (Swales 1990) – that is, of the letters to shareholders of CEOs of large companies more generally” (Craig & Amernic, 2016, p.12). They have also noted that the link between hubris and language might be more complex than originally anticipated and that more research is required in this field, including strengthening and sharpening hubris conceptualisation and in turn, refining the relationship between hubris and language.

Finally, a study by Devlin and Lucey (2016) attempted to replicate the above-mentioned study of Brennan and Conroy (2013). They used the at-a-distance method to identify CEO hubris from the letters to shareholders of one American bank. Findings of this study indicated that 28.27% of sentences met the criteria for a diagnosis of hubris as proposed by Owen and Davidson (2009). The authors concluded that although this study could be criticised for the subjectivity of the method used (manual content analysis), consistent findings with the original study by Brennan and Conroy (2013) suggest that there is potential in the use of at-a-distance measures as a tool to identify CEO hubris.

2.6. Chapter summary

The literature review chapter started with an overview of the theoretical framework which was based on three key and inter-related concepts – personality (Hermann, 2005; Hogan & Hogan,

2001), Hubris Syndrome (Owen, 2009; 2016) and natural language use (Pennebaker et al., 2003). Based on this theoretical framework, the first part of the literature review commenced with the conceptualisation of personality as a compound of various traits, including those considered ‘dark side’, and also described the potential of these ‘dark side’ traits to lead to destructive leadership. This section also introduced Hermann’s LTA framework (Hermann, 2005) which conceptualizes personality as a combination of seven traits. The section concluded with a discussion on the potential of at-a-distance personality assessment and the potential applicability of such techniques in hubris research.

The second section of the chapter introduced the key phenomenon analysed in this thesis, Hubris Syndrome. This section presented hubris from several perspectives – behavioural finance, strategic management and psychiatric – and explained reasons why the psychiatric position to the understanding of hubris has been taken in this doctoral research study. In addition, the second section also provided some insight into potentially disastrous consequences of hubris in the business world and attempted to delineate hubris from the inter-related concept of narcissism.

Finally, the last section of the chapter presented the concept of natural language and an explanation of how various aspects of personality are revealed in one’s language. The section summarised a number of key theories underlying natural language use – psychoanalytical, linguistics and cognitive psychology. The main conclusion to be drawn from this section is that natural language - which arises naturally in the human brain – is a significant marker of one’s traits, provides insight into one’s personality and, therefore, has the potential to be used in the domain of hubris research.

3. RESEARCH METHOD

3.1. Summary of the Research Strategy

Chapter 3 of this thesis explains and justifies the research strategy, design and methods that have been selected to best answer the research question, i.e., what are, if any, the linguistic markers of CEO hubris and how may these markers be identified? The chapter also details the data collection methods and the sampling strategy used to select the hubristic and non-hubristic subjects and explains the approaches taken to analyse the data obtained. The overall aim of this chapter is to ensure the coherency and visibility of selected methodological choices in order for readers to be able to understand and, if necessary, replicate and extend the study.

It should be noted that this thesis is comprised of four studies (one Pilot Study and three main studies referred to as Study 1, Study 2 and Study 3 later in the thesis). All four studies focus on answering the same research question, however the research strategy and the research methods employed by each study differ slightly and as such the studies present a progression from simple to more complex.

The chosen research strategy for each of the four studies is depicted in Table 3.1 below in order to help the reader see the overall approach taken in this thesis. Table 3.1 below summarises all the main methodological choices of the research and details selected methods for each of the studies that are guided by its underlying philosophical assumptions (see below). All positions noted below are explained and detailed in subsequent sections of the Chapter 3.

Table 3.1. Summary of the Research Strategy employed

Research Philosophy	Ontological	Objectivism
	Epistemological	Positivism
Research Approach	Method – Pilot Study	Deductive
	Method – Study 1	Deductive
	Method – Study 2	Inductive
	Method – Study 3	Inductive
Research Design	Methodological Choice	Mixed-method
	Nature of Research Design	Exploratory
	Research Strategy	Mixed-methods
	Time Horizon	Cross-sectional
Ethics		Not required
Research Method	Data Collection Technique	Use of Secondary Data
	Sampling	Non-probability Purposive Sampling
	Method – Pilot Study	Content analysis using close reading and Hermann’s LTA framework
	Method – Study 1	Content analysis using LIWC and Computational Statistics
	Method – Study 2	Content analysis using LIWC
	Method – Study 3	Text analysis using Machine Learning algorithms

The aim of the Pilot Study was to test the proposed research strategy. Therefore, this study was conducted with a small sample (one hubristic CEO and one non-hubristic CEO). A mixed-method research design was used, and two research methods employed: close reading and computer-aided content analysis based on Hermann’s LTA framework (two different software packages were used to conduct the latter analysis). The choice of these methods was based on the following: first, previously used in hubris and/or similar research fields (Bligh & Hess, 2007; Craig & Amernic, 2014); second, because of their scientific validity and proven usefulness in hubris and/or similar research (Amernic, Craig & Tourish, 2010; Brennan & Conroy, 2013).

Based on the Pilot Study findings, the originally proposed research strategy was amended to better suit the research’s needs and purpose. Therefore, the first main study (Study 1) was based on the amended research design to address the Pilot Study’s shortcomings (see Chapter 5 for further details). The main change in terms of research strategy between the Pilot Study and Study 1 was

the amended research methods (content analysis using LIWC and statistical analysis using SPSS instead of Hermann's LTA framework and close reading). This amended research strategy was implemented on a bigger sample of ten CEOs ($N=10$) in total: five hubristic CEOs (HCEO) and five non-hubristic CEOs (NHCEO). The sampling strategy used is explained and justified in detail in section 3.8 of this chapter.

Naturally, the subsequent Study 2 evolved as a result of findings and learnings in both previous studies - the Pilot Study and Study 1. One of the main changes in Study 2 in comparison to the Pilot Study and Study 1 was a fundamental shift in approach. The first two studies were deductive in that they tested hypotheses raised based on the theory of natural language use. However, the approach used in Study 2 was more inductive wherein the secondary data collected was analysed and from this a new framework for identifying linguistic markers of hubris was proposed. This change was motivated by the lack of useful insights provided by the Pilot Study and Study 1. Further details and justification regarding the choice of the research strategy for Study 2 is provided in Chapter 6.

Finally, the last study (Study 3) employed a similar research strategy to that of Study 2. However, the main difference in the last study was the choice of a different research method and analytical technique. Text analysis using machine learning algorithms was used in Study 3, whilst Study 2 conducted a content analysis using LIWC software. The decision to choose a new and innovative research method in Study 3 was taken for several reasons that are explained and justified in detail in Chapters 7 and 8.

3.2. Research Question, Objectives and Hypothesis

The overall aim of this thesis is to explore the natural language use (Pennebaker et al., 2003) of hubristic and non-hubristic CEOs in order to identify linguistic markers of leaders' hubris and try

to understand the ‘hubris lexicon’ – linguistic patterns in hubristic speech. Hence the research question, objectives and hypothesis pertaining to identification and understanding of linguistic markers of CEO hubris are summarised below.

3.2.1. Research objectives

The three key objectives of this thesis are summarised below:

1. To explore the possibility that the words CEOs use in their spoken or written discourse contain linguistic markers of Hubris Syndrome;
2. To explore the use of the word count approaches as a means to identify linguistic attributes of Hubris Syndrome using a software-driven approach;
3. To explore the use of the machine learning approach as a means to identify linguistic attributes of Hubris Syndrome.

3.2.2. Research question

In line with the objectives of this thesis detailed above, the main research question of this thesis is as follows:

1. What are the linguistic markers of CEO hubris and how may they be identified and understood?

3.2.3. Research hypothesis

Given the research question and objectives, the following hypothesis is derived:

1. The language produced by CEOs who had been identified as possessing Hubris Syndrome while holding the position would show consistent differences from the language produced by CEOs who had been judged to have not succumbed to Hubris Syndrome.

3.3. Research Philosophy

According to Saunders et al (2012), the term ‘research philosophy’ refers to the “development of knowledge and the nature of that knowledge” (p.127). Two important issues to be considered within the context of research are epistemology (assumptions about human knowledge) and ontology (assumptions about research realities). In addition, it is also useful to consider the researcher’s own values and beliefs with regards to the research or, in other words, to consider the axiological assumptions (Guba & Lincoln, 1994; Saunders et al, 2012).

When considering ontological assumptions of a research project, researchers should raise questions regarding their assumptions about the nature of reality (Guba & Lincoln, 1994; Saunders et al., 2012). In other words, ontological assumptions depict the way the research objects are seen: externally to the individual, and hence objective, or socially constructed, and hence subjective (Burrell & Morgan, 1979). As described in the research methods literature, ‘objectivism’ claims that social reality and social entities are external and independent to us as social actors; on the contrary, ‘subjectivism’ takes a different position and asserts that social reality is created through the perceptions and actions of social actors (Burrell & Morgan, 1979; Saunders et al., 2012).

Epistemology, in contrast, refers to what “constitutes acceptable knowledge” (Saunders et al., 2012, p.132). It could be assumed that reality is objective, hence it could be observed and represented through objects, facts and numbers. On the other hand, if one assumes that reality could only be understood through the opinions and narratives of the social actors, this would represent a subjective view of reality.

It is important to be precise about the choice of the research philosophy because it explains the researcher’s assumptions and beliefs relating to the development of knowledge in a particular field

(Crossan, 2003). In addition, the choice of research philosophy subsequently leads to the methodological choice, the choice of the research strategy, the data collection methods and the analytical approaches. Hence the following section 3.3.1 will detail the ontological and epistemological assumptions of this research.

3.3.1. Ontological and epistemological assumptions of the research

In the case of this research (the term ‘research’ here and afterwards refers to all four studies completed and described in detail in Chapters 5, 6, 7, 8) analysing linguistic markers of CEO hubris, the main assumption is that Hubris Syndrome is an objective phenomenon that exists externally to us, that can be described through 14 established symptoms and that exist independently of what individuals think of or talk about it. What is more, the ontological perspective of this research is that anyone acquiring hubris would experience it the same way and that if Hubris Syndrome was present, any interpretation of the syndrome or its expression through one’s language would not change its existence and appearance in one’s language. Given the above, this research takes an objective approach and ontologically embraces realism.

When considering the epistemological assumptions of this study, the researcher should be concerned with assumptions of what constitutes “acceptable knowledge in a field of study” (Saunders et al., 2012, p.150). Shaped by the ontological position taken above, epistemologically this research seeks to analyse the phenomenon of hubris through observable and measurable linguistic markers and aims to discover the universally applicable patterns of these linguistic attributes. In addition, it seeks to create generalisations pertaining to the lexicon of the hubristic language of the CEOs. Therefore, positivism was chosen as the best-fitted epistemological stance for this research.

3.4. Research Approach

In terms of research approach, the literature defines three main forms of reasoning – deductive, inductive and abductive. There are clear and important differences between these approaches and they are key in establishing the researcher’s approach from the outset (Saunders et al., 2012). For example, a deductive approach allows the researcher to evaluate hypotheses related to existing theory or, in other words, to verify a particular theory through the use of well-structured methodology for the purpose of enabling replication. In short deduction aims to operationalise concepts, establish causal relationships between them and to make generalisations (Blaikie, 2010; Saunders et al., 2012).

In contrast, instead of testing existing theory and specific premises derived from it, induction aims to reach conclusions by ‘making sense’ of the observations made. Because of this reason induction is highly concerned with the “context in which events are taking place” (Saunders et al., 2012, p.146) and aims to examine the ‘nature of the problem’ whilst looking at the attitudes, behaviours, situations and one’s understanding about these (Maxwell, 1992).

Finally, abduction moves back and forth between theory and data trying to combine both approaches described above (Suddaby, 2006). In other words, it allows the researcher to constantly re-iterate research issues, framework, and the development of the theory (Dubois & Gadde, 2002).

After an extensive literature review (see Chapter 2) the particular theory subjected to testing in this research is derived from theories of natural language use, ‘honest signals’ and the emerging body of knowledge in computational linguistics (Coakes & Steed, 2009; Saunders et al., 2012) and suggests that there is a link between leader hubris and natural language use. Moreover, the theoretical claim is that this link can be logically explained through the expression of certain

personality characteristics (see Figure 2.1 in Chapter 2) pertaining to Hubris Syndrome in one's natural language use. This led to the development of the hypothesis that the linguistic utterances of CEOs who had been identified as possessing Hubris Syndrome while holding a position of power would show consistent differences from the language produced by CEOs who had been judged not to have succumbed to Hubris Syndrome. Consequently, given that this research study aims to test the link between natural language use and Hubris Syndrome and proposes that a word count approach will provide a suitable framework, a deductive approach has been deemed as best-suited. The deductive approach has been employed in the Pilot Study and Study 1.

Although the deduction approach has a number of benefits and was well-suited to the initial two research studies (the Pilot Study and Study 1), the deductive approach required the researcher to follow a too rigid and structured approach that did not allow for the alternative explorations of the phenomenon of hubris. For this reason, one of the main changes implemented in the subsequent studies (Study 2 and Study 3) was the recognition of induction as the approach best-suited to answer the research questions. The core aim of the inductive approach was to allow for the conclusions regarding potential linguistic markers of hubris to derive freely from the data.

3.5. Research Design

Research design details the overall plan as to how the researcher is aiming to answer the research questions (Saunders et al., 2012). It is also influenced by philosophical assumptions taken in the study, research approach and strategies. To recap, in this particular thesis an objective ontological position, positivist epistemological stance, deductive (in the Pilot Study and Study 1) and inductive (in Study 3 and Study 4) research approaches were adopted.

Bearing this in mind, the specifics of the research design can be considered: methodological choice (quantitative, qualitative or mixed-methods), research strategy (action plan on how one is going to

conduct the research and answer the research question) and time horizon (cross-sectional or longitudinal). Given that this research aims to develop understanding into what the linguistic markers of CEO hubris are, a mixed-method approach has been deemed as best-fitted to answer the research question raised in section 3.2.2. More details on the choice to use mixed-methods is provided in section 3.5.1 below.

3.5.1. Research Strategy

Research strategy is usually linked with a particular philosophical assumption and can embrace deductive, inductive or abductive research approaches. However, depending on the objectives of a particular research study, several strategies can be combined together if necessary.

The study described in this thesis is concerned with an exploration of linguistic markers of CEO hubris, hence a mixed-methods research strategy has been employed as best-suited to answer the research question. The choice of the research strategy is sustained by the exploratory nature of the research which aims to investigate the ‘leadership language’ as a manifestation of natural language use and explore the signs hubris in the form of linguistic markers.

This research adopts a mixed-method methodology, employing a mixed-method approach that includes:

1. Software-aided content analysis based on a word count approach to produce scores for specific pre-established measures that were identified as having the potential to indicate hubristic speech. This is quantitative in nature and uses frequency counts in text samples which enable precise mathematical comparison of the scores obtained. Across four studies, the following software packages were used: DICTION (the Pilot Study), ProfilerPlus (the Pilot Study), LIWC (Study 1 and Study 2).

2. Content analysis using close reading. This is qualitative in nature as the researcher of the study reads, judges and interprets a certain text. In the case of this research (close reading was used in the Pilot Study), the aim of the close reading technique was to manually identify sentences that could be classed as ‘hubristic’ based on Hermann’s LTA framework as a baseline (see Chapter 2).
3. The computational statistics method used in the first main study is quantitative in nature and uses the application of computer science (statistical analysis software) to statistically analyse results. SPSS software package was used to statistically analyse results obtained.
4. Text analysis using Machine Learning algorithms. This method is qualitative in nature and uses pattern recognition to make certain predictions, specified by the researcher (i.e., ‘is this language utterance hubristic or not?’). WEKA data mining software was used for the text analysis using Machine Learning.

More details and justification for each method employed are provided in Chapters 5, 6, 7, 8 which used each of the methods specified above.

When considering an appropriate timeframe to implement the research strategy described above, several factors were considered. First, as secondary data will be analysed (publicly available material, such as interviews and speeches, produced by selected CEOs that were categorised as ‘hubristic’ or ‘non-hubristic’), there is no requirement to apply for approval from the University’s Research Ethics committee. Further details on Research Ethics for this research study are described in section 3.6 below.

Secondly, other factors considered involved selecting the data to be analysed from various sources and funding limitations of this doctoral research. Given all the factors mentioned above, a cross-sectional timeframe has been adopted in the design.

3.6. Research Ethics

As noted in the section above, this research uses publicly available secondary data. Such data included spoken language utterances such as interviews with media which were used in all three main studies. The only exception for the spoken utterances rule was the Pilot Study which used both spoken and written language utterances - letters to shareholders and published interviews with selected CEOs. Overall, the intended analysis is applied only for materials that can be classified as 'secondary'.

According to Heaton (1998), secondary analysis refers to “the use of existing data collected for the purposes of a prior study, in order to pursue a research interest which is distinct from that of the original work” (p.1). As this particular research does not involve any human subjects directly and does not collect any new data as such, from an ethical point of view there is no need to obtain consent from participants and there is no risk of disclosure of some sensitive or person identifiable information.

In summary, the research described in this thesis falls under the category of secondary data research that does not require ethical approval as per the University of Surrey's (2013) Ethical Principles and Procedures for Teaching and Research. This research involves data that is publicly accessible in various public domains (i.e., websites, newspaper articles available online) and data archives (i.e., GE archive for company's letters to shareholders). In other words, re-analysis is applied to already existing and publicly available secondary data materials. The use of secondary data is especially useful when conducting research on hard to reach populations (i.e., CEOs of well-known, high profile corporate organisations) and sensitive subjects (i.e., CEO hubris). To ensure that ethical approval is not required, the University's Ethical Review Checklist (see Appendix 1) was completed.

3.7. Research Method

The research described in this thesis consists of four studies (the Pilot Study and three main studies – Study 1, Study 2 and Study 3) and employs a mixed-method approach. The following methods were used to analyse the discourse of hubristic and non-hubristic CEOs:

- Content analysis using close reading and Hermann’s LTA was used in the Pilot Study;
- Content analysis using LIWC and computational statistics were used in Study 1;
- Content analysis using LIWC was used in Study 2;
- Text analysis using Machine Learning algorithms was used in Study 3.

Sections 3.7.1.-3.7.4 below provide further justification for the use of each of these methods.

3.7.1. Content analysis using close reading and Hermann’s LTA framework

The Pilot Study completed in the first year of this doctoral research (see Chapter 5 for more details) used a mixed-methods methodology. It included the following:

1. Software-aided content analysis using DICTION and ProfilerPlus to produce scores for specific pre-established hubris measures;
2. Thematic content analysis (close reading of the text) based on pre-established theoretically-derived coding categories as per Hermann’s LTA framework (see Table 5.2 in Chapter 5 for details).

Software-aided content analysis using DICTION and ProfilerPlus was chosen because of the following reasons. First, at the time of this research, DICTION software has been used by other researchers in the field to research the phenomenon of hubris (Amernic, Craig & Tourish, 2010; Craig & Amernic, 2014). This, in addition to the comparison of existing content analysis programs

used in management and organizational research (see Table 3.2), motivated the researcher to choose DICTION for the Pilot Study.

The ProfilerPlus software was selected because this software was specifically designed to reflect Hermann's LTA framework which was used as the main framework in the Pilot Study (see Chapters 2 and 5 for more details on the Hermann's LTA). It has also been used extensively in research into leadership traits (Rohrer, 2014; Thiers & Consuelo, 2014).

Thematic content analysis (close reading of the text) was chosen as a method because previous research into hubris evidenced the usefulness and validity of this technique (Brennan & Conroy, 2013; Amernic, Craig & Tourish, 2010).

3.7.2. Computer assisted content analysis using LIWC

After the Pilot Study was completed, the two research methods noted in section 3.7.1 (i.e., content analysis using close reading and Hermann's LTA framework) were deemed as lacking rigour to sufficiently answer the research question. Because of this reason, a software assisted content analysis (word count approach (Pennebaker et al., 2003)) was chosen as a superior method to analyse CEO hubris as it facilitates the study of traits, cognitions and beliefs of a CEO that are otherwise difficult to obtain (Short & Palmer, 2008). As access to CEOs is limited, content analysis becomes a proxy to study certain CEO personality aspects at-a-distance. What is more, at-a-distance assessments have been used in previous hubris research (Amernic, Craig & Tourish, 2010; Brennan & Conroy, 2013; Craig & Amernic, 2014; Garrard et al, 2014) as well as in the more extensive body of narcissism research (Amernic & Craig, 2007; Carey et al., 2015; Chatterjee & Hambrick, 2007; Craig & Amernic, 2011; Kim, 2013) and hence is well-justified by precedent.

Computer assisted content analysis has been used in various research settings to date (Pennebaker et al., 2003; West, 2001). As noted by Bligh et al. (2004) it is “a valuable tool for researchers specifically interested in leadership” (p.563). It is based on a word count approach which “counts words within a given text sample irrespective of the context in which the words occur” (Pennebaker et al., 2003, p.554). In general word count approaches involve counting words in an already predefined ‘category of interest’ (e.g., pronouns, verbs, positive emotion words), however they might differ from one another in terms of what exactly is being captured when using a particular approach.

For example, some word count approaches aim to count the frequency of any word or word compound in a given text for comparison purposes (i.e., standard grammatical units such as prepositions, derived linguistic dimensions such as emotion words) whilst others tend to focus on certain linguistic aspects of the text (i.e., word patterns, verbal tone). Currently most word count approaches are computerised and there are a number of software packages that can help to capture specific aspects of the language.

There are number of benefits associated with the use of the word count approaches. It is relatively fast compared with some other techniques (i.e., close reading used in the Pilot Study described in Chapter 5), it is reliable (i.e., it is not dependent on human judges), precise (i.e., enables comparison between different samples) and is comparatively inexpensive. As Pennebaker et al (2003) marks, “words are the central feature of social, clinical, personality, and cognitive psychology” (p.572) which means that they can be used to understand individuals within these contexts.

On the other hand, a criticism can be raised that content and context is not taken into consideration when concentrating on the analysis of the verbal behaviour. In other words, when using this type

of analysis, the focus is shifted to linguistic style as opposed to linguistic content. For example, the word ‘happy’ when taken out of context might infer ‘I am not happy’ rather than ‘I am happy’ which could be misleading (Fast & Funder, 2008). In addition, word count approaches do not take into consideration such language aspects as irony, sarcasm or humour. It also does not allow for differences in culture, gender, education or other aspects of language use (i.e., whether it is a mother tongue or a second language for a speaker).

Although content is important in order ‘to paint a bigger picture’ when researching language, word count alone can still capture “important psychological and physiological consequences of linguistic choices” (Pennebaker and Stone, 2003, p.292), irrespectively of the content, and there are two main reasons for that.

First, word count approaches help to capture information that is not visible in usual social situations simply because people are too involved in the communication exchange, hence are not able to monitor specific aspects of a speaker’s word use (i.e., counting personal pronouns throughout the conversation with someone). Secondly, a number of research studies evidenced that “individual differences in written and spoken word use are stable across time and context” (Fast & Funder, 2008, p.335) (see: Mehl & Pennebaker, 2003; Pennebaker & King, 1999). Given all the above, the word count approach has been chosen as the best-suited method for this study.

3.7.2.1. Software for the Word Count Approach

The choice of software is based on a review of existing software and its applicability for the purpose of the study. A detailed comparison of some key qualitative and quantitative content analysis software most widely used in management and organizational research is summarised in Table 3.2 below.

Table 3.2. A comparison of word count software used in management research

Software	Link	Advantages	Key limitations	Relevant research studies that have used this software
DICTION 7.0	http://www.dictionsoftware.com/	Results are based on customisable dictionaries; master variables are broken down into detailed dimensions; provide range for scores.	Provides only scores and has no means to look into particular examples.	Amernic & Craig, 2014; Amernic, Craig & Tourish, 2010; Short & Palmer, 2008.
The General Inquirer	http://www.wjh.harvard.edu/~inquirer/	Codes and classifies text using 182 General Inquirer categories.	Not used in recent research and not possible to download the software; criticized for the way word categories were established in the system.	Golbeck et al., 2011; Stone et al., 1968.
LIWC	http://www.liwc.net/	Analyses over 70 dimensions of language, including linguistic dimensions, personal concern categories and other.	Established categories are hardly applicable for Hubris research.	O'Reilly et al., 2014; Kim, 2013; Pennebaker et al., 2003; Pennebaker & King, 1999.
ProfilerPlus	https://profilerplus.org/default.aspx	Uses Hermann's LTA as a coding scheme.	Access to the software needs to be requested and approved, has limits for use.	Rohrer, 2014; Thiers & Consuelo, 2014.
Yoshikoder	http://www.yoshikoder.org/index.html	Performs basic content analysis tasks, easy to use.	Mostly useful for word count in text, basic functionality.	Buyl, Boone & Wade, 2017; Buyl, Boone & Wade, 2015.
Tropes	http://www.semantic-knowledge.com/	Allows user to determine text style, provides word count for different categories and references, provides graphs.	Mostly useful for word count in text, does not have established dimensions for traits or actions.	Chakroun, Kammoun & Pauly, 2012; Piolat & Bannour, 2009.
MCCA	http://www.clres.com/cata/	Has wide range of functions available to analyse the text.	It is hard to apply established categories for hubris dimensions.	Weatherford & Spokane, 2013; Alexa & Zuell, 2000.

Other reviewed software packages include the following quantitative and qualitative content analysis programs: TAS/C, CATPAC, Concordance 2.0, DIMAP, HAMLET, INTEXT/TextQuest, Lexa, MonoConc, ParaConc, PCAD 2000, PROTAN, SALT, SWIFT Content Analysis Software, TABARI, TextAnalyst, TEXTPACK 7.0, VBPro, WordStat v5.0, ATLAS/ti, Code-A-Text, CAQDAS, The Ethnograph v4.0, Kwalitan 4.0, WordSmith and QDA Miner. These software packages were rejected and not further analysed in Table 3.2 above because of the following reasons:

- Functionality does not support, or is not applicable for, this research (i.e., the main software functionality is word frequency count);
- Software dimensions are not applicable for this research (i.e., software measures emotional states);
- Developed in language other than English and/or instructions are not available in English;
- Dictionaries used for reference in the software are not applicable for business and management research;
- Software is not available anymore or program is no longer supported.

To summarise, the research method used in the study includes application of the word count approach to study specific pre-defined verbal behaviours and determine to what degree they can express hubris (Garrard et al., 2014). It uses the LIWC content analysis software program as the main software for analysis of language utterances produced by hubristic and non-hubristic CEOs. Details of the materials used are summarised in section 3.8.2.

3.7.2.2. Linguistic Inquiry and Word Count (LIWC)

A detailed review of existing computer assisted content analysis packages led to the choice of LIWC, which is a software based on the theory of natural language use (Pennebaker et al., 2003). LIWC was deemed to be best-suited software package to fulfil the research needs in comparison with other packages (see Table 3.2 for the full list and descriptions). The choice of LIWC has also been reinforced by its wide spread and recent use in the leadership field (Chen, Crossland & Luo, 2015; Kacewicz, 2013; Kacewicz et al., 2014).

According to the creators of LIWC, it is a “word counting software program that references a dictionary of grammatical, psychological, and content word categories” (Chung & Pennebaker, 2012, p. 206). LIWC software was initially created in the 1990s with subsequent releases of newer and more expanded versions in 2001, 2007 and 2015 (Pennebaker et al., 2015). The key aim for the development of this software was to provide a quick and efficient way to study various cognitive, psychological and emotional states of individuals through analysis of one’s natural language use.

LIWC software relies on a dictionary that is pre-defined and contains around 6400 words, word stems, and selected emoticons that will be counted in the text file that is being analysed. There are a number of sub-dictionaries within the software that represent words from a specific domain (i.e., positive emotion words, auxiliary verbs, negations).

The most recent version of the software - LIWC2015 – can process any written or transcribed verbal text as long as it is provided in plain text, PDF, RTF, .doc or .docx format. It also deals with text on a line-by-line basis that might come from spreadsheets formats such as .xls, .xlsx, and .csv files. The software can also process a single file or multiple files within one folder.

Once files for analysis are selected, LIWC2015 processes every file in a sequence, searches for an equivalent word in pre-defined dictionary and if there is a match, it increments the appropriate word category scale. The outputs provided by the software (except the four summary variables that are not used in the study and words per sentence count) are expressed as a percentage of total words (i.e., 100 pronouns found by the software in a 1000-word text would be expressed as 10%).

In total, there are 93 output categories (theoretically derived) provided by the LIWC2015 for each processed text:

- General word count;
- Four summary language variables (i.e., analytical thinking, clarity, authenticity and emotional tone);
- Three general descriptor categories (i.e., words per sentence, percent of target words captured by the dictionary, and percentage of words in the text that are longer than six letters);
- 21 standard linguistic dimensions (i.e., pronouns, articles);
- 41 word categories representing certain psychological processes (i.e., affect, drives);
- Six personal concern categories (i.e., money, religion);
- Five informal language markers (i.e., non-fluencies, assent);
- 12 punctuation categories (i.e., periods, commas).

3.7.2.3. Validity and reliability of Word Count approach

A number of studies have evidenced continuously reliable results of LIWC in personality, social and clinical psychology research (Mergenthaler, 1996; Pennebaker & Graybeal, 2001; Rosenberg & Tucker, 1979; Stone et al., 1966). What is extremely promising regarding the use of LIWC in

the present context is that this software has been explicitly used to identify such concepts as personality and personality change (Pennebaker & King, 1999), psychological adjustment (Rude, Gortner & Pennebaker, 2004), changes in health (Pennebaker, Mayne & Francis, 1997) and even predicting deception (Newman et al, 2002).

There have been a number of studies conducted attempting to correlate LIWC word counts for specific categories and ratings from human judges. For example, in a study on negative emotions experienced by undergraduates from coming to college, Pennebaker and Francis (1996) found that correlation was ranging from .35 to .76 (statistically significant) with the mean $r=.56$.

In terms of reliability and validity of the tool across different countries, it has also been evidenced in various research studies that used LIWC to analyse different languages, for example, a study that used the Korean version of LIWC has shown that linguistic markers of personality are similar across different countries and cultures (Lee et al, 2007; Smyth, 1998).

One of the drawbacks of LIWC2015 (as well as other word count software packages) is that it does not account for metaphors, sarcasm or irony in the text. Given how important the context is for correct language interpretation, a small number of sentences might be ‘misjudged’ by the software. However, there is some empirical evidence that confirms that such occasional ‘misjudgements’ “do not invalidate the LIWC category counts to any great extent” (Berry et al., 1997, p.16). This is an acknowledged limitation (Chung & Pennebaker, 2012). Despite this drawback, the use of LIWC founded in the natural language use approach was deemed to offer the best viable theoretical basis for the analysis of CEO speeches in order to identify linguistic markers of hubris.

3.7.3. Computational Statistics

Computational statistics (also sometimes referred to as ‘statistical computing’) is a field of computational science which focuses on the application of the software and algorithms in order to obtain statistical results (Gentle, Härdle & Mori, 2012). In simple terms, computational statistics are concerned with the use of computer-based tools to complete required statistical tasks. The main advantage of using computational statistics is that it allows a researcher to perform statistical data analysis tasks on various data sets that would otherwise not be possible (Coakes & Steed, 2009).

Computational statistics are usually used in research when there is a need to test for statistically significant differences or relationships between variables (Saunders et al., 2012). For example, in the case of the present thesis, computational statistics were used to examine the differences in the use of various linguistic markers based on LIWC categories between two independent samples – hubristic and non-hubristic CEOs.

Statistical data analysis can be completed using a variety of statistical software packages. The choice of statistics to be used in a given research depends on the research questions and objectives, sample size and data (Saunders et al., 2012) whilst the choice of the statistical software package depends on the availability, researcher’s skills and financial funds available for the particular research. The present thesis used SPSS software that is designed to perform a number of data analysis and presentation tasks, including statistical analyses and visual presentation of data (Coakes & Steed, 2009). The SPSS statistical software package was chosen due to its widespread use in academic research (Saunders et al., 2012) and availability for this research.

In order to test the hypothesis raised in the first main study of this thesis (‘there are no statistically significant differences between hubristic and non-hubristic CEOs in terms of relevant LIWC categories’), an independent sample *t*-test was performed using SPSS software. Prior to completing

the *t*-test, skewness of the data was checked using descriptive statistics (mean and standard deviation) and the Kolmogorov – Smirnov test (Kim, 2013). In addition to that, this study also used binary logistic regression in order to test the predictability of a CEO falling into one of two categories – hubristic or non-hubristic. Further details on the use of computational statistics to identify linguistic markers of hubris is provided in Chapter 5.

3.7.4. Text analysis using Machine Learning algorithms

Machine learning is a method to enable a computer program to automatically analyse a large set of data using artificial intelligence (Alpaydin, 2014). It uses various computational methods (or ‘algorithms’) in order to “learn information directly from data without relying on a predetermined equation as a model” (Mathworks, 2017, p.1). Based on this ‘learnt’ pattern, machine learning can be subsequently used to automatically make future predictions (Witten et al., 2016). For example, to classify whether a given CEO is hubristic or not.

Machine learning is now applied widely in various areas, including text classification and analysis (Ikonomakis, Kotsiantis & Tampakas, 2005). For example, WEKA software has been used to predict an individual’s dark triad personality characteristics based on analysis of tweets on the social media platform Twitter (Sumner et al., 2012; Wald et al., 2012). For further details on the research fields and studies where machine learning was successfully applied, see Chapter 8.

This thesis employed machine learning to classify transcribed interview samples into hubristic or non-hubristic utterances using textual data in Study 3 (Chapter 8). Such approach builds on the natural language use theoretical foundation (Pennebaker et al., 2003) outlined in Chapter 2 and findings from Studies 1 and 2 described in detail in Chapters 5 and 6.

There are a number of machine learning tools that could be used in a given research, however the present thesis has employed Waikato Environment for Knowledge Analysis (WEKA) data mining software (Witten et al., 2016). This particular software was chosen because of several reasons. First, it is an open source resource (can be used for free). Second, it holds a collection of machine learning algorithms that can be applied for a variety of data mining tasks and are easy to use (Witten et al., 2016). Third, WEKA has been used extensively in similar type of research to the one described in this thesis, such as classification of unseen text, authorship identification, recognition of the personality traits of an individual (Garrard et al., 2014; Mairesse & Walker, 2006; Mohtasseb & Ahmed, 2009).

WEKA software contains a number of machine learning algorithms that can be applied for variety of data mining tasks, such as constructing a machine learning model that could be used to identify hubristic versus non-hubristic language use in CEOs (Witten et al., 2016). For further details and justification regarding the choice of the software see Chapter 8.

3.8. Data Collection

3.8.1. Sampling strategy for hubristic and non-hubristic CEOs

This section provides details on the sampling strategies that have been used to determine the hubristic and non-hubristic samples required for this research. A non-probability purposive sampling strategy (when the researcher selects the most productive sample to answer the research question (Saunders et al., 2012)) was used to determine both samples. To aid the selection, the researcher has reviewed previous research on linguistic hubris markers for the reference on what is the most commonly used sample size for this type of research. As listed in Table 2.7 in Chapter 2, the maximum number of subjects used in previous research totalled three for both hubristic and non-hubristic samples.

Sample 1: Hubristic CEOs

Due to the nature of hubris, the lack of measurable criteria for the Syndrome and sensitivity around the topic, the selection of hubristic CEOs for this research has been built upon the assessment of other observers (researchers of Hubris Syndrome and by the media) that deemed certain CEOs as hubristic to avoid researcher subjectivity.

In order to complete the sampling for hubristic CEOs, a three-stage process has been employed:

1. Systematic review of all the articles in Business Source Complete database pertaining to CEO/ leader hubris;
2. Review of all the media articles (outputs of the search engine query) pertaining to CEO/ leader hubris;
3. Comparison of the results from outputs (1) and (2) to list overlapping results.

Each of these three steps are explained in a greater detail below.

Step 1: Systematic review of all the articles in Business Source Complete

Business Source Complete (BSC) is one of the key scholarly databases for business and management researchers. It has a coverage for the content and peer-reviewed business journals since 1965 (and even earlier for some journals like *Harvard Business Review*). In order to complete the sampling for the hubristic CEOs, a systematic review of the outputs in this source pertaining to leader/CEO hubris has been completed. Table 3.3 below specifies the search criteria and outputs produced by such search query.

Table 3.3. Review of outputs from BSC

Search criteria:	Search 1 - Outputs:	Search 2 - Outputs:
Search type:	Automatic	Automatic
Search terms:	CEO, hubris*	Leader*, hubris*
Look in:	All text and All text	All text and All text
Results:	2,768	4,536
Refine (1):	English articles only	English articles only
Refine (2):	Academic journals only	Academic journals only
Results after refinement:	908	1,566
Excluded:	Non – business leaders (i.e., politicians)	Non – business leaders (i.e., politicians)

In summary, the BSC database was searched for key words and phrases, including *CEO*, *leader* and *hubris* across the full text of the articles. This resulted in a large number of articles (see Table 3.3 above), hence the results were refined according to the following criteria: (a) Language: English articles only; (b) Publication source: academic journal. This resulted in 908 and 1566 outputs respectively. All 2474 articles were reviewed and from them a list of 35 potentially hubristic CEOs was compiled (see Appendix 2).

Step 2: Review of all the media articles

In a similar manner to Step 1, the Google search engine was queried with the following search criteria:

Table 3.4. Review outputs from Media

Search criteria:	Search 1 - Outputs:	Search 2 - Outputs:
Search terms:	CEO, hubris	Leader, hubris
Output criteria:	To show English articles only	To show English articles only
Results:	309,000	486,000
Pages reviewed:	13 pages	12 pages
Outputs per page:	10	10
Total outputs reviewed:	130	120

In summary, key words and phrases, including *CEO*, *leader* and *hubris* were searched in the Google search engine. This resulted in a high number of search outputs (see Table 3.4 above), hence results were reviewed (13 pages for the first search and 12 pages for the second one) up to

the point where no more directly related outputs appeared. In total 250 outputs were reviewed, which produced the list of 23 potentially hubristic CEOs (see Appendix 3).

Step 3: Comparing search results

The final step of the process included comparison of the two lists to match CEOs that appeared in both searches. CEOs that overlapped between lists (1) and (2) have been listed below. In total 15 CEOs overlapped between the two lists – see Table 3.5 below.

Table 3.5. Sample of hubristic CEOs (in no particular order)

#	CEO	Company	Nationality
1	Mark Zuckerberg	Facebook	American
2	Rupert Murdoch	News Corporation	Australian
3	Jeffrey Skilling	Enron	American
4	Kenneth Lay	Enron (Chairman)	American
5	Howard Schultz	Starbucks	American
6	Richard Fuld	Lehman Brothers	American
7	Steve Jobs	Apple	American
8	Jamie Dimon	JP Morgan	American
9	John Browne	British Petroleum	British
10	Travis Kalanick	Uber	American
11	Jack Welch	General Electrics	American
12	Donald Trump	The Trump Organisation	American
13	Fred Goodwin	RBS	Scottish
14	James Cayne	Bear Stearns	American
15	Elon Musk	Tesla, Space X	American

To reduce the impact of potential mistakes in English grammar and syntax made by non-native speakers, only native English language speakers have been shortlisted. Even though it can be argued that, for example, there are some differences in some expressions and grammatical structures of British English and American English, they are too minor to account for in this research which looks at overall patterns in the language.

Sample 2: Non-hubristic CEOs

Similarly to the above, existing leadership literature lacks well-established criteria and descriptors for what a ‘good leader’ should look and act like, especially in terms of specific behaviours expressed (Antonakis & Day, 2017; Horner, 1997). What is more, as leadership is perceived differently by different people (Barker, 1997; Lewis & Gates, 2005), depending on their previous experience, status, relationship with senior management and other factors. Because of this reason, the researcher has suggested that for the purpose of this research the most objective way to determine ‘good leadership’ is to look at well-established rankings that list CEOs based on their performance, both financially and from their employees’ perspective.

After a review of existing CEO rankings, the following rankings (years 2015 – 2017) have been deemed to best fit the purpose of this research: *Harvard Business Review’s* (HBR) annual ranking of ‘The Best-Performing CEOs in the World’, *Glassdoor’s* annual ranking of ‘Highest Rated CEOs’, Richtopia’s ‘Philanthropists and Social Entrepreneurs Top 200’ and *Fortune* magazine’s ‘The World’s Greatest Leaders’. These rankings were selected due to the following reasons.

First, votes were provided by employees, hence they are likely to have more accurate rankings compared to the paid ranking lists. Second, the focus in the ranking is on the leadership skills of the individual and philanthropy as opposed to the CEO’s yearly income or net worth. As noted by the HBR ranking producers (2015), “the goal is to create a list that gets beyond the most recent quarterly or even annual results and truly evaluates long-term performance” (p.1). In summary, in order to complete the sampling for non-hubristic CEOs a five-stage process has been employed:

1. Review of all of the HBR’s annual ranking of ‘The Best-Performing CEOs in the World’;
2. Review of the *Glassdoor’s* annual ranking of ‘Highest Rated CEOs’;

3. Review of the *Richtopia*'s annual ranking of 'Philanthropists and Social Entrepreneurs';
4. Review of the *Fortune* annual ranking of 'The World's Greatest leaders';
5. Comparison of the outputs from rankings (1), (2), (3) and (4) to list overlapping results.

Each of these five steps taken is explained in a greater detail below.

Step 1: Review of HBR ranking

HBR's annual ranking analyses the performance of the CEOs in the S&P Global 1200 (Standard and Poor's weighted stock market index of global equities) over their entire tenures and ranks the top 100. In the analysis that *HBR* conducts to produce this list, such metrics as the shareholder return on investment (adjusted for the industry and country,) and change in the company's market capitalization are tracked.

In addition, other measures such as environmental, social, and governance performance, provided by 'Sustainanalytics', an investment research organisation, are also incorporated in scores to account for non-financial leadership success aspects. In order to produce a sample of potential non-hubristic CEOs, all 100 CEOs in the ranking have been reviewed to shortlist only native English speakers. The full ranking is provided in Appendix 4.

Step 2: Review of Glassdoor's ranking

Glassdoor's ranking, on the other hand, looks solely into the opinion of the employees who have chosen to participate in an anonymous online survey. This survey collects data specifically on the CEO's leadership (i.e., questions like 'Do you approve of the way your CEO is leading the company?' are asked). Further details on the ranking methodology can be found on *Glassdoor*'s website (*Glassdoor*, 2017). In order to produce a sample of potential non-hubristic CEOs, all 100

CEOs in the ranking have been reviewed to shortlist only native English speakers. The full ranking is provided in Appendix 5.

Step 3: Review of Richtopia's ranking

The 'The 200 Most Influential Philanthropists and Social Entrepreneurs' ranking is the newest one of the four rankings selected for the sampling purpose. This ranking is concerned with listing influential people from any field (e.g., business, sports, publishing, etc.) that are socially active and devote part of their income to charitable purposes.

According to the creators of this ranking, this ranking does "not measure net-worth, but rather social-worth" (*Richtopia*, 2017, p.1). In order to produce a sample of potentially non-hubristic CEOs, all 200 individuals in the ranking have been reviewed to shortlist only native English speakers who occupy the position of CEO. The full ranking is provided in Appendix 7.

Step 4: Review of Fortune's ranking

Fortune's 'The Greatest World's Leaders' list, similar to Richtopia's list described above, includes leaders from a variety of fields that were deemed to be exceptional in their leadership in a particular domain. The candidates for this list are nominated by the previous year's leaders and a number of leadership experts. As noted by the creators of this ranking, "we set out to find singular leaders with vision who moved others to act as well, and who brought their followers with them on a shared quest. We looked for effectiveness" (*Fortune*, 2017, p.1).

In order to produce a sample of potentially non-hubristic CEOs, all 50 individuals in the ranking have been reviewed to shortlist only native English speakers who occupy the position of CEO. The full ranking is provided in Appendix 6.

Step 5: Comparison of the results

The final step of the process included comparison of the four lists to match CEOs that appeared in several rankings. The full list of shortlisted non-hubristic CEOs is provided in Appendix 8. The key assumption for this exercise was that these four lists should provide sufficient coverage to determine a ‘good’ CEO as both financial and non-financial aspects of the performance were taken into consideration by all rankings used. The initial candidates in the non-hubristic sample are summarised in Table 3.6 below. A given CEO has been added as non-hubristic if his/her name has appeared in at least two different rankings.

Table 3.6. Non-hubristic CEOs sample (in no particular order)

#	Name	Company
1	John Chambers	Cisco systems
2	Mark Parker	NIKE
3	Blake Nordstrom	Nordstrom
4	Marc Benioff	Salesforce
5	Mark Parker	Nike
6	Christopher Connor	Sherwin-Williams
7	Robert Iger	Walt Disney
8	Hugh Grant	Monsanto
9	Warren Buffet	Berkshire Hathaway
10	Mike Bloomberg	Bloomberg
11	Frederick Smith	FedEx
12	Richard Anderson	Delta Airlines
13	Tim Cook	Apple
14	Jeffrey Bezos	Amazon

Hubristic and non-hubristic sample cross-check

The next step in the sampling procedure was cross-checking whether any CEOs listed as non-hubristic appear in the hubristic CEO list and vice versa. None of the CEOs shortlisted for the samples overlapped.

Just to note, this research sees hubris as a continuum where an individual could freely move from the non-hubristic side to highly hubristic and vice versa. For the purpose of this research, the researcher does not attempt to determine where exactly on this continuum a certain CEO is at a given moment (in other words, how much hubris a certain research subject possesses), but places CEOs into two broad categories – hubristic and non-hubristic – based on the criteria described earlier in this chapter.

Data availability

As a final step and given that this type of research is highly dependent on secondary, publicly available data, data availability has been checked for each shortlisted CEO in both samples. The following matrix (see Table 3.7) has been completed indicating data sources available for the subjects in both samples.

Data availability was noted as ‘Available’ if there was sufficient data (at least two full length interviews given to different sources) for a given CEO for the required year. Data availability was marked as ‘Limited’ if the data found was for the incorrect year or only an excerpt from the given interview was available.

Table 3.7. Data availability

#	CEO	Sample	Data availability
1	Mark Zuckerberg	HCEO	Limited
2	Rupert Murdoch	HCEO	Limited
3	Jeffrey Skilling	HCEO	Limited
4	Kenneth Lay	HCEO	Limited
5	Howard Schultz	HCEO	Available
6	Richard Fuld	HCEO	Limited
7	Steve Jobs	HCEO	Available
8	Jamie Dimon	HCEO	Available
9	John Browne	HCEO	Limited
10	Jack Welch	HCEO	Limited
11	Donald Trump	HCEO	Available
12	Fred Goodwin	HCEO	Limited
13	James Cayne	HCEO	Limited
14	Elon Musk	HCEO	Available
15	John Chambers	NHCEO	Available
16	Mark Parker	NHCEO	Available
17	Blake Nordstrom	NHCEO	Limited
18	Marc Benioff	NHCEO	Limited
19	Mark Parker	NHCEO	Available
20	Christopher Connor	NHCEO	Limited
21	Robert Iger	NHCEO	Available
22	Hugh Grant	NHCEO	Limited
23	Warren Buffet	NHCEO	Limited
24	Mike Bloomberg	NHCEO	Available
25	Frederick Smith	NHCEO	Limited
26	Richard Anderson	NHCEO	Limited
27	Tim Cook	NHCEO	Limited
28	Jeffrey Bezos	NHCEO	Available

Based on the data availability, ten CEOs ($N=10$) were selected for the final sample which consisted of five hubristic CEOs (HCEO) and five non-hubristic CEOs (NHCEO). The hubristic sample consisted of the following five CEOs:

- Travis Kalanick (formerly Uber);
- Elon Musk (Tesla, SpaceX);
- Howard Schultz (Starbucks);
- Steve Jobs (formerly Apple);
- Jamie Dimon (JP Morgan).

The non-hubristic sample consisted of the following five CEOs:

- Jeff Bezos (Amazon);
- John Chambers (formerly Cisco);
- Mike Bloomberg (Bloomberg);
- Mike Parker (NIKE);
- Robert Iger (Walt Disney).

The secondary data materials used for each of these CEOs are provided in Appendix 15 as well as listed in Appendices 16-26. A summary and justification for the selection of these materials is provided in the following section.

3.8.2. Selecting materials to be analysed

As noted by Amernic, Craig and Tourish (2010), formal and informal discourse (i.e., companies' annual reports, press releases, discussions in meetings, news conferences) produced by CEOs are “a set of complex communicative acts with symbolic, emotional, cultural and political overtones” (p.25). In other words, one's personality is enacted through spoken or written language (Zarefsky, 2004).

The most significant problem raised, to date, in terms of the use of secondary data, especially public materials, is impression management (a conscious attempt by the leader to create a desired impression). However, the previous research has successfully dealt with the assumption that personality variables measured at-a-distance are sufficiently robust to overcome the potential drawbacks of impression management (Renshon, 2009).

Some researchers focus on spoken discourse samples (e.g., interviews with media, public speeches), claiming that it reduces the risk of having prepared the answers in advance (Garrard et al., 2014). Even though critics might argue that the speeches leaders give or any responses to interview questions are prepared by the speechwriter anyway, research suggests that spoken

discourse samples are a valid and reliable source to assess personality at-a-distance (Hermann, 2008). In addition, such interviews are available from a wide variety of sources.

On the other hand, written discourse samples (i.e., letters to shareholders) have also been evidenced to offer a valuable insight into the CEO's personality traits, motives and attitudes (Amernic & Craig, 2007; Short & Palmer, 2008). Furthermore, formal documents produced by CEOs, such as letters to shareholders or annual reports, are an integral part of any organisation as the CEO is legally accountable for the content of these documents which, it can be argued, is an incentive for the CEO to be personally involved in the writing of the document. Moreover, quite often CEOs themselves acknowledge their input in drafting these documents (e.g., Jack Welch, Warren Buffet).

Although there are some critics that point out that letters to shareholders might not be written by CEOs themselves (i.e., a ghost writer might be used), there is some evidence to suggest that CEOs are unlikely to completely pass this responsibility to someone else. Given that it is an annual representation of the company, it is the most read part of the annual report (Hooghiemstra, 2010) and the CEO is the person who takes responsibility for it (Amernic & Craig, 2011).

All in all, written discourse samples have been evidenced to be equally valuable material to analyse CEOs as they are “signed, public, written representation of the corporate CEO” (Amernic, Craig & Tourish, 2010, p.30) and “provide a personal accountability narrative of corporate CEOs” (Amernic & Craig, 2011, p.566).

Despite the above, it should be noted though that for linguistic features to be a meaningful marker of personality characteristics, they have to display consistency across time and context (Pennebaker & King, 1999). Therefore, interview materials selected for analysis should come from

different interview settings and on a variety of topics. The latter has been achieved in the research described in this thesis – for further details see Appendix 15.

Given all the above, the Pilot Study described in Chapter 4 used materials reflecting both written and spoken discourse of the selected CEOs. First, interviews with the same publication (*Harvard Business Review*) were selected to ensure that materials are as similar as possible and second, CEO letters to shareholders were selected as this type of material has been previously used in research into language and hubris (Amernic, Craig & Tourish, 2010; Brennan & Conroy, 2013). All the main studies (Study 1, 2 and 3) used materials reflecting the CEOs' spoken discourse only. This decision has been taken to increase the accuracy of results produced by the study and to reduce the risk of answers to be prepared in advance, which are hence not truly representative of a CEO's personality (Garrard et al., 2014).

Spoken utterances for the last full year of being a CEO from at least two different sources have been used for the analysis. The last full year of being a CEO has been chosen as being the most 'hubristic' year as according to the research on Hubris Syndrome, it tends to develop over time with the acquisition of significant power and abates once power is lost (Owen & Davidson, 2009; Owen, 2016). Hence to validate whether there are any differences in linguistic markers for subjects in both samples, the last full year of being a CEO was chosen as being likely to be the most appropriate timeframe for identifying the linguistic markers of hubris. Table 6.4 in Chapter 6 contains further details on the number of words analysed for each CEO whilst Appendix 15 contains the summary of materials used for each CEO.

3.9. Chapter summary

This chapter summarises clearly defined methods and the methodological pathway that has been selected to best answer the research question stated in section 3.2.2 of this chapter. To be precise, this chapter explains the main research question of this study, hypothesis related to this research question and research objectives.

Consequently, the chapter selects and explains the selected research approach that helps to answer the main question of this research: ‘What are the linguistic markers of CEO hubris and how may they be identified and understood?’. In addition, it underpins the research philosophy of this study. At this point the important perspectives of ontology and epistemology are discussed and their relevance in relation to the selected research strategy and methods.

The overall purpose of this research is to provide an insight into what the linguistic markers of CEO hubris are. With that in mind, Chapter 3 considers both inductive and deductive approaches, details the most appropriate research approach and elaborates on the best-suited research design for this particular study. Chapter 3 also discusses the sampling strategy used in the study and elaborates on the criteria for the secondary data materials that are used to answer the research question. In addition, it also explains the rationale of the secondary data choice in this research.

The subsequent five chapters (Chapter 4, 5, 6, 7 and 8) will contain further details pertaining to the research strategy and methods used in the four studies conducted during the duration of this doctoral research.

4. SAMPLE PROFILES

4.1. Introduction

Although Chapter 3 discusses and justifies the research sampling strategy, it does not provide a detailed description of each individual CEO identified by the sampling strategy used. Doing so also addresses questions that are sometimes raised as to the best methods used to distinguish between hubristic and non-hubristic individuals (Bollaert & Petit, 2010) and how to ensure the robustness of the selection process to make certain that the division between hubristic and non-hubristic individuals is valid.

Given the above, it was felt by the researcher that a descriptive profile of each CEO identified as hubristic or non-hubristic in the sample could be helpful for two reasons. First, to provide some factual background information about each CEO which could benefit readers of this thesis who are not familiar with the CEOs used in this research. Secondly, factual data that has been collected from a variety of resources, including research studies, business publications and media reports, could serve as a useful ground to build an understanding upon as to why a given CEO has been identified previously (e.g., by the media) as a hubristic or non-hubristic individual.

The chapter below contains the profiles of the following CEOs. The hubristic sample includes Steve Jobs (Apple), Donald Trump (The Trump Organisation), Howard Schultz (Starbucks), Elon Musk (Tesla, SpaceX), Jamie Dimon (JP Morgan), and Travis Kalanick (formerly of Uber). The non-hubristic sample includes Jeff Bezos (Amazon), Mark Parker (NIKE), Robert Iger (Walt Disney), Mike Bloomberg (Bloomberg) and John Chambers (formerly of Cisco). Each profile provides a summary of the CEO's business career and presents relevant facts and observations regarding each CEO that support the arguments of a given CEO's propensity to, or lack of, hubris. These profiles are based on various sources including academic journals and media publications.

4.2. Hubristic sample CEO profiles

4.2.1. Profile 1 - Steve Jobs



Figure 4.1. Steve Jobs photograph (*Biography*, 2018)

Steve Jobs (1955-2011) was an American entrepreneur who is still most widely known for his role in technology company Apple. Together with Steve Wozniak and Ronald Wayne, Steve Jobs co-founded Apple in 1976 and since then, Apple has become one of the world's most valuable brands, worth \$900 billion (*Brand Finance*, 2017). Due to his disagreements with John Sculley, the former CEO of Apple, regarding the company's strategy, in particular regarding the production of the Macintosh computer, Jobs was forced to leave Apple in 1985. Jobs returned to Apple in 1997 after NeXT, a company he founded after leaving Apple in 1985, merged with Apple. Since then he held the position of chairman, and CEO of Apple for 14 years, until his death in 2011 from pancreatic cancer (Isaacson, 2011).

Since his early days at Apple, Steve Jobs has been known for his excellent technical and design skills and ability to gauge market trends. Ultimately, he was the person that grew Apple to become one of the most successful organisations in the world. However, Apple's critics argue that Steve

Jobs' actual contribution to Apple was limited mainly to design decisions as Steve Wozniak was the actual person responsible for developing the technology itself (Butcher, 1988).

Although Steve Jobs is well known and often cited as being one of the best business leaders of the century (Isaacson, 2011), it could be argued that it was his hubris that caused a number of upheavals throughout his career (Tang et al., 2015). As noted by Hayward (2007), "with a growing sense of invincibility, Jobs contemptuously dismissed competitors" (p.59). He had an exaggerated belief that his creation – the Macintosh computer - would triumph even with the limited functionality that this computer provided. Although Steve Jobs had predicted that five million Macintosh computers would be sold within the first two years from its release, Apple shipped only 500,000 computers during that time period, which was about ten times less than he had predicted (Hertzfeld, 2004). Even then, Steve Jobs continued to ignore the feedback from the market – his exaggerated pride not allowing him to change the proposed course – which resulted in Apple dismissing Steve Jobs from the company in 1985.

Following his departure from Apple and, as some researchers claim, fuelled with overweening pride (Hayward, 2007), Steve Jobs launched another business venture, the technology company NeXT. Similar to the previous situation at Apple, Jobs failed to understand the need of changes within the organisation's product strategy and, in turn, he 'burned' more than \$250 million by unprofitable sales of NeXT computers (Deutschman, 2001).

In addition to the above, Steve Jobs has often been noted for his "cocky attitude and the lack of management skills" (Koontz & Weihrich, 2007, p.331). According to Elkind (2008), the same traits that make him a great CEO drive him to put his company, and his investors, at risk. Notably, Steve Jobs was the chairman and CEO of Apple for 14 years, which might have also contributed to his hubris, as there is research to support that occupying these two posts at the same time could

exacerbate the effect of hubris, especially in terms of risk taking (Krause et al., 2014). As Steve Jobs commented himself in Stanford University's Commencement Address (2005), "Your time is limited, don't waste it living someone else's life. Don't be trapped by dogma, which is living the result of other people's thinking. Don't let the noise of other opinions drown your own inner voice" (p.7).

In conclusion, Steve Jobs has been deemed hubristic because of his contempt for the advice of others, exaggerated belief in the success of his ideas, overweening pride, arrogant attitude and extreme ideation with the organisation he led – Apple.

4.2.2. Profile 2 - Donald Trump



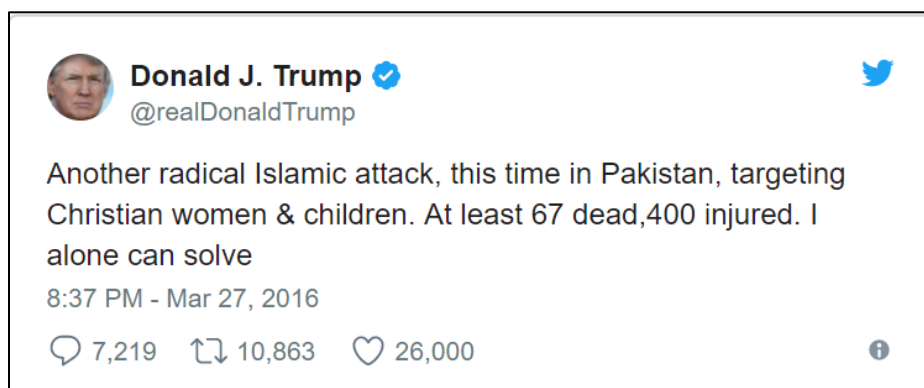
Figure 4.2. Donald Trump photograph (*Forbes*, 2018)

At the time of writing, Donald Trump is the current (45th) President of the United States. Prior to taking the presidential post in January 2017, he was CEO of The Trump Organisation and a producer and the host of American reality television game show 'The Apprentice'. Donald Trump has served as a CEO of The Trump Organisation since 1971, in total for 46 years.

Despite the successes in his career, over the years Donald Trump has been renowned for his hubris (O'Donnell & Rutherford, 2016; Wohlgezogen & Rai, 2017) and narcissism (Ahmadian et al., 2017; Sadler-Smith et al., 2016) both by researchers and the media. As commented by Stephanie

Cegielski, a former strategist and spokeswoman for the Donald Trump's 'Make America Great Again' campaign, hubris is to blame for some of the Trump's actions, especially for his comments on social media platforms (see Figure 4.3 below).

Figure 4.3. Donald Trump's tweet example



Besides Stephanie Cegielski, it appears that there are more people from Donald Trump's circle who confirm Trump's hubris. For example, Tony Schwartz, the ghost-writer of Donald Trump's book 'The Art of The Deal', has publicly suggested that "Trump's hubris is such that he could go nuclear to prove how tough he is" (Will, 2016, p.1).

In terms of his personality, Donald Trump is said to exhibit the classical symptoms of hubris: contempt for the opinion of others, exaggerated self-belief and pride and extreme overconfidence (Sadler-Smith et al., 2016). For example, research by Ahmadian et al. (2017) found that compared to Donald Trump's competitors for the presidential candidacy, Donald Trump's speeches were rated "highest in grandiosity and significantly higher than the mean of the other Republican candidates" (p.51).

To date, there is some research on how Donald Trump's hubris is represented through his language. In his speeches, Trump continuously positions himself as a winner by delineating *us vs them*. 'Us' (or 'America') "has become weak due to the being ineptitude and, at times, outright malicious

corruption and greed” whilst ‘they’ (or ‘foreigners’) are “growing stronger at the expense of the American people” (McClay, 2017, p.49). This, according to the research, helped Donald Trump to strengthen his position when running his campaign for the presidential post.

It also has been noted a number of times that the announcement speech delivered by Trump in 2015 contained 257 self-references, compared to the minimum mention of references to ‘America(n)’ – only seven times in total (*Time*, 2015). Once again, linked with the shared symptoms between hubris and narcissism, a high use of self-references (especially personal pronouns) has been found to be one of the most representative criteria for hubris (Aktas et al., 2016; Garrard et al., 2014).

Lord David Owen has suggested that Donald Trump’s hubris might be due to the length of his position as a CEO of The Trump Organisation – 46 years in total, with unlimited freedom to shape the course of the corporation, including renaming it ‘The Trump Organisation’ (Blair, 2005). Although current research has not yet provided a definite response, both research and media do appear to agree on Donald Trump’s ‘political illness’ called hubris (Osnos, 2017).

In conclusion, Donald Trump has been deemed hubristic because of his contempt for the opinion of others, utmost overconfidence and self-referencing, and the lack of contact with reality which led to his extreme grandiosity.

4.2.3. Profile 3 – Howard Schultz



Figure 4.4. Howard Schultz photograph (*Forbes*, 2018)

Howard Schultz is an American entrepreneur who has co-founded several businesses, including Maveron and Seattle SuperSonics. However, he is most known in the business world for holding the CEO position at Starbucks, the American coffee shop chain that has now spread internationally and operates in more than 20,000 locations worldwide (Schultz & Gordon, 2011). Howard Schultz joined Starbucks in 1982 as a Director of Operations and Marketing, moving up the hierarchical ladder: he became a chairman of the corporation in 2000 and then took the position of CEO in 2008. He served as a CEO of Starbucks for nine years in total, resigning from his position as CEO in April 2017.

As Howard Schultz commented in his interview with *Harvard Business Review*, for many years Starbucks had very little competition which led the company to develop a level of hubris and oversee a lot of upcoming problems, such as unexpected competition from the lower price food chains (Ignatius, 2010). In 2008, the company's profits started to decline, and Schultz describes his hubris as being responsible for the company's downturn (Eisner, 2016). As he openly comments, "we weren't as hungry; we weren't as challenged. We had a self-induced disease, which was hubris" (Wattles, 2017, p.1).

Throughout the course of his career, Howard Schultz has often been criticized for his over-exaggerated and over-pompous manner (Amernic & Craig, 2011). As columnist Kellaway (2017) noted, “Money can’t buy you love, but love can compensate for not much money” (p.1). In this instance the columnist was talking about Schultz’s action in 2017, when just after resignation he sent an email to around 100,000 Starbucks staff in United States, most of whom he has never met and most of whom earn less than \$10 an hour. The memo sent by Howard Schultz said: “know that I send you my love and respect” (Kellaway, 2017, p.1).

The CEO of Starbucks has also received a lot of criticism for the ‘Race Together’ campaign that aimed to raise awareness of race inequality in United States. Despite noble intentions it was seen by the public as superficial and even offensive (Feng, 2016). The company, and especially its CEO Howard Schultz, have been criticised for not considering in advance “how it would look for a white billionaire to front a national dialogue on race” (Shah, 2015, p.1). Later, reflecting on the campaign, even Howard Schultz himself admitted that there were conflicting opinions in the board regarding the campaign, however he has decided to proceed with it. As he commented in one of his interviews, “some felt that Starbucks should focus first on its own diversity shortcomings. Others wondered whether it was the right time to broach the subject publicly” (Carr, 2015, p.1).

In addition to the above, Craig and Amernic’s (2011) research into narcissistic language based on the written language utterances of CEOs has also found Howard Schultz’s language to be “remarkably grandiose and self-important” (p.570) and “pre-occupied with fantasies of unlimited success, power, brilliance” (p.570). As commented by the authors, Shultz is “unwilling to recognize the feelings of the vast preponderance of their employees who are non-unionized and receiving minimum wage rate” (Amernic & Craig, 2011, p. 571). Linking these findings with the symptomology of Hubris Syndrome proposed by Owen & Davidson (2009), Howard Schultz could

be hypothesised to exhibit a number of the proposed symptoms, such as ‘predisposition to take actions which seem likely to cast the individual in a good light’ (2nd symptom), ‘tendency to allow their ‘broad vision’ <...> to obviate the need to consider other aspects of it’ (13th symptom) and others.

To conclude, Howard Schultz has been deemed hubristic because of his exaggerated and over-pompous manner, remarkable grandiosity, elevated levels of self-importance and his tendency to show himself in the best light despite the inconsideration he shows towards other people.

4.2.4. Profile 4 – Elon Musk

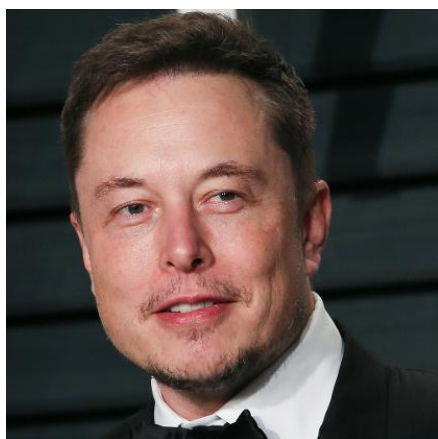


Figure 4.5. Elon Musk photograph (*Forbes*, 2018)

Elon Reeve Musk is a South-African born, American entrepreneur who has co-founded a number of businesses including SpaceX, Tesla, Neuralink, SolarCity, Zip2, Pay Pal and several others. He is best known for serving as the CEO of Tesla, a company specialising in electric vehicles and SpaceX, an aerospace manufacturing company.

Elon Musk made his name not only by co-founding a number of successful businesses, but also for his ambitious goals which include saving humanity from extinction by colonising Mars (Vance, 2015). As he commented: “I think there are really two fundamental paths. One path is we stay on

Earth forever, and then there will be some eventual extinction. The alternative is to become a space-bearing civilisation and a multi-planetary species” (Knapton, 2017, p.1).

Another over-ambitious goal of Elon Musk was committing to deliver Tesla’s Model X within a very short period of time. According to Musk, it was Tesla’s corporate hubris to blame for all the mishaps with this model. As Musk commented in his interview with the *Financial Times* (2016), “Tesla’s hubris in adding far too much new technology to the Model X in version 1.0” resulted in significant delays producing the model’s orders (p.1).

It seems, however, that Elon Musk has not learned from Tesla’s mistakes with Model X. The next Tesla vehicle – Model 3 – has had production delays since its launch. Even with delays, Elon Musk has announced that Tesla is planning to significantly increase the production schedule and to ship over half a million units by 2018, whilst Tesla’s original plan was to deliver this number of cars by 2020 (Oremus, 2016).

Despite high ambitions, the first Model 3 vehicles were released only in July 2017, with 220 cars delivered in Q3 and nearly 3000 in Q4 (*CNBC*, 2018). Despite impediments to Tesla’s production rates and the low profits that the company is making, Elon Musk remained confident about the growth of the company and announced his goal to increase Tesla’s valuation from \$60 billion to \$650 billion over next 10 years (West, 2018).

In addition to all the above, research by Chatterjee and Pollock (2017) suggests that Elon Musk has some narcissistic tendencies and has very little appreciation for the company’s employees and their long working hours. Some researchers even hypothesise that some of Elon Musk’s behaviours match those of the psychopath, given all his “amazing innovations that supposedly contribute to

the next level of human evolution” (Sandridge, 2016, p.15). Finally, commentators in business and the media suggest that Elon Musk’s hubris is to blame many of the above behaviours (Easto, 2017).

Due to his fame in the business world, some people call Elon Musk one of the best leaders of all times (Paterson, Luthans & Milosevic, 2014) whilst others comment on the facts, that a number of his companies do not make profit, that Musk’s “ambitions are fundamentally flawed” and that he is an “egomaniac who will not stop until he crushes his companies under the weight of his own hubris” (Easto, 2017, p.1).

To summarise, Elon Musk has been deemed hubristic because of his extreme self-confidence, egoistic manner, exaggerated belief in the success of his ideas and for showing little appreciation for the people around him.

4.2.5. Profile 5 – Jamie Dimon

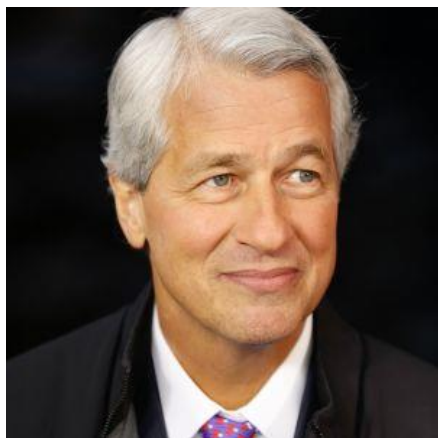


Figure 4.6. Jamie Dimon photograph (*Biography*, 2018)

Jamie Dimon is an American businessman, chairman, CEO and the president of one of the largest American banks, JP Morgan. Prior to his position at JP Morgan, Jamie Dimon had served as CEO in several other companies, such as Citigroup and Bank One – the latter was purchased by the JP Morgan corporation in 2004. Since 2005, he has served as a CEO of JP Morgan - over 13 years in total.

The financial industry, especially American banking, has been renowned for its hubris that has frequently caused turmoil at many financial institutions (Falk & Blaylock, 2012). JP Morgan is not an exception – the company, and its CEO, was highly criticised for their hubris in 2012, when the company incurred huge trading losses. However, in spite of this Dimon continued to mislead investors and the public, refusing to disclose information and stating that any concerns regarding losses were a “complete tempest in a teapot” (*Financial Times*, 2012, p.1), even when the losses obtained at the point of this comment equalled to a billion US dollars. In total, the bank lost \$6.2 billion in trade (Hurtado, 2016). As reported by the investigation by the United States Senate, the company had ignored the risks, mis-informed the public and regulators and hid the losses (US Senate Report, 2013). As noted by Sale (2014), this case was an apparent display of Jamie Dimon’s hubris. Despite the significant losses and public scrutiny, Jamie Dimon was re-elected as chairman and CEO of JP Morgan in the same year with a \$23 million pay package, more than any other American bank’s CEO (Gandel, 2012). As commented by Prins (2012), “Jamie Dimon’s hubris is unshakable” (p.1).

Jamie Dimon is also known for his extremely confident stance and strong opinions on topics related to the financial industry. He has also been renowned by some JP Morgan’s employees as ‘King Jamie’ and as being ‘narcissistic’ by others (Shirkani, 2016). For example, his statements on Bitcoin, a cryptocurrency and worldwide payment system, has recently caused some heated disputes in the industry. In his interview with *Bloomberg* (2017), he called bitcoin a fraud and commented that “if you're stupid enough to buy [bitcoin], you'll pay the price for it one day” (p.1) which provoked a strong response within the industry. He also stated that he would fire any JP Morgan employee trading the cryptocurrency (*Bloomberg*, 2017). This reinforced comments about Dimon’s hubris: “If you haven’t met Jamie Dimon, CEO of the largest U.S. bank, J.P. Morgan

Chase, and may not know what hubris means, he will demonstrate, if not embody it for you” (Smart, 2015, p.1)

As Jamie Dimon has admitted, his success in banking might have made him complacent. In his annual letter to shareholders (2013) he noted that “complacency sets in when you start assuming that tomorrow will look more or less like today – and when you stop looking at yourself and your colleagues” (p.10). It seems that any CEO, especially of big corporate organisations, can fall into the traps of hubris. As Jamie Dimon stated in his interview with *Fortune* (2006), any organisation “can get arrogant and full of hubris and lose focus, like the Roman Empire” (*Fortune*, 2012, p.1).

In conclusion, Jamie Dimon has been deemed hubristic because of his tendency to show himself in a positive light, ignoring the need to consider the nuts and bolts of his decisions, extreme self-confidence and significant level of complacency.

4.2.6. Profile 6 – Travis Kalanick



Figure 4.7. Travis Kalanick photograph (*Forbes*, 2018)

Travis Kalanick is an American entrepreneur, known for co-founding Red Swoosh, a file sharing company that was acquired by Akamai Technologies in 2007, and Uber, a global transportation company. Travis Kalanick served as CEO of Uber from 2010 until June 2017. His resignation was demanded by Uber’s shareholders because of the growing number of allegations regarding Uber’s

toxic workplace culture, gender discrimination and sexual harassment which Travis Kalanick is said to have been aware of but ignorant about (Clear, 2017).

Given that he has continuously showed contempt for others and remained insensitive to many problems within the company that he founded, both researchers and the media seem to agree that Travis Kalanick has brought the downfall upon himself (Stone, 2017). As commented by Uber's current CEO and Kalanick's successor, Dara Khosrowshahi, both Uber as an organisation and its former CEO Travis Kalanick "was guilty of hubris, was guilty of thinking they knew better than others" (Samson, 2018, p.1)

Travis Kalanick has received public scrutiny for his hubristic pride and arrogance a number of times (Isaac, 2017). One of the most prominent examples was his argument with one of Uber's drivers – a leaked video showed Travis Kalanick arguing with the driver and treating him disrespectfully: "You know what, some people don't like to take responsibility for their own shit" (Bhuiyan, 2017, p.1). According to interviews with Uber's employees and investors, "Travis is driven to the point that he must win at whatever he puts his mind to and at whatever cost" (Isaac, 2017, p.1).

Overall, under Travis Kalanick's tenure as a CEO, Uber went from being classed as the "world's most valuable startup" to the "world's most dysfunctional startup" (Shen, 2018, p.1). Those that were working for Uber seem to agree that Travis Kalanick has played a major role in the downfall of the company. As Jeff Jones, the president of Uber who left his position after only half a year at Uber, commented that the reasons for his resignation included Kalanick's "shotgun management style and unwillingness to listen" (Bloomberg, 2018, p.1).

As summarised by Mallon (2018), Travis Kalanick was “caught up in his own hubris and his determination to maintain Uber's dominance in the ride-hailing industry” (p.1). Besides being ignorant to all the allegations regarding Uber’s work culture, Travis Kalanick has actually contributed to the toxic culture by sponsoring behavioural science experiments on Uber’s drivers in order to unconsciously force them to work more by using gamification-like algorithms (Scheiber, 2017).

Some researchers suggest that Travis Kalanick’s story from his rise as a great American businessman to his fall and forced resignation as Uber’s CEO can be compared to the ancient Greek story of Icarus, who did not listen to the advice of his father and flew too close to the sun. As suggested in the recent article by the Molinaro (2017), an organisation committed to raising awareness on hubris, “even though Kalanick acknowledged his personal need to grow up and seemed genuinely committed to work on himself, it seemed too little too late. He recently announced his decision to resign from his position. This story played out just like the writings from ancient Greece” (p.1).

To summarise, Travis Kalanick has been deemed hubristic because of his unwillingness to listen to other people and insensitivity to their needs, extreme levels of pride and arrogance, and for his continuous display of contempt for others.

4.3. Non-hubristic sample CEO profiles

4.3.1. Profile 1 – Jeff Bezos



Figure 4.8. Jeff Bezos photograph (*Forbes*, 2018)

Jeff Bezos is an American businessman, best known for co-founding Amazon, an electronic commerce and cloud computing company. He has been serving as CEO of Amazon since launching the company in 1995. Besides his successful career at Amazon, Jeff Bezos has also been involved in several other business ventures, including the purchase of the *The Washington Post* newspaper and co-founding aerospace company Blue Origin.

In the *Forbes* Annual Ranking of the World's Billionaires (2017), Jeff Bezos has been ranked as third with his total net worth equalling \$72.8 billion. The latest data from *Bloomberg* (2018) shows that Jeff Bezos has now become the richest person in the world, with the total net worth increasing to \$117 billion. However, Jeff Bezos donates a huge percentage of his income to a variety of initiatives and non-profit projects.

At the beginning of 2018, he announced a donation of \$33 million to a scholarship fund that helps immigrants, who were illegally brought to the United States as children, to get a college education (Pacheco, 2018). In addition to this, he has also financially supported a variety of other non-profit initiatives, including a same-sex marriage referendum, the Fred Hutchinson Cancer Research

Center, Worldreader, the Bezos Center for Innovation at the Seattle Museum of History and Industry and many others (Feldman & Graddy-Reed, 2014).

Research by Lunenburg (2012) has described Bezos as a great leader who “had strong visions of the future” (p.1) and who actually managed to transform these ideas and visions into reality through his personal power. The media seem to agree largely with such assessments, noting Jeff Bezos as a ‘visionary leader’ (Lashinsky, 2017) and the ‘Greatest Living CEO’ (Hartung, 2013). As commented by de Andres (2017), “Jeff Bezos inspires others with vision. Vision doesn’t count without action. And not without managing innovation. That idea of staying the course for the long term has been the key to Bezos’s success” (p.1). Even well-known investor Warren Buffet has previously publicly stated that Jeff Bezos is the “most remarkable business person of our age” (Mann, 2017, p.1)

Although some people suggested that Jeff Bezos might potentially have some narcissistic traits (Maccoby, 2000), both research and media seem to agree that these were the traits of Bezos that brought Amazon to such significant success (Drexler, 2007). As commented by Doug Fleener, President of Sixth Star Consulting company, “if Bezos was a super nice guy who also liked unicorns and rainbows, there wouldn't be much of a book to sell” (Anderson, 2013, p.1).

In addition to the above, research on Jeff Bezos’ use of ‘I’ versus ‘we’ ratios in letters to shareholders over the span of 20 years of him being a CEO of Amazon found that he has continuously used ‘we’ more often than ‘I’ (Fessler, 2017). Media seem to support the claims of Bezos as an exemplary leader: he was featured in *Fortune's* (2015) list of greatest leaders in the world as has also been considered to be the best performing CEO by the *Harvard Business Review's* (2015) annual ranking.

In summary, Jeff Bezos has been deemed as non-hubristic because of his transformational leadership style, inspiration of followers through the use of his personal power rather than position power and for his continuous support to a variety of non-profit initiatives to make a positive contribution to the world.

4.3.2. Profile 2 – Mark Parker



Figure 4.9. Mark Parker photograph (*The Telegraph*, 2018)

Mark Parker is an American businessman who is most widely known for his role at NIKE, a well-established worldwide sportswear brand. Mark Parker could be called NIKE's success story, given that he joined the company in 1979 as a designer for NIKE's footwear offerings and has since successfully progressed up the organizational hierarchy to the position of CEO, which he took over in 2006. As NIKE's former CEO Phil Knight commented in the interview with *Harvard Business Review* (2017) when asked about Parker's beginning at the company: "he was very likeable that, you know, and we were always looking for promising young talent. Ultimately the company is going to be what its people are, and he was completely dedicated to getting better shoes" (p.1).

Perhaps unsurprisingly, since Mark Parker took the position of CEO at NIKE, the company is said to support the "culture of true believers" (Carr, 2013, p.1), to care for sustainability and corporate responsibility (Henderson et al., 2009). This seems to reflect Mark Parker's, 'participatory'

leadership style which places a huge focus on supporting employees to create and express their own ideas (Blazek, 2016). As Mark Parker commented when asked about NIKE's success: "one of my fears is being this big, slow, constipated, bureaucratic company that's happy with its success. Companies fall apart when their model is so successful that it stifles thinking that challenges it" (Carr, 2013, p.3).

For his successful track record at NIKE (company's profits doubled since Mark Parker became a CEO in 2006), Mark Parker has been nominated as one of the 'best performing CEOs in the world' (*Harvard Business Review*, 2015) as well as one of the 'highest rated CEOs' in the United States, based on feedback collected from the company's employees (*Glassdoor*, 2017). As Chief Financial Officer (CFO) of Nike, Andy Campion, noted: "what's fascinating about [Parker's] use of questions is that it leaves other leaders empowered to find the answers themselves and act on them" (Lebowitz, 2015, p.1).

In terms of Mark Parker's personality, he is said to be introverted, open-minded, focused on design thinking (the application of a variety of design strategies), willing to adapt and to communicate in order to find the best solutions (Lussier & Achua, 2015). He is also known for giving importance to the ideas of others. As he commented in the interview with *Fast Company*, "you have to be open to ideas from different parts of the company, from different parts of the world. The biggest sources of opportunity are collaboration and partnership" (Safian, 2012, p.1).

Given the above, it seems that Mark Parker has not yet been affected by success-driven hubris during his leadership career at NIKE. For example, in 2017, because of the significant drop in sales due to the strong competition in United States market, Mark Parker took a drastic 70% cut in his pay to support the company (Garcia, 2017). He also remains constantly renowned for his ethical

leadership style (Gehrke & Claes, 2017). As summarised by Lussier and Achua (2015), “behind a great company are strong leaders. This is certainly true for NIKE and Mark Parker” (p.420).

In conclusion, Mark Parker has been deemed non-hubristic because of his participatory leadership style with a huge focus on supporting others, for his renowned ability to listen to the ideas of others and for his open-mindedness and willingness to adapt.

4.3.3. Profile 3 – Robert Iger

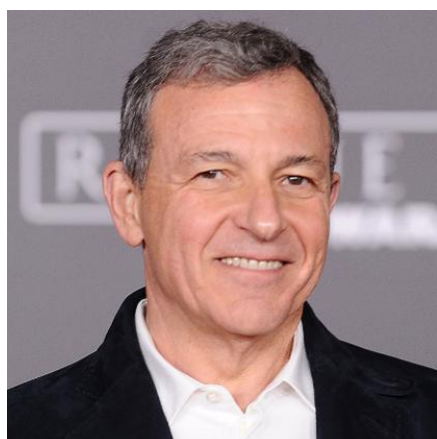


Figure 4.10. Robert Iger photograph (*Forbes*, 2018)

Robert Iger is an American businessman, serving as the CEO of The Walt Disney, a multinational media and entertainment company, since 2005. During Robert Iger’s position as CEO at The Walt Disney Company, the company completed a number of large acquisitions (Pixar, Marvel Entertainment, Lucasfilm and 21st Century Fox) and has become one of the world’s ‘most valuable brands’, currently taking 24th position in the Top 500 most valuable brand ranking, with the brand value over \$34 billion (*Brand Finance*, 2017). Prior to his role at The Walt Disney company, Robert Iger served in senior leadership positions at ABC Television and Capital Cities.

Robert Iger has been publicly recognized for his leadership as CEO of The Walt Disney Company a number of times. Since 2005, he has been considered the ‘Best CEO’ (*Institutional Investor*, 2007), ‘The Best-Performing CEO in the World’ (*Harvard Business Review*, 2017) and has been

awarded a prestigious ‘Ambassador for Humanity Award’ for his philanthropy work and leadership (Dornsife, 2012).

The people that surround Robert Iger seem to agree with the general praise that is offered of his leadership style. Researchers and media attribute Iger’s success to his personality: a calm manner, strong team-building skills, modesty and good judgement (Citrin & Ogden, 2010; Larcker & Tayan, 2013).

Research by Eisner (2016) has argued that Robert Iger is a leader of innovation who is willing to “take large, strategic chances with a preference for keeping a low public profile” (p.195) and to combine a “strong work ethic, and intense focus on quality and its measurement with an unpretentious easy manner, good nature, and sense of humor” (p.195). As Robert Iger commented himself in an interview with *The New York Times* regarding his leadership: “I’ve also learned, in general, to be more patient. I’ve learned to be more focused. I’ve learned to listen better...” (Bryant, 2009, p.1).

Analysis conducted by Wiley (2014), classified Robert Iger’s leadership style as ‘Team Leadership’, based on Blake and Mouton’s Leadership Grid (Blake & Mouton, 1982). Such leadership is strongly focused on the importance of the team and partnerships. Robert Iger stresses the importance of this type of leadership in most of his interviews too, arguing that “one person can’t run a company as big as ours. It’s run by a team of people, and value is created by a very large team of people” (Collado-Martinez, 2013, p.1).

Such a leadership style seems to reflect on the company’s culture as well, given that The Walt Disney Company has been named as one of the ‘World’s Most Admired Companies’ for a number of years in a row, currently taking the 6th position in the *Fortune’s* (2018) ranking. Robert Iger’s

leadership style seems to contribute to the positive changes in the company's culture since the departure of Michael Eisner, Iger's predecessor: "there was already creativity inside Disney, but Bob removed the barriers to it" (*The Economist*, 2008, p.1).

To conclude, Robert Iger has been deemed as non-hubristic because of his team-focussed leadership style, continuous display of modesty and attribution of his success to the team rather than to himself, for his ability to listen as well as his renowned efforts to contribute to the good in the world through philanthropic work.

4.3.4. Profile 4 – Mike Bloomberg

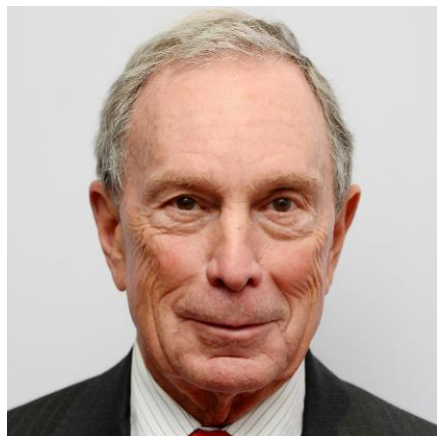


Figure 4.11. Mike Bloomberg photograph (*Forbes*, 2018)

Michael Bloomberg is an American businessman, known for being the founder and CEO of Bloomberg, a financial software, data, and media company. He founded the company in 1981 and served as its CEO until 2001, more than 20 years. However, from 2002 to 2013 he has focused mainly on his political career, serving as 108th Mayor of New York City for three consecutive terms. He re-assumed the position of CEO at Bloomberg in 2014.

Besides his entrepreneurial and political endeavours, Michael Bloomberg is also well known for his philanthropy work. He belongs to 'The Giving Pledge' organisation, which encourages the world's wealthiest to dedicate the majority of their wealth to philanthropy. As he commented about

the reasons of his philanthropy work: “Making a difference in people’s lives—and seeing it with your own eyes—is perhaps the most satisfying thing you’ll ever do ... And by giving, we inspire others to give of themselves, whether their money or their time” (The Giving Pledge, 2018, p.1).

In addition to being referred to as an exceptional leader by both media and researchers, Michael Bloomberg also encourages others to strive and excel in their leadership skills. In 2016 he funded the Bloomberg Harvard City Leadership Initiative to train leaders from all around the world in their management and leadership skills (Harvard University, 2016). Bloomberg’s other contributions to the world’s wellbeing include acting as a World Health Organisation’s Global Ambassador for Noncommunicable Diseases, launching the Bloomberg–Kimmel Institute for Cancer Immunotherapy as well as establishing a gun control advocacy group called ‘Every town for Gun Safety’ (Callahan, 2017).

Michel Bloomberg is often called by media one of the most hardworking people (Rashid, 2015) as besides his successful political and philanthropy work, he also managed to raise his net worth to just over \$50 billion (*Forbes*, 2018). According to *Glassdoor*’s ‘highest rated CEOs’ ranking (2017), he has been voted by his employees as being one of the best CEOs in the United States. Comments from Michael Bloomberg’s employees include quotes like “Mike Bloomberg is awesome. Bloomberg is an exciting place to work. The company culture is great”, “Company values are amazing and are a reflection of Mike’s values” and “his definition of leadership is to also show people that you care. Mike’s philosophy is to demonstrate to employees that we understand what they need, so they feel respected” (Jackson, 2017, p.1).

Despite such a varied career, there appears to be a consensus that he is one of the most prominent leaders of this century. As Bloomberg commented in his interview with *Forbes*, “the best leaders incentivize, inspire, and empower their teams to be creative and innovative. It’s not about one

person; it's about building a culture where innovation is prized – and expected. That's been my approach to management” (Kanani, 2012, p.1).

Given all the above, it might not come as a surprise that in the recently released list by Richtopia, the UK's business information company, Michael Bloomberg was ranked sixth among '200 Most Influential Philanthropists and Social Entrepreneurs' (Richtopia, 2017).

In summary, Michael Bloomberg has been deemed non-hubristic because of his leadership style that places a huge focus on people and their needs, for his strong positive values and his respect to the ideas of others, and finally for his contribution to the world's good through philanthropy.

4.3.5. Profile 5 – John Chambers



Figure 4.12. John Chambers photograph (Twitter, 2018)

John Chambers is an American businessman who has made his name as a talented business leader while working for two computer hardware companies – Wang Laboratories and, later, Cisco Systems. John Chambers joined Cisco Systems in 1991 as Senior Vice President and became CEO in 1995. He served as a CEO of Cisco Systems for 20 years in total, retiring from this position in 2015.

Andy Bechtolsheim, one of the co-founders of the software company Sun Microsystems, which was later acquired by the Cisco Systems, summarised the leadership style of John Chambers in one sentence: “You couldn't genetically engineer a better leader” (Waters, 2002, p.92). According to Waters (2000), Chambers is “enormously popular among his employees” (p.97). Even after the round of layoffs that Cisco System had to go through in 2001 due to an unexpected slowdown in technology spending (CNN, 2001), John Chambers remained popular among employees. As Waters (2002) noted, “it is most likely his attitude towards leadership and his emphasis on teamwork that has won them over” (p.98).

In the interview with Newsweek several years ago John Chambers commented that “I realized there was something that many of us do not understand when we take a leadership role: culture. ... A huge part of a leadership role is to drive the culture of the company and to reinforce it” (Smith, 2010, p.1). Research seems to agree with claims regarding Chamber’s exceptional leadership style. As suggested by Groysberg and Slind (2012), the key to Cisco’s success in general is due to its CEO John Chambers who values and encourages a culture of communication in the company. In addition, a study by Riggio and Reichard (2008) concluded that business leaders who also use their emotional expressiveness, have a positive influence on the group or organisation. What is more, this research proposed John Chambers as an example of a leader who has a unique ability to create and positively influence a company’s climate.

John Chambers is often praised for moving Cisco Systems from a ‘command and control’ model to a more flexible management model that focuses on empowering employees and encouraging collaboration. As summarised by Useem (2009), “No autocrat, no worrier, Chambers is often described as the ebullient learn-from-errors pragmatist for whom a better world is the calling, not the perks or the power” (p.1).

In the annual ‘Highest rated CEOs by Employees Choice’ ranking John Chambers was ranked as 23rd (*Glassdoor*, 2015). Comments from John Chambers’ employees include statements like ‘team culture is great’, ‘feels like a family’, ‘fantastic at getting me the support I need’ among many others (*ibid*, 2015). In the *Harvard Business Review* (2015) ranking, John Chambers came second. It seems that despite the upheaval due to the recession in 2001 that caused the company to layoff nearly 16% of its employees, Cisco System’s former CEO John Chambers remains referred to as “one of the most successful technology leaders of our time” (Gallo, 2014, p.1).

In conclusion, John Chambers has been deemed non-hubristic because of his leadership style that emphasises teamwork, for reinforcing positive values in the company’s culture and for his distinct ability to collaborate and listen to other people.

4.4. Chapter summary

This chapter describes the profiles of CEOs that have been selected for the research described in this thesis. These CEOs have been chosen using a non-probability purposive sampling strategy described in detail in section 3.8 of Chapter 3.

Although the final sample for empirical studies (Study 1, Study 2 and Study 3) described in this thesis consisted of ten CEOs (five hubristic CEOs (HCEO) and five non-hubristic CEOs (NHCEO), 11 profiles in total have been reviewed in this chapter. This is because in one of the empirical studies (Study 2, Identification of Linguistic Markers of Hubris using LIWC based framework) an additional CEO (Donald Trump, formerly of The Trump Organisation) has been used to validate the framework proposed in Study 2.

To summarise, a total of 11 profiles have been reviewed in the present chapter. The sample of six hubristic CEOs included Steve Jobs (Apple), Donald Trump (The Trump Organisation), Howard

Schultz (Starbucks), Elon Musk (Tesla, SpaceX), Jamie Dimon (JP Morgan), and Travis Kalanick (formerly of Uber), whilst the sample of five non-hubristic CEOs consisted of The non-hubristic sample includes Jeff Bezos (Amazon), Mark Parker (NIKE), Robert Iger (Walt Disney), Mike Bloomberg (Bloomberg) and John Chambers (formerly of Cisco).

Each profile provides the background information about a given CEO, specifies key points of the CEO's business career and presents a number of facts from the CEO's tenure at a certain company in order to advance the reader's knowledge as to what might have contributed to a given CEO being renowned as 'hubristic' or 'non-hubristic' by media and researchers.

5. PILOT STUDY, HUBRISTIC LANGUAGE IDENTIFICATION USING HERMANN'S LEADERSHIP TRAIT ANALYSIS FRAMEWORK

5.1. Summary of the Pilot Study

As part of the research process, a Pilot Study was conducted to validate the proposed research design for the main study. Therefore Chapter 5 of this thesis describes the execution of the Pilot Study, the results obtained, and the implications of these results for the main study. The Pilot Study was conducted according to the principles outlined in the research strategy for the thesis and implemented the proposed study design on a small sample of two CEOs in order to validate the design and method. The overall Pilot Study approach is summarised in Table 5.1.

Table 5.1. Pilot Study summarised

	Hubristic sample	Non-hubristic sample
Participant:	Jack Welch (General Electrics)	Paul Polman (Unilever)
Tenure:	1981-2001	2009 – present
Material 1:	<i>HBR</i> interview (1989)	<i>HBR</i> interview (2012)
Material 2:	Annual CEO report (2000)	Annual CEO report (2014)
Method 1:	Close reading (thematic content analysis based on Hermann's LTA framework)	Close reading (thematic content analysis based on Hermann's LTA framework)
Method 2:	DICTION software (computer-aided content analysis based on Hermann's LTA framework)	DICTION software (computer-aided content analysis based on Hermann's LTA framework)
Method 3:	ProfilerPlus software (computer-aided content analysis software that already has Hermann's LTA coding system built in)	ProfilerPlus software (computer-aided content analysis software that already has Hermann's LTA coding system built in)

As detailed above, two CEOs were selected for the Pilot Study – Jack Welch (formerly General Electric) representing the hubristic sample, and Paul Polman (Unilever) representing the non-hubristic sample. The choice of these two CEOs, as well as attributing them to the hubristic or non-hubristic categories, was made because of the following reasons: first, both leaders are well known and have been widely cited in media for their management, leadership and personalities (Abetti, 2006; Bell, 2013; Polman, 2009; Welch, 2014); second, in media articles and previous research on hubris Jack Welch has been repeatedly identified as hubristic (Amernic & Craig, 2007;

Amernic, Craig & Tourish, 2010; Hayward, 2007) whilst Paul Polman is continually referred to as one of the 'best' CEOs (Bansal & Jardine, 2014; Hidayat et al., 2013) and enjoys a very positive public image.

Two different types of material were chosen for analysis: first, interviews with the same publication – *Harvard Business Review* (hereafter *HBR*) – were selected to ensure that materials were as similar as possible; second, CEO letters to shareholders and employees in the respective companies' Annual Reports to shareholders were selected as this type of material has been previously used in research into language and hubris (Amernic, Craig & Tourish, 2010; Brennan & Conroy, 2013). The materials mentioned-above are included in Appendices 9 to 12.

Spoken discourse samples, in the case of the Pilot Study interviews with selected leaders, are generally seen as credible and valid material for language analysis as it reduces the risk of the answers being prepared in advance or being written by a speechwriter (Hermann, 2008). On the other hand, previous research that has used letters to shareholders to analyse leaders has proven that they are also a useful medium to assess personalities of CEOs as they hold a legal responsibility for the content of the letter (Amernic & Craig, 2011).

The interview with Jack Welch was taken from the *HBR* September-October 1989 issue and consists of 4486 words. The interview with Paul Polman was taken from *HBR* June 2012 and consist of 2488 words. For comparison purposes only the first 2488 words in the interview with Jack Welch were analysed to match Paul Polman's interview's length. In a similar manner only 1495 words from Jack Welch's letter to shareholders in the Annual Report were taken to match Paul Polman's letter to shareholders of that length. Going forward, in order to circumvent the problem of different lengths, equalisation of interview lengths will be done as proportion of occurrences to length of article.

Finally, three techniques for analysing selected materials were identified. First, close reading (an attentive reading and interpretation of a text (Brummett, 2009)) was chosen because previous research into hubris evidenced the usefulness and validity of this technique (Amernic, Craig & Tourish, 2010; Brennan & Conroy, 2013). Second, the DICTION software package was used because of its extensive use in leadership research (Bligh et al, 2004; Bligh & Hess, 2007) and in recent research into hubris (Craig & Amernic, 2014; Craig, Amernic & Tourish, 2010). Third, ProfilerPlus software was used because this program was specifically designed to reflect Hermann's LTA framework and coding system and has been used extensively in research into leadership traits (Rohrer, 2014; Thiers & Consuelo, 2014) but has yet to be used in hubris research. In addition, after a review of other existing content analysis software programs suitable for the intended purpose of identifying linguistic markers of leaders' hubris (e.g., The General Inquirer, LIWC), DICTION and ProfilerPlus were proven to be the best-suited to fit the purpose of this research. A comparison of existing qualitative and quantitative content analysis programs used in management and organizational research can be found in Table 3.2 in Chapter 3 above.

5.2. Research Method

According to Hermann (2005), personality is a combination of seven traits: belief in one's ability to control things, conceptual complexity, need for power, distrust of others, in-group bias, self-confidence, and task orientation. As discussed in detail in Chapter 2, this research maps Hermann's LTA to Hubris Syndrome symptoms. Table 5.2 below contains the proposed Hermann's LTA framework application for the study of linguistic hubris markers and describes how each trait can be determined through the analysis of a leader's spoken discourse samples and explains the method for scoring.

The first two columns of the table contain the number (1 to 14) and description of the symptom of the Hubris Syndrome as described by Owen and Davidson (2009). The third to fifth columns indicate the equivalent personality variable in Hermann's Leadership Trait Analysis framework, its description and a proposed way of scoring for the described variable as specified in LTA (Hermann, 1980; 2005). Finally, the last three columns detail three proposed ways (DICTION software measures, close reading/word count approach and ProfilerPlus variables) for measuring hubristic tendencies or 'hubris score'.

Out of seven personality traits proposed by Hermann, six can be mapped with the Hubris Syndrome symptoms: belief in one's ability to control things (equivalent to the 8th symptom), conceptual complexity (equivalent to the 13th symptom), need for power (equivalent to the 1st symptom), distrust of others (equivalent to the 11th symptom), in-group bias (equivalent to the 4th symptom) and self-confidence (equivalent to the 7th, 10th and 14th symptoms). All symptoms mapped with LTA in Table 5.2 are marked in green. Two symptoms (10th and 14th) are marked in yellow as the scoring description and approach for them is the same as for the 7th symptom (all three symptoms are mapped to the same personality variable in LTA).

Unfortunately 2nd, 3rd and 6th symptoms of Hubris Syndrome cannot be mapped to Hermann's LTA because this framework does not have corresponding categories for them. However, that does not undermine the suitability of Hermann's LTA for research into hubris as the proposed diagnostic criteria for hubris states that "in making the diagnosis of Hubris Syndrome we suggest that ≥ 3 of the 14 defining symptoms should be present, of which at least one must be amongst the five components identified as unique" (Owen & Davidson, 2009, p. 4).

Table 5.2. Mapping Hubris symptoms to Personality variables

Which symptom? (Owen & Davidson, 2009)	What is the description of this symptom? (Owen & Davidson, 2009)	What is the equivalent personality variable in LTA? (Hermann, 1980, 2005)	What is the description of the equivalent LTA personality variable? (Hermann, 1980, 2005)	What is the proposed scoring description by LTA for this variable? (Hermann, 1980, 2005)	Which DICTION measures can we use to measure this variable?	What word count approach for close reading technique could we use to measure this variable?	What is this variable called in Profiler Plus?
HS #1	A Narcissistic propensity to see their world primarily as an arena in which to exercise power and seek glory.	Need for power and influence	Concern for establishing, maintaining, or restoring one's power, i.e., desire to control, influence, or have impact on other persons or groups.	Score is determined by calculating the percentage of times the verbs in an interview response indicate that speaker or a group with group the speaker identifies have engaged in one of these (i.e., assault, persuasion, influence on the behaviour of others, concern with reputation or position) behaviours.	Master variable CERTAINTY	Percentage of times verbs relating to assault or attack, verbal threat, accusation, reprimand, advice, regulation of behaviour, persuasion, bribery, reputation and position were used.	PWR
HS #2	A predisposition to take actions which seem likely to cast the individual in a good light i.e., in order to enhance image.						
HS #3	A disproportionate concern with image and presentation.						
HS #4	A messianic manner of talking about current activities and a tendency to exaltation.	In-group bias	A view of the world in which one's own group holds center stage.	Score is determined by calculating the percentage of times in an interview response that a leader refers to the in-group that meets outlined criteria – reference to the group ('our', 'our own'), use of favourable modifiers (i.e., 'great', 'successful', 'progressive', 'prosperous'), suggesting strength and indicating identity.	As specified in HS #5 (Master variable OPTIMISM)	Percentage of times words referencing the in-group ('our', 'our own') or favourable modifiers ('great', 'peace-loving', 'successful', 'progressive', 'prosperous', 'powerful', 'capable', 'advances', 'boundless' and similar) were used.	IGB
HS #5*	An identification with the nation or organisation to the extent that the individual regards his/her outlook and interests as identical.	In-group bias	A view of the world in which one's own group holds center stage.	Score is determined by calculating the percentage of times in an interview response that a leader refers to the in-group that meets outlined criteria – reference to the group ('our', 'our own'), use of favourable modifiers (i.e., 'great', 'successful', 'progressive', 'prosperous'), suggesting strength and indicating identity.	Master variable OPTIMISM	Percentage of times words referencing the in-group ('our', 'our own') or favourable modifiers ('great', 'peace-loving', 'successful', 'progressive', 'prosperous', 'powerful', 'capable', 'advances', 'boundless' and similar) were used.	IGB

HS #6*	A tendency to speak in the third person or use the royal 'we'.						
HS #7	Excessive confidence in the individual's own judgement and contempt for the advice or criticism of others.	Self-confidence	One's sense of self-importance in terms of ability to cope adequately with objects and persons in the environment.	Score is determined by calculating the percentage of times personal pronouns ('my', 'myself', 'I', 'me' and 'mine') are used in an interview response that meet the criteria that speaker perceives self as the instigator of an activity, an authority figure, or a recipient of a positive response.	Variable Self-reference	Percentage of times personal pronouns ('my', 'myself', 'I', 'me', 'mine') were used.	SC
HS #8	Exaggerated self-belief, bordering on a sense of omnipotence, in what they personally can achieve.	Belief in one's own ability to control events.	View of the world in which individual perceives some degree of control over situations involved in.	Score is determined by calculating the percentage of times the verbs in the interview response indicate that the speaker or a group with whom speaker identifies has taken responsibility for planning or initiating an action.	Master variable ACTIVITY	Percentage of times the verbs indicating planning or initiating the action were used.	BACE
HS #9	A belief that rather than being accountable to the mundane court of colleagues or public opinion, the court to which they answer is History or God.						
HS #10*	An unshakeable belief that in that court they will be vindicated.	Self-confidence	One's sense of self-importance in terms of ability to cope adequately with objects and persons in the environment.	Score is determined by calculating the percentage of times personal pronouns ('my', 'myself', 'I', 'me' and 'mine') are used in an interview response that meet the criteria that speaker perceives self as the instigator of an activity, an authority figure, or a recipient of a positive response.	As specified in HS #7 (Master variable CERTAINTY)	This symptom is measured in HS #7: Percentage of times personal pronouns ('my', 'myself', 'I', 'me', 'mine') were used.	SC

HS #11	Loss of contact with reality; often associated with progressive isolation.	Distrust of others	General feeling of doubt, uneasiness, misgiving, and wariness about others - an inclination to suspect the motives and actions of others.	Score is determined by calculating the percentage of times in an interview response that leader exhibits distrust towards other group or persons.	Variable Cooperation	Percentage of times verbs indicating distrust towards other group or persons were used.	DIS
HS #12*	Restlessness, recklessness and impulsiveness.						
HS #13*	A tendency to allow their 'broad vision' about the moral rectitude of a proposed course to obviate the need to consider practicality, cost or outcomes.	Conceptual complexity	Degree of differentiation which an individual show in describing or discussing other people, policies, ideas, or things.	Score is determined by calculating the ratio of high complexity words (i.e., 'may', 'possibly', 'sometimes', 'tends') to low complexity words (i.e., 'always', 'only', 'without a doubt').	Ambivalence/Levelling	Calculating the ration of high complexity words ('may', 'possibly', 'sometimes', 'tends', 'approximately', 'possibility', 'trend', 'for example') to low complexity words ('always', 'only', 'without a doubt', 'absolutely', 'certainly', 'irreversible').	CC
HS #14	Hubristic incompetence, where things go wrong because too much self-confidence has led the leader not to worry about the nuts and bolts of policy.	Self-confidence	One's sense of self-importance in terms of ability to cope adequately with objects and persons in the environment.	Score is determined by calculating the percentage of times personal pronouns ('my', 'myself', 'I', 'me' and 'mine') are used in an interview response that meet the criteria that the speaker perceives self as the instigator of an activity, an authority figure, or a recipient of a positive response.	As specified in HS #7 (Variable Self-reference)	This symptom is measured in HS #7: Percentage of times personal pronouns ('my', 'myself', 'I', 'me', 'mine') were used.	SC

Inclusion of a certain symptom in the research is based on the feasibility of measuring that particular symptom through linguistic patterns. As noted by Amernic and Craig (2014), inclusion of non-unique symptoms of a syndrome helps to expand the scope of the research and to concentrate on the Hubris Syndrome per se, as opposed to concentrating on separate criteria for the syndrome.

5.3. Data Analysis and Findings

In the Pilot Study described here, Hermann's LTA framework was used as a template for the analysis of the textual data. The use of the templates, or 'a priori' codes, is a well-known approach to accommodate analysis of the qualitative data (King, 2012). Template analysis usually involves either the development of a coding 'template' or use of pre-established codes which, in the case of this research, is Hermann's LTA framework's coding categories (King, 2012).

Details of the application of Hermann's LTA for the study of hubris can be found in Table 5.2. In short, hubris traits were assessed through the analysis of the selected hubristic leader's spoken and written discourse (i.e., Welch). In order to validate the results, they were baselined against the results of the sample of a non-hubristic CEO (i.e., Polman).

In terms of methods used, three of them were applied: close reading technique (thematic content analysis based on Hermann's LTA framework), computer-aided content analysis with DICTION software, also based on Hermann's LTA framework and computer-aided content analysis with ProfilerPlus software which already has Hermann's LTA coding scheme built into the program.

To be precise, the first part of the analysis to indicate the presence or absence of hubris is qualitative in nature and uses thematic content analysis to attribute specific linguistic markers into pre-defined categories as per Hermann's LTA framework (see section 3.7.1 of Chapter 3 for more

details). In contrast, the second part of the analysis to indicate the presence or absence of hubris is quantitative in nature and uses frequency counts in text samples. DICTION and ProfilerPlus content analysis software are used for the second part of the analysis. Scores obtained from all three techniques are summarised in Tables 5.4-5.8. In addition, to aid interpretation of the results, scoring explanations for all three techniques in relation with hubris are described in Table 5.3 below.

Table 5.3. Scoring explanations for interpreting results

HS #	Equivalent personality variable in LTA	Scoring explanation for Close reading results	Scoring explanation for DICTION results	Scoring explanation for ProfilerPlus results
HS #1	Need for power and influence	Higher the score, higher hubris risk	Higher the score, higher hubris risk	Higher the score, higher hubris risk
HS #5*	Ingroup bias	Higher the score, higher hubris risk	Higher the score, higher hubris risk	Higher the score, higher hubris risk
HS #7	Self-confidence	Higher the score, higher hubris risk	Higher the score, higher hubris risk	Higher the score, higher hubris risk
HS #8	Belief in one's own ability to control events	Higher the score, higher hubris risk	Higher the score, higher hubris risk	Higher the score, higher hubris risk
HS #11	Distrust of others	Higher the score, higher hubris risk	Smaller the score, higher hubris risk	Higher the score, higher hubris risk
HS #13*	Conceptual complexity	Higher the score, higher hubris risk	Smaller the score, higher hubris risk	Smaller the score, higher hubris risk

Based on the scoring explanations in Table 5.3 above, results are analysed in subsequent sections 5.3.1 to 5.3.5 of this chapter.

5.3.1. Close reading technique applied to interview material

In the first part of the Pilot Study a close reading technique based on Hermann's LTA framework was applied to the spoken discourse materials described above. 'Close reading' in this case means attentive reading of the text in order to indicate if there are any words that fall in one of the six categories described by Hermann (Hermann 1980, 2005). The frequency of certain words or word compounds that fell into one of the categories identified was counted and recorded; the results are shown in Table 5.4 below. Totals were counted for each category for purpose of comparison.

Table 5.4. Findings from Paul Polman and Jack Welch interviews: close reading technique

HS #	LTA	Scoring description	Findings		
1	Need for power and influence	Verbs relating to assault or attack, verbal threat, accusation, reprimand, advice, regulation of behaviour, persuasion, bribery, reputation and position.	Linguistic marker	Number of times used	
				Paul Polman	Jack Welch
			Position	1	1
			Have a limited understanding, interest	1	0
			They or you won't, can't	1	4
		Total:	3	5	
5*	In-group bias	Referencing the ingroup or favourable modifiers	Linguistic marker	Number of times used	
			Our, Our own	26	18
			Nobody (else) has ever	2	0
			Successful, successfully, success	1	4
			Doing the right thing	1	0
			Growth, Growing	1	2
			Tremendous, significant, outperforming, agile	4	2
			Audacious plans or targets	2	0
			Good, Very good, great, best	2	11
			Cutting edge, global business	0	2
		Total:	39	39	
7	Self-confidence	Use of personal pronouns (i.e., 'my', 'myself', 'I', 'me', 'mine')	Linguistic marker	Number of times used	
			My, Myself, Me	8	1
			I	34	13
			Total:	42	14
8	Belief in one's own ability to control events	Verbs indicating planning or initiating an action	Linguistic marker	Number of times used	
			Develop, reorient, do business	2	2
			Contribute, accomplish, deliver, focus	7	4
			We change, move forward, drive, make progress, seek, work the way through	5	11

			Set targets, take the risk	3	1
			Act, act accordingly, action	5	1
			We reduce, share	1	2
			Total:	23	21
11	Distrust of others	Verbs indicating distrust towards other group(s) or person(s)	Linguistic marker	Number of times used	
			There are sceptics or critics, attract criticism	5	0
			Challenges we face, competitors	3	5
			They became short in thinking	1	0
			Total:	9	5
13*	Conceptual complexity	High complexity words to low complexity words	Linguistic marker	Number of times used	
			High complexity		
			May, might, maybe, possibly, probably	2	6
			Trend	1	0
			For example	0	1
			Total:	3	7
			Low complexity		
			Always, inevitable, inevitably	5	3
			Only	2	4
			Absolutely, certainly, sure, definitely, of course, firmly	2	6
			Must	0	5
			Total:	9	18
			Ratio:	0.33	0.39

As can be seen in Table 5.4, results for both CEOs are similar, despite the initial assumption that Jack Welch might score higher than Paul Polman in most categories, given that he has been deemed by the media and researchers as hubristic. More surprisingly, in all categories, except the first one (HS1) and the last one (HS13), Paul Polman scored equally to, and in some instances, higher than, Jack Welch.

What is more surprising, is that Paul Polman's score in 'self-confidence' (HS7) is extremely high as evidenced by his wide use of first-person pronouns (marked in **red**). Jack Welch, on the other hand, scored significantly lower in this category which raises the question as to whether the use of pronouns is an accurate measure for hubristic tendencies, and whether there are certain circumstances when a high use of personal pronouns might become misleading (i.e., personal interview responses versus corporate written reports).

Both CEOs scored significantly high in the 'in-group bias' category (HS5) which shows that they referred to their companies in a very positive and favourable way. This score alone should not be interpreted as revealing of hubris as in the corporate world it is expected of a CEO to picture one's corporation in a positive light. However, in connection with Jack Welch's high scores in 'self-belief' (HS8) and 'conceptual complexity' (HS13), which indicates a very determined and rigid personality, this score becomes more revealing of potentially hubristic traits. Paul Paulman, in contrast, scored significantly low in 'conceptual complexity' (HS13) which shows a less resolute personality, though it is too small a data sample to judge.

Before drawing any conclusions, however, analysis with DICTION and ProfilerPlus software packages was completed for the same materials (see section 5.3.2 for DICTION and 5.3.5 for ProfilerPlus).

5.3.2. Use of DICTION for the analysis of interview material

DICTION is a program that uses a built-in database consisting of 50,000 previously analysed tests, divided into a number of categories such as ‘business reports’, ‘speeches’ and other. This allows the researcher to compare the score with normal or out of range scores provided by the program (DICTION, 2013).

Hence in the second part of the Pilot Study, DICTION software was used based on the mapping of DICTION variables to Hermann’s LTA framework (see Table 5.2 for the reference). The same spoken discourse materials (interviews with *Harvard Business Review*) were used. The results are summarised in Table 5.5 below and scores that are below the normal range are marked in **green**. Scores that are higher than the normal range (which indicates an inclination to hubris in this case) are indicated in **red**.

Table 5.5. Findings from Paul Polman and Jack Welch interviews: DICTION variables

HS #	LTA	Scoring description	Findings		
			DICTION variable	Scores	
1	Need for Power and Influence	Master variable CERTAINTY		Paul Polman	Jack Welch
			CERTAINTY	47.27	50.44
5*	In-group bias	Master variable OPTIMISM	OPTIMISM	48.80	48.37
7	Self-confidence	Variable Self-reference	Self-reference	15.44	2.61
8	Belief in one’s own ability to control events	Master variable ACTIVITY	ACTIVITY	51.78	50.89
11	Distrust of others	Variable Cooperation	Cooperation	4.31	5.04
13*	Conceptual complexity	Variable Ambivalence versus variable Levelling	Ambivalence (A)	19.15	12.75
			Levelling (L)	8.66	15.27
			Ratio (A/L):	2.21	0.83

Overall, the results obtained with DICTION software reflect the results obtained from the close reading technique. Paul Polman scored slightly higher or the same as Jack Welch in most of the categories as shown in Table 5.5. Scores in this table should be interpreted as per the scoring descriptions summarised in Table 5.3 as lower scores provided by DICTION do not necessarily indicate a lower risk for hubris and vice versa (i.e., Paul Paulman’s out of range score for

‘Conceptual complexity’ (HS13) should be interpreted as an absence of hubristic tendencies in that category).

Similarly to the findings of the close reading, Paul Polman scored extremely high (out of the normal range) on ‘self-referencing’ (HS7). However, that might be the case of answering specific questions in the interview (i.e., ‘Where did you study and what subjects?’) which automatically requires use of first-person pronouns as opposed to one’s conscious or unconscious choice to use self-references. On the other hand, his score in ‘Need for power and influence’ (HS1) is extremely low (marked in green). In addition, Paul Polman scored high in Ambivalence (indicates non-hubristic speech) whilst Jack Welch scored high on Levelling terms (a higher score indicates a risk of hubris as that leads to excessively confident speech). Both scores are marked in red in Table 5.5 above.

In summary, the scores obtained from the close reading technique and DICTION provide the same conclusions and confirm the potential applicability of Hermann’s LTA framework in this research – both methods used indicate the same tendencies. However, the sample size (two CEOs) and materials used (interviews with *HBR*, 2488 words each) are too small to draw generalizable and definite conclusions at this point.

5.3.3. Close reading technique applied to letters to shareholders

To analyse letter to shareholders, the same process as described in section 5.3.1 of this chapter was applied. In other words, Hermann’s LTA framework was used as a template to complete content analysis for the written discourse materials - letter to shareholders. Like before, if any of the words or word compounds fell into one of the categories as per Hermann’s LTA framework, results were noted in Table 5.6 below.

Table 5.6. Findings from Paul Polman and Jack Welch’s annual reports: close reading

HS #	Scoring description	Findings		
		Linguistic marker	Number of times used	
1	Verbs relating to assault or attack, verbal threat, accusation, reprimand, advice, regulation of behaviour, persuasion, bribery, reputation and position.		Paul Polman	Jack Welch
		Position	0	1
		Bureaucracies, multiple stakeholders, tough business	4	8
		Confront, disagree on	2	1
		Total:	6	10
5*	Referencing the ingroup or favourable modifiers	Linguistic marker	Number of times used	
		Our, Our own	37	23
		Successful, competitive, profitable	5	1
		Doing the right thing	0	1
		Outperforming, agile, global, significant, attractive, high-spirited, ambitious	4	6
		Good, very good, great, best	8	3
Total:	54	34		
7	Use of personal pronouns (i.e., ‘my’, ‘myself’, ‘I’, ‘me’, ‘mine’)	Linguistic marker	Number of times used	
		I	6	0
		Me	2	0
Total:	8	0		
8	Verbs indicating planning or initiating the action	Linguistic marker	Number of times used	
		Develop, do business, do (things), act, action	5	9
		Take the risk, lower risk, reduce	1	6
		Invest, increase, strive, focus, be, change	6	17
		Total:	12	32
11	Verbs indicating distrust towards other group(s) or person(s)	Linguistic marker	Number of times used	
		Challenges we face, challenging external environment, competitors	4	2
		Total:	4	2
13*	High complexity words to low complexity words	Linguistic marker	Number of times used	
		High complexity		
		For example	5	0
		Total:	5	0
		Low complexity		
		Always, every, only	4	22
		Absolutely, certainly, definitely, of course, totally, without a doubt	4	2
		Must, never	2	6
		All	4	9
Total:	14	39		
Ratio:	0.36	0		

Similarly to the results obtained from an analysis of interview responses, findings from a qualitative analysis of letters to shareholders do not indicate any strong tendencies (see Table 5.6 above). Even though Paul Polman scored higher on ‘self-referencing’ (HS7), the number of times personal pronouns were used (eight occurrences) is too small to comment further. His score in ‘in-group bias’ (HS5) is extremely high, yet as mentioned before, a high score in this category is expected from a CEO who is the main representative of a corporation.

As with his interviews, Jack Welch scored extremely high in ‘self-belief’ (HS8) and ‘conceptual complexity’ (HS13), signifying an extremely determined personality. Furthermore, the absence of high complexity words (i.e., maybe, potentially, perhaps) in his report is another signifier of his potentially hubristic personality.

In any case, the results from the analysis of letters to shareholders cannot be used to draw generalizable conclusions as an even smaller sample of data (1495 words from letters to shareholders) was used. Overall, in some symptoms (HS1, HS8, HS13), Jack Welch scored higher indicating the risk of hubris. On the other hand, in some other categories (HS5, HS7, HS11), Paul Polman’s scores were higher than Jack Welch which raised a number of questions which are further discussed in Chapter 5.

5.3.4. Use of DICTION for the analysis of letters to shareholders

Similarly to section 5.3.2 above, the second part of the analysis of letters to shareholders used DICTION software based on the mapping of DICTION variables to Hermann’s LTA framework. Table 5.2 specifies the details of this variable mapping. Written discourse materials (letters to shareholders) were used and the scores obtained are summarised in Table 5.7 below.

Table 5.7. Findings from Paul Polman and Jack Welch’s annual reports: DICTION variables

HS #	LTA	Scoring description	Findings		
			DICTION variable	Scores	
1	Need for Power and Influence	Master variable CERTAINTY		Paul Polman	Jack Welch
			CERTAINTY	39.64	52.87
5*	In-group bias	Master variable OPTIMISM	OPTIMISM	76.57	48.79
7	Self-confidence	Variable Self-reference	Self-reference	1.12	0
8	Belief in one’s own ability to control events	Master variable ACTIVITY	ACTIVITY	-80.65	50.24
11	Distrust of others	Variable Cooperation	Cooperation	2.62	2.76
13*	Conceptual complexity	Variable Ambivalence versus variable Levelling	Ambivalence (A)	3.81	5.26
			Levelling (L)	5	15.04
			Ratio (A/L):	0.76	0.35

Overall, the results obtained with DICTION software reflected the results obtained with the close reading technique. Paul Polman’s scores were extremely low (out of range) for most categories, except for ‘in-group bias’ (HS5) where he scored high in terms of ‘risk of hubris’ (it was also an out of normal range score). Scores for Jack Welch were out of range in two categories (‘need for power’ and ‘conceptual complexity’) which again indicates his determined and resolute personality as commented above. He also scored relatively high in ‘in-group bias’ (HS5) and ‘belief in one’s own ability to control events’ (HS8).

It should be also noted that some of the results for both CEOs are extremely low (i.e., variable ambivalence) in comparison to normal range scores for the associated type of material (marked in green). Overall, no definite conclusions can be drawn from the results obtained.

5.3.5. ProfilerPlus applied to all materials

The final part of the Pilot Study consisted of the application of the ProfilerPlus content analysis program for all of the above-mentioned materials – interviews with *HBR* and letters to shareholders.

ProfilerPlus is language analysis software that has Hermann's LTA coding system already built in. In other words, it produces scores for each LTA category without the need for any subsequent mappings or linkage through other variables, like in the case of DICTION software (see Table 5.2 for reference). Results obtained are summarised in Table 5.8 below. Similarly to the above tables, the first three columns list the mapping of the hubris symptoms to Hermann's LTA as described earlier, whilst the last four columns contain results.

Table 5.8. Summary of ProfilePlus results

HS #	LTA	ProfilerPlus naming convention	Interviews with HBR		Letters to Shareholders	
			Paul Polman	Jack Welch	Paul Polman	Jack Welch
1	Need for power and influence	PWR	0.3238	0.2069	0.4151	0.4054
5*	In-group bias	IGB	0.0521	0.0597	0.1918	0.1333
7	Self-confidence	SC	0.1667	0.3846	0.5	Score not provided
8	Belief in one's own ability to control events	BACE	0.463	0.3167	0.375	0.3077
11	Distrust of others	DIS	0.1429	0.1967	0.1765	0.3158
13*	Conceptual complexity	CC	0.6235	0.515	0.617	0.4454

Results for 'need for power and influence' (HS1) are similar for both leaders with Paul Polman scoring slightly higher in both instances (interviews and letters to shareholders). This result differs from scores obtained for the same category whilst using close reading and DICTION software – Jack Welch's scores were slightly higher using those techniques.

Another deviation is the result for 'self-confidence' (HS7) where Jack Welch scored higher than Paul Polman. This is an opposite result compared to scores obtained before for the same variable. A similar case is with regards to the results for 'belief in one's ability to control events' (HS8) – using the other two techniques Jack Welch scored higher in this category than Paul Polman's. Results for the HS2, HS11 and HS13 reflect results obtained whilst using the other two techniques.

To help compare results with the ones listed in Tables 5.4-5.7 above, two deviations in terms of scores obtained compared to other two techniques are marked in **red** in Table 5.8. Minor deviations are coloured in orange, whilst a black font on a white background indicates no deviation.

5.4. Pilot Study summary

The Pilot Study described above consisted of the analysis of two well-known hubristic and non-hubristic CEOs: Jack Welch (formerly General Electric) and Paul Polman (Unilever). Three analysis techniques were applied in the Pilot Study – close reading, use of DICTION and use of ProfilerPlus content analysis programs. All three techniques are based on Hermann's LTA framework as a template (coding scheme) for the analysis of textual data.

Secondary data materials (interviews with *HBR* and letters to shareholders) were used in the Pilot Study. This allowed the coverage of 'spoken' and 'written' discourse samples to be analysed and compared. A total of 3983 words for each leader from different sources were analysed. Following the application of all three techniques, findings of the Pilot Study are summarised in Tables 5.4-5.8.

The most important aspect of the Pilot Study was to validate the proposed research design and its suitability to answer the research question. This aim was partially achieved as evidenced by the results of the Pilot Study summarised in this chapter. However, the research methods used (close reading and content analysis using Profiler Plus and DICTION) proved to provide only limited insights into the topic of linguistic markers of leader hubris.

The close reading technique provided greater insight into hubris lexicon with its ability to indicate specific examples of linguistic markers in spoken and written material produced by a CEO. On the other hand, content analysis whilst using the close reading technique inevitably carries higher risk

of subjectivity as the researcher is left to make the decision of whether a certain word or word compound falls into a specific category as specified in the rather broad descriptions for categories in Hermann's LTA framework. Naturally, this leads the researcher to question how precise the comparison of results is compared to some other techniques (i.e., use of word count software) that provide scores based on clearly defined and standardised measures. Furthermore, given that the close reading technique is highly subjective, some form of an inter-rater reliability check on the 'coding' should be completed if this technique is to be used in future studies.

Naturally, scores provided by DICTION and ProfilerPlus content analysis programs mitigated subjectivity and the coding reliability risks described above. Both software packages allow the researcher to establish a precise mathematical comparison of the results as both programs use pre-defined and standardised dictionaries of words for any text used. In addition, ProfilerPlus is already based on Hermann's LTA coding scheme which provides scores precisely for personality variables established in the LTA framework (Hermann, 2005). On the other hand, even though DICTION requires additional mapping of DICTION variables to Hermann's LTA measures, it allows for a comparison of scores against the general norm as the program provides indication of the normal range for each variable and marks high or low scores that are out of range.

On the negative side, the software packages indicated above do not allow the researcher to look into specific examples (words or sentences) that 'make up' scores, hence there is no way to list specific linguistic markers of leader hubris. In other words, the researcher can determine that a CEO has a tendency to succumb to, or has already succumbed to, hubris, but has no means to identify precise hubris lexicon or linguistic examples of hubris presence. For example, a score for Jack Welch (hubristic CEO) in the 'Certainty' category in DICTION was 52.87 which is higher in comparison to its non-hubristic counterpart score of 39.64. This means that the software was able

to identify differences between hubristic and non-hubristic samples but could not provide any insights into precisely what created those differences (i.e., what words does DICTION count in order to calculate its scores). Profiler Plus provided exactly the same limitations as it works in a similar ‘black box’ manner– only providing scores for categories without further details about each category.

Moreover, the results of the Pilot Study indicate that the type of discourse materials used appear to make a difference and that the choice of data type is an important consideration. For example, in interview responses questions might require a respondent to use first-personal singular pronouns which would naturally increase the score of ‘self-referencing’ (used to determine HS7 and HS14). In addition, some material (i.e., letters to shareholders) might require a CEO to use positive and uplifted language since this is a corporate material which is also used for marketing purposes. In addition, as unedited materials are ever likely to be equally sized, a potential issue to be addressed is how, and why, a certain selection of the words from a longer text has been made.

Adding to the above, the Pilot Study evidenced that a bigger sample size of CEOs is necessary to allow concluding that a difference actually exists in the language of those leaders acquiring hubris and those that have been classified as non-hubristic. So far this Pilot Study has indicated very similar scores for both leaders for the majority of symptoms, including some of the scores being out of the normal range.

All in all, the Pilot Study was a useful step in the research process to validate the proposed research strategy and methods. Whilst it does not bring any definite conclusions, it raises a number of helpful questions and considerations for future work. All these questions, together with some recommendations for further research into linguistic markers of CEO hubris, are discussed in Chapter 6.

6. STUDY 1, HUBRISTIC LANGUAGE IDENTIFICATION STATISTICAL ANALYSIS

6.1. Summary of Study 1

As discussed in Chapter 3, at-a-distance analysis approaches are built on the assumption that a leader's personality predisposes their cognition and behaviour which in turn is then reflected in their natural language use (Pennebaker et al., 2003). Therefore, such a personality trait as is suggested by Hubris Syndrome will represent itself in one's spoken and written language through the presence of various micro-scale linguistic features or so called 'linguistic markers' or 'biomarkers' (Amernic, Craig & Tourish, 2010; Garrard et al., 2014). A theory of the natural language use therefore offers a potentially useful conceptual basis for the application of various 'word count' type approaches in the analysis of language in order to identify linguistic markers of CEO hubris (Sadler-Smith et al., 2016).

Hubris' manifestation in a leader's natural language use (see: Pennebaker et al., 2003), in turn, allows researchers to identify extant hubris and – and what is even more promising – to identify the signs of incipient hubris over time. This is important as in most cases power-driven acts of hubristic CEOs which turn out to be detrimental are acknowledged only post-factum when it is too late for interventions to mitigate hubris to be made. As noted by Sadler-Smith et al (2016), "...although hubristic behaviours, acts or language are widely recognised and known, they are often not monitored, left unevaluated and, therefore, allowed to develop unhindered" (p.23). What is more, the use of linguistic markers as potential early warning signs and indicators of incipient or extant hubris mitigates the risk of someone trying to conceal their own hubris as language is an unconscious act and deliberate and continuous concealment of hubris would be very difficult to achieve.

Building on the natural language use theoretical foundation outlined above and building on the foundations laid in the Pilot Study, it was decided to conduct a first main study (hereafter referred to as ‘Study 1’). A cross-sectional study was conducted which used an alternative research design to address the Pilot Study’s shortcomings (see Chapter 5). The Chapter 6 describes the execution of Study 1, the results obtained, and the implications for the next study.

This chapter is comprised of two parts. The first part of the chapter outlines a simple descriptive analysis used to compare findings with the results from previous studies on the linguistic markers of hubris. The second part of the chapter will describe the application of standard statistical tests (e.g., *t*-test, Kolmogorov-Smirnov, binary logistic regression) to further analyse the data.

6.2. Research method

6.2.1. Summary of the Research Strategy

As part of the research process, Study 1 was conducted to validate and test the amended research design. This study was conducted according to the principles outlined in the research strategy for the thesis (see Chapter 3). Table 6.1 below provides details of the amended research strategy. Changes made to the baseline research strategy are marked in *italics*.

Table 6.1. Amended Research Strategy (main change shown in *italics*)

Research Philosophy	Ontology	Objectivism
	Epistemology	Positivism
Research Approach		Deductive
Research Design	Methodological Choice	Mixed-method
	Nature of Research Design	Exploratory
	Time Horizon	Cross-sectional
Ethics	Ethical Approval	Not required
Research Method	Data Collection Technique	Use of Secondary Data
	Method	<i>Content analysis using LIWC and Computational Statistics</i>
	Sampling	Non-probability Purposive Sampling

The key difference in terms of research strategy for the Pilot Study and Study 1 was the amended Research Methods (content analysis using LIWC and statistical analysis using SPSS instead of Hermann's LTA framework).

6.2.2. Sample and data used

The amended study design described above was implemented on a sample of five hubristic CEOs (HCEO) and five non-hubristic CEOs (NHCEO) ($N=10$) in order to validate the design and method (see Table 6.2 below for the summary).

Table 6.2. Summary of Study 1

	Hubristic sample¹	Non-hubristic sample²
Subjects per sample	5	5
Material analysed	Spoken utterances for the last full year of being a CEO from at least two different sources	Spoken utterances for the last full year of being a CEO from at least two different sources
Words analysed	25,926	20,496
Method	Computer-aided content analysis with LIWC	Computer-aided content analysis with LIWC

The sampling strategy as described in section 3.8.1 (Chapter 3) was used. Spoken utterances for the last full year of being a CEO from at least two different sources have been used for the analysis which consisted of approximately 3,000 to 10,000 words per subject, depending on data availability - some of the CEOs that have been sampled gave a number of interviews throughout a given year, however, others gave only a few short interviews which meant that the available data for particular year was limited. See Table 6.3 below for further details on the number of words analysed for each CEO.

¹ In the Pilot Study Jack Welch (formerly of General Electrics) was used as a representative of the hubristic sample. He was not included in subsequent studies because there was not enough data for the required year.

² In the Pilot Study Paul Polman (Unilever) was used as a representative of the non-hubristic sample. He was not included in subsequent studies because the sampling strategy has been re-defined after the PhD Confirmation process [1/10/2015].

Interviews were retrieved from various online sources using a Google search engine query (see Appendix 15 for details). Table 6.3 below specifies the search criteria and outputs produced by this search query:

Table 6.3. Outputs from the Search engine

Search criteria	Outputs
Search terms	Interview with [name of the relevant CEO]
Output criteria	To show English articles only; required year specified
Pages reviewed	Until there were no more relevant outputs (up to 15 pages)
Average outputs per page	10

Outputs retrieved were copy-pasted into an MS Word document, prepared for the analysis (detailed preparation steps described in section 6.2.3. below) and analysed using LIWC (Pennebaker et al., 2015). As noted above, that the amount of data (words produced by each study subject per year) differed (see Table 6.4) as some CEOs delivered more interviews per year than others. However, this did not present an issue for the analysis as the LIWC tool used (see full details on this software in section 3.7.2.2 in Chapter 3) produced results expressed as percentage of total words (e.g., 100 pronouns found by the software in a 1000-word text would be expressed as 10%) which meant that the overall result was not affected by the number of words used in the analysis.

Given that there does not appear to be a widely accepted consensus amongst researchers in this field on what constitutes an ideal number of words to use in this type of research (number of words used in various research fluctuate from 500 to thousands, see Table 2.7 in Chapter 2 for comparisons), a decision was made by the researcher to analyse all the data gathered for each given year for every individual to militate against the selection of more suitable sections from the full data sample as being more or less representative of hubristic or non-hubristic speech. The same rule applied for the online source selection - various online sources were used to ensure that data is representative of the subject's overall speaking tone and manner and is not purposively selected

by the researcher. A detailed list of sources and materials used for each individual are included in Appendices 16 to 26.

According to previous researchers (for details see Chapter 2), Hubris Syndrome is hypothesised to develop over time (the longer an individual spends in a position of power, the greater the risk of hubris, see: Garrard et al., 2014; Owen, 2016). Hence to validate whether there are any differences in linguistic markers for subjects in both samples, the last full year of being a CEO was considered to be the most appropriate timeframe for identifying the linguistic markers of hubris. For CEOs that were still in their post at the time of the study, data from the last full year of being a CEO has been used (i.e., Study 1 was conducted in year 2016, hence data for year 2015 was used for Howard Schultz, CEO of Starbucks). There were two exceptions to this rule. First, data for year 2016 was used for Travis Kalanick, former CEO of Uber (he has resigned as Uber's CEO on June 20, 2017), as there was no available data for this CEO for year 2015. Second, although Steve Jobs had officially been CEO of Apple until August 24, 2011, data from 2008 has been used for analysis due to the considerable amount of time he spent on medical leave over the last couple of years of his tenure as Apple CEO (Steve Jobs was diagnosed with a pancreatic neuroendocrine tumour and died on October 5, 2011 due to respiratory arrest related to the tumour).

A detailed framework on sampling strategy employed by this research to sample CEOs as hubristic or non-hubristic is described in Chapter 3, section 3.8.1. Detailed information on Study 1 subjects is provided in Table 6.4 below.

Table 6.4. Study 1 subjects (HCEO, hubristic CEO; NHCEO, non-hubristic CEO)

CEO	Sample	Organisation	CEO tenure	Year	Words analysed
Travis Kalanick	HCEO	Uber	2009 - 2017	2016	5108
Howard Schultz	HCEO	Starbucks	2008 - present	2015	4803
Elon Musk	HCEO	Space X, Tesla	2002 - present	2015	4150
Jamie Dimon	HCEO	JP Morgan	2000 - present	2015	10566
Steve Jobs	HCEO	Apple	1976 - 2011	2008	3121
Jeff Bezos	NHCEO	Amazon	1994 - present	2015	3302
John Chambers	NHCEO	Cisco	1995 - 2015	2014	4732
Mark Parker	NHCEO	NIKE	2006 - present	2015	6137
Mike Bloomberg	NHCEO	Bloomberg	1981 - present ³	2015	3194
Robert Iger	NHCEO	Walt Disney	2005 - present	2015	3131

Spoken discourse samples, for example interviews as used in Study 1 described here, are generally seen as credible and valid material for language analysis as it reduces the risk of answers being prepared in advance or being written by a speechwriter (Hermann, 2008; Garrard et al., 2014). For further justification of the type of material used in the study see section 3.8.2 of Chapter 3.

Computer-aided content analysis with word count and analysis software as implemented in LIWC (Pennebaker et al, 2015) was used in the study. It will be recalled that in the Pilot Study, DICTION and ProfilerPlus software packages were used as they were deemed to be the best-suited options to execute the chosen method (see Chapter 5 for more details). One of main reasons for choosing LIWC in Study 1 over DICTION and ProfilerPlus software was because DICTION and ProfilerPlus have provided only limited insights into the linguistic markers of hubris – both software packages were able to provide only scores for certain categories, but no details on what exact linguistic utterances the calculation of these scores was based on (i.e., Jack Welch (hubristic CEO) score for ‘Certainty’ category in DICTION was 52.87, however there was no way to understand how this score was calculated, hence to understand what are the potential markers of

³ With a break in CEO tenure when he served as the 108th Mayor of New York City for three consecutive terms 2001 – 2013.

‘hubristic speak’). See section 5.4 in Chapter 5 for more details on limitations of DICTION and ProfilerPlus software packages.

Given the aim of this research to identify linguistic markers of CEO hubris, LIWC was deemed to be better suited to identify the presence or absence of linguistic markers of leaders’ hubris due to public availability of the vocabulary used by LIWC to calculate the scores for each category. In addition, previous research has successfully applied LIWC in similar studies of natural language use (see section 3.7.2.1. in Chapter 3). This software was specifically designed to determine the various cognitive, psychological and emotional states of an individual from the spoken and written materials and has been previously used in personality and leadership research (Kovalchuk, 2013; Pennebaker & King, 1999; Pennebaker et al., 2003), but it has yet to be used in hubris research. A comparison of existing qualitative and quantitative content analysis programs used in management and organizational research can be found in Table 3.2 in Chapter 3.

6.2.3. Analysis

As previously discussed, an individual’s natural language use entails significant psychological informational value (Gottschalk & Glaser, 1969; Stone et al., 1968; Winter, Weintraub & Walker, 1991) which can be relatively easily and efficiently captured with word count and analysis software such as LIWC. The LIWC software used in Study 1 is based on a pre-defined dictionary containing a number of sub-dictionaries, totalling approximately 6,400 words and word stems that are counted in a text file as the specific text is analysed. In total, there are 93 output categories provided by the LIWC2015 for each processed text that include general word count, standard linguistic dimensions (i.e., pronouns, articles), categories representing certain psychological processes (i.e., affect, drives), punctuation and several others. Section 3.7.2.1 in Chapter 3 contains further details on LIWC software whilst a full list of LIWC linguistic categories and examples for each can be

found in Appendix 27. Although LIWC2015 analyses text along 93 linguistic dimensions, not all of them are applicable for hubris research and only certain categories have been selected for the present analysis.

The first part of the study (a simple descriptive analysis used to compare findings with the results from previous studies on the linguistic markers of hubris) includes a total of 19 output categories (out of the available 93 categories provided by LIWC). These categories were selected for analysis based on the findings from previous research (Garrard et al., 2014; Owen & Davidson, 2009) that correlated these specific categories with hubris (e.g., use of first-person singular pronoun 'I'), was used in a similar research setting (e.g., function words) or was a general category applicable for almost any type of linguistic research (e.g., words per sentence).

For example, LIWC variables such as pronouns (singular, plural and impersonal), negations and certainty tone were selected for Study 1 because of their importance as potential markers of hubris as noted by several researchers (Garrard et al., 2014; Owen & Davidson, 2009). In addition to these, such variables as positive and negative emotion words, function words and various drive-related categories were included in the analysis as previous research has linked them with various personality dimensions (Pennebaker & King, 1999). Finally, some other categories (i.e., words longer than six letters) were included because of their general applicability. Overall, the final list consisted of 19 LIWC categories – the full list of selected categories along with justification for the inclusion of these categories and some examples of words used to calculate scores for each selected category are provided in Appendices 13 and 14.

The second part of the study (computational statistics) includes a total of 73 categories. Although there are 93 categories in LIWC in total, 19 categories have been excluded from the analysis. These categories include four summary variables (Analytic, Clout, Authentic, Tone), Word Count (WC),

Words per Sentence (WPS) and Words that are longer than six letters (Sixltr) as these six categories are based on the simple word count as opposed to percentages like the rest of LIWC categories (see Chapter 3 section 3.7.2.2 for further details). Other categories that have been excluded are descriptor category ‘Dic’ that counts percent of target⁴ words captured by the dictionary and 12 categories that capture punctuation (e.g., comma, dash, etc.). Punctuation categories have been excluded from the analysis as transcribed interviews have been used as material in the study, because there is a risk that the punctuation has been influenced by the transcriber.

In order to prepare texts for the analysis, the following steps were applied:

1. Each subject’s language sample was copy-pasted into a Microsoft Word (.docx) file (as LIWC2015 is limited to processing data one file at a time);
2. Each file was saved and named in a descriptive and systematic way (e.g., ‘Elon Musk – 2015 – 4150 words’);
3. All saved files were run through the standard Microsoft Word spellcheck program (British English dictionary) to ensure there were no typing errors included in the text. As LIWC2015 converts all text files to lower case before processing, grammar, capitalization, and sentence structure was not changed;
4. As specified in the LIWC2015 Operator’s Manual (2015), the following cleansing rules were applied:
 - In order to increase result accuracy, spelling errors were corrected for common words (British English spelling);
 - From interviews, questions asked by the interviewer and authors remarks were removed (e.g., ‘laughs’, ‘grins’, ‘pauses’);

⁴ Words contained in texts that are read and analysed by LIWC are called target words.

- Meaningful abbreviations were spelled out (e.g., ‘Feb’ spelled out as ‘February’; ‘sec’ for ‘second’);
- End of sentence markers and hyphens were checked, and unnecessary periods removed (‘Dr.’ to ‘Dr’ as the WPS (words per sentence) category is calculated based on the number of times such markers are identified by the software).

Once the files were prepared as specified above, all ten data files were individually imported into LIWC2015 for analysis (File -> Analyse Text). Once the data was processed by the software, results for each subject were saved as Microsoft Excel (.xlsx) files (File -> Save Results). All results were collated in a single table and for comparison purposes the mean for each category was calculated (see Table 6.5 below containing all scores).

As specified in Chapter 3 section 3.7.2.2., the LIWC2015 scores are calculated as a percentage of words that match the words in the pre-defined LIWC2015 dictionary for each individual category, with the exception of handful of categories that are based on the simple count (these categories were not used in the computational statistics analysis). This essentially means that the small difference in the number of words analysed for each individual (i.e., 3121 words for Steve Jobs (HCEO) and 3302 for Jeff Bezos (NHCEO)) does not matter because scores are expressed as percentage of total words (i.e., 100 verbs found by the software in a 1000-word text would be expressed as 10%).

Once the LIWC results for the above-mentioned variables have been obtained and variables categorised to the relevant sections (see ‘Findings’ section below for further details), the next stage of the analysis was to test for differences between hubristic and non-hubristic samples. It should be noted that whilst in the first stage of this study LIWC scores have been obtained only for the 19 most relevant categories based on the findings from previous research (Owen and Davidson, 2009;

Garrard et al., 2014), the second stage of this study (computational statistics) tested for the difference between two samples for scores of the extended set of LIWC categories (73 in total).

In order to test for differences in language use between the hubristic and non-hubristic CEOs, an Independent Sample *t*-test was conducted using SPSS software to determine whether the difference in the scores obtained for various LIWC categories for hubristic and non-hubristic CEOs is statistically significant. The following hypothesis is presented:

Null hypothesis: there is no difference between hubristic and non-hubristic CEOs in language use.

Alternative hypothesis: there is a statistically significant difference between hubristic and non-hubristic CEOs language use.

Because the research is exploratory it was not felt to be necessary to formulate hypotheses for all of the LIWC categories.

Before conducting the *t*-test, it was necessary to checked whether these data were normally distributed by looking at Skewness scores calculated using Kolmogorov-Smirnov test which determines whether parametric tests (if data are not skewed) or non-parametric (if data are skewed) tests have to be used in the analysis (Saunders et al., 2012). Depending on the skewness of various LIWC categories, testing for difference in means has been completed parametrically using the Independent Sample *t*-test and non-parametrically using the Mann-Whitney test.

In addition to testing for the differences between samples using *t*-test, the present study has also used a binary logistic regression to predict whether a given CEO would fall into the hubristic or non-hubristic CEO category based on the number of selected variables. The general rule for constructing a meaningful binary logistic equation is having 15 instances per sample (Saunders et al., 2012). As the sample of Study 1 was only 10 ($N=10$), however as there was a vast number of

the data points (more than 46,000 words analysed), it was decided to attempt to construct the binary logistic equation using the most theoretically promising indicators. Findings obtained by the manual interpretation of LIWC scores and computational statistics are summarised in the next section.

6.3. Findings

6.3.1. Findings from manual analysis of LIWC scores

Table 6.5 below summarises the results obtained in Study 1. As noted above, scores are expressed as percentages with the overall mean in each sample for every category calculated at the bottom of HCEO and NHCEO scores (highlighted in orange). The table also contains mean and standard deviations for each sample. The line at the bottom of the table (called ‘Diff (%)’) provides the difference between mean scores for easier comparison purposes. Abbreviations for categories used in the Table 6.5 below are explained in Appendix 14 (i.e., ‘ipron’ stands for ‘Impersonal pronouns’).

Table 6.5. Study 1 results for 17 most relevant LIWC categories

CEO	WPS	Sixltr	Funct.	Ppron	I	We	Ipron	Auxv.	Negt.	Verb	Pos.	Neg.	Tent.	Cert.	Affil.	Ach.	Pwr
Travis Kalanick	26.47	15.00	59.44	9.44	2.80	3.43	8.05	11.65	1.66	21.05	3.37	0.78	3.56	1.78	3.86	1.88	2.15
Howard Schultz	15.35	15.97	56.96	7.31	2.64	2.39	8.04	11.41	1.73	18.34	3.73	1.37	4.58	1.50	2.87	2.12	2.5
Elon Musk	21.50	17.40	57.69	9.42	3.06	3.78	6.48	9.18	1.57	16.31	3.35	0.87	2.41	1.90	5.47	1.83	2.27
Jamie Dimon	12.76	15.70	56.30	10.10	3.30	2.77	7.43	11.61	2.29	20.90	3.81	1.26	3.90	1.87	3.27	1.82	3.85
Steve Jobs	12.90	12.46	60.04	11.25	1.70	5.61	8.97	12.18	2.53	22.30	2.98	0.93	2.79	2.21	6.34	1.95	1.79
Mean (HCEO)	17.80	15.31	58.09	9.50	2.70	3.60	7.79	11.21	1.96	19.78	3.45	1.04	3.45	1.85	4.36	1.92	2.51
Jeff Bezos	13.64	15.72	57.09	10.18	3.24	2.79	7.33	11.84	1.67	19.87	3.97	1.12	3.12	1.82	3.63	2.45	2.91
John Chambers	16.32	18.41	58.69	10.48	1.61	4.80	6.87	10.61	1.56	17.48	1.99	0.46	2.85	1.48	6.45	2.22	2.66
Mark Parker	17.29	14.37	59.77	9.29	2.72	1.96	7.87	12.86	2.93	20.61	3.08	1.48	3.13	2.18	2.56	1.63	3.45
Mike Bloomberg	18.46	24.64	51.31	7.67	1.75	4.07	5.23	7.55	0.81	12.71	4.92	0.34	2.10	1.82	5.82	3.98	2.35
Robert Iger	15.81	17.50	56.37	7.89	2.01	3.86	6.20	10.16	1.82	17.98	4.18	0.89	2.52	1.50	4.22	1.72	2.33
Mean (NHCEO)	16.30	18.13	56.65	9.10	2.27	3.50	6.70	10.60	1.76	17.73	3.63	0.86	2.74	1.76	4.54	2.40	2.74
Category	3	3	3	1	1	1	3	3	3	1	2	3	2	1	1	2	2

All results obtained have been categorised into three sections as follows:

1. **Consistent with previous research** – categories that provide a difference between means for hubristic and non-hubristic samples and where such findings are consistent with results obtained in previous research (e.g., HCEO language tends to have a high number of the first-person singular pronoun ‘I’). This rejects the null hypothesis.
2. **Inconsistent with previous research**- categories that provide a difference between means for hubristic and non-hubristic samples, where the result obtained is inconsistent with previous research (e.g., hubristic individuals are heavily attributed to overconfidence hence their ‘tentative language’ score was expected to be lower than those of the NHCEO sample). This accepts the null hypothesis.
3. **New (not-hypothesised before)** – categories that provide a difference between means for hubristic and non-hubris samples, where previous research has not hypothesised, researched and/or analysed this language category before (e.g., according to the results obtained, HCEOs tend to use a higher number of impersonal pronouns, but where this has not been investigated by the previous research).

The ‘Category’ row (last line in the Table 6.5 above) indicates to which category (1, 2 or 3 as per descriptions above) a given LIWC category analysed is attributed.

6.3.1.1. Findings consistent with previous research

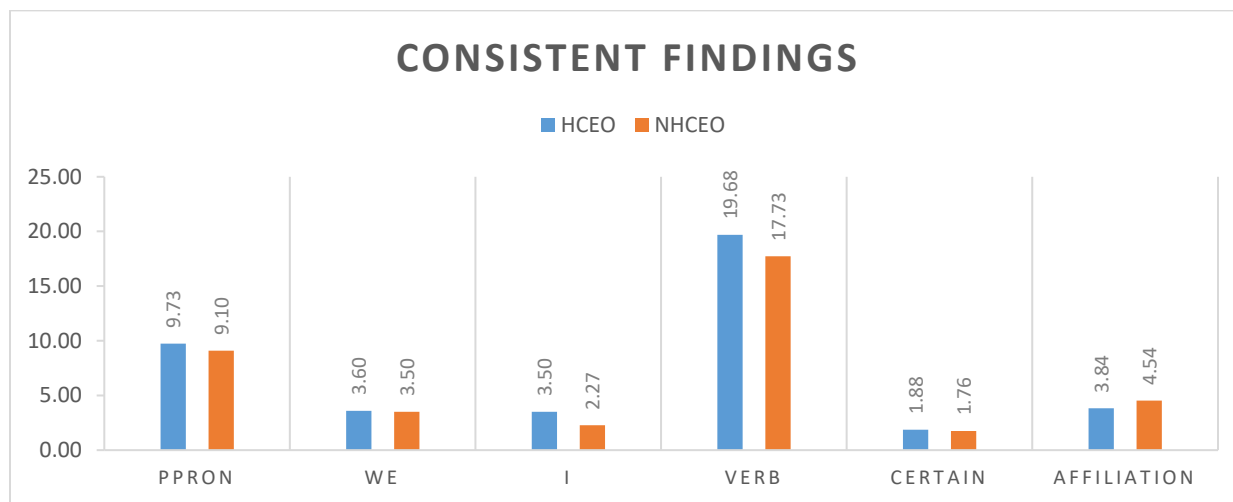
A comparison of means in Table 6.5 above indicates differences in HCEO and NHCEO language use. Firstly, there are six categories where results obtained are consistent with findings from the previous research on hubris and language as follows, use of:

1. Personal pronouns (ppron)
2. First-person plural pronoun (we)

3. First-person singular pronoun (i)
4. Verbs (verb)
5. Certainty (certain)
6. Affiliation (affiliation)

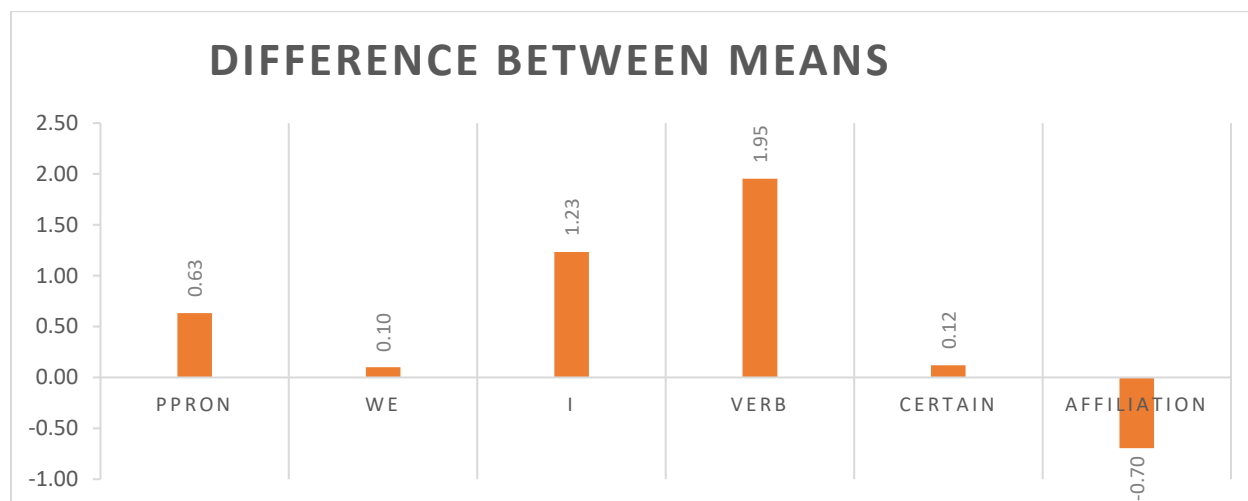
Scores for each of these categories for both samples – hubristic and non-hubristic – are shown graphically in Figure 6.1 below. These findings are consistent with conclusions from previous research studies (Amernic, Craig & Tourish, 2010; Garrard et al., 2014; Owen & Davidson, 2009; Short & Palmer, 2008) on hubris and language: scores for use of the personal pronouns (overall use of pronouns, plural pronoun ‘we’ and first-person pronoun ‘I’), verbs and certainty words are higher for hubristic individuals whilst scores for use of words indicating sense of affiliation are higher for the non-hubristic sample.

Figure 6.1. Findings consistent with the previous research



An alternative representation of these differences⁵ is shown in Figure 6.2 below.

⁵ Difference between mean of hubristic and non-hubristic sample for each category.

Figure 6.2. Difference between means for categories consistent with previous findings

Categories such as the use of personal pronouns, especially greater use of first-person singular pronoun ‘I’, use ‘certainty’ words and verbs appear to be associated with hubristic CEOs (for these categories scores of the hubristic sample are higher than scores of the non-hubristic sample). On the other hand, according to the results obtained, use of affiliation words (such as ‘associate’, ‘collaborate’, ‘helpful’, ‘together’) were higher for the non-hubristic CEOs (scores for these categories are higher in the non-hubristic sample compared to hubristic sample).

As indicated in Figure 6.2, differences between means fluctuate between -1 and 2, depending on the category. The highest differences are for the use of personal pronoun ‘I’ and use of verbs in the hubristic sample and the use of affiliation words in the non-hubristic sample. Interpretation of the scores above is provided in the Discussion section 6.4 below.

6.3.1.2. Findings inconsistent with previous research

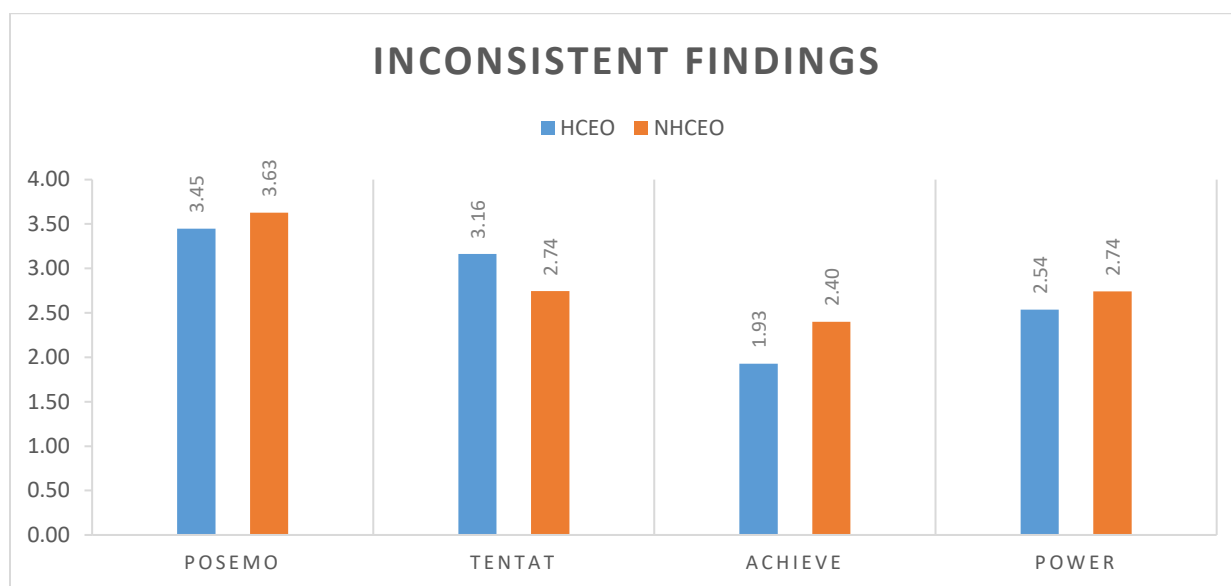
This study produced some findings that do not align with previous research. The scores for the following categories do not follow the expected patterns for hubristic speech:

1. Positive emotions (posemo)

2. Tentativity (tentat)
3. Achieve (achieve)
4. Power (power)

Scores for these four categories are represented graphically in Figure 6.3 below. The scores obtained are inconsistent with conclusions reached in previous research studies (Owen and Davidson, 2009). For example, previous research has linked the need for achievement, power and positive emotion words with an hubristic personality and a tentative speaking manner with non-hubristic characteristics (Amernic, Craig & Tourish, 2010; Morris et al., 2005; Owen & Davidson, 2009).

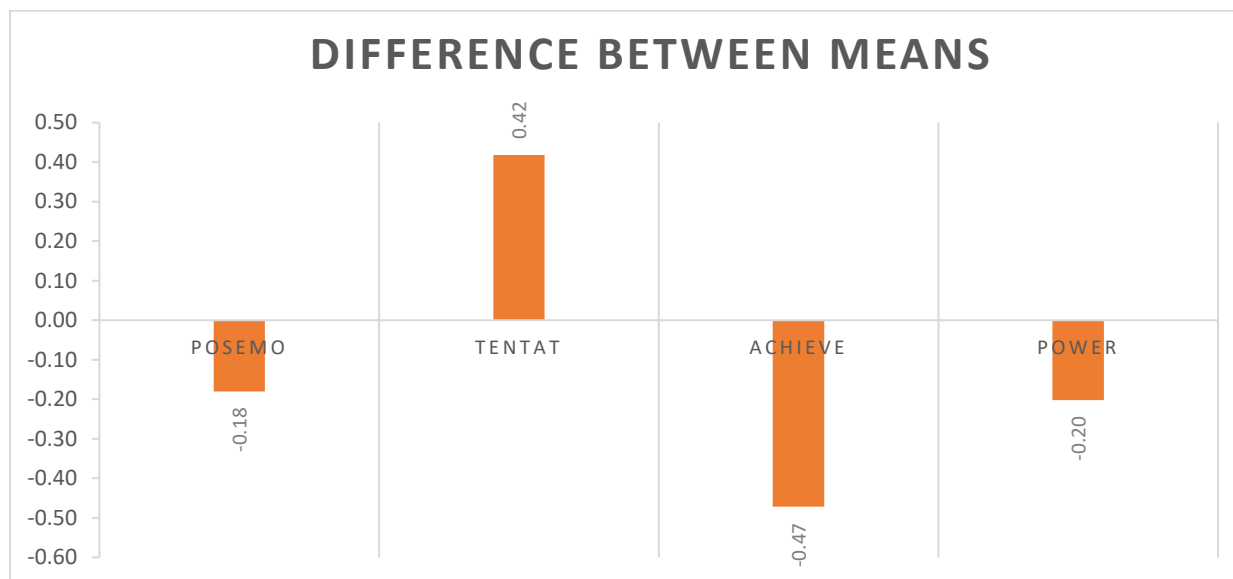
Figure 6.3. Findings inconsistent with the previous research



In order to get a better understanding of view of these differences, see Figure 6.4 below. As indicated by the histogram, scores for use of the tentative tone is higher in the hubristic sample whilst scores for use of achievement, power and positive emotion related words is higher for the

non-hubristic sample, which contradicts the current proposed understanding of hubris characteristics (Craig & Amernic, 2011; Owen, 2011).

Figure 6.4. Difference between means for categories inconsistent with previous findings



As mentioned before, given that Hubris Syndrome is linked with overconfidence, power and over-optimism the scores for achievement and power categories as well as for the positive emotion words were expected to be higher for the HCEO sample compared to NHCEO sample (and the opposite for the tentativity category). A closer look at words that make up the dictionary for score calculation does help to offer some explanation for these puzzling findings - further elaboration is given in the Discussion (section 6.4) of this chapter.

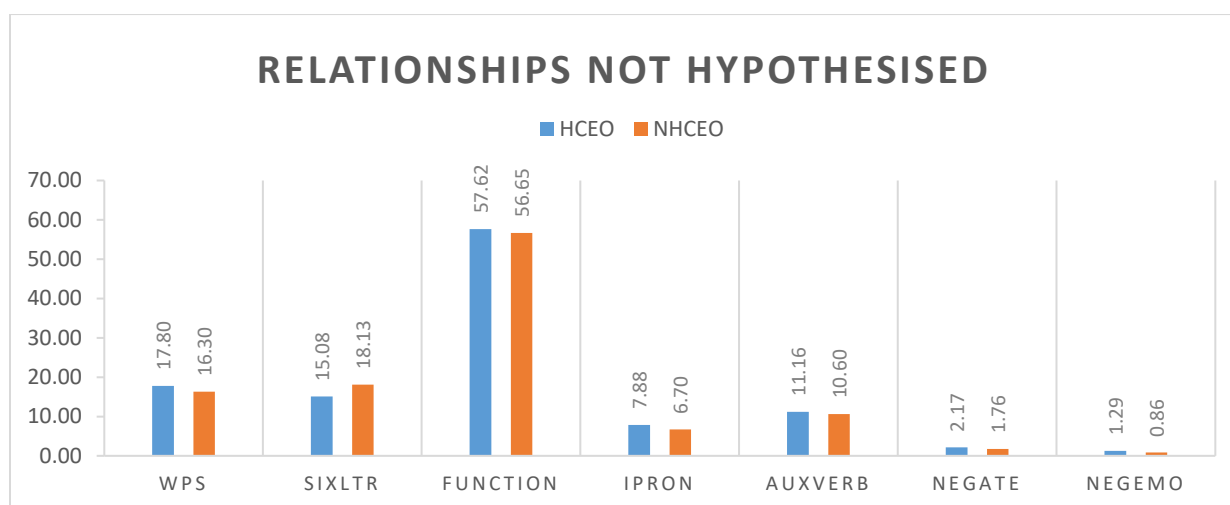
6.3.1.3. Relationships Not Hypothesised

A comparison of the means in Table 6.5 indicate more categories in which there are differences in HCEO and NHCEO language use. There are seven additional categories where differences between hubristic and non-hubristic samples were observed. These categories are as follows:

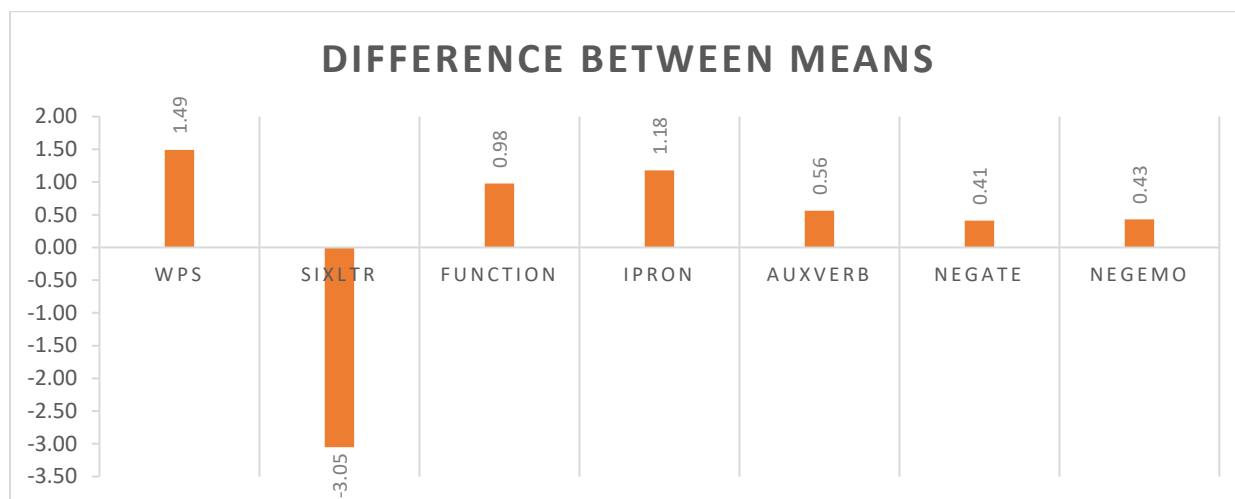
1. Words per sentence (WPS)

2. Words that contain more than six letters (sixltr)
3. Function words (function)
4. Impersonal pronouns (ipron)
5. Auxiliary verbs (auxverb)
6. Negations (negate)
7. Negative emotion words (negemo)

Figure 6.5. Scores for Relationships Not Hypothesised



In order to provide a clearer picture of the results they are plotted as difference scores in Figure 6.6 below. As may be seen from Figure 6.6, the number of words longer than six letters is lower in the hubristic sample (in other words, according to these results, non-hubristic leaders tend to use on average longer words in their speech). For the other six categories (use of words per sentence, use of function words, impersonal pronouns, auxiliary verbs, negations and negative emotion words) scores for hubristic leaders are higher compared to the non-hubristic leaders.

Figure 6.6. Difference between means for new categories

None of the language categories listed above were previously analysed in hubris research, however some differences identified could potentially be explained theoretically (e.g., the tendency for the non-hubristic leaders to use longer words). This and some other explanations and observations are provided in the Discussion section 6.4 below.

6.3.2. Statistical analyses

The main purpose of Study 1 was to examine the differences in the use of various linguistic markers based on LIWC categories between two independent samples – hubristic and non-hubristic CEOs. After running LIWC for the relevant LIWC categories (73 in total), the following scores have been obtained (see Table 6.6. below).

Table 6.6. Scores for 73 LIWC categories to be used for Computational Statistics

LIWC dimension	Travis Kalanick	Elon Musk	Howard Schultz	Steve Jobs	Jamie Dimon	Jeff Bezos	John Chambers	Mike Bloomberg	Mike Parker	Robert Iger
Category	HCEO	HCEO	HCEO	HCEO	HCEO	NHCEO	NHCEO	NHCEO	NHCEO	NHCEO
Function words (Function)	59.44	56.96	57.69	60.04	56.30	57.09	58.69	59.77	51.31	56.37
Pronouns (Pronoun)	17.50	15.37	15.90	20.31	17.56	17.50	17.35	17.16	12.90	14.08
Personal pronouns (Ppron)	9.44	7.31	9.42	11.25	10.10	10.18	10.48	9.29	7.67	7.89
Pronoun 'I' and its derivatives (I)	2.80	2.64	3.06	1.70	3.30	3.24	1.61	2.72	1.75	2.01
Pronoun 'We' and its derivatives (We)	3.43	2.39	3.78	5.61	2.77	2.79	4.80	1.96	4.07	3.86
Pronoun 'You' and its derivatives (You)	2.70	0.83	1.45	2.02	2.20	2.85	2.41	2.49	0.69	1.09
Pronouns 'She', 'He' and their derivatives (Shehe)	0.08	0.06	0.34	0.13	0.10	0.42	0.25	0.37	0.56	0.03
Pronoun 'They' and its derivatives (They)	0.43	1.37	0.80	1.79	1.72	0.88	1.42	1.74	0.59	0.89
Impersonal pronouns (Ipron)	8.05	8.04	6.48	8.97	7.43	7.33	6.87	7.87	5.23	6.20
Articles (Article)	6.46	7.54	8.02	6.44	6.33	6.97	5.87	7.45	7.80	7.47
Prepositions (Prep)	12.51	13.97	14.43	12.21	11.16	11.42	12.70	11.65	15.44	13.99
Auxiliary verbs (Auxverb)	11.65	11.41	9.18	12.18	11.61	11.84	10.61	12.86	7.55	10.16
Adverbs (Adverb)	8.28	6.20	4.92	5.96	5.64	6.33	6.34	5.39	3.76	6.80
Conjunctions (Conj)	9.38	5.95	7.73	6.98	7.57	7.66	9.07	7.64	7.04	7.31
Negations (Negate)	1.66	1.73	1.57	2.53	2.29	1.67	1.56	2.93	0.81	1.82
Common verbs (Verb)	21.05	18.34	16.31	22.30	20.90	19.87	17.48	20.61	12.71	17.98
Common adjectives (Adj)	4.60	4.46	3.18	4.26	4.40	4.88	3.11	4.14	6.23	5.11
Comparisons (Compare)	2.98	2.83	1.57	2.44	2.59	2.36	1.97	2.12	3.26	2.40
Interrogatives (Interrog)	2.41	1.46	1.54	2.31	1.49	1.42	2.75	2.05	1.53	1.66
Numbers (Number)	1.64	1.60	2.92	1.95	2.28	1.73	2.11	1.21	1.47	1.79
Quantifiers (Quant)	3.01	2.77	2.67	2.72	3.18	2.70	2.37	2.70	2.00	2.87
Affective processes related words (Affect)	4.17	5.12	4.27	3.91	5.11	5.18	2.49	4.61	5.29	5.14
Positive emotion words (Posemo)	3.37	3.73	3.35	2.98	3.81	3.97	1.99	3.08	4.92	4.18

Negative emotion words (Negemo)	0.78	1.37	0.87	0.93	1.26	1.12	0.46	1.48	0.34	0.89
Anxiety related words (Anx)	0.12	0.33	0.10	0.16	0.22	0.18	0.00	0.24	0.09	0.06
Anger related words (anger)	0.06	0.27	0.05	0.26	0.32	0.06	0.13	0.28	0.06	0.51
Sadness related words (sad)	0.27	0.21	0.29	0.16	0.22	0.36	0.04	0.24	0.03	0.10
Social processes related words (social)	9.49	7.43	12.94	14.10	10.32	10.96	13.67	11.06	9.52	8.59
Family related words (family)	0.12	0.06	0.17	0.00	0.09	0.06	0.04	0.02	0.06	0.06
Friends related words (friend)	0.08	0.04	0.34	0.06	0.07	0.03	0.74	0.00	0.47	0.06
Female related words (female)	0.00	0.00	0.36	0.00	0.05	0.03	0.00	0.03	0.13	0.00
Male related words (male)	0.14	0.19	0.07	0.16	0.16	0.39	0.25	0.36	0.53	0.06
Cognitive processes related words (cogproc)	14.29	15.80	11.57	15.44	14.47	13.29	13.57	14.13	12.49	12.84
Insight related words (insight)	2.84	2.23	2.51	3.14	3.02	2.63	2.05	2.40	3.29	2.75
Causations (cause)	2.37	2.46	1.28	2.69	1.76	1.76	3.40	1.91	2.97	2.46
Discrepancy words (discrep)	1.53	2.54	1.71	1.89	1.99	2.70	1.94	1.68	0.72	0.89
Tentative tone (tentat)	3.56	4.58	2.41	2.79	3.90	3.12	2.85	3.13	2.10	2.52
Certainty tone (certain)	1.78	1.50	1.90	2.21	1.87	1.82	1.48	2.18	1.82	1.50
Differentiation (differ)	4.17	4.68	3.13	4.39	3.87	3.15	4.37	4.60	2.69	3.67
Perceptual processes related words (percept)	1.62	1.12	1.01	1.89	1.79	2.21	2.05	1.21	1.19	1.98
Sight related words (see)	0.94	0.37	0.36	0.70	0.81	0.73	0.99	0.39	0.66	1.12
Hearing related words (hear)	0.41	0.44	0.48	0.90	0.66	0.97	0.72	0.51	0.16	0.45
Feeling related words (feel)	0.16	0.25	0.07	0.26	0.22	0.39	0.30	0.28	0.13	0.29
Perceptual processes related words (bio)	0.63	0.50	0.87	1.03	0.55	0.94	0.30	1.29	1.10	0.26
Body related words (body)	0.25	0.12	0.17	0.26	0.12	0.18	0.13	0.15	0.41	0.19
Health related words (health)	0.27	0.21	0.55	0.45	0.27	0.27	0.11	0.42	0.31	0.03
Sexuality related words (sexual)	0.06	0.06	0.00	0.00	0.00	0.03	0.00	0.00	0.13	0.03
Ingestion related words (ingest)	0.06	0.08	0.14	0.13	0.10	0.21	0.02	0.70	0.16	0.00
Personal drives related words (drives)	9.49	8.47	10.53	12.08	10.71	10.39	11.62	9.34	12.77	9.68
Affiliation related words (affiliation)	3.86	2.87	5.47	6.34	3.27	3.63	6.45	2.56	5.82	4.22
Achievement related words (achieve)	1.88	2.12	1.83	1.95	1.82	2.45	2.22	1.63	3.98	1.72

Power related words (power)	2.15	2.50	2.27	1.79	3.85	2.91	2.66	3.45	2.35	2.33
Reward related words (rewards)	2.00	1.50	1.47	2.50	2.38	2.06	1.44	2.09	2.25	1.92
Risk related words (risk)	0.33	0.65	0.39	0.54	0.76	0.58	0.57	0.73	0.16	0.16
Use of Past tense (focuspast)	2.02	2.64	3.45	5.67	2.91	2.18	2.60	2.35	1.88	4.31
Use of Present tense (focuspresent)	16.76	12.93	11.52	13.97	15.38	15.72	13.52	16.31	10.33	12.36
Use of Future tense (focusfuture)	1.94	1.69	1.47	1.44	2.03	1.82	1.63	1.79	1.06	1.98
Relativity related words (relativ)	15.35	13.14	13.88	11.57	12.56	13.02	13.74	13.52	15.59	14.98
Motion related words (motion)	3.00	2.37	1.69	2.56	2.44	2.30	3.21	2.41	2.66	2.49
Space related words (space)	8.40	7.68	7.40	5.48	6.73	6.51	6.61	7.41	8.67	7.86
Time related words (time)	4.37	3.14	5.33	3.75	3.55	4.48	4.21	3.98	4.54	4.63
Work related words (work)	3.66	3.69	4.51	4.33	5.64	4.82	4.46	4.55	4.76	4.38
Leisure related words (leisure)	0.35	0.50	0.34	1.54	0.20	1.06	0.55	0.65	1.41	1.47
Home related words (home)	0.02	0.17	0.29	0.29	0.26	0.33	0.04	0.08	0.03	0.19
Money related words (money)	2.25	2.58	2.27	1.25	3.66	3.09	1.92	1.79	1.22	3.45
Religion related words (relig)	0.02	0.00	0.05	0.16	0.05	0.12	0.00	0.13	0.09	0.00
Death related words (death)	0.04	0.10	0.00	0.03	0.11	0.00	0.02	0.15	0.00	0.26
Informal language (informal)	0.88	1.04	0.36	0.32	0.55	1.18	0.36	0.67	0.25	0.54
Swear words (swear)	0.04	0.00	0.00	0.06	0.02	0.03	0.00	0.00	0.00	0.00
Use of abbreviations in the language (netspeak)	0.20	0.12	0.05	0.10	0.01	0.36	0.02	0.08	0.06	0.03
Assent words (assent)	0.18	0.69	0.12	0.06	0.37	0.42	0.11	0.31	0.06	0.06
Non-fluencies in language (nonflu)	0.43	0.23	0.22	0.10	0.14	0.21	0.23	0.24	0.13	0.45
Filler words (filler)	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00

The following null hypothesis is offered:

Null Hypothesis: there are no statistically significant differences between hubristic and non-hubristic CEOs in terms of relevant LIWC categories (see Table 6.6).

Alternative hypothesis: there is a statistically significant difference between hubristic and non-hubristic CEOs in terms of relevant LIWC categories (see Table 6.6).

In order to test this hypothesis, an Independent Samples *t*-test was performed using SPSS software. Prior to completing the *t*-test, skewness of the data was checked using descriptive statistics (mean and standard deviation) and Kolmogorov – Smirnov test (Kim, 2013). Descriptive statistics (means and standard deviations) and skewness results for LIWC categories are summarised in the Table 6.7 below.

Table 6.7. Descriptive statistics for 73 LIWC categories

	Mean	Std.D.	Skewness	Std. Error	KS
Function words (Function)	51.765	17.157	-3.048	.687	.000
Pronouns (Pronoun)	15.083	4.814	-2.137	.687	.163
Personal pronouns (Ppron)	8.367	3.189	-2.245	.687	.037
Pronoun 'I' and its derivatives (I)	2.246	0.909	-.680	.687	.200
Pronoun 'We' and its derivatives (We)	4.008	1.809	1.270	.687	.200
Pronoun 'You' and its derivatives (You)	2.249	1.655	2.027	.687	.057
Pronouns 'She', 'He' and their derivatives (Shehe)	1.477	3.880	3.151	.687	.000
Pronoun 'They' and its derivatives (They)	2.285	3.319	3.061	.687	.000
Impersonal pronouns (Ipron)	7.270	1.105	-.376	.687	.200
Articles (Article)	7.327	1.002	.591	.687	.200
Prepositions (Prep)	11.863	3.859	-2.370	.687	.003
Auxiliary verbs (Auxverb)	11.845	3.591	2.029	.687	.018
Adverbs (Adverb)	5.594	0.937	-.781	.687	.200
Conjunctions (Conj)	6.993	1.611	-1.848	.687	.013
Negations (Negate)	1.932	0.611	-.107	.687	.200
Common verbs (Verb)	16.814	5.982	-2.103	.687	.043
Common adjectives (Adj)	4.278	1.006	.447	.687	.200
Comparisons (Compare)	2.571	0.727	1.122	.687	.200
Interrogatives (Interrog)	1.958	0.663	1.333	.687	.033
Numbers (Number)	1.784	0.591	.262	.687	.200
Quantifiers (Quant)	2.410	0.862	-2.472	.687	.005
Affective processes related words (Affect)	4.118	1.665	-1.960	.687	.076
Positive emotion words (Posemo)	3.228	1.303	-1.339	.687	.166
Negative emotion words (Negemo)	1.821	2.719	3.055	.687	.000
Anxiety related words (Anx)	0.150	0.097	.379	.687	.200

Anger related words (anger)	0.202	0.151	.817	.687	.200
Sadness related words (sad)	0.165	0.120	.070	.687	.200
Social processes related words (social)	9.873	4.041	-1.635	.687	.200
Family related words (family)	1.485	4.499	3.162	.687	.000
Friends related words (friend)	0.465	0.869	2.740	.687	.012
Female related words (female)	0.297	0.737	3.037	.687	.000
Male related words (male)	0.370	0.434	2.524	.687	.024
Cognitive processes related words (cogproc)	12.716	3.469	-2.365	.687	.032
Insight related words (insight)	2.580	0.486	-.104	.687	.200
Causations (cause)	2.486	0.869	.626	.687	.200
Discrepancy words (discrep)	1.768	0.620	-.317	.687	.200
Tentative tone (tentat)	2.834	0.987	-.103	.687	.200
Certainty tone (certain)	1.669	0.513	-1.739	.687	.061
Differentiation (differ)	3.471	1.349	-1.814	.687	.200
Perceptual processes related words (percept)	1.508	0.537	-.205	.687	.200
Sight related words (see)	0.638	0.291	.268	.687	.200
Hearing related words (hear)	0.556	0.258	.230	.687	.200
Feeling related words (feel)	0.225	0.107	-.420	.687	.200
Perceptual processes related words (bio)	0.690	0.412	-.105	.687	.200
Body related words (body)	1.122	2.942	3.157	.687	.000
Health related words (health)	0.648	1.139	3.052	.687	.000
Sexuality related words (sexual)	0.213	0.587	3.134	.687	.000
Ingestion related words (ingest)	0.369	0.656	2.710	.687	.000
Personal drives related words (drives)	9.759	3.016	-2.134	.687	.091
Affiliation related words (affiliation)	4.096	1.955	-.511	.687	.200
Achievement related words (achieve)	2.174	0.680	2.454	.687	.033
Power related words (power)	4.087	4.493	3.059	.687	.000
Reward related words (rewards)	1.955	0.380	-.194	.687	.200
Risk related words (risk)	1.989	4.699	3.150	.687	.000
Use of Past tense (focuspast)	3.099	1.135	1.479	.687	.126
Use of Present tense (focuspresent)	13.044	2.497	-.503	.687	.200
Use of Future tense (focusfuture)	1.928	0.904	2.567	.687	.001
Relativity related words (relativ)	12.566	3.331	-2.484	.687	.011
Motion related words (motion)	2.248	0.763	-1.871	.687	.003
Space related words (space)	6.437	2.419	-2.428	.687	.007
Time related words (time)	3.986	0.869	-.621	.687	.200
Work related words (work)	4.116	1.519	-2.553	.687	.001
Leisure related words (leisure)	0.776	0.553	.288	.687	.200
Home related words (home)	0.256	0.244	2.050	.687	.024
Money related words (money)	2.127	1.123	-.358	.687	.200
Religion related words (relig)	0.080	0.071	.319	.687	.200
Death related words (death)	0.085	0.090	.793	.687	.149
Informal language (informal)	0.570	0.312	1.197	.687	.161
Swear words (swear)	0.013	0.020	1.664	.687	.002
Use of abbreviations in the language (netspeak)	0.103	0.106	1.834	.687	.120
Assent words (assent)	0.238	0.208	1.241	.687	.200
Non-fluencies in language (nonflu)	0.238	0.117	1.017	.687	.015
Filler words (filler)	0.005	0.011	1.984	.687	.000

As indicated by the Kolmogorov – Smirnov tests, for a majority of variables data are not skewed, however there are number of variables for which the data are skewed ($p < 0.05$). These variables are highlighted in orange in the Table 6.7 above. Data for 30 out of 73 variables has a skewness

score significant at 5% level which indicates that both parametric (*t*-test) and non-parametric (Mann-Whitney) tests should be employed to test the difference between the samples (Coakes & Steed, 2009). Table 6.8 below summarises results these tests.

Table 6.8. Main Effects of type of CEO on language use

	Hubristic CEOs		Non-hubristic CEOs		T	df	p	Mann-Whitney
	Mean	Std.D.	Mean	Std.D.				
Function words (Function)	46.884	24.333	56.646	3.267	-0.889	8	0.400	.841
Pronouns (Pronoun)	14.368	6.801	15.798	2.151	-0.448	8	0.666	.841
Personal pronouns (Ppron)	7.632	4.459	9.102	1.286	-0.708	8	0.499	.841
Pronoun 'I' and its derivatives (I)	2.226	1.175	2.266	0.692	-0.066	8	0.949	1.000
Pronoun 'We' and its derivatives (We)	4.520	2.334	3.496	1.120	0.884	8	0.402	.841
Pronoun 'You' and its derivatives (You)	2.592	2.228	1.906	0.953	0.633	8	0.544	1.000
Pronouns 'She', 'He' and their derivatives (Shehe)	2.628	5.525	0.326	0.199	0.931	8	0.379	.690
Pronoun 'They' and its derivatives (They)	3.466	4.592	1.104	0.465	1.144	8	0.286	.310
Impersonal pronouns (Ipron)	7.840	0.939	6.700	1.025	1.833	8	0.104	.095
Articles (Article)	7.542	1.254	7.112	0.755	0.657	8	0.530	.548
Prepositions (Prep)	10.686	5.216	13.040	1.683	-0.96	8	0.365	.548
Auxiliary verbs (Auxverb)	13.086	4.596	10.604	2.009	1.106	8	0.301	.548
Adverbs (Adverb)	5.464	0.682	5.724	1.212	-0.418	8	0.687	.421
Conjunctions (Conj)	6.242	1.952	7.744	0.784	-1.596	8	0.149	.222
Negations (Negate)	2.106	0.429	1.758	0.762	0.89	8	0.399	.421
Common verbs (Verb)	15.898	8.298	17.730	3.090	-0.463	8	0.656	.841
Common adjectives (Adj)	3.862	0.706	4.694	1.160	-1.37	8	0.208	.310
Comparisons (Compare)	2.720	0.940	2.422	0.501	0.626	8	0.549	.421
Interrogatives (Interrog)	2.034	0.826	1.882	0.540	0.344	8	0.740	1.000
Numbers (Number)	1.906	0.796	1.662	0.340	0.631	8	0.546	.548
Quantifiers (Quant)	2.292	1.231	2.528	0.346	-0.413	8	0.691	.690
Affective processes related words (Affect)	3.694	2.099	4.542	1.177	-0.788	8	0.453	.222
Positive emotion words (Posemo)	2.828	1.468	3.628	1.126	-0.967	8	0.362	.310
Negative emotion words (Negemo)	2.784	3.755	0.858	0.470	1.138	8	0.288	.310
Anxiety related words (Anx)	0.186	0.093	0.114	0.096	1.208	8	0.262	.310
Anger related words (anger)	0.196	0.122	0.208	0.191	-0.118	8	0.909	1.000
Sadness related words (sad)	0.176	0.109	0.154	0.142	0.275	8	0.791	1.000
Social processes related words (social)	8.986	5.573	10.760	1.926	-0.673	8	0.520	.841
Family related words (family)	2.922	6.355	0.048	0.018	1.011	8	0.342	.222
Friends related words (friend)	0.670	1.219	0.260	0.330	0.726	8	0.489	.548
Female related words (female)	0.556	1.025	0.038	0.054	1.128	8	0.292	.548
Male related words (male)	0.422	0.621	0.318	0.175	0.36	8	0.728	.548
Cognitive processes related words (cogproc)	12.168	5.090	13.264	0.637	-0.478	8	0.646	.690
Insight related words (insight)	2.536	0.562	2.624	0.458	-0.271	8	0.793	.841
Causations (cause)	2.472	1.102	2.500	0.694	-0.048	8	0.963	.841
Discrepancy words (discrep)	1.950	0.360	1.586	0.808	0.92	8	0.384	.548
Tentative tone (tentat)	2.924	1.407	2.744	0.438	0.273	8	0.792	1.000
Certainty tone (certain)	1.578	0.700	1.760	0.287	-0.538	8	0.605	.690
Differentiation (differ)	3.246	1.823	3.696	0.803	-0.505	8	0.627	1.000

Perceptual processes related words (percept)	1.288	0.537	1.728	0.489	-1.355	8	0.213	.095
Sight related words (see)	0.498	0.242	0.778	0.287	-1.668	8	0.134	.151
Hearing related words (hear)	0.550	0.240	0.562	0.303	-0.069	8	0.946	.841
Feeling related words (feel)	0.172	0.099	0.278	0.094	-1.741	8	0.120	.056
Perceptual processes related words (bio)	0.602	0.375	0.778	0.471	-0.653	8	0.532	.548
Body related words (body)	2.032	4.170	0.212	0.113	0.976	8	0.358	.841
Health related words (health)	1.068	1.567	0.228	0.157	1.193	8	0.267	.151
Sexuality related words (sexual)	0.388	0.834	0.038	0.054	0.936	8	0.377	1.000
Ingestion related words (ingest)	0.520	0.912	0.218	0.284	0.707	8	0.499	1.000
Personal drives related words (drives)	8.758	3.992	10.760	1.423	-1.056	8	0.322	.690
Affiliation related words (affiliation)	3.656	2.362	4.536	1.592	-0.691	8	0.509	.548
Achievement related words (achieve)	1.948	0.128	2.400	0.947	-1.058	8	0.321	.690
Power related words (power)	5.434	6.377	2.740	0.464	0.942	8	0.374	1.000
Reward related words (rewards)	1.958	0.480	1.952	0.309	0.024	8	0.982	.841
Risk related words (risk)	3.538	6.605	0.440	0.263	1.048	8	0.325	.310
Use of Past tense (focuspast)	3.534	1.229	2.664	0.957	1.249	8	0.247	.095
Use of Present tense (focuspresent)	12.440	2.664	13.648	2.453	-0.746	8	0.477	.548
Use of Future tense (focusfuture)	2.200	1.236	1.656	0.356	0.946	8	0.372	.841
Relativity related words (relativ)	10.962	4.168	14.170	1.073	-1.667	8	0.134	.095
Motion related words (motion)	1.882	0.921	2.614	0.358	-1.656	8	0.136	.222
Space related words (space)	5.462	3.158	7.412	0.900	-1.328	8	0.221	.310
Time related words (time)	3.604	1.124	4.368	0.268	-1.479	8	0.177	.151
Work related words (work)	3.638	2.141	4.594	0.190	-0.994	8	0.349	.310
Leisure related words (leisure)	0.524	0.593	1.028	0.422	-1.548	8	0.160	.151
Home related words (home)	0.378	0.285	0.134	0.127	1.75	8	0.118	.151
Money related words (money)	1.960	1.375	2.294	0.938	-0.449	8	0.666	1.000
Religion related words (relig)	0.092	0.084	0.068	0.064	0.508	8	0.625	.690
Death related words (death)	0.084	0.071	0.086	0.116	-0.033	8	0.975	.841
Informal language (informal)	0.540	0.293	0.600	0.362	-0.288	8	0.781	.841
Swear words (swear)	0.020	0.024	0.006	0.013	1.121	8	0.295	.421
Use of abbreviations in the language (netspeak)	0.096	0.072	0.110	0.142	-0.197	8	0.849	.841
Assent words (assent)	0.284	0.255	0.192	0.164	0.679	8	0.517	.548
Non-fluencies in language (nonflu)	0.224	0.127	0.252	0.119	-0.359	8	0.729	.548
Filler words (filler)	0.004	0.009	0.006	.0134	-0.277	8	0.789	1.000

As shown by the results summarised in the last two columns of the Table 6.8 above, there are no significant difference at a 5% level ($p < 0.05$) between hubristic and non-hubristic samples for any of the variables analysed which means that the present study's null hypothesis that there is no difference between hubristic and non-hubristic samples has to be retained.

As mentioned earlier in the chapter, present study also used binary logistic regression in order to test the predictability of a CEO falling into one of two categories – hubristic or non-hubristic. The main reasoning behind conducting a binary logistic regression was to illustrate the potential of this method for future use in hubris research. However, it should be noted that there were two

limitations regarding the use of binary logistic regression in the present study. First, the sample size of the study was too small ($N=10$) to construct a statistically strong equation (Saunders et al., 2012). Second, the equation should contain only statistically significant variables ($p < 0.05$), however as shown in Table 6.8, there are no statistically significant variables among those analysed. These limitations were partially addressed in the following ways: a) the present study captures a vast number of the data points (46,000 words analysed) b) promising indicators (where p -value is closest to 0.05) were used.

In order to select promising indicators, a simple excel formula (Conditional formatting -> Top/Bottom rules -> Highlight bottom 10%) has been run on all p -value results to select the 10% of variables the scores of which are closest to significant at 5% level. Such variables include use of impersonal pronouns, conjunctions, words related to sight, feelings, relativity, motion and home. These variables are highlighted in green in Table 6.8. above.

An example classification table for the binary logistic regression on two groups – hubristic and non-hubristic – is provided in Table 6.9 below. As shown by the Overall Percentage score, the accuracy of prediction based on these variables is 50%, i.e., no better than ‘flipping a coin’.

Table 6.9. Classification Table for the Binary logistic regression

	Predicted		Percentage Correct
	Hubristic CEOs	Non-hubristic CEOs	
Hubristic CEOs	0	5	.0
Non-hubristic CEOs	0	5	100.0
		Overall Percentage	50.0

Given that prediction accuracy of this model is very low, it is not surprising that none of the promising variables used are included in the equation (see Tables 6.10 and 6.11 below).

Table 6.10. Variables in the Binary logistic equation

	B	S.E.	Wald	df	Sig.	Exp(B)
Constant	.000	.632	.000	1	1.000	1.000

Table 6.11. Variables not in the Binary logistic equation

Variable	Score	df	Sig.
ipron	2.958	1	.085
conj	2.416	1	.120
see	2.580	1	.108
feel	2.747	1	.097
relativ	2.577	1	.108
motion	2.554	1	.110
home	2.768	1	.096
Overall score	8.836	7	.265

Although computational statistics methods to test the differences between two independent samples (*t*-test and Man-Whitney) and building binary logistic model did not prove any significant differences between hubristic and non-hubristic samples, manual investigation of the scores presented earlier in the study has captured a few potential candidates for linguistic markers of hubristic CEO-speak. These linguistic markers as well as implications of this study for future research are discussed in the next section.

6.4. Discussion: potential markers of the Hubris Syndrome

The present study investigated the difference between the natural language use (based on the method of LIWC) of hubristic and non-hubristic CEOs using two methods: first, computational statistics using SPSS and second, manual comparison of means for each sample. It was hypothesized that there is a difference between the frequency of various linguistic markers as per LIWC variables used by hubristic and non-hubristic CEOs.

As the results of the analysis indicated, no significant differences were found in the use of various linguistic categories used by hubristic and non-hubristic CEOs, hence the null hypothesis was

retained. Therefore, in what follows discussion of the results will be confined to the manual analyses of the patterns reported above, before the statistical analyses were presented.

Research into hubristic language to date has focused on the use of pronouns (use of singular and plural pronouns, use of pronouns in an unexpected manner, i.e., ‘royal we’ where a first-person singular pronoun is appropriate) and similar findings to the ones listed in section 6.3.1.1 were obtained in previous studies (see: Amernic, Craig & Tourish, 2010; Brennan & Conroy, 2013; Garrard et al., 2014).

Linking the use of pronouns with hubristic personality supposedly comes from significant overlapping between Hubris Syndrome symptomology (see: Owen & Davidson, 2009), and Narcissistic Personality Disorder (NPD); it will be recalled that seven out of 14 symptoms are attributable to NPD as specified in DSM-V⁶ (American Psychiatric Association, 2013). As ‘I-talk’ tends to be strongly linked with narcissism (Aktas et al., 2016; Ireland & Mehl, 2014) and ‘I’ statements (i.e., ‘I think I am a special person’) are used in the Narcissistic Personality Inventory (NPI) (Raskin & Terry, 1988), it is not surprising that it has been subsequently linked to Hubris Syndrome as well. Focusing on this particular linguistic category might be a natural result of interpretation of Hubris Syndrome symptoms as specified by Owen and Davidson (2009) as several of the symptoms can be directly (e.g., 6th symptom) or theoretically (all symptoms that overlap with NPD criteria) linked to increased use of pronouns.

Previous research has also attempted to link the use of verbs and words that represent a confident tone with hubris, mainly through symptoms that relate to overconfidence (7th, 8th, 14th symptoms), a messianic speaking manner (4th symptom) and action-orientation (1st symptom). Three previous

⁶ DSM-IV-TR was updated to the Fifth Edition, DSM-V, in May 2013. There are no changes in terms of symptom descriptions or the classification for Narcissistic, Antisocial and Histrionic personality disorders between DSM-IV-TR and DSM-V.

studies used DICTION variables (see Table 2.7 in Chapter 2) and concluded that “results obtained are mixed” (Amernic & Craig, 2014, p.82), however “offer multiple opportunities for insight, diagnosis and, ultimately, prescription” (Amernic, Craig & Tourish, 2010, p.162).

Finally a lack, or diminished amount, of affiliation (sometimes also referred to as emotion and warmth) is one of the characteristics of hubristic personality (Sipman, 2013). In addition, 11th symptom of the Hubris Syndrome is also directly related with a progressive isolation that becomes stronger as the person develops hubris (Owen, 2016). Building on this, Amernic and Craig (2014) suggested that a diagnostic pattern for identifying hubristic speech could consist of low scores for ‘Human Interest’ and ‘Communication’ and increased scores for ‘Aggression’ and attempted to apply this tentative diagnostic template (with scores obtained with DICTION) to the language of two hubristic CEOs. As with the above example, results were inconsistent.

Although some scores were consistent with the previous research (Amernic, Craig & Tourish, 2010; Garrard et al., 2014; Owen & Davidson, 2009; Short & Palmer, 2008), some unexpected findings have also been obtained. For example, the scores for the use of ‘tentative tone’ and positive emotion related words were higher in the hubristic sample which contradicts prevailing opinion about hubristic characteristics and expected tone (Owen, 2011). However, these unexpected results may be interpreted as follows.

First, the ‘Tentativity’ category looks for words that represent uncertainty (e.g., ‘depending’, ‘possibly’, ‘unsure’, ‘probable’). However, the category also includes words that might be used in various contexts, especially in the interview setting (i.e., ‘anywhere’, ‘appear’, ‘approximately’, ‘generally’, ‘lucky’, ‘opinion’, ‘question’, ‘usually’) (Pennebaker et al., 2015). The LIWC dictionary for this category is perhaps too broad to capture the subtle specificities of hubristic language as most of the words are likely to be used by any speaker.

A similar explanation can be applied to unexpected results for another three categories – achievement, power and positive emotion words. The ‘Achieve’ category looks for general achievement related words (a total of 200+ achievement related words are included in the dictionary for this category), such as ‘accomplishment’, ‘acquisition’, ‘better’, ‘effort’, ‘leader’, ‘plan’, ‘solution’, ‘success’, ‘work’ and others. Given that the present research is looking into the language of well-known CEOs who lead international corporations, it is natural to expect that the language they use will likely contain a preponderance of achievement-related words, independently of their personality or levels of hubris. This also aligns with Amernic and Craig’s (2006) proposition that the language of corporate leadership (CEOs) is very distinct.

In relation to the ‘Power’ category of LIWC (where scores also have been expected to be higher for the hubristic sample and not the other way round), a review of the dictionary revealed similar issues – the dictionary was too broad and contained too many general use words to capture the difference between two samples, both of which consist of world-class leaders and unsurprisingly, high achievers in general, given their position. A list of words used to calculate the score consisted of 800+, including such words as ‘best’, ‘CEO’, ‘child’, ‘high’, ‘humble’, ‘large’, ‘lowest’, ‘up’, ‘under’ and others. Although it is suggested that Hubris Syndrome is triggered by the position of power (Sadler-Smith et al., 2016), the LIWC category for Power is potentially too broad for the purpose of this research as it contains a number of words that are not attributed to hubris (i.e., for example, ‘apology’, ‘helpless’, ‘official’, ‘tiny’ and many others).

As for the positive emotion related words, this LIWC dictionary category is comprised of words that could fall in one of the following categories. First, words that are likely to be used in most interviews, such as ‘like’, ‘true’, ‘good’, ‘thanks’. Second, adjectives such as ‘best’, ‘great’, ‘fantastic’, ‘rich’. This means that the topic of the interview could have a big impact on the score

for this category. For example, the high score could be achieved due to the use of politeness norms and generic words, which could be associated with the non-hubristic leaders, or they could be the result of the increased use of adjectives which could be associated with the hubristic leaders. Further research is required to understand how the scores of this category should be used and interpreted.

Finally, there was a number of new categories (seven in total) that appeared to contain differences between samples, however none of them was explicitly analysed in terms of their link with hubris before. For example, the language used by the hubristic CEOs contains longer sentences, however employs shorter words in comparison to the language used by non-hubristic CEOs. This discovery is partially consistent with the specification of Hubris Syndrome in that 12th symptom refers to ‘Restlessness, recklessness and impulsiveness’ which indicates that the language of a restless and impulsive person is likely to be shorter and sharper. As Garrard et al. (2013) noted in relation to the biomarkers of Hubris Syndrome amongst political leaders, 12th symptom “implies the development of a casual, slipshod style of thinking and planning. Such a change could plausibly be marked by variation in metrics of language complexity in samples produced under conditions of HS” (p. 3).

The use of impersonal pronouns, auxiliary verbs, function words, negations and negative emotion words have never previously been directly linked to hubris in published research. The Pilot Study linked the use auxiliary verbs with Hubris Syndrome based on the mapping (see Table 5.2) between Hermann’s LTA used in the original study and Hubris Symptoms, as three of the 14 symptoms (1st, 8th and 11th) use a number of verbs in the text sample in order to analyse the language used by hubristic and non-hubristic leaders. No previous research has looked into the use of impersonal pronouns, function words, negations and negative emotion words and this creates the opportunity

for further analysis. Overall, the discoveries listed above provide a useful refinement of the categories of hubristic CEOs natural language use and a good basis for further research.

6.5. Chapter summary

Study 1 described above consists of the analysis of ten acknowledged hubristic (Travis Kalanick, Howard Schultz, Elon Musk, Jamie Dimon and Steve Jobs) and non-hubristic (Jeff Bezos, John Chambers, Mark Parker, Mike Bloomberg and Robert Iger) CEOs. The LIWC content analysis program was used to study CEOs' natural language use as described by Pennebaker et al (2003). Scores obtained were analysed manually by comparison of means and also statistically using Independent sample *t*-test, Man-Whitney and binary logistic regression (Saunders et al., 2012). The power of the statistical analysis was severely restricted because of the small sample size, however it is reported here for the sake of completeness.

Secondary data materials (interviews with media) were used in the study. The spoken discourse samples, as opposed to the written text, were chosen as the preferred material for the analysis due to their proven reliability to represent the true personality of the speaker (Garrard et al., 2014). A total of 46,422 words coming from different sources for each CEO were analysed which averaged 4,642 words per subject.

The key driver for Study 1 was to validate the amended research design (i.e., using natural language use theory and the associated LIWC technique) that had to be refined due to the shortcomings of the original proposition (using Hermann's LTA) (see Chapter 5). It was also felt that the refined research design is better suited to answer the research question as to what the linguistic markers of the CEO hubris are, as LIWC software is fully transparent in terms of how

results are calculated and what exact words are used for each variable. Previous methods (content analysis using DICTION and ProfilerPlus) were not able to provide such information.

Study 1 results summarised in this chapter evidenced the suitability of LIWC in hubris research. Although results obtained from two small samples of five CEOs each might not be generalizable, it provides a solid starting point for further research as it raises a number of interesting considerations and possibilities and opens the way for further investigation of LIWC categories with other groups and longitudinally in tracking the changes in hubristic CEOs' natural language use over time (see: Garrard et al., 2014).

In sum, Study 1 has been a useful step in the research process to validate the amended research design and method. The findings above, as a consequence of using the proposed research strategy and techniques, are important as they allow the researcher access to an otherwise difficult to reach population of CEOs and offer a new medium through which we can reliably identify hubris in the business arena as, so far, the majority of research has concentrated on hubris as it is encountered in the arena of political leadership. Although it does not lead to any definite conclusions it does highlight some potential linguistic markers of CEO hubris in a business context (e.g., extensive use of verbs, personal pronouns).

7. STUDY 2, HUBRISTIC LANGUAGE IDENTIFICATION USING LIWC BASED FRAMEWORK

7.1. Introduction

This chapter summarises Study 2 which evolved as a result of the Pilot Study and Study 1 described in Chapter 5 and Chapter 6. As discussed in those chapters, completing a Pilot Study using Hermann's LTA's frameworks and Study 1 that used statistical analysis based on LIWC scores prior to Study 2 described here allowed the validation of the proposed research design and methods which changed and evolved as a result. The initial Pilot Study, as well as Study 1, did not lead to any definite conclusions, however they highlighted some potential linguistic markers of CEO hubris in a business context.

One of the main changes in Study 2 in comparison to the Pilot Study and Study 1 was moving to an inductive approach whilst a deductive approach had been taken in both earlier studies. Because the initial two studies (the Pilot Study and Study 1) provided only limited insight into linguistic markers of leader hubris, a change of approach was a necessary next step in the research process to enable Study 2 to gain more insight into the topic.

This chapter describes the execution of Study 2, the results obtained, and the implications of its results for future studies on the linguistic markers of CEO hubris.

7.2. Research method

7.2.1. Summary of the research strategy

Based on the findings and conclusions from Study 1 that suggested that the planned research strategy needed to be amended, a new research strategy was proposed (see Table 7.1 below) to enable the researcher to better answer the research question and address the issues raised. Based

on the updated research strategy and learnings from the Pilot Study and Study 1, the second main study was conducted.

The study described in this chapter was conducted according to the principles outlined in the research strategy for the thesis (see Chapter 3). Table 7.1 below provides details of the amended research strategy. Changes made to the baseline research strategy are marked in *italics*.

Table 7.1. Amended Research Strategy (main change shown in *italics*)

Research Philosophy	Ontology	Objectivism
	Epistemology	Positivism
Research Approach		<i>Inductive</i>
Research Design	Methodological Choice	Single-method quantitative study
	Nature of Research Design	Exploratory
	Time Horizon	Cross-sectional
Ethics	Ethical Approval	Not required
Research Method	Data Collection Technique	Use of Secondary Data
	Method	Content analysis using LIWC
	Sampling	Non-probability Purposive Sampling

The key differences in terms of research strategy for Study 1 and Study 2 was a change in the research approach (from deductive to inductive) as the previous approach (deductive) provided only limited findings (see Chapter 5).

7.2.2. Sample and data used

The amended study design described above was implemented on the same sample as Study 1 which consisted of five hubristic CEOs (HCEO) and five non-hubristic CEOs (NHCEO) ($N=10$). The same verbal utterances (transcribed interviews with CEOs) were used in the main study. Chapter 3 contains further details on the sample and data used in the study.

7.2.3. Analysis

The same word count and analysis software (LIWC) as before was used to obtain the scores for the number of applicable categories (called ‘dimensions’ in LIWC). The key difference from the previous study was the categories used in the analysis. In the Pilot Study only 17 (out of 93) LIWC

dimensions were used. This decision was based on the literature review on hubris (see Chapter 1) which suggested that certain LIWC dimensions (a total of 17) had the best potential to disclose potential linguistic markers of hubris (see Appendix 13 for justification of those categories).

However, after conducting the Pilot Study which provided only limited findings, it was concluded that, given that none of the LIWC categories have been directly linked to hubris to date and that existing research findings to date were not conclusive, the best approach to adopt would be to analyse the lowest possible granularity of LIWC dimensions, hence potentially all 93 dimensions. Based on the findings from Study 1, a list of LIWC categories used in Study 2 has been refined from 93 to 73 categories as per the exclusion rules described in section 6.2.3. The full list of categories used in Study 2 together with examples for each category are provided in Appendix 28.

As mentioned before, exactly the same texts as in Study 1 were used in this Study (see Appendix 15). For further details on LIWC software, preparation of materials and the detailed process applied to calculate results, see Chapter 6.

7.3. Results

LIWC scores are calculated as a percentage of words that match the words in the pre-defined LIWC dictionary for each individual category (see Chapter 3 section 3.7.2.2 for further details). The only exceptions are the four summary variables (Analytic, Clout, Authentic, Tone), Total Word Count (WC), Words per Sentence (WPS) and Words that are longer than six letters (Sixltr) as these seven categories are based on a simple word count as opposed to percentages like the rest of LIWC categories. These categories were excluded from the analysis of the results: only results that were calculated as a percentage of the total words were analysed for comparison purposes. Other categories that have been excluded are the descriptor category 'Dic' that counts a percentage

of target⁷ words captured by the dictionary and the 12 categories that capture punctuation (e.g., comma, dash, etc.). Punctuation categories have been excluded from the analysis of the transcribed interviews used in the study because there is a risk that the punctuation has been influenced by the transcriber.

Table 7.2 below lists the LIWC dimensions and results obtained for the relevant dimensions (93 total dimensions minus 20 excluded, hence a final list of 73 in total). As noted above, scores are expressed as a percentage of the total words. The first column ('LIWC dimension') explains the abbreviation (i.e., 'ppron' in LIWC means 'personal pronouns').

⁷ Words contained in texts that are read and analysed by LIWC are called target words.

Table 7.2. Study results

	HCEO					NHCEO				
LIWC dimension	Travis Kalanick	Elon Musk	Howard Schultz	Steve Jobs	Jamie Dimon	Jeff Bezos	John Chambers	Mike Bloomberg	Mike Parker	Robert Iger
Category	HCEO	HCEO	HCEO	HCEO	HCEO	NHCEO	NHCEO	NHCEO	NHCEO	NHCEO
Year	2016	2015	2015	2008	2015	2015	2014	2015	2015	2015
Word Count (WC)	5108	4803	4150	3121	10566	3302	4732	6137	3194	3131
Function words (Function)	59.44	56.96	57.69	60.04	56.30	57.09	58.69	59.77	51.31	56.37
Pronouns (Pronoun)	17.50	15.37	15.90	20.31	17.56	17.50	17.35	17.16	12.90	14.08
Personal pronouns (Ppron)	9.44	7.31	9.42	11.25	10.10	10.18	10.48	9.29	7.67	7.89
Pronoun 'I' and its derivatives (I)	2.80	2.64	3.06	1.70	3.30	3.24	1.61	2.72	1.75	2.01
Pronoun 'We' and its derivatives (We)	3.43	2.39	3.78	5.61	2.77	2.79	4.80	1.96	4.07	3.86
Pronoun 'You' and its derivatives (You)	2.70	0.83	1.45	2.02	2.20	2.85	2.41	2.49	0.69	1.09
Pronouns 'She', 'He' and their derivatives (Shehe)	0.08	0.06	0.34	0.13	0.10	0.42	0.25	0.37	0.56	0.03
Pronoun 'They' and its derivatives (They)	0.43	1.37	0.80	1.79	1.72	0.88	1.42	1.74	0.59	0.89
Impersonal pronouns (Ipron)	8.05	8.04	6.48	8.97	7.43	7.33	6.87	7.87	5.23	6.20
Articles (Article)	6.46	7.54	8.02	6.44	6.33	6.97	5.87	7.45	7.80	7.47
Prepositions (Prep)	12.51	13.97	14.43	12.21	11.16	11.42	12.70	11.65	15.44	13.99
Auxiliary verbs (Auxverb)	11.65	11.41	9.18	12.18	11.61	11.84	10.61	12.86	7.55	10.16
Adverbs (Adverb)	8.28	6.20	4.92	5.96	5.64	6.33	6.34	5.39	3.76	6.80
Conjunctions (Conj)	9.38	5.95	7.73	6.98	7.57	7.66	9.07	7.64	7.04	7.31
Negations (Negate)	1.66	1.73	1.57	2.53	2.29	1.67	1.56	2.93	0.81	1.82
Common verbs (Verb)	21.05	18.34	16.31	22.30	20.90	19.87	17.48	20.61	12.71	17.98
Common adjectives (Adj)	4.60	4.46	3.18	4.26	4.40	4.88	3.11	4.14	6.23	5.11
Comparisons (Compare)	2.98	2.83	1.57	2.44	2.59	2.36	1.97	2.12	3.26	2.40
Interrogatives (Interrog)	2.41	1.46	1.54	2.31	1.49	1.42	2.75	2.05	1.53	1.66
Numbers (Number)	1.64	1.60	2.92	1.95	2.28	1.73	2.11	1.21	1.47	1.79
Quantifiers (Quant)	3.01	2.77	2.67	2.72	3.18	2.70	2.37	2.70	2.00	2.87

Affective processes related words (Affect)	4.17	5.12	4.27	3.91	5.11	5.18	2.49	4.61	5.29	5.14
Positive emotion words (Posemo)	3.37	3.73	3.35	2.98	3.81	3.97	1.99	3.08	4.92	4.18
Negative emotion words (Negemo)	0.78	1.37	0.87	0.93	1.26	1.12	0.46	1.48	0.34	0.89
Anxiety related words (Anx)	0.12	0.33	0.10	0.16	0.22	0.18	0.00	0.24	0.09	0.06
Anger related words (anger)	0.06	0.27	0.05	0.26	0.32	0.06	0.13	0.28	0.06	0.51
Sadness related words (sad)	0.27	0.21	0.29	0.16	0.22	0.36	0.04	0.24	0.03	0.10
Social processes related words (social)	9.49	7.43	12.94	14.10	10.32	10.96	13.67	11.06	9.52	8.59
Family related words (family)	0.12	0.06	0.17	0.00	0.09	0.06	0.04	0.02	0.06	0.06
Friends related words (friend)	0.08	0.04	0.34	0.06	0.07	0.03	0.74	0.00	0.47	0.06
Female related words (female)	0.00	0.00	0.36	0.00	0.05	0.03	0.00	0.03	0.13	0.00
Male related words (male)	0.14	0.19	0.07	0.16	0.16	0.39	0.25	0.36	0.53	0.06
Cognitive processes related words (cogproc)	14.29	15.80	11.57	15.44	14.47	13.29	13.57	14.13	12.49	12.84
Insight related words (insight)	2.84	2.23	2.51	3.14	3.02	2.63	2.05	2.40	3.29	2.75
Causations (cause)	2.37	2.46	1.28	2.69	1.76	1.76	3.40	1.91	2.97	2.46
Discrepancy words (discrep)	1.53	2.54	1.71	1.89	1.99	2.70	1.94	1.68	0.72	0.89
Tentative tone (tentat)	3.56	4.58	2.41	2.79	3.90	3.12	2.85	3.13	2.10	2.52
Certainty tone (certain)	1.78	1.50	1.90	2.21	1.87	1.82	1.48	2.18	1.82	1.50
Differentiation (differ)	4.17	4.68	3.13	4.39	3.87	3.15	4.37	4.60	2.69	3.67
Perceptual processes related words (percept)	1.62	1.12	1.01	1.89	1.79	2.21	2.05	1.21	1.19	1.98
Sight related words (see)	0.94	0.37	0.36	0.70	0.81	0.73	0.99	0.39	0.66	1.12
Hearing related words (hear)	0.41	0.44	0.48	0.90	0.66	0.97	0.72	0.51	0.16	0.45
Feeling related words (feel)	0.16	0.25	0.07	0.26	0.22	0.39	0.30	0.28	0.13	0.29
Perceptual processes related words (bio)	0.63	0.50	0.87	1.03	0.55	0.94	0.30	1.29	1.10	0.26
Body related words (body)	0.25	0.12	0.17	0.26	0.12	0.18	0.13	0.15	0.41	0.19
Health related words (health)	0.27	0.21	0.55	0.45	0.27	0.27	0.11	0.42	0.31	0.03
Sexuality related words (sexual)	0.06	0.06	0.00	0.00	0.00	0.03	0.00	0.00	0.13	0.03
Ingestion related words (ingest)	0.06	0.08	0.14	0.13	0.10	0.21	0.02	0.70	0.16	0.00

Personal drives related words (drives)	9.49	8.47	10.53	12.08	10.71	10.39	11.62	9.34	12.77	9.68
Affiliation related words (affiliation)	3.86	2.87	5.47	6.34	3.27	3.63	6.45	2.56	5.82	4.22
Achievement related words (achieve)	1.88	2.12	1.83	1.95	1.82	2.45	2.22	1.63	3.98	1.72
Power related words (power)	2.15	2.50	2.27	1.79	3.85	2.91	2.66	3.45	2.35	2.33
Reward related words (rewards)	2.00	1.50	1.47	2.50	2.38	2.06	1.44	2.09	2.25	1.92
Risk related words (risk)	0.33	0.65	0.39	0.54	0.76	0.58	0.57	0.73	0.16	0.16
Use of Past tense (focuspast)	2.02	2.64	3.45	5.67	2.91	2.18	2.60	2.35	1.88	4.31
Use of Present tense (focuspresent)	16.76	12.93	11.52	13.97	15.38	15.72	13.52	16.31	10.33	12.36
Use of Future tense (focusfuture)	1.94	1.69	1.47	1.44	2.03	1.82	1.63	1.79	1.06	1.98
Relativity related words (relativ)	15.35	13.14	13.88	11.57	12.56	13.02	13.74	13.52	15.59	14.98
Motion related words (motion)	3.00	2.37	1.69	2.56	2.44	2.30	3.21	2.41	2.66	2.49
Space related words (space)	8.40	7.68	7.40	5.48	6.73	6.51	6.61	7.41	8.67	7.86
Time related words (time)	4.37	3.14	5.33	3.75	3.55	4.48	4.21	3.98	4.54	4.63
Work related words (work)	3.66	3.69	4.51	4.33	5.64	4.82	4.46	4.55	4.76	4.38
Leisure related words (leisure)	0.35	0.50	0.34	1.54	0.20	1.06	0.55	0.65	1.41	1.47
Home related words (home)	0.02	0.17	0.29	0.29	0.26	0.33	0.04	0.08	0.03	0.19
Money related words (money)	2.25	2.58	2.27	1.25	3.66	3.09	1.92	1.79	1.22	3.45
Religion related words (relig)	0.02	0.00	0.05	0.16	0.05	0.12	0.00	0.13	0.09	0.00
Death related words (death)	0.04	0.10	0.00	0.03	0.11	0.00	0.02	0.15	0.00	0.26
Informal language (informal)	0.88	1.04	0.36	0.32	0.55	1.18	0.36	0.67	0.25	0.54
Swear words (swear)	0.04	0.00	0.00	0.06	0.02	0.03	0.00	0.00	0.00	0.00
Use of abbreviations in the language (netspeak)	0.20	0.12	0.05	0.10	0.01	0.36	0.02	0.08	0.06	0.03
Assent words (assent)	0.18	0.69	0.12	0.06	0.37	0.42	0.11	0.31	0.06	0.06
Non-fluencies in language (nonflu)	0.43	0.23	0.22	0.10	0.14	0.21	0.23	0.24	0.13	0.45
Filler words (filler)	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00

In order to analyse the results obtained and summarised in Table 7.2 above, the following steps were followed:

1. A mean score for each dimension for both samples was calculated (e.g., a mean score for the 'function' dimension in the hubristic CEO sample is 58.09, for the non-hubristic CEO sample it is 56.65);
2. Mean scores for all dimensions have been compared to the scores of the general population provided by LIWC developers (LIWC, 2015);
3. The following ratios were calculated to support the analysis of results:
 - Ratio for hubristic (HCEO) versus non-hubristic CEO (NHCEO) scores for each dimension (HCEO/NHCEO);
 - Ratio for hubristic CEO (HCEO) scores versus general population (GP) scores for each dimension (HCEO/GP);
 - Ratio for non-hubristic CEO (NHCEO) scores versus general population (GP) scores for each dimension (NHCEO/GP);

All the scores and calculations are summarised in Table 7.3 below.

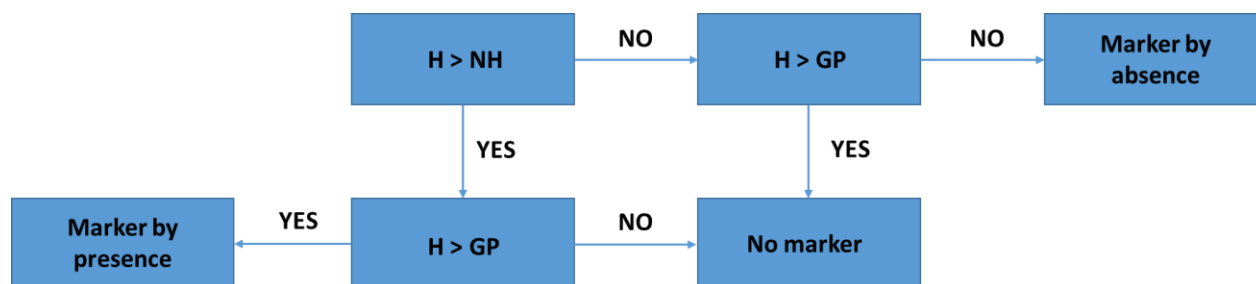
Table 7.3. LIWC scores and calculations

LIWC dimension	LIWC Scores			Ratio		
	HCEO	NHCEO	GP	HCEO/ NHCEO	HCEO/GP	NHCEO/ GP
Function words (Function)	58.09	56.65	51.87	1.03	1.12	1.09
Pronouns (Pronoun)	17.33	15.80	15.22	1.10	1.14	1.04
Personal pronouns (Ppron)	9.50	9.10	9.95	1.04	0.96	0.91
Pronoun 'I' and its derivatives (I)	2.70	2.27	4.99	1.19	0.54	0.45
Pronoun 'We' and its derivatives (We)	3.60	3.50	0.72	1.03	4.99	4.86
Pronoun 'You' and its derivatives (You)	1.84	1.91	1.70	0.97	1.08	1.12
Pronouns 'She', 'He' and their derivatives (Shehe)	0.14	0.33	1.88	0.44	0.08	0.17
Pronoun 'They' and its derivatives (They)	1.22	1.10	0.66	1.11	1.85	1.67
Impersonal pronouns (Ipron)	7.79	6.70	5.26	1.16	1.48	1.27
Articles (Article)	6.96	7.11	6.51	0.98	1.07	1.09
Prepositions (Prep)	12.86	13.04	12.93	0.99	0.99	1.01
Auxiliary verbs (Auxverb)	11.21	10.60	8.53	1.06	1.31	1.24
Adverbs (Adverb)	6.20	5.72	5.27	1.08	1.18	1.09
Conjunctions (Conj)	7.52	7.74	5.90	0.97	1.27	1.31
Negations (Negate)	1.96	1.76	1.66	1.11	1.18	1.06
Common verbs (Verb)	19.78	17.73	16.44	1.12	1.20	1.08
Common adjectives (Adj)	4.18	4.69	4.49	0.89	0.93	1.05
Comparisons (Compare)	2.48	2.42	2.23	1.02	1.11	1.09
Interrogatives (Interrog)	1.84	1.88	1.61	0.98	1.14	1.17
Numbers (Number)	2.08	1.66	2.12	1.25	0.98	0.78
Quantifiers (Quant)	2.87	2.53	2.02	1.14	1.42	1.25
Affective processes related words (Affect)	4.52	4.54	5.57	0.99	0.81	0.82
Positive emotion words (Posemo)	3.45	3.63	3.67	0.95	0.94	0.99
Negative emotion words (Negemo)	1.04	0.86	1.84	1.21	0.57	0.47
Anxiety related words (Anx)	0.19	0.11	0.31	1.63	0.60	0.37
Anger related words (anger)	0.19	0.21	0.54	0.92	0.36	0.39
Sadness related words (sad)	0.23	0.15	0.41	1.49	0.56	0.38
Social processes related words (social)	10.86	10.76	9.74	1.01	1.11	1.10
Family related words (family)	0.09	0.05	0.44	1.83	0.20	0.11
Friends related words (friend)	0.12	0.26	0.36	0.45	0.33	0.72
Female related words (female)	0.08	0.04	0.98	2.16	0.08	0.04
Male related words (male)	0.14	0.32	1.65	0.45	0.09	0.19
Cognitive processes related words (cogproc)	14.31	13.26	10.61	1.08	1.35	1.25
Insight related words (insight)	2.75	2.62	2.16	1.05	1.27	1.21
Causations (cause)	2.11	2.50	1.40	0.84	1.51	1.79

Discrepancy words (discrep)	1.93	1.59	1.44	1.22	1.34	1.10
Tentative tone (tentat)	3.45	2.74	2.52	1.26	1.37	1.09
Certainty tone (certain)	1.85	1.76	1.35	1.05	1.37	1.30
Differentiation (differ)	4.05	3.70	2.99	1.10	1.35	1.24
Perceptual processes related words (percept)	1.49	1.73	2.70	0.86	0.55	0.64
Sight related words (see)	0.64	0.78	1.08	0.82	0.59	0.72
Hearing related words (hear)	0.58	0.56	0.83	1.03	0.70	0.68
Feeling related words (feel)	0.19	0.28	0.64	0.69	0.30	0.43
Perceptual processes related words (bio)	0.72	0.78	2.03	0.92	0.35	0.38
Body related words (body)	0.18	0.21	0.69	0.87	0.27	0.31
Health related words (health)	0.35	0.23	0.59	1.54	0.59	0.39
Sexuality related words (sexual)	0.02	0.04	0.13	0.63	0.18	0.29
Ingestion related words (ingest)	0.10	0.22	0.57	0.47	0.18	0.38
Personal drives related words (drives)	10.26	10.76	6.93	0.95	1.48	1.55
Affiliation related words (affiliation)	4.36	4.54	2.05	0.96	2.13	2.21
Achievement related words (achieve)	1.92	2.40	1.30	0.80	1.48	1.85
Power related words (power)	2.51	2.74	2.35	0.92	1.07	1.17
Reward related words (rewards)	1.97	1.95	1.46	1.01	1.35	1.34
Risk related words (risk)	0.53	0.44	0.47	1.21	1.14	0.94
Use of Past tense (focuspast)	3.34	2.66	4.64	1.25	0.72	0.57
Use of Present tense (focuspresent)	14.11	13.65	9.96	1.03	1.42	1.37
Use of Future tense (focusfuture)	1.71	1.66	1.42	1.04	1.21	1.17
Relativity related words (relativ)	13.30	14.17	14.26	0.94	0.93	0.99
Motion related words (motion)	2.41	2.61	2.15	0.92	1.12	1.22
Space related words (space)	7.14	7.41	6.89	0.96	1.04	1.08
Time related words (time)	4.03	4.37	5.46	0.92	0.74	0.80
Work related words (work)	4.37	4.59	2.56	0.95	1.71	1.79
Leisure related words (leisure)	0.59	1.03	1.35	0.57	0.43	0.76
Home related words (home)	0.21	0.13	0.55	1.54	0.37	0.24
Money related words (money)	2.40	2.29	0.68	1.05	3.53	3.37
Religion related words (relig)	0.06	0.07	0.28	0.82	0.20	0.24
Death related words (death)	0.06	0.09	0.16	0.65	0.35	0.54
Informal language (informal)	0.63	0.60	2.52	1.05	0.25	0.24
Swear words (swear)	0.02	0.01	0.21	4.00	0.11	0.03
Use of abbreviations in the language (netspeak)	0.10	0.11	0.97	0.87	0.10	0.11
Assent words (assent)	0.28	0.19	0.95	1.48	0.30	0.20
Non-fluencies in language (nonflu)	0.22	0.25	0.54	0.89	0.41	0.47
Filler words (filler)	0.00	0.01	0.11	0.67	0.04	0.05

In order to analyse and interpret results and attribute LIWC dimensions to the relevant categories, the following logical framework for the analysis was developed (see Figure 7.1 below).

Figure 7.1. Baseline analytical framework



The analytical framework described above takes into account the ratio of hubristic versus non-hubristic CEOs and hubristic CEOs versus the general population (see 5th (HCEO/NHCEO) and 6th (NHCEO/GP) columns in the table above). This framework assumes the following are true:

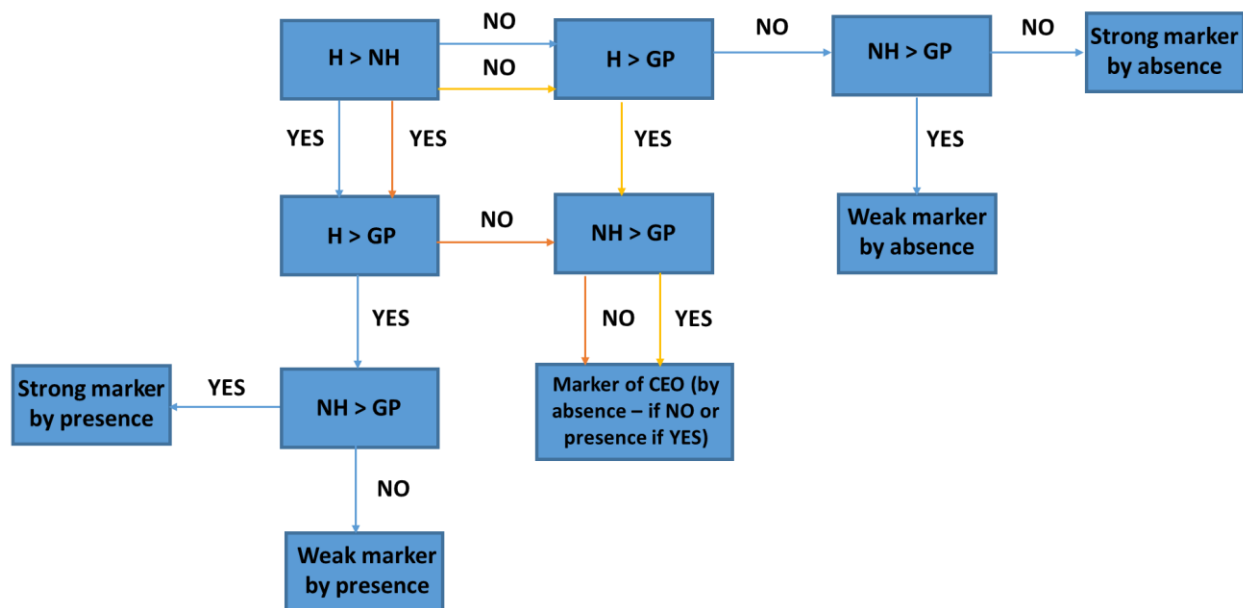
- If $H < NH$ and $H < GP$, then words in this category can be potentially classified as ‘Markers of Hubris by Absence’ (because scores of the hubristic CEOs for these categories are consistently smaller than those of non-hubristic CEOs or the general population);
- If $H > NH$ and $H > GP$, then words in this category can be potentially classified as ‘Markers of Hubris by Presence’ (because scores of the hubristic CEOs for these categories are consistently higher than those of non-hubristic CEOs or the general population);
- In any other case a category is classified as not containing any potential linguistic markers of hubris.

The analytical framework shown in Figure 7.1 above provides a useful tool to generate insights into the identification of potential linguistic markers of hubris. However, it represents only an aggregate view (marker by absence or presence), hence it does not give much insight into the strength of individual markers. Therefore, to expand on the proposed framework above, another

component was included in the framework – the ratio of the scores for the non-hubristic CEOs versus the general population (7th column in the Table 7.3 above, NHCEO/GP).

The framework described above has been amended to include this additional element and is depicted visually below in Figure 7.2. Please note different arrow colours in the framework (amber, blue and yellow) depict different pathways and aid interpretation.

Figure 7.2. Extended Framework



See Table 7.4 below for the explanation of the logic assumed by the framework.

Table 7.4. Framework logic matrix

H>NH?	H>GP?	NH>GP?	Logic	Result
Yes	Yes	Yes	H>NH>GP	= Strong Markers of Hubris by Presence
Yes	Yes	No	H>GP>NH	= Weak Markers of Hubris by Presence
Yes	No	Yes	N/A	Such combination is logically impossible (follow only the same colour pathways in the framework above to find logically feasible classification options)
Yes	No	No	GP>H>NH	=Generic Markers of CEO language
No	Yes	Yes	NH>H>GP	=Generic Markers of CEO language
No	Yes	No	N/A	Such combination is logically impossible (follow only the same colour pathways in the framework above to find logically feasible classification options)
No	No	Yes	NH>GP>H	= Weak Markers of Hubris by Absence
No	No	No	GP>NH>H	= Strong Markers of Hubris by Absence

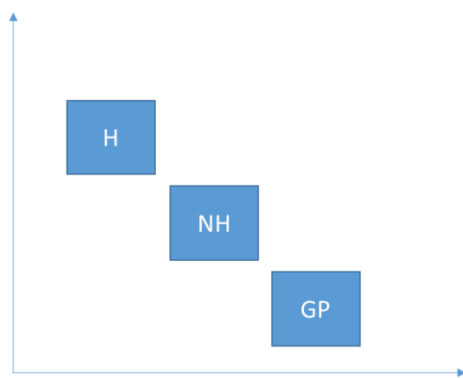
NB: If the ratio of results is equal (i.e., $HCEO/NHCEO = 1$), such result is treated as ‘Yes’. Ideally, the amount of equal scores should be at a minimal level or there should not be any equal scores to ensure accuracy of the framework.

Below are a number of further visual representations demonstrating the logic described in the Table 7.4 above to allow easier understanding and interpretation of the analytical strategy and the results.

Strong Markers of Hubris by Presence

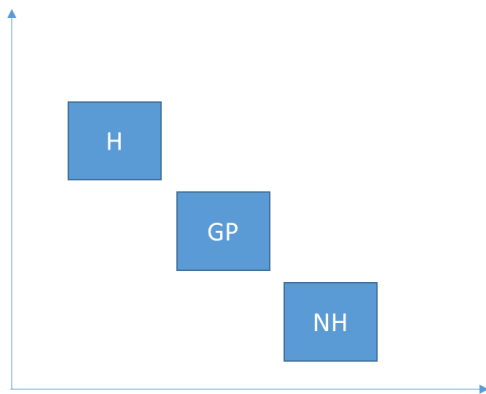
As per the framework above, Strong Markers of Hubris by Presence (SMHP) are those for which the mean score of the hubristic sample is highest, followed by the non-hubristic sample’s score and then the general population’s ($H > NH > GP$). See Figure 7.3 below for a visual explanation:

Figure 7.3. SMHP represented visually

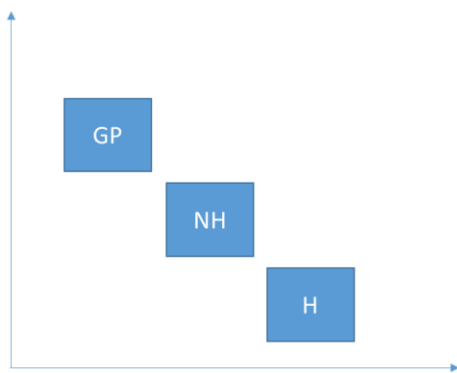


Weak Markers of Hubris by Presence

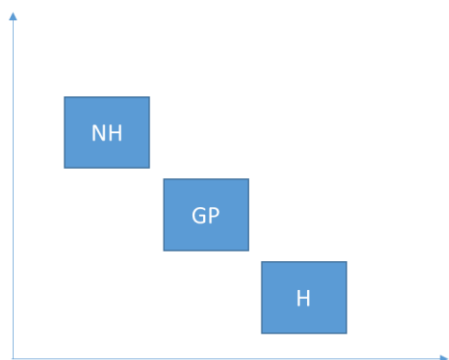
Weak Markers of Hubris by Presence (WMHP) are those for which the mean score for the hubristic sample is highest, followed by the scores of the general population and the non-hubristic sample ($H > GP > NH$). See Figure 7.4 below for a visual explanation:

Figure 7.4. WMHP represented visually***Strong Markers of Hubris by Absence***

In contrast, Strong Markers of Hubris by Absence (SMHA) are those for which the mean score for the hubristic sample is the lowest, followed by the non-hubristic sample's score and the general population ($GP > NH > H$). See Figure 7.5 below for a visual explanation:

Figure 7.5. SMHA represented visually***Weak Markers of Hubris by Absence***

Finally, Weak Markers of Hubris by Absence (WMHA) are those for which the mean score for the non-hubristic sample is highest, followed by the scores of the general population and the hubristic sample ($NH > GP > H$). See Figure 7.6 below for a visual explanation:

Figure 7.6. WMHA represented visually***Generic Marker of CEO language***

The remaining two categories (where the hubristic sample's mean score is in between scores for the non-hubristic sample and the general population) are classed as Generic Markers of CEO language because in these instances hubristic and non-hubristic scores differ (i.e., are both higher or lower) from the general population, suggesting that there is a difference between 'CEO language' and the language of the general population.

Framework summary

Based on the results obtained and the result interpretation framework logic summarised above, the 73 relevant LIWC dimensions were divided into five categories:

1. Strong Markers of Hubris by Presence (a linguistic marker that exists in hubristic CEO language);
2. Weak Markers of Hubris by Presence (a linguistic marker that exists in hubristic CEO language, however not as strongly as a marker of the previous category);
3. Strong Markers of Hubris by Absence (linguistic markers that are not present in hubristic CEO language, however are distinctively present in non-hubristic CEOs language or the language of the general population);

4. Weak Markers of Hubris by Absence (same as before, only to a smaller degree);
5. Generic Markers of CEO language (linguistic markers that can be attributed to CEOs in general, whether hubristic or not).

The results obtained have been colour-coded in the following manner for the easier visual representation. See Table 7.5 below:

Table 7.5. Category colour-coding

Category	Color-coding	Abbreviation
Strong Markers of Hubris by Presence	Dark blue	SMHP
Weak Markers of Hubris by Presence	Light blue	WMHP
Strong Markers of Hubris by Absence	Dark Green	SMHA
Weak Markers of Hubris by Absence	Light Green	WMHA
Generic Markers of CEO language	White	MCEO

As per the highlighting rules described above, all scores obtained and summarised in Table 7.5 above were colour-coded for easier interpretation and understanding. See Table 7.6 below with colour-coded scores (this is the same table as Table 7.3 earlier in this chapter but with the colour coding rules applied).

Table 7.6. Colour coded scores

LIWC dimension	LIWC Scores			Calculations		
	HCEO	NHCEO	GP	HCEO/NHCEO	HCEO/GP	NHCEO/ GP
Function words (Function)	58.09	56.65	51.87	1.03	1.12	1.09
Pronouns (Pronoun)	17.33	15.80	15.22	1.10	1.14	1.04
Personal pronouns (Ppron)	9.50	9.10	9.95	1.04	0.96	0.91
Pronoun 'I' and its derivatives (I)	2.70	2.27	4.99	1.19	0.54	0.45
Pronoun 'We' and its derivatives (We)	3.60	3.50	0.72	1.03	4.99	4.86
Pronoun 'You' and its derivatives (You)	1.84	1.91	1.70	0.97	1.08	1.12
Pronouns 'She', 'He' and their derivatives (Shehe)	0.14	0.33	1.88	0.44	0.08	0.17
Pronoun 'They' and its derivatives (They)	1.22	1.10	0.66	1.11	1.85	1.67
Impersonal pronouns (Ipron)	7.79	6.70	5.26	1.16	1.48	1.27
Articles (Article)	6.96	7.11	6.51	0.98	1.07	1.09
Prepositions (Prep)	12.86	13.04	12.93	0.99	0.99	1.01
Auxiliary verbs (Auxverb)	11.21	10.60	8.53	1.06	1.31	1.24
Adverbs (Adverb)	6.20	5.72	5.27	1.08	1.18	1.09
Conjunctions (Conj)	7.52	7.74	5.90	0.97	1.27	1.31
Negations (Negate)	1.96	1.76	1.66	1.11	1.18	1.06
Common verbs (Verb)	19.78	17.73	16.44	1.12	1.20	1.08
Common adjectives (Adj)	4.18	4.69	4.49	0.89	0.93	1.05
Comparisons (Compare)	2.48	2.42	2.23	1.02	1.11	1.09
Interrogatives (Interrog)	1.84	1.88	1.61	0.98	1.14	1.17
Numbers (Number)	2.08	1.66	2.12	1.25	0.98	0.78
Quantifiers (Quant)	2.87	2.53	2.02	1.14	1.42	1.25
Affective processes related words (Affect)	4.52	4.54	5.57	0.99	0.81	0.82
Positive emotion words (Posemo)	3.45	3.63	3.67	0.95	0.94	0.99
Negative emotion words (Negemo)	1.04	0.86	1.84	1.21	0.57	0.47

Anxiety related words (Anx)	0.19	0.11	0.31	1.63	0.60	0.37
Anger related words (anger)	0.19	0.21	0.54	0.92	0.36	0.39
Sadness related words (sad)	0.23	0.15	0.41	1.49	0.56	0.38
Social processes related words (social)	10.86	10.76	9.74	1.01	1.11	1.10
Family related words (family)	0.09	0.05	0.44	1.83	0.20	0.11
Friends related words (friend)	0.12	0.26	0.36	0.45	0.33	0.72
Female related words (female)	0.08	0.04	0.98	2.16	0.08	0.04
Male related words (male)	0.14	0.32	1.65	0.45	0.09	0.19
Cognitive processes related words (cogproc)	14.31	13.26	10.61	1.08	1.35	1.25
Insight related words (insight)	2.75	2.62	2.16	1.05	1.27	1.21
Causations (cause)	2.11	2.50	1.40	0.84	1.51	1.79
Discrepancy words (discrep)	1.93	1.59	1.44	1.22	1.34	1.10
Tentative tone (tentat)	3.45	2.74	2.52	1.26	1.37	1.09
Certainty tone (certain)	1.85	1.76	1.35	1.05	1.37	1.30
Differentiation (differ)	4.05	3.70	2.99	1.10	1.35	1.24
Perceptual processes related words (percept)	1.49	1.73	2.70	0.86	0.55	0.64
Sight related words (see)	0.64	0.78	1.08	0.82	0.59	0.72
Hearing related words (hear)	0.58	0.56	0.83	1.03	0.70	0.68
Feeling related words (feel)	0.19	0.28	0.64	0.69	0.30	0.43
Perceptual processes related words (bio)	0.72	0.78	2.03	0.92	0.35	0.38
Body related words (body)	0.18	0.21	0.69	0.87	0.27	0.31
Health related words (health)	0.35	0.23	0.59	1.54	0.59	0.39
Sexuality related words (sexual)	0.02	0.04	0.13	0.63	0.18	0.29
Ingestion related words (ingest)	0.10	0.22	0.57	0.47	0.18	0.38
Personal drives related words (drives)	10.26	10.76	6.93	0.95	1.48	1.55
Affiliation related words (affiliation)	4.36	4.54	2.05	0.96	2.13	2.21

Achievement related words (achieve)	1.92	2.40	1.30	0.80	1.48	1.85
Power related words (power)	2.51	2.74	2.35	0.92	1.07	1.17
Reward related words (rewards)	1.97	1.95	1.46	1.01	1.35	1.34
Risk related words (risk)	0.53	0.44	0.47	1.21	1.14	0.94
Use of Past tense (focuspast)	3.34	2.66	4.64	1.25	0.72	0.57
Use of Present tense (focuspresent)	14.11	13.65	9.96	1.03	1.42	1.37
Use of Future tense (focusfuture)	1.71	1.66	1.42	1.04	1.21	1.17
Relativity related words (relativ)	13.30	14.17	14.26	0.94	0.93	0.99
Motion related words (motion)	2.41	2.61	2.15	0.92	1.12	1.22
Space related words (space)	7.14	7.41	6.89	0.96	1.04	1.08
Time related words (time)	4.03	4.37	5.46	0.92	0.74	0.80
Work related words (work)	4.37	4.59	2.56	0.95	1.71	1.79
Leisure related words (leisure)	0.59	1.03	1.35	0.57	0.43	0.76
Home related words (home)	0.21	0.13	0.55	1.54	0.37	0.24
Money related words (money)	2.40	2.29	0.68	1.05	3.53	3.37
Religion related words (relig)	0.06	0.07	0.28	0.82	0.20	0.24
Death related words (death)	0.06	0.09	0.16	0.65	0.35	0.54
Informal language (informal)	0.63	0.60	2.52	1.05	0.25	0.24
Swear words (swear)	0.02	0.01	0.21	4.00	0.11	0.03
Use of abbreviations in the language (netspeak)	0.10	0.11	0.97	0.87	0.10	0.11
Assent words (assent)	0.28	0.19	0.95	1.48	0.30	0.20
Non-fluencies in language (nonflu)	0.22	0.25	0.54	0.89	0.41	0.47
Filler words (filler)	0.00	0.01	0.11	0.67	0.04	0.05

Based on the scores in Table 7.6 above and the logic described earlier in Table 7.4, all LIWC dimensions were classified into five types (categories) of linguistic markers: Strong Markers of Hubris by Presence (SMHP), Strong Markers of Hubris by Absence (SMHA), Weak Markers of Hubris by Presence (WMHP), Weak Markers of Hubris by Absence (WMHA) and Generic Markers of CEO language (MCEO).

Table 7.7. Preliminary categorisation of LIWC dimensions into five types

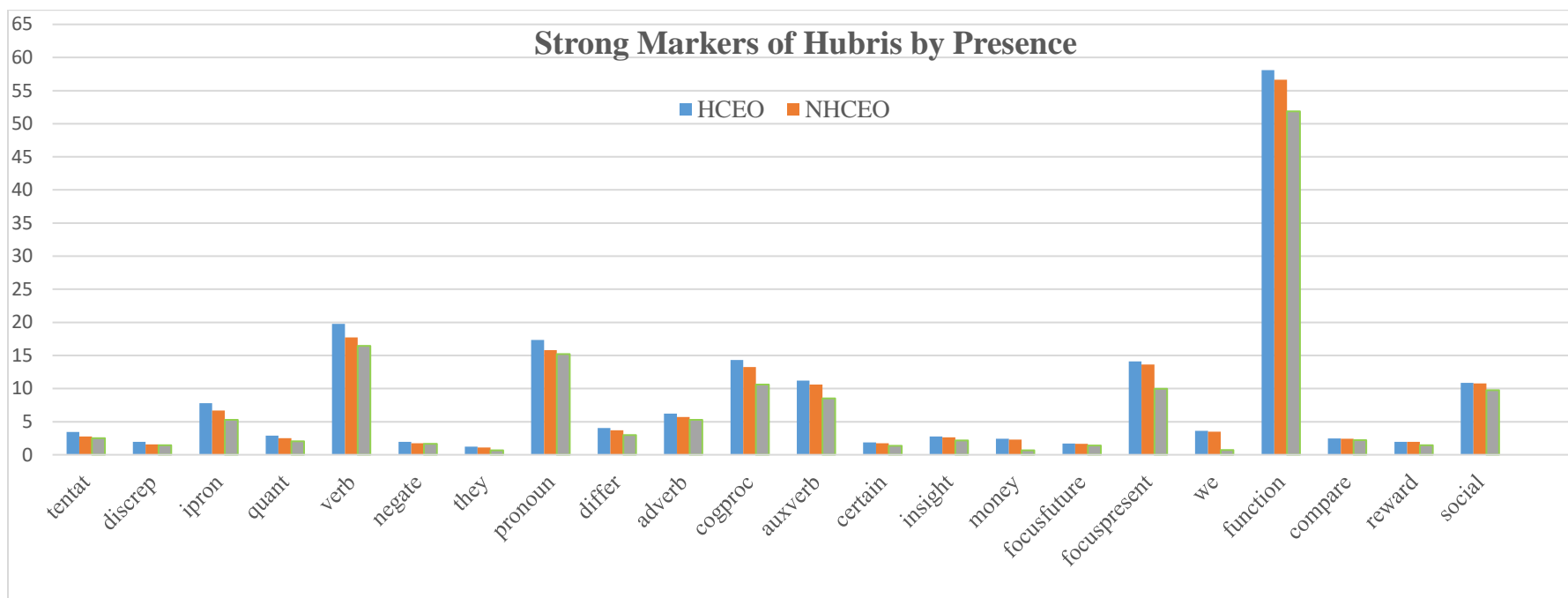
Category of Linguistic Marker	LIWC dimensions that fall into this category
Strong Markers of Hubris by Presence (SMHP)	function; pronoun; we; they; ipron; auxverb; adverb; negate; verb; compare; quant; social; cogproc; insight; discrep; tentat; certain; differ; reward; focuspresent; focusfuture; money
Weak Markers of hubris by Presence (WMHP)	Risk
Strong Markers of hubris by Absence (SMHA)	Shehe; affect; posemo; anger; friend; male; percept; see; feel; bio; body; sexual; ingest; relative; time; leisure; relig; death; netspeak; nonflu; filler
Weak Markers of hubris by Absence (WMHA)	Prep; adj
Generic Markers of CEO language (MCEO)	Ppron; I; you; article; conj; interrog; number; negemo; anx; sad; family; female; cause; hear; health; drives; affiliation; achieve; power; focuspast; motion; space; work; home; informal; swear; assent

Categories in Table 7.7 above are ordered in accordance to the standard LIWC glossary ordering. Please see Tables 7.8 and 7.9 below for the ordering of the Strong Markers of Hubris by Presence and Absence scores from strongest (highest) to weakest (lowest).

Table 7.8. Strong Markers of Hubris by Presence listed based on their strength

#	LIWC dimension	Score (HCEO/NHCEO)
1	Tentative tone (tentat)	1.257
2	Discrepancies (discrep)	1.218
3	Impersonal pronouns (ipron)	1.163
4	Quantifiers (quant)	1.135
5	Verbs (verb)	1.116
6	Negations (negate)	1.113
7	Pronoun ‘they’ (they)	1.107
8	Pronouns (pronoun)	1.097
9	Differentiation (differ)	1.095
10	Adverbs (adverb)	1.083
11	Cognitive processes (cogproc)	1.079
12	Auxiliary verbs (auxverb)	1.057
13	Certainty tone (certain)	1.052
14	Insight words (insight)	1.047
15	Money related words (money)	1.047
16	Future tense (focusfuture)	1.035
17	Present tense (focuspresent)	1.034
18	Pronoun ‘we’ (we)	1.029
19	Function words (function)	1.025
20	Comparisons (compare)	1.025
21	Rewards words (reward)	1.009
22	Social process words (social)	1.009

A visual representation of the scores is summarised in Figure 7.7 below.

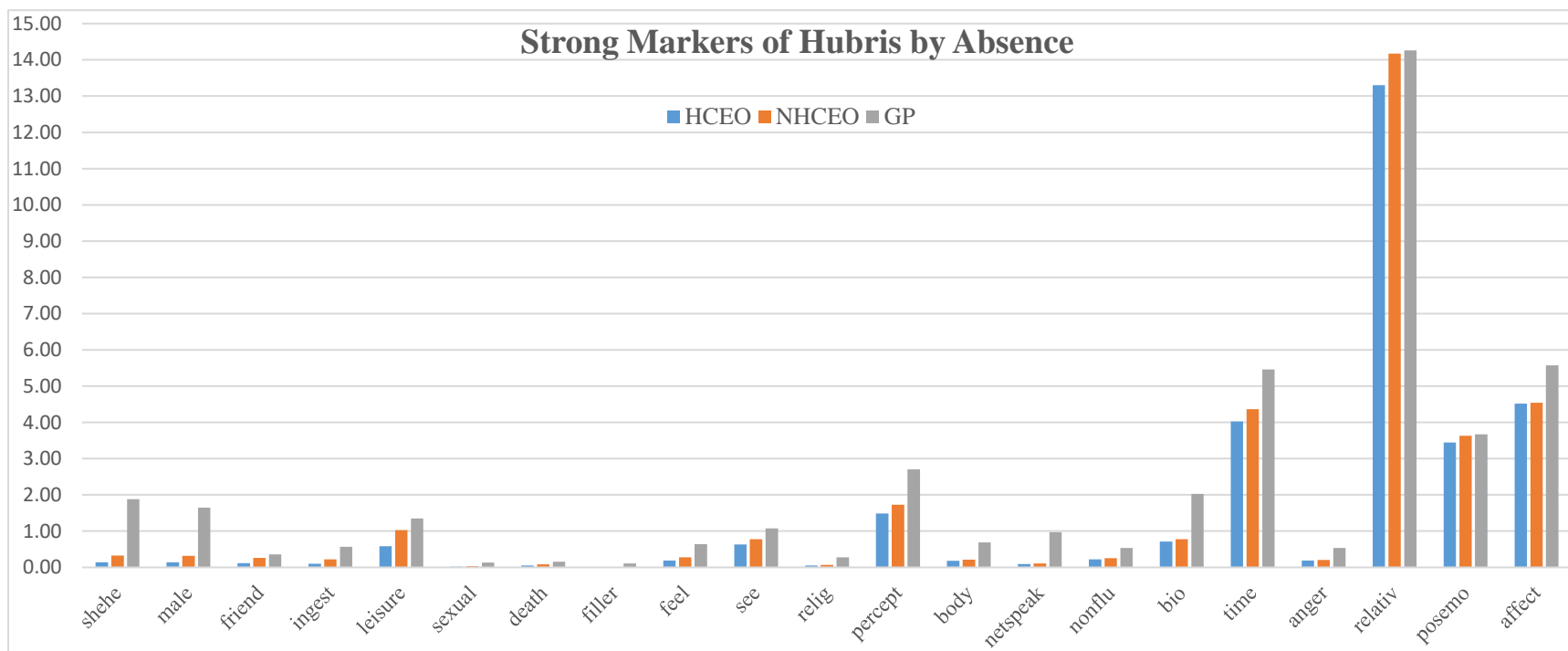
Figure 7.7. Strong Markers of Hubris by Presence

Whilst Table 7.8 above provides a list of potential markers of hubris from strongest to weakest for Markers of Hubris by Presence, please see Table 7.9 below for the ordering of the Strong Markers of Hubris by Absence scores from strongest (highest) to weakest (lowest).

Table 7.9. Strong Markers of Hubris by Absence listed based on their strength

#	LIWC dimension	Score (HCEO/NHCEO)
1	Use of pronouns 'she' and 'he' (shehe)	0.44
2	Male related words (male)	0.45
3	Friends related words (friend)	0.45
4	Ingestion related words (ingest)	0.47
5	Leisure related words (leisure)	0.57
6	Sexuality related words (sexual)	0.63
7	Death related words (death)	0.65
8	Filler words (filler)	0.67
9	Feelings related words (feel)	0.69
10	Sight related words (see)	0.82
11	Religion related words (relig)	0.82
12	Perceptual process related words (percept)	0.86
13	Body related words (body)	0.87
14	Use of abbreviations in the language (netspeak)	0.87
15	Non-fluencies (nonflu)	0.89
16	Biological process related words (bio)	0.92
17	Time related words (time)	0.92
18	Anger words (anger)	0.92
19	Relativity related words (relative)	0.94
20	Positive emotion words (posemo)	0.95
21	Affective processes related words (affect)	0.99

A visual representation of these scores is represented in Figure 7.8 below.

Figure 7.8. Strong Markers of Hubris by Presence

Overall, out of the 73 LIWC dimensions analysed, 22 were classified as Strong Markers of Hubris by Presence, one as Weak Marker of Hubris by Presence, 21 as Strong Markers of Hubris by Absence, two as Weak Markers of Hubris by Absence and 27 as Generic Markers of CEO language. These categories are further reviewed, validated and re-classified in subsequent sections.

7.4. Validation of the framework

To validate the framework described in section 7.3 above, the hubristic sample of five CEOs was modified to check whether a change in the sample (i.e., replacing one of the hubristic CEOs in the sample with a different hubristic CEO) had an effect on results and to examine the match between profiles when the altered sample is used.

Therefore, in order to do the validation, every single CEO in the original sample of five CEOs has been replaced one-by-one with another hubristic CEO – Donald Trump (spoken utterances for Donald Trump were from year 2014, whilst he was still CEO and not a president) – while keeping all the other CEOs in the sample the same. Donald Trump has been chosen for this validation due to being ‘indisputably hubristic’ (Osno, 2017; Tracy, 2016) and having a strong hubristic CEO for validation was extremely important for the accurate refinement of the categories.

Once the new sample had been established, all the mean scores were recalculated and compared to the non-hubristic sample and to the general population as per the framework described earlier in the chapter. This process has been repeated five times (i.e., every CEO has been replaced with Donald Trump) and is referred to here as ‘bootstrapping’.

For example, the original hubristic sample consisted of the following five CEOs:

- Travis Kalanick (formerly Uber)
- Elon Musk (Tesla, SpaceX)
- Howard Schultz (Starbucks)
- Steve Jobs (formerly Apple)
- Jamie Dimon (JP Morgan)

In the first validation exercise, Travis Kalanick's data was replaced with Donald Trump's, so the bootstrapped sample consisted of the following five CEOs:

- Donald Trump (formerly The Trump Organisation)
- Elon Musk (Tesla, SpaceX)
- Howard Schultz (Starbucks)
- Steve Jobs (formerly Apple)
- Jamie Dimon (JP Morgan)

All the scores were subsequently recalculated, as shown in Table 7.10 below. It should be noted that the above-mentioned validation exercise has been completed only for the sample of hubristic CEOs. However, future research could benefit from conducting the bootstrapping technique described above on the non-hubristic sample. For example, a change in the non-hubristic sample might produce a different set of scores which, consequently, would have an impact on the ratios produced by comparing hubristic and non-hubristic CEO scores. Such validation on both samples (hubristic and non-hubristic) would allow for further refinement of the categories and improved accuracy of the framework.

Table 7.10. Validation 1 scores

LIWC dimension	Donald Trump	Elon Musk	Howard Schultz	Steve Jobs	Jamie Dimon	Jeff Bezos	John Chambers	Mike Bloomberg	Mike Parker	Robert Iger
Category	HCEO	HCEO	HCEO	HCEO	HCEO	NHCEO	NHCEO	NHCEO	NHCEO	NHCEO
Function words (Function)	58.07	56.96	57.69	60.04	56.30	57.09	58.69	59.77	51.31	56.37
Pronouns (Pronoun)	19.67	15.37	15.90	20.31	17.56	17.50	17.35	17.16	12.90	14.08
Personal pronouns (Ppron)	11.44	7.31	9.42	11.25	10.10	10.18	10.48	9.29	7.67	7.89
Pronoun ‘I’ and its derivatives (I)	7.24	2.64	3.06	1.70	3.30	3.24	1.61	2.72	1.75	2.01
Pronoun ‘We’ and its derivatives (We)	0.29	2.39	3.78	5.61	2.77	2.79	4.80	1.96	4.07	3.86
Pronoun ‘You’ and its derivatives (You)	1.80	0.83	1.45	2.02	2.20	2.85	2.41	2.49	0.69	1.09
Pronouns ‘She’, ‘He’ and their derivatives (Shehe)	0.99	0.06	0.34	0.13	0.10	0.42	0.25	0.37	0.56	0.03
Pronoun ‘They’ and its derivatives (They)	1.12	1.37	0.80	1.79	1.72	0.88	1.42	1.74	0.59	0.89
Impersonal pronouns (Ipron)	8.23	8.04	6.48	8.97	7.43	7.33	6.87	7.87	5.23	6.20
Articles (Article)	7.74	7.54	8.02	6.44	6.33	6.97	5.87	7.45	7.80	7.47
Prepositions (Prep)	10.93	13.97	14.43	12.21	11.16	11.42	12.70	11.65	15.44	13.99
Auxiliary verbs (Auxverb)	12.23	11.41	9.18	12.18	11.61	11.84	10.61	12.86	7.55	10.16
Adverbs (Adverb)	5.21	6.20	4.92	5.96	5.64	6.33	6.34	5.39	3.76	6.80
Conjunctions (Conj)	6.31	5.95	7.73	6.98	7.57	7.66	9.07	7.64	7.04	7.31
Negations (Negate)	2.81	1.73	1.57	2.53	2.29	1.67	1.56	2.93	0.81	1.82
Common verbs (Verb)	21.12	18.34	16.31	22.30	20.90	19.87	17.48	20.61	12.71	17.98
Common adjectives (Adj)	5.59	4.46	3.18	4.26	4.40	4.88	3.11	4.14	6.23	5.11
Comparisons (Compare)	2.53	2.83	1.57	2.44	2.59	2.36	1.97	2.12	3.26	2.40
Interrogatives (Interrog)	1.85	1.46	1.54	2.31	1.49	1.42	2.75	2.05	1.53	1.66
Numbers (Number)	1.54	1.60	2.92	1.95	2.28	1.73	2.11	1.21	1.47	1.79
Quantifiers (Quant)	2.38	2.77	2.67	2.72	3.18	2.70	2.37	2.70	2.00	2.87
Affective processes related words (Affect)	7.70	5.12	4.27	3.91	5.11	5.18	2.49	4.61	5.29	5.14
Positive emotion words (Posemo)	5.94	3.73	3.35	2.98	3.81	3.97	1.99	3.08	4.92	4.18
Negative emotion words (Negemo)	1.74	1.37	0.87	0.93	1.26	1.12	0.46	1.48	0.34	0.89
Anxiety related words (Anx)	0.15	0.33	0.10	0.16	0.22	0.18	0.00	0.24	0.09	0.06

Anger related words (anger)	0.64	0.27	0.05	0.26	0.32	0.06	0.13	0.28	0.06	0.51
Sadness related words (sad)	0.35	0.21	0.29	0.16	0.22	0.36	0.04	0.24	0.03	0.10
Social processes related words (social)	9.55	7.43	12.94	14.10	10.32	10.96	13.67	11.06	9.52	8.59
Family related words (family)	0.07	0.06	0.17	0.00	0.09	0.06	0.04	0.02	0.06	0.06
Friends related words (friend)	0.42	0.04	0.34	0.06	0.07	0.03	0.74	0.00	0.47	0.06
Female related words (female)	0.31	0.00	0.36	0.00	0.05	0.03	0.00	0.03	0.13	0.00
Male related words (male)	1.10	0.19	0.07	0.16	0.16	0.39	0.25	0.36	0.53	0.06
Cognitive processes related words (cogproc)	12.17	15.80	11.57	15.44	14.47	13.29	13.57	14.13	12.49	12.84
Insight related words (insight)	2.48	2.23	2.51	3.14	3.02	2.63	2.05	2.40	3.29	2.75
Causations (cause)	1.36	2.46	1.28	2.69	1.76	1.76	3.40	1.91	2.97	2.46
Discrepancy words (discrep)	1.76	2.54	1.71	1.89	1.99	2.70	1.94	1.68	0.72	0.89
Tentative tone (tentat)	2.68	4.58	2.41	2.79	3.90	3.12	2.85	3.13	2.10	2.52
Certainty tone (certain)	1.83	1.50	1.90	2.21	1.87	1.82	1.48	2.18	1.82	1.50
Differentiation (differ)	3.41	4.68	3.13	4.39	3.87	3.15	4.37	4.60	2.69	3.67
Perceptual processes related words (percept)	2.70	1.12	1.01	1.89	1.79	2.21	2.05	1.21	1.19	1.98
Sight related words (see)	1.39	0.37	0.36	0.70	0.81	0.73	0.99	0.39	0.66	1.12
Hearing related words (hear)	0.92	0.44	0.48	0.90	0.66	0.97	0.72	0.51	0.16	0.45
Feeling related words (feel)	0.37	0.25	0.07	0.26	0.22	0.39	0.30	0.28	0.13	0.29
Perceptual processes related words (bio)	0.88	0.50	0.87	1.03	0.55	0.94	0.30	1.29	1.10	0.26
Body related words (body)	0.18	0.12	0.17	0.26	0.12	0.18	0.13	0.15	0.41	0.19
Health related words (health)	0.20	0.21	0.55	0.45	0.27	0.27	0.11	0.42	0.31	0.03
Sexuality related words (sexual)	0.00	0.06	0.00	0.00	0.00	0.03	0.00	0.00	0.13	0.03
Ingestion related words (ingest)	0.20	0.08	0.14	0.13	0.10	0.21	0.02	0.70	0.16	0.00
Personal drives related words (drives)	7.44	8.47	10.53	12.08	10.71	10.39	11.62	9.34	12.77	9.68
Affiliation related words (affiliation)	1.19	2.87	5.47	6.34	3.27	3.63	6.45	2.56	5.82	4.22
Achievement related words (achieve)	1.98	2.12	1.83	1.95	1.82	2.45	2.22	1.63	3.98	1.72
Power related words (power)	2.66	2.50	2.27	1.79	3.85	2.91	2.66	3.45	2.35	2.33
Reward related words (rewards)	2.88	1.50	1.47	2.50	2.38	2.06	1.44	2.09	2.25	1.92
Risk related words (risk)	0.26	0.65	0.39	0.54	0.76	0.58	0.57	0.73	0.16	0.16
Use of Past tense (focuspast)	3.80	2.64	3.45	5.67	2.91	2.18	2.60	2.35	1.88	4.31

Use of Present tense (focuspresent)	15.35	12.93	11.52	13.97	15.38	15.72	13.52	16.31	10.33	12.36
Use of Future tense (focusfuture)	1.27	1.69	1.47	1.44	2.03	1.82	1.63	1.79	1.06	1.98
Relativity related words (relativ)	10.43	13.14	13.88	11.57	12.56	13.02	13.74	13.52	15.59	14.98
Motion related words (motion)	1.39	2.37	1.69	2.56	2.44	2.30	3.21	2.41	2.66	2.49
Space related words (space)	5.92	7.68	7.40	5.48	6.73	6.51	6.61	7.41	8.67	7.86
Time related words (time)	3.28	3.14	5.33	3.75	3.55	4.48	4.21	3.98	4.54	4.63
Work related words (work)	3.34	3.69	4.51	4.33	5.64	4.82	4.46	4.55	4.76	4.38
Leisure related words (leisure)	2.26	0.50	0.34	1.54	0.20	1.06	0.55	0.65	1.41	1.47
Home related words (home)	0.11	0.17	0.29	0.29	0.26	0.33	0.04	0.08	0.03	0.19
Money related words (money)	1.47	2.58	2.27	1.25	3.66	3.09	1.92	1.79	1.22	3.45
Religion related words (relig)	0.04	0.00	0.05	0.16	0.05	0.12	0.00	0.13	0.09	0.00
Death related words (death)	0.07	0.10	0.00	0.03	0.11	0.00	0.02	0.15	0.00	0.26
Informal language (informal)	0.84	1.04	0.36	0.32	0.55	1.18	0.36	0.67	0.25	0.54
Swear words (swear)	0.02	0.00	0.00	0.06	0.02	0.03	0.00	0.00	0.00	0.00
Use of abbreviations in the language (netspeak)	0.20	0.12	0.05	0.10	0.01	0.36	0.02	0.08	0.06	0.03
Assent words (assent)	0.11	0.69	0.12	0.06	0.37	0.42	0.11	0.31	0.06	0.06
Non-fluencies in language (nonflu)	0.46	0.23	0.22	0.10	0.14	0.21	0.23	0.24	0.13	0.45
Filler words (filler)	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00

Once the bootstrapped set of results was established, the mean scores for each sample were recalculated and compared to the non-hubristic sample and to the general population in the same manner as before. As per the framework described in section 7.3, based on the results obtained, LIWC dimensions were classified into five categories (SMHP, WMHP, SMHA, WMHA and MCEO). Once these categories were determined, it was established how many of them overlap with the result classification obtained in the original sample (i.e., what is the ratio of the overlap for each category).

Results obtained in the first validation are summarised in Table 7.12 below. They are color-coded as per the colour-coding rules described in Table 7.5, which were:

Table 7.11. Colour-coding rules (same as in Table 7.5)

Category	Color-coding	Abbreviation
Strong Markers of Hubris by Presence	Dark blue	SMHP
Weak Markers of Hubris by Presence	Light blue	WMHP
Strong Markers of Hubris by Absence	Dark Green	SMHA
Weak Markers of Hubris by Absence	Light Green	WMHA
Generic Markers of CEO language	White	MCEO

Table 7.12. Validation 1 results (colour-coded)

LIWC dimension	LIWC Scores			Calculations		
	HCEO	NHCEO	GP	HCEO/NHCEO	CEO/GP	NHCEO/ GP
Function words (Function)	57.812	56.65	51.87	1.02	1.11	1.09
Pronouns (Pronoun)	17.762	15.80	15.22	1.12	1.17	1.04
Personal pronouns (Ppron)	9.904	9.10	9.95	1.09	1.00	0.91
Pronoun 'I' and its derivatives (I)	3.588	2.27	4.99	1.58	0.72	0.45
Pronoun 'We' and its derivatives (We)	2.968	3.50	0.72	0.85	4.12	4.86
Pronoun 'You' and its derivatives (You)	1.66	1.91	1.70	0.87	0.98	1.12
Pronouns 'She', 'He' and their derivatives (Shehe)	0.324	0.33	1.88	0.99	0.17	0.17
Pronoun 'They' and its derivatives (They)	1.36	1.10	0.66	1.23	2.06	1.67
Impersonal pronouns (Ipron)	7.83	6.70	5.26	1.17	1.49	1.27
Articles (Article)	7.214	7.11	6.51	1.01	1.11	1.09
Prepositions (Prep)	12.54	13.04	12.93	0.96	0.97	1.01
Auxiliary verbs (Auxverb)	11.322	10.60	8.53	1.07	1.33	1.24
Adverbs (Adverb)	5.586	5.72	5.27	0.98	1.06	1.09
Conjunctions (Conj)	6.908	7.74	5.90	0.89	1.17	1.31
Negations (Negate)	2.186	1.76	1.66	1.24	1.32	1.06
Common verbs (Verb)	19.794	17.73	16.44	1.12	1.20	1.08
Common adjectives (Adj)	4.378	4.69	4.49	0.93	0.98	1.05
Comparisons (Compare)	2.392	2.42	2.23	0.99	1.07	1.09
Interrogatives (Interrog)	1.73	1.88	1.61	0.92	1.07	1.17

Numbers (Number)	2.058	1.66	2.12	1.24	0.97	0.78
Quantifiers (Quant)	2.744	2.53	2.02	1.09	1.36	1.25
Affective processes related words (Affect)	5.222	4.54	5.57	1.15	0.94	0.82
Positive emotion words (Posemo)	3.962	3.63	3.67	1.09	1.08	0.99
Negative emotion words (Negemo)	1.234	0.86	1.84	1.44	0.67	0.47
Anxiety related words (Anx)	0.192	0.11	0.31	1.68	0.62	0.37
Anger related words (anger)	0.308	0.21	0.54	1.48	0.57	0.39
Sadness related words (sad)	0.246	0.15	0.41	1.60	0.60	0.38
Social processes related words (social)	10.868	10.76	9.74	1.01	1.12	1.10
Family related words (family)	0.078	0.05	0.44	1.63	0.18	0.11
Friends related words (friend)	0.186	0.26	0.36	0.72	0.52	0.72
Female related words (female)	0.144	0.04	0.98	3.79	0.15	0.04
Male related words (male)	0.336	0.32	1.65	1.06	0.20	0.19
Cognitive processes related words (cogproc)	13.89	13.26	10.61	1.05	1.31	1.25
Insight related words (insight)	2.676	2.62	2.16	1.02	1.24	1.21
Causations (cause)	1.91	2.50	1.40	0.76	1.36	1.79
Discrepancy words (discrep)	1.978	1.59	1.44	1.25	1.37	1.10
Tentative tone (tentat)	3.272	2.74	2.52	1.19	1.30	1.09
Certainty tone (certain)	1.862	1.76	1.35	1.06	1.38	1.30
Differentiation (differ)	3.896	3.70	2.99	1.05	1.30	1.24
Perceptual processes related words (percept)	1.702	1.73	2.70	0.98	0.63	0.64
Sight related words (see)	0.726	0.78	1.08	0.93	0.67	0.72

Hearing related words (hear)	0.68	0.56	0.83	1.21	0.82	0.68
Feeling related words (feel)	0.234	0.28	0.64	0.84	0.37	0.43
Perceptual processes related words (bio)	0.766	0.78	2.03	0.98	0.38	0.38
Body related words (body)	0.17	0.21	0.69	0.80	0.25	0.31
Health related words (health)	0.336	0.23	0.59	1.47	0.57	0.39
Sexuality related words (sexual)	0.012	0.04	0.13	0.32	0.09	0.29
Ingestion related words (ingest)	0.13	0.22	0.57	0.60	0.23	0.38
Personal drives related words (drives)	9.846	10.76	6.93	0.92	1.42	1.55
Affiliation related words (affiliation)	3.828	4.54	2.05	0.84	1.87	2.21
Achievement related words (achieve)	1.94	2.40	1.30	0.81	1.49	1.85
Power related words (power)	2.614	2.74	2.35	0.95	1.11	1.17
Reward related words (rewards)	2.146	1.95	1.46	1.10	1.47	1.34
Risk related words (risk)	0.52	0.44	0.47	1.18	1.11	0.94
Use of Past tense (focuspast)	3.694	2.66	4.64	1.39	0.80	0.57
Use of Present tense (focuspresent)	13.83	13.65	9.96	1.01	1.39	1.37
Use of Future tense (focusfuture)	1.58	1.66	1.42	0.95	1.11	1.17
Relativity related words (relativ)	12.316	14.17	14.26	0.87	0.86	0.99
Motion related words (motion)	2.09	2.61	2.15	0.80	0.97	1.22
Space related words (space)	6.642	7.41	6.89	0.90	0.96	1.08

Time related words (time)	3.81	4.37	5.46	0.87	0.70	0.80
Work related words (work)	4.302	4.59	2.56	0.94	1.68	1.79
Leisure related words (leisure)	0.968	1.03	1.35	0.94	0.72	0.76
Home related words (home)	0.224	0.13	0.55	1.67	0.41	0.24
Money related words (money)	2.246	2.29	0.68	0.98	3.30	3.37
Religion related words (relig)	0.06	0.07	0.28	0.88	0.21	0.24
Death related words (death)	0.062	0.09	0.16	0.72	0.39	0.54
Informal language (informal)	0.622	0.60	2.52	1.04	0.25	0.24
Swear words (swear)	0.02	0.01	0.21	3.33	0.10	0.03
Use of abbreviations in the language (netspeak)	0.096	0.11	0.97	0.87	0.10	0.11
Assent words (assent)	0.27	0.19	0.95	1.41	0.28	0.20
Non-fluencies in language (nonflu)	0.23	0.25	0.54	0.91	0.43	0.47
Filler words (filler)	0.004	0.01	0.11	0.67	0.04	0.05

Results summarised in Table 7.12 above were then compared to the results obtained from the main sample (where Travis Kalanick was used in the sample instead of Donald Trump) and compared to the degree by which dimensions in each category overlap with the dimension classification obtained in the main sample. A summary of the first validation is presented in Table 7.13 below. The table contains information regarding the following:

- Total number of LIWC dimensions in a specific category in the original sample (i.e., 22 SMHP in the original sample);
- Number (count) of LICW dimensions that overlap when results obtained in the main sample are compared with results obtained in this validation (i.e., 17 out of 22 LIWC dimensions overlap for SMHP);
- Result (count) of LICW dimensions that overlap when results obtained in the main sample are compared with results obtained in this validation expressed as a percentage (i.e., 17 out of 22 LIWC dimensions equals to 77%);
- Number (count) of new dimensions (that did not appear in the original sample) in a particular category, the title of that dimension and the category that this dimension has been previously classified to (i.e., use of articles appear as SMHP in the first validation, although in the original sample they appeared as Generic Markers of CEO language).

Table 7.13. Validation 1 summary (total; overlap count; overlap %; # of new dimensions)

Category	Title of the new dimension(s)	Which category this dimension used to belong to
SMHP (22; 17; 77%; 1)	Article	MCEO
WMHP (1; 1; 100%; 1)	Posemo	SMHA
SMHA (21; 17; 81%; 0)	N/A	N/A
WMHA (2; 2; 100%; 3)	You	MCEO
	Motion	MCEO
	Space	MCEO
MCEO (27; 23; 85%; 8)	We	SMHP
	Adverb	SMHP
	Compare	SMHP
	Affect	SMHA
	Anger	SMHA
	Male	SMHA
	Focusfuture	SMHP
Money	SMHP	

As can be seen in Table 7.13 above, overlap in various categories range from 77% to 100% which indicates that the reliability of the framework is high and that it has the potential to reveal linguistic markers (by presence and absence) of hubris as well as some Generic Markers of CEO language.

However, to ensure that the framework consistently produces a high overlap of LIWC dimensions in the relevant categories, the validation described above has been undertaken a further four times, replacing every remaining CEO with Donald Trump and keeping the rest of the sample the same. The summary of results obtained in the other four bootstrapping validations are provided in Appendices 29-32. A summary of the overlap in each remaining validation is presented below.

Table 7.14. Validation 2 summary (total; overlap count; overlap %; # of new dimensions)

Category	Title of the new dimension(s)	Which category this dimension used to belong to
SMHP (22; 14; 64%; 5)	you	MCEO
	adj	WMHA
	interrog	MCEO
	power	MCEO
	motion	MCEO
WMHP (1; 1; 100%; 10)	ppron	MCEO
	I	MCEO
	number	MCEO
	anx	MCEO
	anger	SMHP
	female	MCEO
	hear	MCEO
	time	SMHP
	leisure	SMHP
home	MCEO	
SMHA (21; 8; 38%; 0)	N/A	N/A
WMHA (2; 1; 50%; 5)	function	SMHP
	article	MCEO
	compare	SMHP
	social	SMHP
	space	MCEO
	focusfuture	SMHP
MCEO (27; 15; 56%; 15)	shehe	SMHA
	adverb	SMHP
	affect	SMHP
	male	SMHP
	cogproc	SMHP
	insight	SMHP
	differ	SMHP
	percep	SMHA
	see	SMHA
	feel	SMHA
	bio	SMHA
	body	SMHA
	sexual	SMHA
	focuspresent	SMHP
relig	SMHA	

Table 7.15. Validation 3 summary (total; overlap count; overlap %; # of new dimensions)

	Title of the new dimension(s)	Which category this dimension used to belong to
SMHP (22; 15; 68%; 6)	you	MCEO
	conj	MCEO
	adj	WMHA
	interrog	MCEO
	power	MCEO
	motion	MCEO
WMHP (1; 1; 100%; 11)	ppron	MCEO
	I	MCEO
	number	MCEO
	anx	MCEO
	anger	SMHA
	female	MCEO
	hear	MCEO
	sexual	SMHA
	time	SMHA
	leisure	SMHA
	home	MCEO
SMHA (21; 7; 33%; 0)		N/A
WMHA (2; 1; 50%; 5)	function	SMHP
	article	MCEO
	social	SMHP
	focusfuture	SMHP
	space	MCEO
MCEO (27; 13; 48%; 14)	shehe	SMHA
	affect	SMHA
	male	SMHA
	cogproc	SMHP
	insight	SMHP
	differ	SMHP
	percept	SMHA
	see	SMHA
	feel	SMHA
	bio	SMHA
	body	SMHA
	focuspresent	SMHP
	relig	SMHA
	filler	SMHA

Table 7.16. Validation 4 summary (total; overlap count; overlap %; # of new dimensions)

	Title of the new dimension(s)	Which category this dimension used to belong to
SMHP (22; 10; 45%; 6)	you	MCEO
	conj	MCEO
	adj	WMHA
	interrog	MCEO
	power	MCEO
	motion	MCEO
WMHP (1; 1; 100%; 12)	ppron	MCEO
	I	MCEO
	number	MCEO
	posemo	SMHA
	anx	MCEO
	anger	SMHA
	female	MCEO
	hear	MCEO
	sexual	SMHA
	time	SMHA
	leisure	SMHA
home	MCEO	
SMHA (21; 8; 38%; 0)		N/A
WMHA (2; 1; 50%; 7)	function	SMHP
	article	MCEO
	social	SMHP
	insight	SMHP
	cause	MCEO
	focusfuture	SMHP
	space	MCEO
MCEO (27; 12; 44%; 16)	shehe	SMHA
	ipron	SMHP
	auxverb	SMHP
	adverb	SMHP
	verb	SMHP
	compare	SMHP
	affect	SMHA
	male	SMHA
	cogproc	SMHP
	differ	SMHP
	percept	SMHA
	see	SMHA
	feel	SMHA
	focuspresent	SMHP
	relig	SMHA
filler	SMHA	

Table 7.17. Validation 5 summary (total; overlap count; overlap %; # of new dimensions)

	Title of the new dimension(s)	Which category this dimension used to belong to
SMHP (22; 12; 55; 6)	you	MCEO
	conj	MCEO
	adj	WMHA
	interrog	MCEO
	power	MCEO
	motion	MCEO
WMHP (1; 1; 100%; 11)	ppron	MCEO
	I	MCEO
	number	MCEO
	anx	MCEO
	anger	SMHA
	female	MCEO
	hear	MCEO
	sexual	SMHA
	time	SMHA
	leisure	SMHA
	home	MCEO
SMHA (21; 7; 33%; 0)		N/A
WMHA (2; 1; 50%; 7)	function	SMHP
	article	MCEO
	compare	SMHP
	social	SMHP
	insight	SMHP
	focusfuture	SMHP
	space	MCEO
MCEO (27; 13; 48%; 15)	shehe	SMHA
	verb	SMHP
	affect	SMHA
	male	SMHA
	cogproc	SMHP
	differ	SMHP
	percept	SMHA
	see	SMHA
	feel	SMHA
	bio	SMHA
	body	SMHA
	focuspresent	SMHP
	money	SMHP
	relig	SMHA
filler	SMHA	

The five validations described above revealed overlap to a varying degree between categories. For example, overlap in the category of Strong Markers of Hubris by Presence fluctuated from 45% to 77% whilst overlap for Strong Markers of Hubris by Absence appeared as 81% in the first validation and then remained at 33% - 38% in the other four validations. A similar phenomenon was observed for all five categories (SMHP, SMHA, WMHP, WMHA, MCEO) – the percentage of overlap in the first validation was much higher than in the remaining four.

On the other hand, the percentage of overlap in Validation 2, 3, 4 and 5, for all categories, was very similar (or the same). For example:

- Overlap for Strong Markers of Hubris by Presence was 45% to 68% (10-14 out of a baseline 22 overlap);
- Overlap for Weak Markers of Hubris by Presence was 100% in all validations (one out of one dimension overlap);
- Overlap for Strong Markers of Hubris by Absence ranged from 33% to 38% (seven or eight out of a baseline 21 dimensions overlap);
- Overlap for Weak Markers of Hubris by Absence remained 50% in all four validations (one out of two dimensions overlap);
- Overlap for Generic Markers of CEO range from 44% to 56% (12-15 out of a baseline 27 dimensions overlap).

The scores above indicate that there is a stable number of dimensions that overlap in every category, suggesting that the original (baseline) categorisation of LIWC dimensions needs refinement. Therefore, based on the results obtained from the main sample as well as from five validations, categorisation of dimensions (SMHP, WMHP, SMHA, WMHA, MCEO) has been refined. To pass the threshold of inclusion into the ‘refined’ category of a linguistic marker, certain LIWC dimension had to appear in that category four out of six times (i.e., pronoun ‘we’

appears as Strong Marker of Hubris by Presence in the main samples as well as in Validation 2, 3, 4 and 5).

Table 7.18 below provides a summary of the refined markers. LIWC dimensions that appeared in a certain category before, and remained in it after validations, are highlighted in bold (i.e., **pronouns**). Those LIWC dimensions which appeared in the original sample but did not pass the validation exercise and were therefore removed from this category and added to one of the other categories are crossed out (e.g., ~~insight~~). Finally, new dimensions that were added to a certain category after validation are highlighted in brown (i.e., **you**).

Table 7.18. Summary of refined markers

Category of Linguistic Marker	LIWC dimensions that fall into this category
Strong Markers of Hubris by Presence (SMHP)	Function ; Pronoun ; we ; they ; ipron ; auxverb ; adverb ; negate ; verb ; compare ; quant ; social ; cogproc ; insight ; discrep ; tentat ; certain ; differ ; reward ; focuspresent ; focusfuture ; money ; you ; adj ; interrog ; power ;
Weak Marker of Hubris by Presence (WMHP)	Risk ; ppron ; I ; number ; anx ; anger ; female ; hear ; time ; leisure ; home
Strong Markers of Hubris by Absence (SMHA)	Shehe ; affect ; Posemo ; anger ; friend ; male ; percept ; see ; feel ; bio ; body ; sexual ; ingest ; relative ; time ; leisure ; relig ; death ; netspeak ; nonflu ; filler
Weak Markers of Hubris by Absence (WMHA)	Prep ; adj ; function ; article ; social ; focusfuture ; space
Generic Markers of CEO language (MCEO)	Ppron ; I ; you ; article ; conj ; interrog ; number ; Negemo ; anx ; sad ; family ; female ; cause ; hear ; health ; drives ; affiliation ; achieve ; power ; focuspast ; motion ; space ; work ; home ; informal ; swear ; assent ; shehe ; verb ; affect ; male ; cogproc ; differ ; percept ; see ; feel ; focuspresent ; relig ;
Obsolete dimensions	Insight ; conj ; motion ; sexual ; adverb ; compare ; bio ; body ; filler

Note that there is also a new category in Table 7.18 above that is called ‘Obsolete dimensions’ and contains dimensions that are non-attributable to any of the previously established categories as they did not pass the validation threshold. A final review of the markers in each category is summarised in Table 7.19 below.

Table 7.19. Final refined list of linguistic markers

Category of Linguistic Marker	LIWC dimensions that fall into this category
Strong Markers of Hubris by Presence (SMHP)	Pronoun; we; they; ipron; auxverb; negate; verb; quant; discrep; tentat; certain; reward; money; you; adj; interrog; power;
Weak Marker of Hubris by Presence (WMHP)	Risk; ppron; I; number; anx; anger; female; hear; time; leisure; home
Strong Markers of Hubris by Absence (SMHA)	Posemo; friend; ingest; relative; death; netspeak; nonflu;
Weak Markers of Hubris by Absence (WMHA)	Prep; function; article; social; focusfuture; space
Generic Markers of CEO language (MCEO)	Negemo; sad; family; cause; health; drives; affiliation; achieve; focuspast; space; work; informal; swear; assent; shehe; verb; affect; male; cogproc; differ; percept; see; feel; focuspresent; relig;
Obsolete dimensions	Insight; conj; motion; sexual; adverb; compare; bio; body; filler

Further details regarding markers in each category and their examples are discussed in the next section.

7.5. Illustrative use of markers in the context of CEO speech

The framework to determine potential markers of CEO hubris revealed that linguistic markers of hubris can be classified in more categories than originally thought. Research to date has focused solely on what this framework refers to as ‘markers by presence’. In essence, this refers to a particular linguistic utterance in CEO language that is typically present in hubristic CEO speech, such as extensive use of a certain linguistic categories, such as verbs, pronouns or other. These studies, however, focused mainly on what is ‘present’ in the language of the hubristic person, and did not explore whether the ‘absence’ of a certain linguistic utterance might also be a valid marker of CEO hubris. This section will examine the use of linguistic markers identified above in the context of the specific CEO utterance so as to shed further contextualized light on their usage. In the quotes that follow the specific marker will be shown by **bold** typeface.

The body of research into natural language use (Pennebaker et al., 2003) and markers of hubris (Garrard et al., 2014) to date has also never explored the possibility that linguistic markers of hubris might not be of equal ‘strength’ in their representation of hubris. This has allowed the present study to explore these avenues further and to discover that certain linguistic markers of hubris could be more important than others in the sense that they reveal hubris more accurately than others do.

Overall, this study established five categories of linguistic markers in the field of ‘business and CEO-speak’. These are Strong Markers of Hubris by Presence (SMHP), Strong Markers of Hubris by Absence (SMHA), Weak Markers of Hubris by Presence (WMHP), Weak Markers of Hubris by Absence (WMHA) and Generic Markers of CEO language (MCEO). Details of each of these categories are summarised in section 7.4 of the chapter.

The most well-explored category is Markers by Presence, however previous research has never explicitly called them ‘markers by presence’ but has referred to them generally as ‘linguistic biomarkers’ (Garrard et al., 2014) and suggested that CEO language could contain certain distinctive patterns that could be quantified and therefore potentially reveal hubris. Among suggestions for potential linguistic markers of hubris were such things as use of the royal ‘we’, use of the pronoun ‘I’ and assent words such as ‘sure’ (Garrard et al., 2014; Owen & Davidson, 2009). However, these examples refer to utterances in one’s language that are ‘present’ and, although not explicitly stated in previous research, such markers could be titled as ‘markers by presence’.

What is interesting in the research study described in this chapter is that ‘markers by presence’ are classified further into two categories – Strong Markers of Hubris by Presence and Weak Markers of Hubris by Presence. Among those classified as Strong Markers of Hubris by Presence are the use of pronouns (i.e., ‘I’, ‘mine’, ‘she’, ‘those’, ‘yourselves’), extensive use of the pronoun ‘we’ and its variations (i.e., ‘we’, ‘we’ll’, ‘ours’, ‘ourselves’), use of the pronoun

‘they’ and its variations (i.e., ‘them’, ‘themselves’, ‘they’ll’), use of the pronoun ‘you’ and its variations (i.e., ‘you’, ‘your’, ‘yourself’), use of impersonal pronouns (i.e., ‘anything’, ‘somebody’, ‘other’, ‘whom’), use of auxiliary verbs (i.e., ‘are’, ‘can’, ‘have’, ‘let’, ‘must’), use of negations (i.e., ‘aren’t’, ‘didn’t’, ‘not’, ‘won’t’), use of verbs (more than 1000 various pre-determined verbs, such as ‘bought’, ‘obtain’, ‘should’, ‘understand’ and many others), use of adjectives (a broad category containing more than 700 words, such as ‘active’, ‘favourite’, ‘longest’, ‘trusty’), use of interrogatives (i.e., ‘how’, ‘what’, ‘when’, ‘who’), use of words referring to quantity (i.e., ‘amount’, ‘lots’, ‘majority’, ‘total’), use of discrepancy words (a broad category in LIWC containing discrepancy words such as ‘could’, ‘if’, ‘need’, ‘should’), use of words that indicate a tentative tone (‘depends’, ‘guess’, ‘hope’, ‘probably’), words indicating certainty (i.e., ‘always’, ‘correct’, ‘every’, ‘must’), words that relate to power (i.e., ‘ambition’, ‘invade’, ‘professor’, ‘win’), reward related words (i.e., ‘achieve’, ‘best’, ‘earn’, ‘get’) and money related words (i.e., ‘cash’, ‘cost’, ‘spend’, ‘trade’).

It should be noted that some of the LIWC dimensions described above are very broad (i.e., power words) and contain a wide range of words that could be linked to that category directly or indirectly and might also contain words from several grammar fields (i.e., verbs, adjectives, nouns), hence their accuracy in determining hubristic markers should be reviewed, validated and treated with some caution. However, some other dimensions contain only a very small number of words of one particular part of speech with a small number of variations (i.e., the use of the pronoun ‘we’ category contained only 12 words in total, which were all variations of ‘we’, i.e., ‘we’d’, ‘we’re’).

Out of the 17 categories of Strong Markers of Hubris described above, the ‘strongest’ ones (occurring in the main sample and each of the five following validations) were: a general use of pronouns, the use of the pronoun ‘they’, negations in speech, quantifiers, discrepancy, tentative tone and reward related words (seven LIWC dimensions in total). Slightly ‘less

strong' markers, however still consistently appearing across five out of six test samples were: the use of 'we' and impersonal pronouns, use of auxiliary verbs and certainty related words in one's language (four LIWC dimensions in total). Finally, the remaining six LIWC dimensions were consistent across four out of six test samples – the use of verbs, pronoun 'you', interrogatives, adjectives, money and power words.

Given the research findings above, it can be suggested that personal and impersonal pronouns have the best chance to accurately reveal hubristic CEOs language as a majority of Strong Markers of Hubris fall into the pronoun part of speech. This finding is in alignment with previous research which suggest that the use of pronouns, especially the use of 'we', could be an indicator of hubristic speak (Garrard et al., 2014). For example: “**We** help, you know, consumers and big businesses. **We** help countries and banks, central banks, governments, sovereign wealth funds, and **we're** hugely charitable. You know, the work **we** do in Detroit, **we've** hired 8,000 veterans” (Jamie Dimon, *Bloomberg*, 2015, Line 1020).

Although previous research has focused mainly on the use of the first-person plural pronoun 'we' and the first-person singular pronoun 'I' (Amernic, Craig & Tourish, 2010; Garrard et al., 2014), the present study suggests that the second person pronoun 'you' could also be a good marker of hubristic-speak, i.e., “but there always seems to come a moment where it's just not working, and it's so easy to fool **yourself** - to convince **yourself** that it is when **you** know in **your** heart that it isn't” (Steve Jobs, *Fortune*, 2008, Line 109). In addition to that, previous research has focused only on personal pronouns as potential markers of hubris whilst this research study suggests that there might also be an unexplored avenue of impersonal pronouns which could reveal hubristic CEOs language. For example: “**it's** ... **it's** too nasty. I bought **it** for 3, now I put 7 into **it**, I rebuilt **it** and everything, but **it** cost \$58 million, I bought **it** for 3” (Donald Trump, *The Golf Digest*, 2014, Line 211).

Given that hubris is often linked with excessive confidence and a relentless, reckless manner (Owen & Davidson, 2009), it is not surprising that auxiliary verbs (“it **will** be and me telling you when it **will** be. I’m just speculating here, but I think it **will** be technologically possible in three years” (Elon Musk, *TechRadar*, 2015, Line 642)) and verbs (“but if you **had** to **pick** one place to **die**, then yeah, Mars **would be** pretty cool. **It’s** better than **dying** on Earth” (Elon Musk, *TechRadar*, 2015, Line 625)) appear among markers of hubris. Whilst the LIWC dimension of verbs is a very broad category (comprised of over 1000 words), the auxiliary verb category is much smaller (just over 100 words) and contains only verbs used in forming the tenses, moods, and voices of other verbs, such as ‘be’, ‘do’, ‘have’, which means that this dimension has a real value in indicating hubris due to its specificity.

Another attribute of hubris that is often cited by researchers is a need for power and reward (Owen & Davidson, 2009). Both power (“But being a **celebrity** is good 70% of the time — it gives you **fame**, money and **power**” (Donald Trump, *Forbes*, 2014, Line 370)) and reward (“over \$200 million in healthcare **benefits**” (Howard Schultz, *Seeking Alpha*, 2015, Line 553)) related words appear as SMHP according to the framework although the ‘power’ dimension in LIWC is quite broad and contains more than 500 words among which there are words that could be directly linked with ‘power holder’ (i.e., ‘confidence’, ‘largest’, ‘superior’) as well as words that indicate the outcome of power abuse (i.e., ‘beg’, ‘obey’, ‘vulnerable’).

The reward dimension in LIWC is much smaller (less than 150 words) and contains a mix of words from different parts of speech that relate to reward. This dimension appears consistently as one of the Strongest Markers of Hubris by Presence; this may be anticipated given that words in this category (i.e., ‘achieve’, ‘best’, ‘confidence’, ‘success’) reflect an excessively positive, confident and reward striving manner which can often be attributed to hubris (Amernic & Craig, 2014). References to money (“you’ll still end up **paying** that kind of **money**” (Jamie Dimon, *Bloomberg*, 2015, Line 921)), which could also be treated as a means of reward, has

never been explicitly linked with hubris. However previous research has linked mergers and acquisitions with hubris particularly in Roll's 'hubris hypothesis' (Hayward & Hambrick, 1997; Roll, 1986), therefore this LIWC dimension might provide some interesting new insights.

One surprising discovery of the study is that both tentative tone ("but **perhaps, perhaps** we can be a catalyst for **some** people" (Howard Schultz, *CNN*, 2015, Line 445)) and certainty ("Yeah, **absolutely**. Yeah. We'd **certainly** consider that down the road, but I can **certainly** say" (Elon Musk, *The Texas Tribune*, 2015, Line 770)) appear as indicators of hubristic speech. Given that excessive confidence has been often attributed to hubris in research studies to date (Amernic, Craig & Tourish, 2010), the appearance of this dimension as a linguistic marker of hubris can be anticipated. Tentative tone, however, has never been linked with hubris and this is a seemingly contradictory finding.

Looking into vocabulary for the tentative tone dimension of LIWC (that is used for the calculation of this dimension score by the software), it seems that it contains a lot of widely used words, especially in interviews (i.e., 'anybody', 'apparently', 'generally', 'if', 'lots', 'suppose') which could potentially explain the reason of the appearance of this dimension as a Strong Marker of Hubris by Presence. Given the LIWC software uses pre-defined vocabularies for each category with a large and broad range of words in each category and given that the software is not specifically designed to measure hubris, such a contradictory finding is possible.

Similarly to the above, appearance of quantifiers ("that's one of the **few** things we do" (Steve Jobs, *Fortune*, 2008, Line 100)) and interrogatives ("I started buying courses that were already built and rebuilt them, **which** I actually like better" (Donald Trump, *The Golf Digest*, 2014, Line 208)) as Strong Marker of Hubris by Presence could be also explained by the same reason, given that most interviews will naturally contain a number of words from these dimensions (i.e., 'any', 'both', 'lots', 'some', 'what's', 'why').

Linked to the above, the use of adjectives could also appear as a Strong Marker of Hubris by Presence due to the fact that in interviews with CEOs, hubristic or not, most questions will be related to the CEO themselves or his/her company which naturally demands an answer containing an adjective, i.e., “It was a **magical**, majestic evening and it was really a **wonderful** opportunity for us” (Howard Schultz, *Seeking Alpha*, 2015, Line 575). On the other hand, hubris and narcissism are often intertwined and a hubristic CEO might often have a number of narcissistic inclinations or propensities (Owen & Davidson, 2009; Sadler-Smith et al., 2016), in which case these tendencies might very well be reflected in their language, hence a significant amount of adjective use in the language, i.e., “Doral is **great. Spectacular.** I only buy **great** ones” (Donald Trump, *The Golf Digest*, 2014, Line 232).

The use of negations (“You **never** know exactly how new policies are going to work. That **doesn't** mean you **shouldn't** try them” (Jamie Dimon, *Asian Review*, 2015, Line 1077)) in hubristic-speak is another interesting discovery as although negations have not been previously hypothesised as a linguistic marker of hubris in scientific research, the media have often noted hubristic CEOs as being very bold and straight-to-the-point types of individuals (e.g., “here's no shortage of brash, aggressive, and successful personalities in business. (Think: Travis Kalanick, Marissa Mayer, and Rupert Murdoch, who've each earned a reputation for ruthlessness.) After all, a healthy dose of self-confidence is a necessity when it comes to getting your company off the ground”) (Henry, 2015, p.1). Negation words easily create that image as a high use of negative forms (i.e., ‘mustn’t’, ‘no’, ‘never’, ‘won’t’) could well paint a very strict, decisive and bold personality.

Finally, the dimension for discrepancies in LIWC is another joint category of the software which contains a mixture of words from various parts of speech and grammatical structures – some negations (i.e., ‘mustn’t’), verbs (i.e., ‘hope’), auxiliary verbs (i.e., ‘should’ve’) and others. Although it appears as a Strong Marker of Hubris by Presence, this might be due to its

overlap with other dimensions that appear as a Strong Markers of Hubris as listed above. The usefulness of this dimension as an indicator of Strong Marker of Hubris by Presence should be further explored and validated.

All the above describe potential markers of hubris in CEO-speak that could be present in a CEO's language, however it should not be forgotten that linguistic attributes that are absent in CEO language could provide equally significant insights. Yet this has never been explicitly hypothesised in research studies to date and hence represents a novel contribution of the present study.

Looking at findings from the present study, there are seven potential Strong Markers of Hubris by Absence: words related to friends (i.e., 'companion', 'friend', 'pal'), positive emotions (i.e., 'amazing', 'interest', 'well'), ingestion (i.e., 'caffeine', 'diet', 'taste'), relativity (i.e., 'deeper', 'further', 'region'), death (i.e., 'alive', 'dying', 'mortal'), informal abbreviations (i.e., 'bday', 'plz', 'thx') and non-fluencies (i.e., 'ah', 'huh', 'mmm').

Given that this research study is focused on the spoken utterances (media interviews) of CEOs that have been transcribed, it could be hypothesised that the last two categories in the list above (informal abbreviations and non-fluencies) are not applicable for this research, as use of such words in the text could be highly influenced by the transcriber. As for the remaining five dimensions that were classified as Strong Markers of Hubris by Absence, lack of words related to friends ("if they've been punching us in the face, they shouldn't expect we're going to be their **friend**" (Elon Musk, *The Texas Tribune*, 2015, Line 772)), ingestion ("providing comprehensive **health** insurance to every employee" (Howard Schultz, *Seeking Alpha*, 2015, Line 555)) and death ("life is brief, and then you **die**, you know?" (Steve Jobs, *Fortune*, 2008, Line 33)) could be explained by the type of material (official public interviews with CEOs) used in the study. Given that a majority of media interviews with leaders are within a business context with a focus on their companies and rarely about more personal topics, the appearance

of these three LIWC dimensions as Strong Markers of Hubris by Absence is perhaps not surprising. It could also be hypothesised that, as suggested in previous research, e.g., Petit & Bollaert, 2012, hubristic CEOs have a tendency to identify very strongly with their companies (e.g., it has been claimed that in Steve Jobs' mind Steve Jobs *was* Apple) (Isaacson, 2011), therefore they would mainly focus on company matters in the interviews whilst a non-hubristic CEO might be more willing to explore more varied interview topics.

Relativity words (“go out to the **middle** of **nowhere** and build a beautiful course” (Donald Trump, *The Golf Digest*, 2014, Line 216)) that also appear as Strong Markers of Hubris by Absence, is another extremely wide dimension in LIWC consisting of more than 950 words related to motion (i.e., ‘movement’), time (i.e., ‘weekend’) and location in space (i.e., ‘world’). Given the breadth of this dimension, its accuracy in determining linguistic markers of hubris has to be further reviewed and validated.

One surprising finding of the study was the appearance of positive emotion words (“one of the most **successful** retail and commercial bankers. We do a **great** job for customers” (Jamie Dimon, *Asian Review*, 2015, Line 1088)) as Strong Markers of Hubris by Absence. To date, due to narcissism being somewhat intertwined with hubris (Owen & Davidson, 2009) and narcissistic CEO speak being pompous and overly positive by nature (Brennan & Conroy, 2013), one could have expected hubristic CEO language to carry a similar tone. However, as suggested by this research, overall CEO-speak contains more references to negative emotions than to positive (i.e., negative emotion words appear as generic indicators of CEO language, whilst negations appear as Strong Markers of Hubris by Presence) and hubristic CEO language lacks references to positive emotions (compared to the non-hubristic sample and general population) as well. Potentially this might be an interesting finding for further research, especially in delineating narcissism from hubris.

Although Strong Markers of Hubris by Presence and Absence provided some interesting insights into the field, there were also some promising findings among Weak Markers of Hubris by Presence and Absence as well. Among LIWC dimensions appearing as Weak Markers by Presence was the use of risk related vocabulary (i.e., ‘avoid’, ‘dangerous’, ‘safe’), personal pronouns (i.e., ‘he’, ‘I’ve’, ‘my’), the personal pronoun ‘I’, numbers, anxiety (i.e., ‘fear’, ‘nervous’, ‘stress’) and anger (i.e., ‘argue’, ‘fight’, ‘war’) related words, female words (i.e., ‘female’, ‘she’, ‘her’) and words related to hearing (i.e., ‘listen’, ‘noise’, ‘speaks’), time i.e., (‘begins’, ‘daily’, ‘rarely’) and leisure (i.e., ‘art’, ‘running’, ‘travel’).

The use of risk-related vocabulary, personal pronouns in general and the personal pronoun ‘I’ in particular have all been previously hypothesised as potential markers of hubris. For example, in research regarding risk and hubris and how risk-taking affects decision-making (Li & Tang, 2010), especially for hubristic individuals (see also the hubris hypothesis, Roll, 1986). Therefore, the appearance of risk-related vocabulary among Weak Markers of Hubris by Presence conveniently links with extant findings relating to hubris and risk (Li & Tang, 2010).

The use of numbers as Weak Markers of Hubris by Presence is in alignment with the present research since money and quantifiers appeared as Strong Markers of Hubris by Presence. The appearance of words related to anxiety and anger also correlates with other findings in the present study given that the use of negations and the absence of positive emotion words were found to be potential markers of hubristic-speak. There seemed to be a common pattern of the use of finance and negativity related vocabularies among hubristic CEOs which needs further exploration and analysis in future studies.

The remaining five LIWC dimensions that appear as Weak Markers of Hubris by Presence require further review and validation. The use of female, hearing, time, leisure and home related words can be highly influenced by the type of interview and the questions asked (i.e., ‘How do you plan to implement your company’s latest strategy?’ versus ‘What encouraged

you to strive for success?'). Given that interviews for this study have been selected randomly, it is hard to define how much influence the material used had on these categories. The vocabulary for the calculations of these dimensions is also relatively small, which might also have impacted on the results. In any case, there is a need to explore these dimensions and their accuracy determining hubris further.

Whilst a majority of potential linguistic markers found by the study were Strong and Weak Markers of Hubris by Presence and Strong Markers of Hubris by Absence, there are also a few Weak Markers of Hubris by Absence. Among LIWC dimensions appearing as Weak Markers of Hubris by Absence are prepositions (i.e., 'across', 'by', 'from'), function words (i.e., 'almost', 'indeed', 'you'll'), articles (i.e., 'a', 'an', 'the'), social processes related words (i.e., 'companion', 'gents', 'message'), vocabulary that is focused towards future (i.e., 'coming', 'hopeful', 'someday') and space (i.e., 'beyond', 'low', 'vast').

None of the dimensions in the list above have been previously hypothesised as potential markers of hubris. There are some arguments that function words (words that contribute to the syntax of the sentence rather than the meaning, such as 'of', 'be', 'may' and many others) have a great potential to reveal one's personality (Chung & Pennebaker, 2007), however these words have never been explicitly linked with hubris. A similar case might be made for prepositions - there is a small body of research that explores their link with personality (Yarkoni, 2010), but it has never been suggested that they have the potential to reveal hubris, especially the absence of them. The use of articles and their link with personality or hubris has not been explicitly explored before.

In terms of social processes related words as a Weak Marker of Hubris by Absence, this finding is in alignment with other results from the study (friendliness related words appeared as a Strong Marker of Hubris by Absence). There are number of words that overlap between the vocabularies of these LIWC dimensions (social processes and friendliness) and they are both

thematically linked, therefore the appearance of the social process dimension as a Weak Marker of Hubris by Absence could have been anticipated.

The absence of words related to the future is an interesting finding as research studies to date have never focused on the potential of use of different grammar tenses to become a marker of hubristic-speak itself. However, given that the use of verbs and auxiliary verbs was noted by this research as a Strong Marker of Hubris by Presence and both of these dimensions (verbs and auxiliary verbs) contain words that are mainly in the present tense, the importance of these LIWC dimensions in indicating signs of hubris is worth exploring further.

Whether the absence of space related words (words that indicate one's location or position in space, i.e., 'local', 'width') that appear as a Weak Marker of Hubris by Absence is an accurate indicator of hubris is difficult to confirm at this point as there is neither research to baseline this finding on nor do any similar patterns arise within other categories in this research that would help to explain the appearance of this dimension as a Weak Marker of Hubris by Absence. As noted before, it might be worth further exploring the usefulness of this LIWC in determining linguistic markers of hubris in future studies.

Finally, one more category that was established in the research was Generic Markers of CEO language. This category contains linguistic markers that, in the study, consistently appeared at a much higher or much lower rate in both hubristic and non-hubristic samples compared to the general population. Therefore, it has been assumed that there are certain aspects of CEO language – regardless of whether he/she is hubristic or not – that could be attributed to the person being in a leadership position as opposed to the person being hubristic. In previous publications this concept has been referred to as 'CEO-speak' (Amernic & Craig, 2006).

This research listed a total of 23 LIWC dimensions that fall into this category, such as words related to negative emotions, sadness, family, health, personal drives, affiliation, achievement,

work, religion and assent. Informal speech, use of swear words and male focused vocabulary, use of words that relate to affective, cognitive and perceptual processes, especially regarding seeing and feeling the surrounding, also appeared in this category along with the use of present and past tenses, causation, differentiation words and the personal pronouns ‘she’ and ‘he’ and their derivatives.

Due to the focus on hubristic CEO language, the present study did not analyse Generic Markers of CEO language any further. It has also not attempted to define whether these markers would fall into ‘marker by absence’ or ‘marker by presence’ categories and focused solely on the potential markers of hubristic speak. This is something that future research might explore.

7.6. Chapter summary

Overall, Study 2 has built a unique framework that allowed for the classification of linguistic markers of hubris into five categories: Strong Markers of Hubris by Presence, Strong Markers of Hubris by Absence, Weak Markers of Hubris by Presence, Weak Markers of Hubris by Absence and Generic Markers of CEO language. This framework was created based on the results obtained by analysing spoken utterances from hubristic and non-hubristic samples using LIWC software, comparing results between these samples and baselining them against the scores for the same LIWC dimensions for the general population. The scores for the latter are provided by LIWC software authors for the public access.

The framework has been expanded throughout the course of the study and validated by replacing one individual in the main (hubristic) sample with a different individual to ensure that the findings (classification) produced by the framework remain consistent. This bootstrapping technique has helped to redefine the lists of potential Markers of Hubris by Absence and Presence and also distinguished some Generic Markers of CEO language as well as flagged some dimensions that were not applicable for this study.

Study 2 offers a novel contribution to hubris research in that, to the best of the author's knowledge, it is the first ever study to date to apply an almost a full set of LIWC dimensions (total of 73) in the analysis of linguistic markers of hubris in the field of business, to distinguish between strong and weak linguistic markers and also to focus not solely on linguistic clues (markers) that are present in one's language, but also to discover the previously unexplored field of linguistic Markers of Hubris by Absence.

In line with the previous research on hubris and language, this study has confirmed that linguistic markers have a real potential to reveal such a complex phenomenon as hubris through subtle changes in CEO's language. This, indeed, could help to contribute to wider research regarding the diagnosis and prevention of hubris and mitigate against potentially detrimental effects of undiagnosed and unbridled executive hubris.

8. STUDY 3, HUBRISTIC LANGUAGE IDENTIFICATION USING A MACHINE LEARNING APPROACH

8.1. Introduction

In recent years, the availability of large bodies of data in digital format necessitated the need to find a way for easier, quicker and more accurate textual data analysis in many different fields. Standard ways of performing data analysis tasks (i.e., close reading of texts) were often slow, time-consuming and hard to perform on large datasets (Basit, 2003). This created a need for more efficient data processing techniques, such as machine learning (ML) (Kotsiantis, Zaharakis & Pintelas, 2007).

The term ‘machine learning’ was born in 1959, evolving from studies on pattern recognition (Samuel, 1959). Machine learning can be described as a method of enabling a computer program to automatically analyse a large set of data using artificial intelligence (AI). The term ‘machine learning algorithm’ refers to the use of various computational methods in order to “learn information directly from data without relying on a predetermined equation as a model” (Mathworks, 2017, p.1).

The aim of a machine learning algorithm is to use example (or so called ‘training’) data and by learning from previous experiences to solve a certain problem or answer a specific question (Alpaydin, 2014). Based on the information and patterns ‘learnt’, the machine learning algorithm can then be used to automatically make future predictions.

Machine learning is now widely applied in various areas, including text classification and analysis (Ikonomakis, Kotsiantis & Tampakas, 2005). For example, machine learning algorithms can be trained on a set of pre-classified written texts to categorise new unseen texts into categories of interest (Garrard et al., 2014), e.g., hubristic or non-hubristic speech. According to Sebastiani (2005), “the accuracy of classifiers (i.e., their capability to make the

right classification decisions) built by machine learning methods now rivals that of human professionals and usually exceeds that of classifiers built by knowledge engineering methods” (p.2).

This chapter explores the potential of machine learning techniques to classify transcribed interview samples into hubristic or non-hubristic utterances using textual data. It also builds on the natural language use theoretical foundation (Pennebaker et al., 2003) outlined in previous chapters and research findings from Studies 1 and 2. In Study 3 it is proposed to use WEKA data mining software (see section 8.2.1) to construct a machine learning model that could be used to identify hubristic versus non-hubristic language use in CEOs.

The area of using linguistic cues for the automated recognition of hubristic speech with machine learning algorithms has, to the best of the author’s knowledge never been explored before hence this is likely the first attempt to adapt ML techniques for the purpose of recognising linguistic markers of hubris. Whilst the model built in this study is experimental it showcases the possibility of using the field of data mining in future hubris research.

This chapter describes the implementation of WEKA in the analysis of hubristic and non-hubristic natural language use amongst CEOs, the results obtained, and the implications for future studies of the linguistic markers of CEO hubris using data mining techniques. It should be noted, however, that Study 3 described below comprises two sub-studies. The first sub-study (Study 3a) uses LIWC categories as attributes whilst the second sub-study (Study 3b) uses raw data (spoken utterances produced by hubristic and non-hubristic CEOs) as attributes. The sub-studies are structured this way because Study 3a is more deductive and driven by the theory of natural language use (Pennebaker et al., 2003). Study 3b, however, is more inductive, atheoretical, and based solely on the raw data. Further details on both sub-studies, as well as on WEKA data mining software, follows in the next section.

8.2. WEKA data mining

8.2.1. What is WEKA?

WEKA (Waikato Environment for Knowledge Analysis) is an open source software developed in the University of Waikato, New Zealand. This software holds a collection of machine learning algorithms that can be applied for a variety of data mining tasks (Witten et al., 2016). ‘Data mining’ refers to the application of the techniques to transform data (i.e., textual, numeric) into a more user-friendly and understandable form from which one could make predictions whilst ‘machine learning’ refers to the algorithms used during this transformation (Witten et al., 2016).

WEKA is a user-friendly, free software written in the JAVA computer programming language and issued under the GNU General Public License. It contains various algorithms and tools that can be applied to a dataset (i.e., textual, numeric), such as classification, visualization, regression and others. WEKA software has been applied to various research fields, including analysis of large discourse samples (Garrard et al., 2014; Mairesse et al., 2007).

For example, WEKA has been used to classify unseen texts (picture descriptions produced by semantic dementia patients) to identify vocabulary features that are most representative of right versus left predominant temporal lobe atrophy patients (Garrard et al., 2014). Researchers achieved an 88% level of accuracy (i.e., a high level) in this study. In addition to WEKA’s application in the medical field, it has also been used for the authorship identification. For example, Mohtasseb, & Ahmed (2009) achieved an average level of 86% accuracy in their study to identify an author based on texts collected from the authors’ blogs.

WEKA was used in a similar way in studies to identify Big Five personality traits based on an individual’s language. Mairesse and Walker (2006) study showed that individuals’ personality traits could be automatically recognised (with 65 – 73% accuracy) through a person’s language.

A similar conclusion was reached by Argamon et al (2005) and Mairesse et al (2007) whose studies led to the identification of the personality type (based on the Big Five dimensions) of the authors based on their written texts. In addition to WEKA's use in personality trait recognition, this machine learning software has also been applied to automatically recognise different language functions, such as direct versus indirect speech. Studies have concluded that direct speech in texts can be reliably identified using machine learning (Schöch et al., 2016).

Although WEKA, to date, has been used in a variety of different research fields, it has not, to the best of the author's knowledge, been previously applied in the research of hubris and, especially not with regards to CEO hubris. WEKA uses specific data mining field terminology and therefore see Table 8.1 below for an overview of the key terms to be used in this chapter.

Table 8.1. Key WEKA terms

Term	Description	Example
Attribute	A potential feature of a certain phenomenon.	For example, use of pronoun 'I' might be a feature of hubristic language.
Class	A category that the input is going to be divided to.	For example, class in this study refers to a CEO being 'hubristic' or 'non-hubristic'.
Classifier	An algorithm that implements classification.	WEKA contains many pre-built classifiers, such as SMO, Naïve Bayes and many others.
Classification	An automatic identification to which category a new observation belongs.	Classification of an individual into 'hubristic' or 'non-hubristic' category based on their language.
Classification problem	An identification problem to be solved.	For example, asking whether 'based on this language sample, is this CEO hubristic or not'?
Classified example	An instance (example) that has a pre-defined set of attributes and a class.	For example, classifying a sentence that has a high use of pronouns as 'hubristic'.
Data mining	Application of the techniques to transform data (i.e., textual, numeric) into a more understandable form in order to make predictions.	N/A

Information gain score	The amount of information gained by knowing the value of the attribute.	N/A
Instance	A single occurrence of the event.	For example, a pronoun 'I' appearing in the text 20 times would be classes as 20 'instances'.
Input dataset	A dataset (numeric or textual) to be imputed into WEKA.	N/A
KNN	An instance-based learning (Ibk) classifier setup to indicate the number of 'neighbours' to use in the algorithm.	For example, KNN=3 indicated three 'neighbours'.
Machine learning	A set of algorithms that are used during data mining process.	N/A
Machine learning algorithm	The use of various computational methods in order to automatically learn information directly from data.	N/A
Meta-classifier	A classifier, which is usually a proxy to the main classifier, used to provide additional data pre-processing.	N/A
MinNum	A classifier setup, indicating the minimum total weight of the instances in a leaf.	For example, minNum = 3.
MinNumObj	A classifier setup, indicating the minimum number of instances per leaf	For example, minNumObj = 3.
Supervised learning	Providing the machine learning algorithm with the class values for the algorithm to be able to start producing a model that could classify new instances.	For example, providing the algorithm with the information on which text belongs to 'hubristic CEO' and 'non-hubristic' CEO.
Text mining	Text mining is a process of deriving meaningful patterns from the textual data using machine learning algorithms.	N/A
Training set	A set of data that is used to build the initial machine learning model. This model is later validated with a new set of data (Testing set).	N/A
UseKernelEstimator	A classifier setup to use a kernel estimator for numeric attributes.	For example, useKernelEstimator = true.

The next section will explain the working principles of WEKA and how this software can be applied to the study of linguistic markers of hubris.

8.2.2. Basic working principles of WEKA

Based on the number of instances and attributes that a researcher provides WEKA (an ‘input dataset’), the software starts working on a certain classification problem (i.e., ‘Based on this language sample, is this CEO hubristic or not?’). In other words, WEKA starts building a model based on a machine learning algorithm that predicts the ‘class’ value which has to be defined in advance (i.e., class refers to a CEO being ‘hubristic’ or ‘non-hubristic’ in this case). This process is often referred to as ‘supervised learning’ as the algorithm is provided with the class values of the training instances for the algorithm to be able to start producing a model that could classify new examples. See Figure 8.1 below for a visual explanation of the classification process in WEKA:

Figure 8.1. Classification process

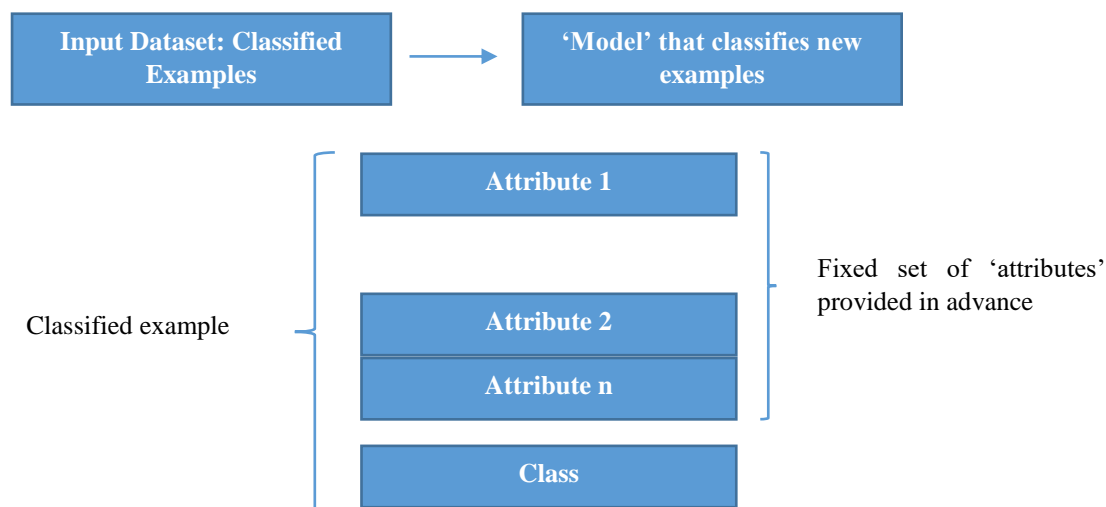


Figure 8.1 summarises the core of the classification concept: an ‘instance’ is depicted in this figure with a fixed set of attributes (or features) and a class. Such an example is called a ‘classified example’ (Witten et al., 2016).

8.2.3. Classifiers

In order to create a model that classifies new examples, a suitable classifier has to be built (i.e., in order to determine whether an utterance is hubristic or not). This, essentially, means creating

an algorithm that identifies an instance's class, based on a training set of data (Domingos, 2012).

There are no definite rules as to which classifier is to be used in what circumstances, as the choice of the classifier depends on a variety of factors, such as the problem that a particular research is trying to solve, the data set, size of sample, etc. (Witten et al., 2016). As machine learning models have not been previously used in hubris research and hence there is no baseline guidelines for the use of specific models, this study therefore compares five different learning algorithms from the WEKA toolbox that have been previously used in similar types of research, such as identification of the author's identity or personality characteristics based on textual data (Argamon et al., 2005; Mairesse & Walker, 2006; Mairesse et al., 2007; Schöch et al., 2016).

There are number of classifiers that are readily available in WEKA for researchers to use and customise, depending on the research specifics and needs. See brief descriptions below of five classification algorithms used in Study 3:

- **J48:** This classifier is based on an algorithm called C4.5 (Quinlan, 1993). It is an algorithm for generating a decision tree as a predictive model and it is often used in machine learning. J48 selects an attribute for the root node, creates a branch for each possible value and then splits instances into subsets (Witten et al., 2016). J48 performs well, is easy to interpret (Bhargava et al., 2013) and can also be used to visually represent decision-making logic. For example, WEKA software has an option to visualise decision trees which helps to see which attributes were used in the decision-making process. J48 has been used in research studies to identify the author's personality based on the stylistic features of the text (i.e., length of the sentence, average number of pronouns) as well as predicting the individual's dark triad personality

characteristics based on an analysis of tweets on the social media platform Twitter (Pervaz et al., 2015; Sumner et al., 2012).

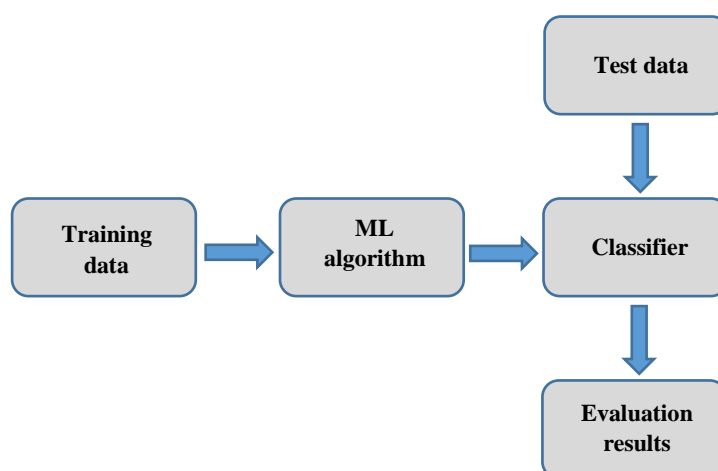
- **Random Tree:** this classifier, similarly to J48, is also based on the decision tree learning approach. It constructs the tree by randomly selecting a number of attributes at each node. Random Trees are often referred to as having exceptionally high accuracy and handling ‘overfitting’ (a case when a classifier ‘fits’ the training data too tightly, hence does not perform well on the independent test data) well (Cootes et al., 2012). This classifier has been used in research for author identification using textual data (Pham et al., 2009) and predicting student performance based on their past performance (Mishra, Kumar & Gupta, 2014).
- **Naïve Bayes:** this classifier is based on Bayes’ ‘Naïve theorem’ that describes the probability of an event based on the evidence or prior knowledge related to it (Stigler, 1983). It also assumes that attributes used for the classification are statistically independent (so called ‘Naïve assumption’). In short, this classifier uses probabilities to make decisions about the class. According to Leung (2007), “Naïve Bayesian classifier to be comparable in performance with decision tree and selected neural network classifiers” (p.14). This classifier has been widely used in a variety of research fields, such as medical studies (Garrard et al., 2014), personality recognition based on language (Mairesse et al., 2007) and document classification (Ting, Ip & Tsang, 2011).
- **SVM (Support Vector Machines):** this classifier uses various ‘kernel’ methods (category of algorithms that are designed for pattern analysis) to find patterns in data (Boser, Guyon & Vapnik, 1992). It is a non-probabilistic binary linear classifier as it works with two classes. It is known for its reliability and successful applications in many fields (Tong, 2001). The majority of the studies on the recognition of the

personality traits based on individual's language use SMO (see: Mairesse & Walker, 2006; Mairesse et al., 2007; Mohtasseb & Ahmed, 2009).

- **IBk (Instance-based learning):** the algorithm this classifier uses is derived from so-called the 'nearest neighbour' pattern which, according to Cover and Hart (1967), "assigns to an unclassified sample point the classification of the nearest of a set of previously classified points" (p.1). IBk is a relatively simple classifier, however it is often referred to in research as an accurate and useful tool (Wilson & Martinez, 2000; Witten et al., 2016) and has been used in author identification research (Estival et al., 2007) as well as for hydrological forecasting (Solomatine, Maskey & Shrestha, 2008) where it has proved to produce high accuracy results.

Once a suitable classifier is built, the next step is to estimate how well this classifier is going to perform on new, unseen, instances. It is a flawed approach to test the classifier on the training data because in that instance one is 'predicting' the same data that was used to build the classifier in first place. Therefore, in order to properly test the classifier's performance, a fresh set of data has to be supplied. This process is illustrated in Figure 8.2 below.

Figure 8.2. Model performance testing



As visualised in Figure 8.2 above, the process starts with provision of the training data to the machine learning algorithm which, in turn, produces a model (a classifier) which then can be used to make future predictions. However, before accurately making future predictions, it is essential to test the model (a classifier) with some independent data and get some results on performance. As mentioned above, testing and training data must be different. However, there are no firm guidelines on what is referred to as a sufficiently big dataset (i.e., what is the sufficient number of CEOs) (Witten et al., 2016)

8.3. Research Strategy

8.3.1. Summary of the research strategy for Study 3

The overall research strategy for Study 3 is similar to that used in Study 2, the main difference being the specific research method and analytical technique employed. Text analysis using machine learning algorithms will be used in Study 3, whilst Study 2 conducted a content analysis using LIWC software. The decision to choose a new and innovative research method in Study 3 has been taken for several reasons.

First, machine learning techniques are known to provide a high level of accuracy and efficiency in processing data (Sebastiani, 2005) which is extremely helpful in the type of research described in this study. Secondly, after exploring other techniques (computational linguistics, content analysis with LIWC and Herman's LTA framework) it was felt that other tools and techniques for identifying linguistic markers of hubris should be explored in an attempt to obtain additional insights into the topic. Thirdly, the foundation of this research lies in advancing academic and empirical knowledge of the nature of the linguistic markers of CEO hubris as much as in their identification. Hence building an experimental machine learning model that could automatically recognise and classify linguistic markers of hubris would be a highly valuable contribution to research.

Table 8.2. Amended Research Strategy in Study 3 (main change shown in *italics*)

Research Philosophy	Ontology	Objectivism
	Epistemology	Positivism
Research Approach		Inductive
Research Design	Methodological Choice	Single-method quantitative study
	Nature of Research Design	Exploratory
	Time Horizon	Cross-sectional
Ethics	Ethical Approval	Not required
Research Method	Data Collection Technique	Use of Secondary Data
	Method	<i>Text analysis using Machine Learning algorithms</i>
	Sampling	Non-probability Purposive Sampling

The study described in this chapter was conducted according to the principles outlined in the research strategy for the thesis (see Chapter 3). Table 8.2 above provides details of the amended research strategy. Changes made to the baseline research strategy are marked in *italics*.

8.3.2. Research method

The research method for Study 3 can be summarised in the following five steps:

1. Decide on the sample and data to be used in the study;
2. Extract relevant attributes;
3. Build a classifier to identify hubristic speech;
4. Refine the attribute list if required;
5. Test the learned models.

The following sections describe the application of each of these steps in more detail. As mentioned earlier in the chapter, Study 3 is comprised of two smaller sub-studies. The first sub-study (Study 3a) uses LIWC categories as attributes whilst the second sub-study (Study 3b) uses raw data (spoken utterances produced by hubristic and non-hubristic CEOs) as attributes. Section 8.4 outlines research method and findings for Study 3a whilst section 8.5 discuss research method and results from Study 3b. The last section 8.6. compares findings from both sub-studies and offers some recommendations for future studies in this field.

8.4. Study 3a – LIWC categories

8.4.1. Sample and data used in Study 3a

The amended study design described above was implemented on the same sample as were used in the previous two studies which consisted of five hubristic CEOs (HCEO) and five non-hubristic CEOs (NHCEO) ($N=10$). For example, the hubristic sample consisted of the following five CEOs:

- Travis Kalanick (formerly Uber);
- Elon Musk (Tesla, SpaceX);
- Howard Schultz (Starbucks);
- Steve Jobs (formerly Apple);
- Jamie Dimon (JP Morgan).

The non-hubristic sample consisted of the following five CEOs:

- Jeff Bezos (Amazon);
- John Chambers (formerly Cisco);
- Mike Bloomberg (Bloomberg);
- Mike Parker (NIKE);
- Robert Iger (Walt Disney).

The empirical materials to be used in the machine learning algorithms in Study 3 are the same materials as in Studies 1 and 2. A full list is provided in Appendix 15 and Appendices 16-26.

8.4.2. Attribute selection

Normally the attributes used in similar studies are determined by previous psychological findings about correlations between measurable linguistic factors and the purpose for which the research is trying to build a machine learning algorithm; in this case it is to distinguish between hubristic and non-hubristic CEOs (Mairesse et al., 2007). In the case of this research study, attributes would relate to the linguistic cues that might identify hubris (the main ‘object’ of the study). Given that this study builds on the foundations laid in Study 1 and Study 2, the

findings from Study 2 (17 Strong Markers of Hubris by Presence in total) have been used as baseline attributes in Study 3a. The total attribute list is summarised in Table 8.3.

Table 8.3. Baseline attributes (Strong Markers of Hubris by Presence) used in Study 3a

Feature	Type
Pronouns (Pronoun)	LIWC
Pronoun 'We' and its derivatives (We)	LIWC
Pronoun 'You' and its derivatives (You)	LIWC
Pronoun 'They' and its derivatives (They)	LIWC
Impersonal pronouns (Ipron)	LIWC
Auxiliary verbs (Auxverb)	LIWC
Negations (Negate)	LIWC
Common verbs (Verb)	LIWC
Common adjectives (Adj)	LIWC
Interrogatives (Interrog)	LIWC
Quantifiers (Quant)	LIWC
Discrepancy words (discrep)	LIWC
Tentative tone (tentat)	LIWC
Certainty tone (certain)	LIWC
Power related words (power)	LIWC
Reward related words (rewards)	LIWC
Money related words (money)	LIWC

Examples of words that belong to each attribute are summarised in Appendix 14. The set of attributes defined above were later refined during the classifier improvement process (see section 8.4.4).

8.4.3. Building a classifier

In order to build a classifier that could automatically distinguish whether an individual CEO is hubristic or not based on the set of attributes listed in the previous section, scores for each of these attributes obtained by LIWC were used as an input data for the classifier. Table 8.4 below summarises the full set of input data that were used to build a baseline classifier.

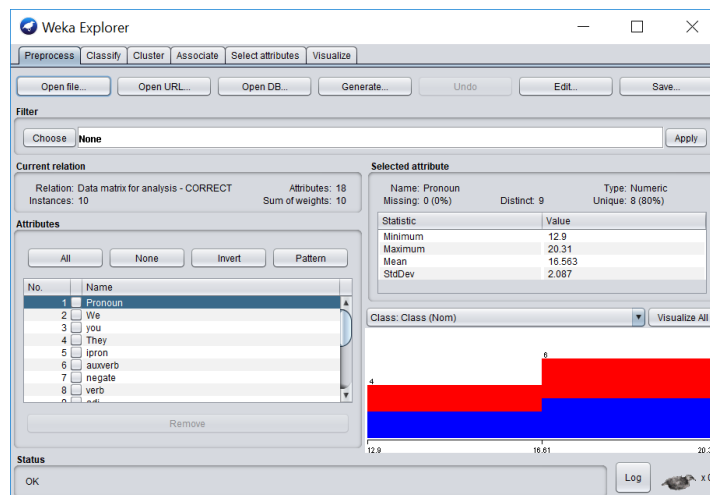
Scores in the lines two to six ('hubristic class') belong to Travis Kalanick, Elon Musk, Howard Schultz, Steve Jobs and Jamie Dimon retrospectively. The remaining five lines ('non-hubristic class') contain scores of Jeff Bezos, John Chambers, Mike Bloomberg, Mike Parker and Robert Iger retrospectively. This is the same data as obtained and summarised in Study 1 (see Table 6.5 in Chapter 6).

Table 8.4. Input data

Pronoun	We	you	They	ipron	auxverb	negate	verb	adj	iterrog	quant	discrep	tentat	certain	power	reward	money	Class
17.5	3.43	2.7	0.43	8.05	11.65	1.66	21.05	4.6	2.41	3.01	1.53	3.56	1.78	2.15	2	2.25	Hubristic
15.37	2.39	0.83	1.37	8.04	11.41	1.73	18.34	4.46	1.46	2.77	2.54	4.58	1.5	2.5	1.5	2.58	Hubristic
15.9	3.78	1.45	0.80	6.48	9.18	1.57	16.31	3.18	1.54	2.67	1.71	2.41	1.90	2.27	1.47	2.27	Hubristic
20.31	5.61	2.02	1.79	8.97	12.18	2.53	22.3	4.26	2.31	2.72	1.89	2.79	2.21	1.79	2.5	1.25	Hubristic
17.56	2.77	2.2	1.72	7.43	11.61	2.29	20.9	4.4	1.49	3.18	1.99	3.9	1.87	3.85	2.38	3.66	Hubristic
17.5	2.79	2.85	0.88	7.33	11.84	1.67	19.87	4.88	1.42	2.7	2.7	3.12	1.82	2.91	2.06	3.09	Non-hubristic
17.35	4.8	2.41	1.42	6.87	10.61	1.56	17.48	3.11	2.75	2.37	1.94	2.85	1.48	2.66	1.44	1.92	Non-hubristic
17.16	1.96	2.49	1.74	7.87	12.86	2.93	20.61	4.14	2.05	2.7	1.68	3.13	2.18	3.45	2.09	1.79	Non-hubristic
12.9	4.07	0.69	0.59	5.23	7.55	0.81	12.71	6.23	1.53	2	0.72	2.1	1.82	2.35	2.25	1.22	Non-hubristic
14.08	3.86	1.09	0.89	6.2	10.16	1.82	17.98	5.11	1.66	2.87	0.89	2.52	1.5	2.33	1.92	3.45	Non-hubristic

Once data has been inputted into WEKA, it appears in WEKA's interface in the following manner (see Figure 8.3. below):

Figure 8.3. WEKA's interface



The first tab of the software lists the data which has been imported into WEKA whilst the second tab ('Classify') allows the researcher to choose a classifier that is going to be used for the classification task performed by the software. As mentioned earlier, WEKA has a broad list of readily available classifiers.

There are no definite rules as to which classifier is to be used in what circumstances, as the choice of the classifier depends on a variety of factors, for example the problem that a particular research is trying to solve, the data set, size of sample (Witten et al., 2016). As machine learning models have not been previously used in hubris research and hence there are no baseline guidelines for the use of specific models, this study compares five different learning algorithms from the WEKA toolbox. The classification algorithms analysed here are J48, Random Tree (RT), Instance-based learning (IBk), Naïve Bayes (NB) and Support Vector Machines (SMO). More details on each of these classifiers is provided in section 8.2.3.

8.4.4. Refinement of the attribute list

During the process of Study 3, the attribute list will be reduced from an initial 17 attributes (see Table 8.4 and section 8.4.6) to fourteen, thirteen, twelve, eleven, ten, nine, eight, seven, six and

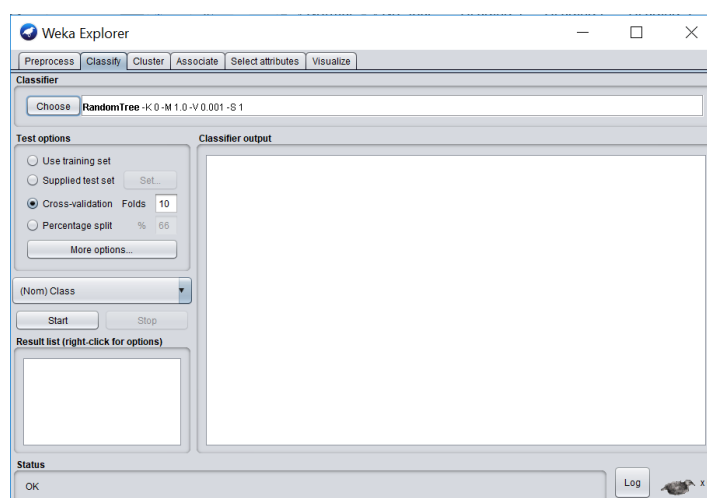
five attributes retrospectively in order to improve the model's accuracy in predicting hubristic versus non-hubristic CEOs based on their LIWC scores from variety of linguistic features. See section 8.4.6. for detailed refinement steps and the results obtained.

8.4.5. Testing the model of Study 3a

As discussed earlier, one of the requirements for the creation of a successful model is testing (Witten et al, 2016). Usually in order to test the classifier's performance, a fresh set of data ('testing set') is prepared, and all the classifiers used in a given study are tested against the new set of data.

One of the main limitations for this study was data availability (only 10 instances were available). Finding and/or obtaining the data for hubristic CEOs proved to be difficult due to the limited number of lengthy interviews given in the required 'most hubristic' year from which the data was collected for each CEO and because of the relatively small population of CEOs and hubristic CEOs from which to choose. Due to these limitations, classifiers were trained and tested by applying 10-fold cross-validation. This step in WEKA is performed by selecting the 'Cross-validation' option in the 'Classify' tab (see Figure 8.4 below).

Figure 8.4. Example of WEKA's interface for 10-fold cross-validation



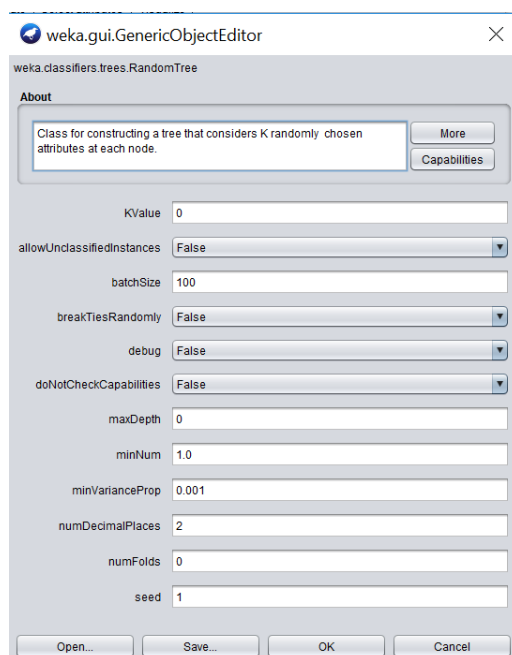
This essentially means that there are “10 cycles of validation and the identification accuracy will be calculated among the average of them” (Mohtasseb & Ahmed, 2009, p.4). Results obtained are summarised in section 8.4.6 below.

8.4.6. Results of Study 3a

The research study described here has evaluated binary classification models (i.e., hubristic or non-hubristic CEO) based on the LIWC scores obtained from the interview data corpus. As mentioned above, all classifiers were trained and tested by applying 10-fold cross-validation.

All five classifiers have been run as per the standard WEKA setup for each classifier with several amendments to the machine learning algorithms run by each classifier. All the configurations are done in WEKA’s generic object editor window (see Figure 8.5 below).

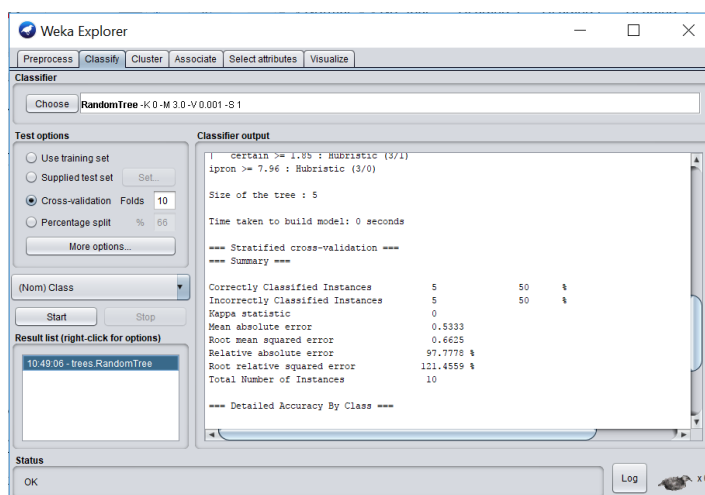
Figure 8.5. Example of WEKA’s interface for classifier customisation



There are no guidelines as to how each classifier should be configured – this is usually done by the researcher until the optimal prediction accuracy is achieved. The configuration of classifiers for Study 3a is described below:

- **Random Tree:** the minimum total weight of the instances in a leaf was setup to three (minNum = 3). The higher the number, the more generic the decision tree is since having many leaves with a low number of instances yields a too granular decision tree structure. This setup has been used for the Random Tree classifier throughout the study.
- **J48:** an option to use an unpruned tree was selected (unpruned = true) with four minimum number of instances per leaf (minNumObj = 4). ‘Pruning’ of the tree means that the algorithm looks for ways to reduce the decision by removing certain decision tree branches, hence an ‘unpruned’ tree would remain larger. This setup has been used for the J48 classifier throughout the study.
- **Naïve Bayes:** an option to use a kernel estimator for numeric attributes rather than a normal distribution has been used in this classifier (useKernelEstimator = true). A kernel in this instance relates to a weighting function that the classifier’s algorithm uses in the estimation (Witten et al., 2016). This setup has been used for the Naïve Bayes classifier throughout the study.
- **SMO (Support Vector Machines):** no changes to the standard WEKA setup of this classifier. Such a setup has been used for the SMO classifier throughout the study.
- **IBk (Instance-based learning):** the number of ‘neighbours’ to use equals 3 (KNN = 3). This indicates how many ‘neighbours’ (similar instances) influence the classification. This setup has been used for the IBk classifier throughout the study.

The setup configurations described above have been implemented as they yielded better prediction accuracy given the limitations of the amount of data available for the model. In WEKA, the prediction accuracy is shown as a percentage in the result window after the run of the classifier. See Figure 8.6. below for an example of WEKA’s result interface.

Figure 8.6. Example of WEKA's interface for classifier customisation

Prediction accuracy results obtained after the first run of all five classifiers are summarised in Table 8.5 below:

Table 8.5. Classification results with all 17 attributes

Classifier	Prediction accuracy
Random Tree	50%
J48	50%
Naïve Bayes	30%
SMO	10%
IBk	20%

Prediction accuracy describes the percentage of correctly classified instances for each of the classifiers. For example, in Table 8.5 above the accuracy of 20% means that the classifier predicted 8 out of 10 instances incorrectly.

Accuracy for the classifier with all 17 attributes ranged from 10% to 50% which indicates that the machine learning algorithm needs refinement. Although there is no definite agreement among researchers as to what classifies as a 'good' prediction accuracy, the overall prediction accuracy reported in Table 8.5 above can be considered to be very low as the best prediction accuracy (50%) is no better than 'flipping a coin'.

After a closer look at the data, it is obvious that there are several attributes that for both classes, hubristic and non-hubristic, that have nearly the same scores which might be affecting the

accuracy of the algorithm. See Table 8.6 below for comparison of the averages of these attributes.

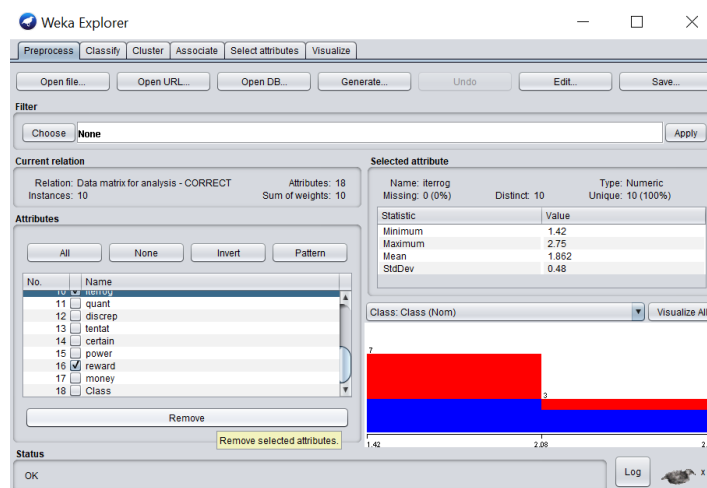
Averages of scores for hubristic and non-hubristic samples are highlighted in **green**. Categories for which a difference between hubristic and non-hubristic sample score averages is minimal (or there is not difference at all) are highlighted in **red** in Table 8.6 below (see the last row of the table which contains the difference between hubristic and non-hubristic scores for categories).

Table 8.6. Data comparison between two samples (LIWC scores)

Pronoun	We	you	They	ipron	auxverb	negate	verb	adj	iterrog	quant	discrep	tentat	certain	power	reward	money	Class
17.5	3.43	2.7	0.43	8.05	11.65	1.66	21.05	4.6	2.41	3.01	1.53	3.56	1.78	2.15	2	2.25	Hubristic
15.37	2.39	0.83	1.37	8.04	11.41	1.73	18.34	4.46	1.46	2.77	2.54	4.58	1.5	2.5	1.5	2.58	Hubristic
15.9	3.78	1.45	0.80	6.48	9.18	1.57	16.31	3.18	1.54	2.67	1.71	2.41	1.90	2.27	1.47	2.27	Hubristic
20.31	5.61	2.02	1.79	8.97	12.18	2.53	22.3	4.26	2.31	2.72	1.89	2.79	2.21	1.79	2.5	1.25	Hubristic
17.56	2.77	2.2	1.72	7.43	11.61	2.29	20.9	4.4	1.49	3.18	1.99	3.9	1.87	3.85	2.38	3.66	Hubristic
17.33	3.60	1.84	1.22	7.79	11.21	1.96	19.78	4.18	1.84	2.87	1.93	3.45	1.85	2.51	1.97	2.40	Average (H)
17.5	2.79	2.85	0.88	7.33	11.84	1.67	19.87	4.88	1.42	2.7	2.7	3.12	1.82	2.91	2.06	3.09	Non-hubristic
17.35	4.8	2.41	1.42	6.87	10.61	1.56	17.48	3.11	2.75	2.37	1.94	2.85	1.48	2.66	1.44	1.92	Non-hubristic
17.16	1.96	2.49	1.74	7.87	12.86	2.93	20.61	4.14	2.05	2.7	1.68	3.13	2.18	3.45	2.09	1.79	Non-hubristic
12.9	4.07	0.69	0.59	5.23	7.55	0.81	12.71	6.23	1.53	2	0.72	2.1	1.82	2.35	2.25	1.22	Non-hubristic
14.08	3.86	1.09	0.89	6.2	10.16	1.82	17.98	5.11	1.66	2.87	0.89	2.52	1.5	2.33	1.92	3.45	Non-hubristic
15.80	3.50	1.91	1.10	6.70	10.60	1.76	17.73	4.69	1.88	2.53	1.59	2.74	1.76	2.74	1.95	2.29	Average (NH)
1.53	0.10	-0.07	0.12	1.09	0.60	0.20	2.05	-0.51	-0.04	0.34	0.35	0.70	0.09	-0.23	0.02	0.11	Diff. (Means)

In order to improve the classifier's accuracy, these three attributes (use of pronoun 'you', interrogatives and words related to reward) have been removed from the attribute list, leaving a total of 14 attributes. Removal of the attribute happens by simple deletion of the attribute from the list (see Figure 8.7. below for an example).

Figure 8.7. Example of WEKA's interface for the attribute removal



After a rerun of the classifiers, the slightly improved (with the exception of Random Tree result) prediction results are summarised in Table 8.7:

Table 8.7. Classification results with 14 LIWC attributes

Classifier	Prediction accuracy
Random Tree	40%
J48	60%
Naïve Bayes	30%
SMO	10%
IBk	30%

Refining the attribute list changed the accuracy range to 10%-60% (with J48 improving from 50% to 60% accuracy). These results were based on the following attributes: total count of pronouns, count of pronouns 'we' and 'they', impersonal pronouns, auxiliary verbs, negations, common verbs, adjectives, quantifiers, discrepancy words, tentative and certainty tone, power and money related words. Although in comparison with the initial run the accuracy of predictions has improved, the majority of classifiers were still predicting at a relatively low level, below 50%.

In an attempt to improve the prediction accuracy even further, a few more runs with the attribute list have been conducted to find the most optimal list of attributes that could correctly distinguish hubristic versus non-hubristic CEO speak. These included running classifiers with the same setup, however using a different number of attributes. The attribute that was excluded from each run is shown as crossed out below (i.e., ~~certainty tone~~).

The choice of the attribute exclusion was based on how different the scores for that attribute are between two samples (i.e., the difference between the average for the certainty tone between hubristic and non-hubristic sample is only 0.09 which was the smallest variance among the remaining 14 attributes, hence this attribute was excluded in the first variation). See Table 8.6 above for the mean comparison of LIWC scores between two samples.

- **Variation 1.** 14 attributes (total count of pronouns, count of pronouns ‘we’ and ‘they’, impersonal pronouns, auxiliary verbs, negations, common verbs, adjectives, quantifiers, discrepancy words, tentative and ~~certainty tone~~ and power and money related words);
- **Variation 2.** 13 attributes (total count of pronouns, ~~count of pronouns ‘we’~~ and ‘they’, impersonal pronouns, auxiliary verbs, negations, common verbs, adjectives, quantifiers, discrepancy words, tentative tone and power and money related words);
- **Variation 3.** 12 attributes (total count of pronouns, count of pronouns ‘they’, impersonal pronouns, auxiliary verbs, negations, common verbs, adjectives, quantifiers, discrepancy words, tentative tone and power and ~~money related words~~);
- **Variation 4.** 11 attributes (total count of pronouns, ~~count of pronouns ‘they’~~, impersonal pronouns, auxiliary verbs, negations, common verbs, adjectives, quantifiers, discrepancy words, tentative tone and power related words);

- **Variation 5.** 10 attributes (total count of pronouns, impersonal pronouns, auxiliary verbs, ~~negations~~, common verbs, adjectives, quantifiers, discrepancy words, tentative tone and power related words);
- **Variation 6.** 9 attributes (total count of pronouns, impersonal pronouns, auxiliary verbs, common verbs, adjectives, quantifiers, discrepancy words, tentative tone and ~~power related words~~).
- **Variation 7.** 8 attributes (total count of pronouns, impersonal pronouns, auxiliary verbs, common verbs, adjectives, ~~quantifiers~~, discrepancy words, tentative tone);
- **Variation 8.** 7 attributes (total count of pronouns, impersonal pronouns, auxiliary verbs, common verbs, adjectives, ~~discrepancy words~~, tentative tone).
- **Variation 9.** 6 attributes (total count of pronouns, impersonal pronouns, auxiliary verbs, common verbs, ~~adjectives~~, tentative tone).

A summary of prediction accuracy scores obtained from each variation described above is summarised in Table 8.8.

Table 8.8. Summary of the prediction accuracy after attribute refinement

Classifier	Variation								
	1	2	3	4	5	6	7	8	9
Random Tree	50%	60%	30%	60%	40%	30%	50%	80%	50%
J48	60%	60%	60%	60%	60%	60%	60%	60%	60%
Naïve Bayes	40%	40%	40%	40%	40%	50%	50%	50%	40%
SMO	10%	30%	20%	40%	40%	40%	60%	50%	50%
IBk	30%	20%	20%	30%	40%	50%	40%	60%	40%

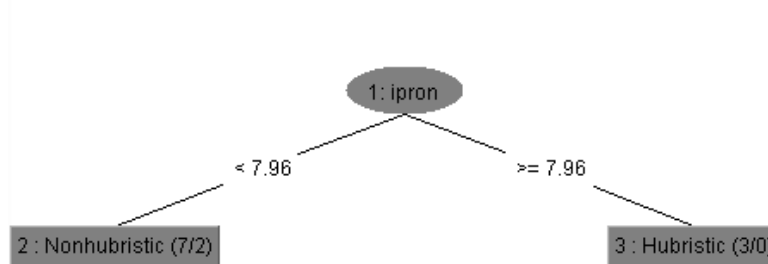
Out of a further nine refinements, the eighth one (Variation 8) produced on average the best prediction results among all five classifiers. Further attempts to refine attributes (from ninth variation onwards) resulted in decreased prediction accuracy therefore no more amendments to the attribute list have been done. In summary, the following five attributes have been found to best predict the hubristic versus non-hubristic speak. These attributes include:

1. Total count of pronouns;
2. Impersonal pronouns;
3. Auxiliary verbs;
4. Common verbs;
5. Tentative tone.

Because of the differences in working principles and logic applied for the pattern recognition by each classifier, the above-mentioned five attributes were used in a slightly different way by each classifier.

Random Tree and J48 classifiers that are both based on decision tree learning, produced diagrams ('decision trees') showing the logic of how hubristic versus non-hubristic language utterances were identified. For example, given the limited number of instances in the sample, the Random Tree classifier based the decision tree on LIWC score for impersonal pronouns. If the score was ≥ 7.96 then the model classified a speech utterance as 'hubristic', whilst if the score for this category was < 7.96 , then the model conducted a further split based on the score for impersonal pronouns (see Figure 8.8 below).

Figure 8.8. Random Tree classifier results based on LIWC categories



The J48 classifier, which works in a similar manner to Random Tree, produced a similar, simplistic version of the decision tree. The logic applied by the model was the following:

- $\text{ipron} \leq 7.33$: Non-hubristic
- $\text{ipron} > 7.33$: Hubristic

This classifier's prediction accuracy for the given sample was 60% compared to the 80% prediction accuracy produced by the Random Tree classifier. Both these classifiers, however, produced errors identifying hubristic versus non-hubristic utterances; they classified some hubristic utterances as non-hubristic and vice-versa.

The Naïve Bayes classifier, which is based on probability calculation, produced prediction results with 50% accuracy. It classified three out of five instances correctly and two incorrectly in each sample (hubristic and non-hubristic). The SMO classifier that is based on pattern recognition produced exactly the same results as the Naïve Bayes classifier.

The IBk classifier, which base its logic on finding the nearest most similar instance, produced slightly more accurate (60% prediction accuracy) results compared to the Naïve Bayes and SMO classifiers. It made only one error predicting hubristic language, however made several mistakes predicting non-hubristic language.

As shown by results obtained using these classifiers, each of them has a number of benefits as well as limitations. These will be further discussed in section 8.6 ('Discussion').

8.5. Study 3b – Raw data

A new machine learning approach based on the same underlying textual data has been implemented in Study 3b. Such an approach was more inductive and shifted the approach used from a theory driven to an atheoretical. All the available data has been imported into WEKA, allowing machine learning algorithms to build a model based on the most 'promising' words as attributes to identify hubris (instead of using 17 LIWC categories as attributes like in Study 3a).

8.5.1. Sample and data used in Study 3b

The same sample as in Study 3a (see section 8.4.1) was used consisting of five hubristic CEOs (HCEO) and five non-hubristic CEOs (NHCEO) ($N=10$). The empirical materials (text samples) used in Study 3b are the same as in Study 3a. A full list of materials used is provided in Appendices 16-26.

8.5.2. Attribute selection in Study 3b

The entire set of spoken utterances produced by hubristic and non-hubristic CEOs were used as attributes in Study 3b. In other words, every word from the ‘hubristic’ and ‘non-hubristic’ texts became an attribute for this sub-study. These attributes were refined at a later stage using the Attribute Selection filter in WEKA. For further details see section 8.5.4.

8.5.3. Building a classifier in Study 3b

Text mining is a process of deriving meaningful patterns from the textual data using machine learning algorithms (Feldman & Sanger, 2007). In Study 3b, text mining refers to running the machine learning algorithms in WEKA on the entire set of data and allowing the software to choose freely on a basis of which words have the best chance to identify hubristic versus non-hubristic speech. These most promising words (linguistic markers) work as attributes for the classification model. However, in this case they are derived from the data as opposed to manually selected by the researcher on the basis of prior analysis (i.e., in Study 3a where attributes were determined by the researcher on the basis of LIWC analysis).

Before a classifier could be built in Study 3b, the following three steps had to be undertaken:

1. Importing the dataset into WEKA;
2. Designing training features by using ‘StringToWord’ vector;
3. Evaluating the predictive nature of the attributes.

Each step is described in detail below.

8.5.3.1. Data input

The ARFF (Attribute-Relation File Format) is the main format used by the WEKA tool to run any classification tasks. In order to convert the textual data (saved in .txt format) into the ARFF format accepted by WEKA, the textual data was first imported into a CSV file with two column headers defined (the first column contained paragraphs from interviews whilst the second column contained a class – whether the data was from a hubristic or non-hubristic CEO). All data from the hubristic sample structured in paragraphs was marked as ‘hubristic’ class and all data from the non-hubristic samples structured in paragraphs was noted as ‘non-hubristic’ class without any further investigations of the individual sentences to avoid researcher’s bias. This CSV file was then imported into WEKA (Tools -> Arff viewer) and saved as an ARFF file. An excerpt from the generated ARFF file is provided below:

Figure 8.9. Excerpt from the ARFF file prepared for the input

```

"@relation 'Joint sample'

@attribute Text String

@attribute Class {Hubristic, Non-hubristic}

@data

"That is the trillion-dollar question, and I wish I had an answer for you on that one, but I don't.
What I know is that I can't be wrong. Right? I have to make sure that I'm ready when it's ready
or that I'm making it ready", Hubristic [Travis Kalanick]

"What I like about the changing technology in sports the most is that it is expanding
consumption. Today you can watch it all the time on basically any mobile device or computer",
Non-hubristic [Robert Iger]

```

The entire dataset in the ARFF format used in Study 3b is provided in Appendix 33. Once the dataset was converted into the ARFF format and loaded into WEKA, a filter was applied (Filter -> Unsupervised -> Instance -> Randomise) to randomly shuffle the sequence of the instances in the uploaded dataset. This is an important step because division of the dataset based on

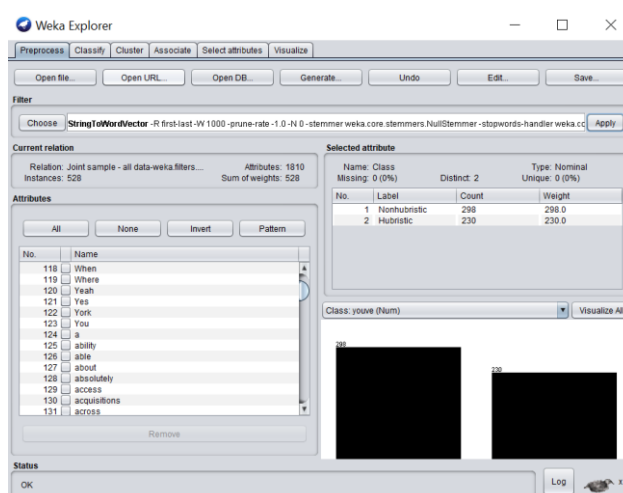
percentage split in WEKA works in a way that the software selects instances sequentially. For example, if in the dataset the first half of the utterances come from the interviews with hubristic CEOs and the second half from the non-hubristic ones, dividing the text based on 50% percentage split would mean that the training data would consist only of hubristic speech instances whilst the testing one would have only non-hubristic utterances. To avoid this issue the dataset was randomised.

8.5.3.2. String to Word Vector

Once the dataset is imported (Explorer -> Open file), WEKA automatically classifies all textual data as string data and the class (hubristic and non-hubristic) as nominal data. In order to be able to analyse the textual data, string attributes have to be converted into a set of attributes that represent the frequency of words in the value of a string attribute (Frank et al., 2005). This conversion is done using the StringToWordVector filter (Filter -> Unsupervised -> Attribute -> StringToWordVector).

The StringToWordVector filter specified every word found in the text as a potential attribute of hubristic or non-hubristic speech. The interface with results is depicted in Figure 8.10.

Figure 8.10. WEKA result interface after using StringToWordVector filter



The StringToWordVector filter can be configured in order to address specifics of the particular research. In the present study, the following filter customisations have been applied:

- ‘OutputWordCounts’ setting changed to ‘True’ to allow WEKA to output the word count numbers;
- ‘NormalizeDocLength’ setting changed to ‘Normalise all data’ to ensure normalisation of the word frequencies for a document;
- ‘LowerCaseTokens’ set to true to ensure that all words are converted to lower case before being added to the dictionary (i.e., for the system to count ‘World’ and ‘world’ as the same word).

Overall, there are no strict guidelines as to what is the most optimal customisation of this filter as there are many ways to change the string data with StringToWordVector filter. The ultimate task of the researcher in this instance is finding the best attribute customisation (in WEKA Generic Object Editor, see Figure 8.5 earlier in the chapter for a visual example of this configuration window) based on specific research needs and researcher’s judgement.

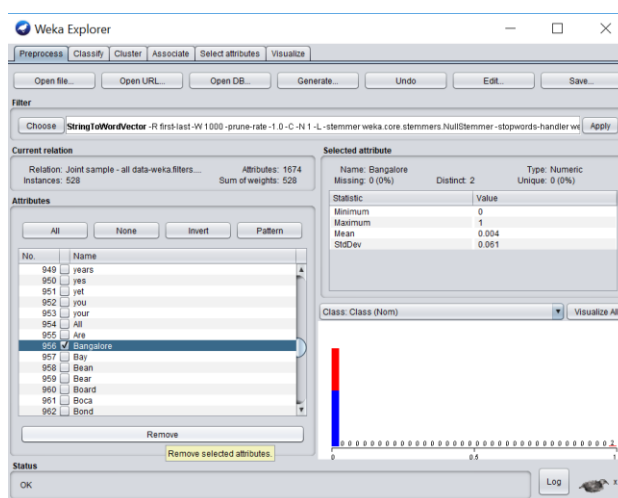
8.5.3.3. Building a classifier

As noted above, the StringToWordVector filter specifies every word found in the text, including numbers, as a potential attribute. This means that the bigger the training text is, the more attributes WEKA will output. In the present study, the attribute list after application of the StringToWordVector filter consisted of 1810 words, including numbers found in the text.

In order to build a classifier, certain words (see below) were removed from the list outputted by StringToWordVector filter to reduce the ‘noise’ of the data and increase the prediction accuracy. Removed words and/or word categories included the following: numbers (e.g., ‘1’, ‘2000’), company names (e.g., ‘Starbucks’, ‘Cisco’), location names (e.g., ‘US’, ‘Texas’), individual names (e.g., ‘Michael’, ‘Jack’) and names of the artefacts associated exclusively

with a particular company or an individual (e.g., ‘iPhone’, ‘Nike’) as use of numbers, locations and names in the interviews is highly influenced by the type of interview and the CEO’s company and is not unique to the individual’s natural speaking manner. This reduced the attribute list from 1810 to 1645 potential attributes which were then used as an input data for the classifier. See below for an example of WEKA’s interface when removing attributes (words) from the attribute list:

Figure 8.11. WEKA result interface when removing words from the attribute list



As in Study 3a, five different learning algorithms from the WEKA toolbox were used: C4.5 decision tree learning (J48), Random Tree decision tree learning (RT), Instance-based learning (IBk), Naïve Bayes (NB), and Support vector machines with linear kernels (SMO). More details on each of these classifiers are provided in section 8.2.3. Results obtained by running these classifiers on the entire set of data are summarised in section 8.5.6.

8.5.4. Refinement of the attribute list in Study 3b

After the initial run of the classifiers based on the attribute list consisting of 1645 words, this list was further refined. In order to evaluate the predictive nature of the attributes and select the most promising ones to identify linguistic markers of the CEO hubris, the Attribute Selection filter in WEKA was used.

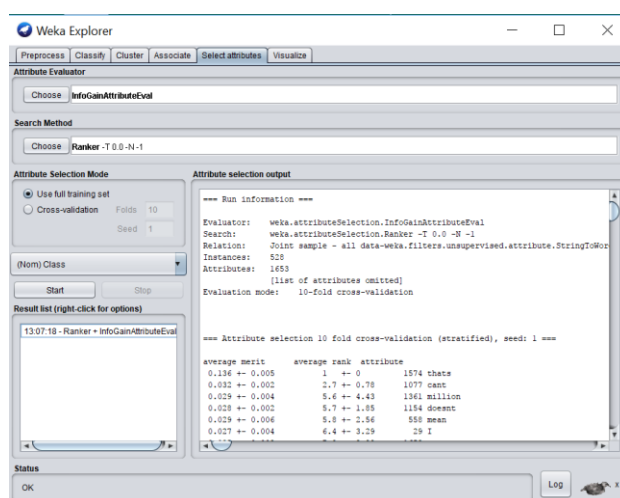
This filter complemented the StringToWordVector filter as it helped the researcher to improve the input data for WEKA's classifiers by looking into the small differences between all the attributes in an attempt to find the most promising ones to use as predictive features of hubristic versus non-hubristic language.

The main function of the Attribute Selection filter is to rank the attributes outputted but StringToWordVector filter in order to improve the classifier's prediction accuracy. All 1645 attributes were ranked using Attribute Selection filter (tab 'Select Attributes' -> Specify evaluator and search method). Within this filter, the following settings have been applied:

- Evaluator set to 'infoGainAttributeEval' which evaluates the attributes based on the information gain with respect to the class;
- Search method set to 'Ranker' which is automatically used with the 'infoGainAttributeEval' evaluator and ranks the attributes;
- Threshold for discarding attributes was set to '0'.

Results obtained by using the Attribute Select filter suggested basing the classifier on 237 attributes as the most predictive features (see Figure 8.12 below).

Figure 8.12. WEKA result interface when refining the attribute list



The ranking is based on the information gain score - the amount of information gained by knowing the value of the attribute (Peirola, 2011). In other words, the information gain score helps to decide on the most relevant attributes for the model - the higher the score, the more predictive power to distinguish between hubristic versus non-hubristic language a certain word has. The Attribute Select filter provided a list of 237 attributes (words) as the best predictors of hubristic versus non-hubristic speech. The full list of these attributes is provided in Appendix 34. Table 8.9 below contains the list of the top 30 attributes, which is approximately 10% of the full list (there are 237 attributes in total).

Table 8.9. Ranked attribute list (top 30 out of 237)

#	Information gain score	Attribute
1	0.13637	that's
2	0.03247	can't
3	0.02831	million
4	0.02829	mean
5	0.02774	doesn't
6	0.02656	I
7	0.02561	know
8	0.02539	you've
9	0.02522	had
10	0.02305	I've
11	0.02228	creative
12	0.02071	they've
13	0.02066	i
14	0.02066	watch
15	0.01961	am
16	0.01838	transportation
17	0.01838	don't
18	0.01762	lot
19	0.01759	maybe
20	0.01744	doesn't
21	0.01648	were
22	0.01647	put
23	0.01606	didn't
24	0.01606	bank
25	0.01606	possible
26	0.01606	wont
27	0.01606	what's
28	0.01606	haven't
29	0.01582	money
30	0.01582	sort

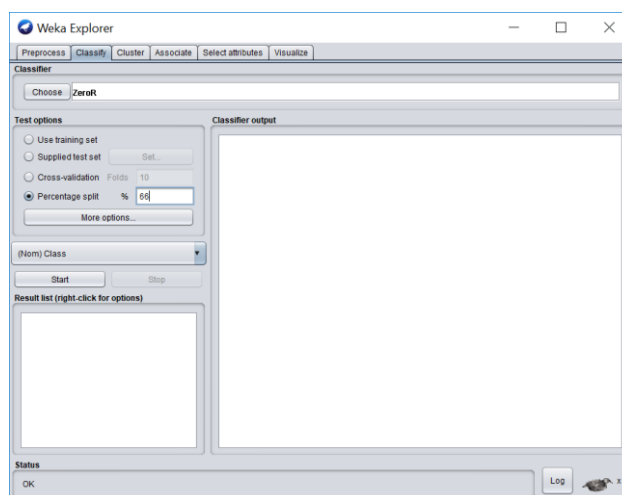
As before, these attributes were used as an input for five classifiers (J48, RT, 1Bk, NB and SMO). Results obtained by running these classifiers on the limited number of attributes are summarised in section 8.5.6 and compared to results obtained from the first run based on the entire set of attributes.

8.5.5. Testing the model in Study 3b

As discussed earlier, the creation of a successful model requires testing (Witten et al, 2016). Ideally to test the classifier's performance, a fresh set of data ('testing set') should be prepared, and all the classifiers used in a given study should be tested against the new set of data to ensure that the model is performing well.

There are several ways to prepare the training data. First, a completely new set of data can be collected, transferred into the same format as data for model's training and then used for testing. In this instance it is vital to ensure that the format for the training and testing datasets match so that there are no incompatibility errors when running the machine learning algorithms in WEKA (Garner, 1995).

A second way to prepare the training data is by splitting the existing training dataset into the 'training' and 'testing' parts. This can be done if the original dataset is big enough (based on the researcher's judgement, given that there are no firm guidelines on what is referred to as a sufficient enough dataset (Witten et al., 2016)) to be split into two parts to provide a sufficient cover for both training and testing of the model. Splitting can be done with the WEKA tool (Classify -> Test Options) by choosing a percentage of the sample to be used for training – the remainder will be used for the testing. The default percentage of the dataset to be used for training in WEKA is 66%, however this setting can be changed. See Figure 8.13 below for a visual example of WEKA's interface when applying the 'training versus testing' dataset split option.

Figure 8.13. WEKA interface for the training versus testing dataset split

Due to the data limitations of this research (finding and/or obtaining the data for hubristic CEOs proved to be difficult due to the limited number of lengthy interviews given in the required ‘most hubristic’ year from which the data was collected for each CEO), it has been decided in Study 3b to proceed with the ‘splitting the dataset’ option.

A total number of 40,976 words (evenly split between hubristic and non-hubristic language utterances) were imported into WEKA and the ‘data split’ option applied to validate the model as per WEKA’s default settings - 66% of the text used for training (~24,500 words) and the remaining 34% for testing (~16,500 words). The results obtained through the classifier runs are summarised in section 8.5.6 and then compared with results obtained by using LIWC categories as baseline attributes and discussed in section 8.6.

8.5.6. Study 3b results

The text mining method described in this study has evaluated binary classification models based on word vectors (separate words as attributes) as opposed to LIWC scores, as in the baseline study described earlier in the chapter. All classifiers were run on the textual data in the following manner:

1. **Using 10-fold validation.** In this instance an entire dataset was used as a ‘training set’, however the algorithm trained and evaluated using 10-fold validation (dividing the dataset into 10 parts (‘folds’), holding out each part in turn and averaging the results) in order to estimate the overall generalisability of the model;
2. **With a specified training versus testing split.** In this instance 66% of the data was used for training and 34% was used for testing which produced most generalizable results as the model is trained on one set of data and tested on the new set of data;
3. **With a specified training versus testing split, but customised settings.** In this instance the above training versus testing data split percentage was applied, however the set up for each classifier was slightly customised in the same way as in the baseline study (see section 8.4.6 for details of how each classifier was customised).

As mentioned above, all runs were completed using the standard WEKA setup for each classifier with the exception of the last run. The setup configurations were implemented in the last run to increase prediction accuracy for each model if possible. Prediction accuracy results (percentage of the correctly classified instances for each of the classifiers) obtained from the four runs of all five classifiers using all StringToWordVector output (1645 words used as attributes) are summarised in Table 8.10 below.

Table 8.10. Prediction accuracy results using all 1645 StringToWordVector attributes

Classifier	Prediction accuracy		
	Using 10-fold cross-validation	With specified training vs testing split	With specified training vs testing split and customisations
Random Tree	62%	59%	59%
J48	63%	57%	57%
Naïve Bayes	70%	74%	81%
SMO	72%	71%	71%
IBk	61%	59%	59%
Avg.	65.6%	64%	65.4%

As shown in Table 8.10. above, prediction accuracy for the classifiers ranged from 57% to 81%, depending on the run and classifier’s testing method (10-fold cross-validation or training

versus testing split). Overall scores when using the 10-fold cross-validation and training versus testing data split were similar. Using the training versus testing split increased scores by 4% for one classifier (Naïve Bayes), however reduced scores for the other four classifiers by 1%-6%.

Although overall scores for four out of five classifiers have dropped slightly, these scores are likely to be more representative of the overall sample as the model has not only been trained but has also been validated using the new dataset (34% of the original dataset was used for testing). After the classifier's customisations in the third run, scores for four out of five classifiers remained the same, however improved for the Naïve Bayes classifier by 7%.

Once all runs on the entire set of attributes were completed, an attempt was made to increase prediction accuracy results by refining the attribute list. In order to do so, the Attribute Selection filter (see section 8.5.4. above for further details) was applied and the list of attributes used in the classifier has been automatically refined by WEKA to 'most promising' attributes. The refined list of attributes consisted of 237 attributes in total. Table 8.11 summarises the performance results of a rerun of all five classifiers in terms of prediction accuracy.

Table 8.11. Prediction accuracy results after attribute refinement

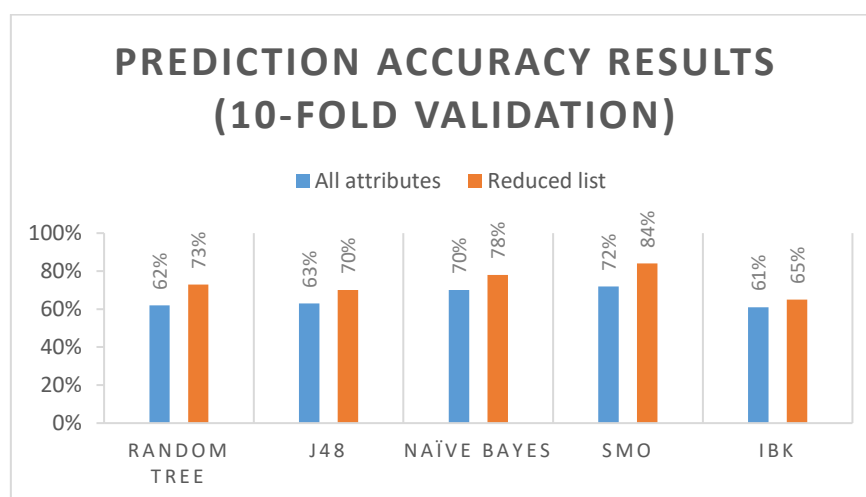
Classifier	Prediction accuracy		
	Using 10-fold cross-validation	With specified training vs testing split	With specified training vs testing split and customisations
Random Tree	73%	77%	72%
J48	70%	64%	66%
Naïve Bayes	78%	73%	85%
SMO	84%	82%	82%
IBk	65%	64%	63%
Avg.	74%	72%	73.6%

Refining the attribute list improved the results when using 10-fold validation by between 4% and 12% compared with the run that used all 1645 words as attributes. Results for the training versus testing split have improved for all but one (SMO) classifier by between 5% and 18%.

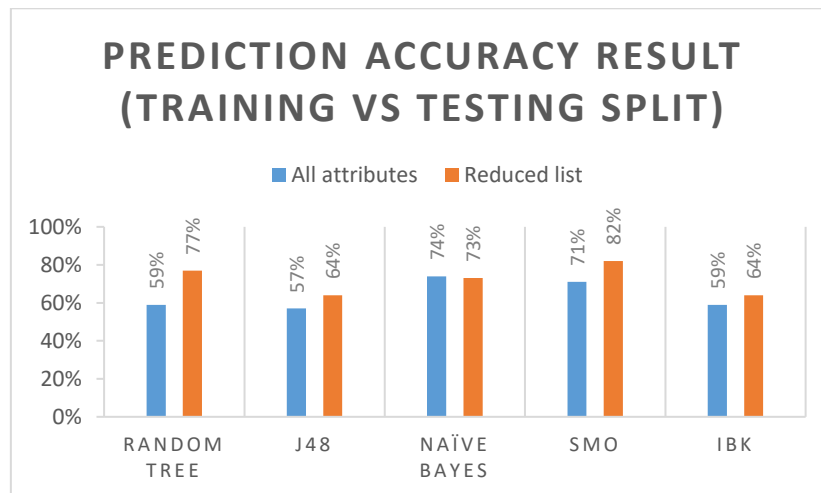
For SMO, the score decreased by 1%. In contrast to the results for Study 3a which used LIWC scores as an input, this time customisation of the classifiers did not yield significantly improved results for all classifiers. Scores for two classifiers improved (Naïve Bayes by 12% and J48 by 2%), decreased for one (IBk by 1%) and remained the same for SMO and Random Tree classifiers.

A comparison of the prediction accuracy results between the performance of classifiers on all attributes versus reduced list is visualised in the Figures 8.14 - 8.16 below. When applying 10-fold validation, refining the attribute list helped to increase prediction accuracy for all five classifiers (see Figure 8.14 below).

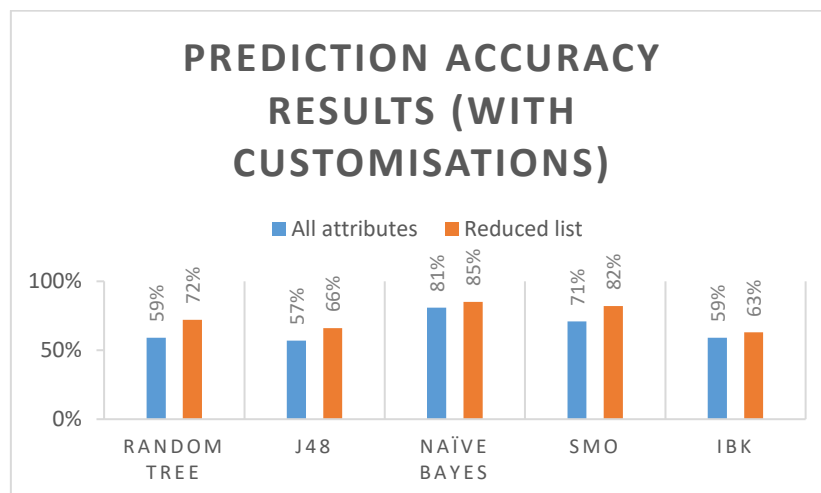
Figure 8.14. Prediction accuracy results using 10-fold validation



When using training versus testing split, refining the attribute list increased the prediction accuracy for four out of five classifiers, however reduced the accuracy by 1% for one classifier (Naïve Bayes).

Figure 8.15. Prediction accuracy using training versus testing split

Finally, when using the training versus testing split with applied customisations, refining the attribute list increased the prediction accuracy all five classifiers compared to the original run with all 1645 attributes (see Figure 8.16 below).

Figure 8.16. Prediction accuracy using training versus testing split and customisations

However, the underlying logic used by the classifiers to distinguish between hubristic versus non-hubristic utterances differs. For example, the Random Tree classifier based its decision-making logic for classifying language into hubristic versus non-hubristic based on the word 'look' in conjunction with 'wanted' and 'haven't' (i.e., high use of 'look' and 'haven't' associated with hubristic speech). Overall the tree consisted of 521 'leaves', which proved to be too difficult to visualise.

J48, similarly to the Random Tree classifier also constructed a decision tree, albeit a slightly smaller one (see Figure 8.17). The classifier based its decision-making logic on the use of the word ‘that’s’ (higher use is associated with hubristic language) followed by the words ‘put’ and ‘doesn’t’ (i.e., higher use of both of these words is associated with non-hubristic speech). Overall the J48 decision tree consisted of 75 ‘leaves’ with varied logic for distinguishing between hubristic versus non-hubristic speech.

SMO performed with a relatively high accuracy (71- 84%) throughout Study 3b – both on the full list of attributes and the reduced version. It is not possible, however, to illustrate the SMO decision-making logic as it is based on calculations performed within the model. Judging from the analysis of classification errors made by SMO, this classifier performed quite well identifying both hubristic and non-hubristic classes. Further investigation of texts showed hubristic CEO were likely to use a higher frequency of verbs (i.e., ‘that’s’, ‘can’t’), personal pronouns (‘we’, ‘they’) and impersonal pronouns (i.e., ‘it’).

Naïve Bayes, which also performed with a relatively high accuracy (up to 85% in the last run), based its decision for classifying hubristic versus non-hubristic language on the same key words as SMO. This classifier, however, indicated non-hubristic language more accurately than hubristic as indicated by results of classifier errors (out of 27 errors that this classifier made, only three happened to be when identifying non-hubristic language).

Finally, the lBk classifier, which performed with a lesser accuracy compared with other classifiers, produced similar errors in both hubristic and non-hubristic classes, which indicates the need to refine and optimise these classifiers and improve the input data in future research. As with SMO and Naïve Bayes, this classifier’s decision-making logic is presented as a final score and not as a decision tree like J48 and Random Tree.

The benefits and limitations of the use of these classifiers in order to identify hubristic versus non-hubristic language along with implications for future research are discussed in section 8.6 (Discussion).

8.6. Discussion: Study 3a and Study 3b

Data mining is an innovative way to approach the topic of analysing linguistic markers of hubris. Using machine learning algorithms to automatically identify hubristic versus non-hubristic speech, to the author's knowledge, has never been used in hubris research before, and therefore it provided a new, unique way to research this subject. As shown in the results presented in this chapter, there are a number of ways in which data mining can be used to identify hubristic versus non-hubristic speech, and several ways to use machine learning have been explored in the present study.

The first part of this chapter (Study 3a) used LIWC categories (that were identified in Study 2 as Strong Markers of Hubris by Presence) as attributes for machine learning classifiers. Results obtained by using this method identified the link between hubristic speech and a high use of impersonal pronouns. Other categories identified that were used by machine learning algorithms to distinguish between hubristic versus non-hubristic speech were total count of pronouns, auxiliary verbs, verbs and tentative tone. In most cases these categories have also been classed as markers of hubristic speech, however findings are not conclusive due to the limited number of instances analysed.

Results obtained by using this method supported the findings from Study 2 (Hubristic Language Identification using LIWC based framework). For example, use of pronouns (personal and impersonal) and use of verbs were linked with hubristic language in both studies. However, due to the small sample size (ten instances in total), it is not possible to generalise these findings - further research using a bigger sample size, and possibly the entire set of LIWC categories (all 93 instead of 17 used in the present study) is required.

In addition to the above, because of the small sample size (given the nature of the population hubristic and non-hubristic CEOs), extensive testing of the model with a new set of data was not possible (due to the lack of data in the sample), however 10-fold cross-validation was applied as a means to ensure result generalisability on the independent set of data (Witten et al., 2016). Use of the bigger sample size would resolve this issue as there would be enough instances to apply a testing versus training split.

In addition, future studies could use the bootstrapping technique to artificially increase the number of the data samples through duplication. Such random sampling with replacement might be particularly useful when working with small data samples (such as those described in this thesis). Moreover, the bootstrapping technique might mitigate against the model ‘overfitting’ the data (a case when a classifier ‘fits’ the training data too tightly, hence does not perform well on the independent test data) (Cootes et al., 2012). On the other hand, this research study did not employ the bootstrapping technique because of its’ limitations (i.e., due to the data specificity in this study, replicated samples would be very similar to the training set itself) (Dietterich, 2000). Instead, Study 3 used 10-fold validation and training versus testing data split (see section 8.5.5 for further detail).

Another limitation of this method was its dependency on LIWC. This method required an intermediary step – calculating scores for various categories using LIWC - and only then inputting them into WEKA. Study 3b (using the textual data directly and specifying separate words from this data as attributes) aimed to address this limitation by exploring a method for direct investigation of the data.

The second part of the chapter (Study 3b) used words as attributes for all five models and produced slightly higher prediction accuracy results when compared to Study 3a. The average score for prediction accuracy across scores produced by all five classifiers in Study 3a was 60% whilst the

prediction accuracy scores produced in Study 3b was 65% (when using all words as attributes) and 73% (when using the reduced number of words as attributes).

In addition to improved prediction accuracy results, this method also examined the data directly, allowing machine learning algorithms to choose the words that have the biggest potential to identify linguistic markers of hubris. So far results produced in Study 3b complemented findings from Study 3a as well as Study 2. Personal (i.e., use of 'I', 'we') and impersonal pronouns (i.e., use of 'it') as well as verbs (i.e., 'don't', 'doesn't') were identified as potential linguistic markers of hubris. Attribute selection (refining the word list to the 'most promising' indicators) identified more words that could help to distinguish between hubristic and non-hubristic language (i.e., 'million', 'creative', 'possible', 'money'). However, whether machine algorithms link these words to hubristic or non-hubristic speech is not yet evident as most classifiers output the prediction of the class but do not always specify the underlying logic for making such decision.

This indicates a need to further analyse the variety of classifiers to identify the most optimal classifier(s) for hubris research. Although the present study has attempted to compare five different classifiers (J48, RT, SMO, IBk and NB), future research should investigate other classifier categories (i.e., meta-classifiers or classifiers based on rules) as well as aim to improve prediction accuracy produced by classifiers used in the present study. Refinement of the underlying data, increasing the amount of texts analysed and further customisations on machine learning algorithms should also be explored in order to improve prediction accuracy results.

Data mining has a great deal of potential in hubris research as it might help to create an automatic process, that is free of researcher bias and manual work, to investigate the data and find patterns that would allow for the identification of subtle differences between hubristic and non-hubristic language. For example, Study 3a described in this chapter used a more deductive, theory driven

approach by using LIWC scores (Pennebaker et al., 2013), whereas Study 3b was inductively driven by the data, allowing the machine learning algorithms to discover linguistic markers of hubris based on data alone.

Overall, the use of machine learning in the study of hubris helps to absorb huge amounts of data at once, allowing research studies to achieve more generalisable results. Although machine learning algorithms can classify language produced by CEOs into required categories (i.e., predict the likelihood of one's speech being hubristic or non-hubristic), most classifiers cannot distinguish linguistic markers of hubris without further manual investigation.

Although the results of the present study might not be generalisable, this is a first of the kind, illustrative investigation of the application of data mining to identify linguistic markers of hubris. One of the main implications of this study is building a foundation for future studies that are interested in the application of machine learning in the field of hubris. The findings of the present study, as well as the recommendations raised, could be used as a baseline in future research on hubristic language to find clear patterns of hubristic speech.

9. THEORETICAL CONTRIBUTION, CONCLUSIONS AND PRACTICAL IMPLICATIONS

9.1. Overview of the research journey

To date there has been some research (see Chapter 2) into identifying linguistic markers of hubris in politics, however the use of at-a-distance techniques to determine linguistic markers of business leaders is less developed. This thesis aimed to address this gap in the existing research literature by conducting four studies (one Pilot Study and three main studies) that use at-a-distance personality measures as the primary method to identify linguistic markers of hubris in order to answer the main question of this research, which is what are, if any, the linguistic markers of CEO hubris and how may these markers be identified?

This thesis consists of nine chapters. It commences with an introduction which provides some foundation for this research and the rationale for undertaking it. The theoretical framework for this thesis lies on three core concepts: personality, Hubris Syndrome and natural language. Based on the assertion that one's personality can be expressed through subtle linguistic markers in one's spoken language (Pennebaker et al., 2003; Pentland, 2008), this research argues that hubris, which is "an acquired personality trait" (Owen, 2017, p.23), can also be revealed in distinctive patterns in one's spoken discourse (see Figure 2.1 in Chapter 2).

The literature review chapter (Chapter 2) summarises research pertaining to each of the three key topics mentioned above – personality, Hubris Syndrome and natural language use. In order to connect with the broader personality literature, the literature review also considers 'dark side' personality traits and destructive leadership in relation to hubris. In addition, this chapter also

introduces at-a-distance analysis techniques and explores the applicability of natural language use for the study of hubris.

The third chapter explains the rationale behind the methodological choice taken in the research and describes the research design and strategy used in each of the studies described (the Pilot Study and three main studies). It also provides a detailed summary of the steps taken in the sampling strategy used to shortlist hubristic and non-hubristic CEOs. The following, fourth chapter builds on the sampling section in Chapter 3 and provides individual overviews of the profiles for each of the CEOs sampled.

The following four chapters (Chapters 5, 6, 7 and 8) are the core of the thesis, presenting all the empirical work completed as part of this doctoral study. The initial study (the Pilot Study, summarised in Chapter 5) commences the journey to discover linguistic markers of hubris by employing Hermann's Leadership Trait Analysis (LTA) framework (Hermann, 2005). This framework for language analysis was chosen for use in the Pilot Study because of the strong connection between Hermann's LTA and the core theoretical assumption of this thesis, which is that one's personality traits are revealed in distinctive patterns in one's language. Hermann's LTA has been found to be one of the most prominent and well-researched at-a-distance techniques into researching leader personality (Boettcher, 2005; Dyson, 2006; Hermann, 1980; Winter et al., 1991).

In addition, the majority of traits in Hermann's LTA framework coincide with the hubris symptoms in Owen's proposed symptomology for Hubris Syndrome (Hermann, 1980, 2005; Owen, 2006, 2008), further confirming the applicability of this technique in the initial stage of this doctoral study. The Pilot Study findings indicate that there are some minor differences between the hubristic and non-hubristic samples (i.e., scores in some categories were higher for hubristic CEOs and vice

versa). However, it does not provide any insights into which linguistic markers created those differences (i.e., what words were counted by the DICTION and ProfilerPlus software packages used). Both of these software packages work in a 'black box' manner, providing only scores for categories without further details about each category.

Such limited findings encouraged the researcher to opt for a framework that would be better suited to the research aims. Therefore, Study 1 (summarised in Chapter 6) adopted the theory of natural language use (Pennebaker et al., 2003). The basic premise of this approach is that natural language use is a meaningful marker of an individual's personality as well as their social and psychological world (Pennebaker et al., 2003). Moreover, after attempting to use Hermann's LTA, natural language use was a logical next step. Firstly, both Hermann's LTA and Pennebaker's (2003) natural language use are frameworks based on a lexical approach which investigates patterns in an individual's language. Secondly, both frameworks were created with the purpose of accessing an individual's personality at-a-distance. However, the main differences between these two frameworks is that Pennebaker's (2003) natural language use allows for the detailed breakdown from which word scores are derived, whilst Hermann's LTA provides only high-level scores without any insight into the breakdown of these scores.

The application of natural language use in Study 1 helped to overcome the shortcomings of the original proposition (using Hermann's LTA). However, this study did not find any statistically significant differences between scores obtained by the hubristic and non-hubristic samples. Despite the fact that the results of the first main study did not lead to any definite conclusions, it did highlight some potential linguistic markers of CEO hubris in a business context, such as extensive use of verbs and personal pronouns.

Study 2 (summarised in Chapter 7) continued with the natural language approach, building on findings from the Pilot Study and Study 1. One of the main changes in Study 2, in comparison to the Pilot Study and Study 1, was moving to a more inductive approach whilst a deductive approach had been taken in both earlier studies. This step was taken in attempt to gain more insights into linguistic markers of hubris, given that the results from the initial two studies were inconclusive.

Building on the natural language use theoretical foundation, Study 2 discovered a typology of linguistic markers of hubris that classified markers into five types (categories): Strong Markers of Hubris by Presence, Strong Markers of Hubris by Absence, Weak Markers of Hubris by Presence, Weak Markers of Hubris by Absence, and Generic Markers of CEO language. This study is unique in that it is the first study, to the best of the author's knowledge, to explore the possibility that linguistic markers of hubris might not be of equal 'strength' in their representation of hubris and to explore the notion of linguistic markers 'by absence'.

Once the framework of natural language use was successfully applied for the study of linguistic markers of hubris in Study 2, the research naturally gravitated towards new and unexplored ways to research this phenomenon. Study 3 (summarised in Chapter 8) consisted of two smaller studies, Study 3a and Study 3b. Both studies used machine learning algorithms to identify hubristic versus non-hubristic speech. To the author's knowledge, this method has never been used in hubris research before and represents a unique and innovative way to approach the study of hubris.

The first study, Study 3a, used a more deductive, theory driven approach by using the LIWC scores from Study 2, this was a logical next step since LIWC was used in both previous studies. The machine learning classifier that performed best in this study was The Random Tree, producing 80% prediction accuracy (eight out of ten cases classified correctly as hubristic versus non-hubristic). The average prediction accuracy across all five classifiers was 60%.

The second study, Study 3b, was the most inductive of all those conducted as part of this research. The approach taken in this study was atheoretical (i.e., it made no prior theoretical or classificatory assumptions) and purely data driven, allowing the machine learning algorithms to discover linguistic markers of hubris based on data alone. The best prediction accuracy was achieved with the Naïve Bayes classifier which provided 85% accuracy in classifying hubristic versus non-hubristic instances (after attribute refinement). The average prediction accuracy across all five classifiers was 65% (when using a full attribute list) and 73% (when using the reduced attribute list). This was a first of its kind, illustrative investigation of machine learning's application to identify linguistic markers of hubris.

As noted above, the key focus of this research was to discover what are, if any, the linguistic markers of CEO hubris and how might such markers be identified. Although the results of the four studies described in this thesis might not be generalisable due to the small sample size, studies have successfully shown that there are, indeed, linguistic markers of CEO hubris and that there are viable tools and techniques to identify them. The subsequent sections provide further detail on the findings, practical implications, research limitations and recommendations for future studies in the field.

9.2. Discussion of findings

It can be argued that language is an essential component of the leadership process, given that CEOs express their leadership through their verbal and written discourse. Although researchers have long sought to uncover linguistic markers associated with hubristic leadership, only recently have researchers begun to explore hubris using computerized text analysis, thereby enabling less subjectivity and greater efficiency in analysing large amounts of data (Amernic & Craig, 2016; Garrard et al., 2014).

The aim of this research is to provide an insight into identification and understanding of linguistic markers of CEO hubris. By assessing word use using various at-a-distance techniques and computerized word count tools, this research was able to identify patterns of language use for hubristic CEOs versus the same patterns with respect to non-hubristic CEOs. In addition, some of the methods used in the study (i.e., LIWC based framework, machine learning) have never before been used in any studies examining linguistic markers of hubris in CEO language.

As noted before, previous research examining CEO language has drawn primarily from the written communications of CEOs, particularly CEO letters to shareholders (Craig and Amernic, 2016; 2014; Brennan and Conroy, 2013). The current research adopted a new, arguably less subjective (Garrard et al., 2014), approach by using spoken materials produced by CEOs. Specifically, the research used a more spontaneous and natural form of CEO language (interviews with media), attempting to access true and unmasked characteristics in CEO language associated with hubris.

In order to test for differences in language use between the hubristic and non-hubristic CEOs, the first main study (Study 1) focused on standard statistical analyses using SPSS to determine whether the difference in the scores obtained for various LIWC categories for hubristic and non-hubristic CEOs were statistically significant. The study findings showed that there was no significant difference at a 5% level ($p < 0.05$) between hubristic and non-hubristic samples for any of the variables analysed using analyses of variance and regression which meant that the first study's null hypothesis, that there is no difference between hubristic and non-hubristic samples, had to be retained.

There might be a number of reasons for the finding above, including the small sample size ($N=10$), potentially insufficient amount of data analysed (around 46,000 words in total) or the need to analyse more varied or different type of data. These limitations are further explored in detail in

section 9.5 below. Although the statistical analysis did not indicate any statistically significant differences between the two samples, manual analysis of the results presented some interesting insights. The manual review of the difference between means for hubristic and non-hubristic samples showed that results can be classified into one of three categories.

Firstly, findings that were consistent with the results obtained in previous research studies on linguistic markers of hubris (Amernic, Craig & Tourish, 2010; Garrard et al., 2014; Owen & Davidson, 2009). These included the overall use of personal pronouns, first-person plural pronoun (we), first-person singular pronoun (I), use of verbs and vocabulary indicating certainty and lack of expressed affiliation. All of these categories appeared to be higher for hubristic CEOs with the exception of affiliation words on which non-hubristic CEOs scored higher.

Secondly, findings that were inconsistent with results obtained in previous research studies on hubris (Amernic, Craig & Tourish, 2010; Short & Palmer, 2008). These included the use of positive emotion words, tentative tone, achievement and power related vocabulary. To date, hubristic speech has always been associated with overconfidence, power and over-optimism, therefore the scores for achievement and power categories as well as for positive emotion words were expected to be higher for the hubristic sample compared to the non-hubristic sample (and the opposite for the tentativity category) (Amernic & Craig, 2014; Owen & Davidson, 2009). Yet the findings of Study 1 found the opposite; that hubristic CEOs used a more tentative tone whilst non-hubristic CEOs had higher scores for positive emotion, achievement and power related words in their language, but as discussed, these findings were non-significant.

Thirdly, the study produced some new discoveries that previous research has not considered or hypothesised before. These included the count of words per sentence, use of function words, impersonal pronouns, auxiliary verbs, negations and negative emotion words (scores for these

categories are higher for hubristic leaders compared to the non-hubristic leaders) and the number of words longer than six letters (non-hubristic leaders tend to use on average longer words in their speech).

Research into hubristic language to date has mainly focused on the use of pronouns, especially the ‘I-talk’ or use of first-person singular pronouns (Amernic, Craig & Tourish, 2010; Brennan & Conroy, 2013). This relationship, likely, may be a result of the overlap between Hubris Syndrome symptomology (see: Owen & Davidson, 2009), and Narcissistic Personality Disorder (NPD) symptoms. Consistent with research on pronouns as an indicator of hubris, this research confirmed that hubristic CEOs tend to use a higher number of pronouns (including singular and plural pronouns) in general. Since the use of the first-person singular pronoun ‘I’ has been associated with self-focus (Duval & Wicklund, 1972), this indicates a high degree of self-focus and, subsequently, suggests that an individual might be displaying hubristic traits.

Other language categories of interest were the use of verbs and the use of certainty related vocabulary, for both of which scores were higher for the hubristic sample. To date, there have been several attempts to link the increased use of verbs and confident speaking tone to hubris, mainly hypothesising that such hubris characteristics as overconfidence and action-orientation are reflected by the high use of verbs (Amernic & Craig, 2014). The Study 1 findings of this research supported the conclusion that verbs and certainty related tone can, indeed, be a useful marker of hubristic speech.

The final category from Study 1 that was found to indicate hubristic speech was a lack, or diminished amount, of affiliation (or ‘warmth’) in one’s tone which is in general, a characteristic of hubristic personality (Owen, 2016; Sipman, 2013). This research finding confirmed the suggestion that non-hubristic CEOs tend to be more empathetic and express that through their

language by using more words reflecting affiliation with others. The opposite applies to hubristic CEOs.

Finally, the findings of the first study were interesting in that they provided some direction for future research by identifying seven categories (these are noted above) that contained differences between hubristic and non-hubristic samples. However, none of these categories have been explicitly analysed in terms of their link with hubris before. For example, hubristic CEOs tended to speak in longer sentences, yet they used shorter words in comparison to the language used by non-hubristic CEOs. The use of impersonal pronouns, auxiliary verbs, function words, negations and negative emotion words have never previously been directly linked to hubris in published research, which confirms the need for further research in this field, exploring a wider range of linguistic categories and their potential to reveal hubristic speech. In addition, the findings from Study 1 evidenced the suitability of LIWC in hubris research and paved the way for further investigation of LIWC categories and their link to hubris.

In addition to examining patterns of language for hubristic and non-hubristic CEOs through the manual investigation of LIWC scores, the second study of this thesis has developed a unique framework for classifying linguistic markers of hubris. Based on results obtained in the second main study and the result interpretation framework constructed as a part of Study 2, five categories of linguistic markers were established.

These are as follows: Strong Markers of Hubris by Presence (a linguistic marker that exists in hubristic CEO language), Weak Markers of Hubris by Presence (a less strong linguistic marker that exists in hubristic CEO language), Strong Markers of Hubris by Absence (linguistic markers that are not present in hubristic CEO language, however are distinctively present in non-hubristic CEO language or language of the general population), Weak Markers of Hubris by Absence (as

before, only to a smaller degree) and Generic Markers of CEO language (linguistic markers that can be attributed to CEO in general, whether hubristic or not).

The above-mentioned markers ‘by presence’ (referred to as ‘linguistic biomarkers’ in previous studies (Garrard et al., 2014)) is the most well-explored category to date. The basic premise of the ‘markers by presence’ is that they can be identified in CEO language through distinctive patterns and, therefore, they have the potential to reveal a leader’s hubris. Notably, the above-mentioned ‘markers by presence’ were classified by this research into two categories – Strong Markers by Presence and Weak Markers by Presence – based on their potential to reveal CEO hubris. Overall, Study 2 of this thesis confirmed that there are, indeed, certain unique patterns in CEO language that could help researchers to distinguish between hubristic and non-hubristic language.

Findings of the second study discovered 22 Strong Markers by Presence in total, however they differed in terms of their strength in reflecting leader hubris. For example, among the strongest markers were use of the tentative tone (i.e., ‘depends’, ‘probably’), pronouns (impersonal (i.e., ‘anything’, ‘somebody’) and personal (i.e., ‘mine’, ‘I’)), words referring to quantity (i.e., ‘amount’, ‘lots’) and verbs (i.e., ‘obtain’, ‘should’). Among the weakest indicators of hubristic speak were comparisons and words related to rewards (i.e., ‘achieve’, ‘earn’) and social processes (i.e., ‘fellow’, ‘relationship’). After further validation of these categories with new data, a few new Strong Markers of Hubris were added to the list: the use of adjectives (i.e., ‘active’, ‘favourite’), vocabulary reflecting power (i.e., ‘ambition’, ‘win’) and interrogatives (‘how’, ‘what’).

In summary, findings from Study 2 suggest that personal and impersonal pronouns are the best markers of CEO hubris which is in alignment with the results of previous research studies. Although previous research has focused mainly on the use of the first-person plural pronoun ‘we’ and the first-person singular pronoun ‘I’ (Amernic, Craig & Tourish, 2010; Garrard et al., 2014),

Study 2 findings suggest that the second person pronoun ‘you’ and impersonal pronouns could also reveal hubristic language. Other linguistic categories with nearly equally strong potential to reveal hubristic speak are quantifiers, discrepancy words, a tentative tone, reward and confident tone related words and auxiliary verbs.

The appearance of reward related words, certainty tone and auxiliary verbs as Strong Markers of Hubris by Presence is not surprising, given that words in these categories reflect an excessively confident, reckless and reward striving manner which can often be attributed to hubris (Amernic & Craig, 2014; Owen & Davidson, 2009). Other categories that appear as strong indicators of hubris (quantifiers, discrepancy words, tentative tone) are surprising discoveries and therefore their accuracy in predicting hubris should be investigated and validated further.

One of the novel contributions of Study 2 was the proposal that linguistic attributes that are absent in CEO language could provide equally significant insights into leader hubris. These ‘linguistic markers of hubris by absence’ have never been explicitly hypothesised in research studies to date and hence represent a new area of exploration for future studies.

In terms of Strong Markers of Hubris by Absence, there were 21 in total. These were refined throughout the research process, leaving seven markers by absence in total. Linguistic categories that were absent from hubristic speech were words related to friends (i.e., ‘companion’, ‘friend’), positive emotions (i.e., ‘amazing’, ‘well’), ingestion (i.e., ‘caffeine’, ‘taste’), relativity (i.e., ‘further’, ‘region’), death (i.e., ‘alive’, ‘mortal’), informal abbreviations (i.e., ‘plz’, ‘thx’) and non-fluencies (i.e., ‘ah’, ‘huh’).

Findings from Study 2 also point to various interesting roles of language. For example, besides confirming that hubris can be identified in a CEO’s language, this research also supports the

common-sense notion that CEO discourse differs from that of the general population. Certain linguistic categories appeared at much higher or much lower rates across both samples, confirming the role of language to represent ‘CEO-speak’ in general (Amernic and Craig, 2006).

In addition to identifying linguistic markers of hubris through more conventional at-a-distance measures such as computerised text analysis, this research also attempted to test the potential of more experimental techniques of researching executive hubris, such as machine learning. The last main study of this thesis, Study 3, was likely the first attempt to adapt machine learning techniques for the purpose of recognising linguistic markers of hubris and although experimental, the use of this technique showcased the possibility of using the field of data mining in future hubris research.

Findings from this study suggest that the high use of impersonal pronouns (i.e., ‘somebody’, ‘other’), the total count of pronouns (i.e., ‘mine’, ‘we’), auxiliary verbs (i.e., ‘must’, ‘can’), common verbs (i.e., ‘bought’, ‘obtain’) and tentative tone (i.e., ‘hope’, ‘probably’) indicate CEO hubris. These findings support the results obtained in the first two studies of this thesis and these findings, with the exception of tentative tone, have all been linked to hubristic speech by previous research studies in this field (Amernic, Craig & Tourish, 2010; Brennan & Conroy, 2013; Garrard et al., 2014).

The machine learning technique described above allowed the researcher to discover linguistic markers of hubris efficiently, free of researcher bias and in a time-consuming manner, free of the limitations of error-prone manual work. Since most research on hubris is based on secondary data materials, machine learning has a real potential here, allowing for the creation of a completely automatic process to analyse hubristic versus non-hubristic language.

In line with the previous research on hubris and language, all three main research studies described in this thesis confirmed that linguistic markers have a real potential to reveal CEO hubris through subtle differences in their language. Furthermore, methods, tools and frameworks used in the identification and analysis of CEO hubris throughout the duration of this doctoral study suggest that there are several ways to identify CEO hubris and these can be used as a baseline in future research studies on hubristic language. This contributes to the wider research regarding identification and analysis of hubris and has some practical implications in terms of mitigating against potentially destructive effects of unrecognised and unbridled CEO hubris.

9.3. Implications and critique for a theory of Hubris Syndrome

The research described in this thesis builds upon the theory of Hubris Syndrome, as proposed by Owen and Davidson (2009), according to whom Hubris Syndrome is displayed through 14 distinct symptoms and is triggered by an external factor – power.

However, Owen and Davidson's (2009) original theory of Hubris Syndrome has received some criticism, in particular regarding the need to better refine the definition of Hubris Syndrome and to clarify and sharpen the proposed symptoms for the diagnosis of it (Loch, 2016; Russell, 2011). Some researchers have also argued that the concept of Hubris Syndrome is not clearly distinguished from other constructs, such as overconfidence and narcissism, which creates misunderstandings (Bollaert & Petit, 2010). What is more, it also impedes research in this field because without a clear and rigorous definition it is difficult to establish tools and techniques to measure this phenomenon.

The above indicates a clear need for a properly articulated theory of Hubris Syndrome. Therefore, in order to address the above-mentioned drawbacks of the original theoretical proposition of Hubris Syndrome (Owen & Davidson, 2009), this doctoral research proposes a theoretical

understanding of hubris as a personality trait which can be identified through an individual's language use. In addition, it also connects with the broader personality research by considering 'dark side' personality traits (potential 'derailers') and destructive leadership in relation to hubris. In doing so, this research provides a bridge between the psychiatric perspective which Owen and Davidson (2009) have taken and the psychological perspective taken by leadership researchers such as Hogan, Hogan and Kaiser (2010). Furthermore, this framework for understanding Hubris Syndrome is based on recent developments in hubris research (Brown, 2017; Tang et al., 2015; Smith, 2013) as well as Owen's (2016) conceptualisation of this phenomenon as a personality trait. In essence, hubris can be considered a personality trait rather than a mental health disorder (Owen, 2016, 2017). Given its similarities to other 'dark side' traits or 'derailers' (Hogan, 2009), it appears that hubris is a "typical example of a trait" (Brown, 2017, p.2) that becomes apparent, and often damaging, only under certain conditions, such as holding a position of power for a significant amount of time (Owen, 2016).

Consequently, the above-mentioned conceptualisation helps to explain why hubris is often seen as a 'rear mirror' phenomenon (noticed only after the detrimental effects of it are apparent) (Sadler-Smith et al., 2016). For example, in a competitive business environment possessing some hubristic traits (i.e., overconfidence, self-belief) is often seen as a strength which enables one to succeed in the corporate world. However, this strength might ultimately become a weakness if overused (Bollaert & Petit, 2010; Hogan, 2009). This means that the 'hubris trait' is seen as a beneficial personality characteristic and only classed as a 'dark side' trait after certain destructive outcomes for the organisation and the individual are evident.

In addition to the above, this research also helps to redefine the theoretical link between hubris and language. Based on the tenet that one's personality can be expressed through 'honest signals'

(subtle linguistic markers) in one's language (Fast and Funder, 2008; Pennebaker et al., 2003; Pentland, 2008), this research argues that the 'hubris trait' is part of one's personality (Owen, 2016) and can therefore be revealed in one's natural language use (Pennebaker et al., 2003)). This, in turn, allows this research to connect the domains of hubris, personality and language.

What is more, research studies described in this thesis contribute to the development of the symptomology of Hubris Syndrome. For example, one of the unique symptoms (6th symptom) of Hubris Syndrome is "A tendency to speak in the third person or use the royal 'we'" (Owen and Davidson, 2009, p.3). Previous research has suggested that this symptom implies one's lexical choices and therefore language produced by hubristic individuals should contain an "increased usages of the terms 'she/he', 'him/her', 'hes/her(s)', 'we', 'us', 'our', or the speaker's own name, in contexts where the first-person pronoun would be expected" (Garrard et al., 2014, p.169). Moreover, the above-mentioned research found the increased usage of 'we' relative to 'I' (the We-to-I ratio) in the hubristic sample (Margaret Thatcher and Tony Blair), compared to the non-hubristic one (John Major).

However, the research described here did not confirm findings mentioned above. In the studies in this research, both samples (hubristic and non-hubristic) used plural pronoun 'we' more often than singular pronoun 'I'. The main difference between the samples was the overall use of pronouns, hubristic language containing more pronouns in general, in particular personal pronouns (i.e., 'I', 'we', 'they') and various impersonal pronouns (see Table 7.2 for the detailed summary of results). This indicates that the original proposition by Owen and Davidson (2009) to attribute the use of 'royal we' to Hubris Syndrome might be tenuous and therefore needs to be treated with caution.

Overall, this research makes several important contributions to hubris and language research. First, it highlights the relevance of investigating language as a marker of CEO hubris, suggesting that

language can be used as an unobtrusive method to identify CEO hubris. Second, this research demonstrates the potential of computational linguistics, computerised text analysis and machine learning being applied in future research in this field. Finally, previous research examining CEO speech has focused primarily on written texts, such as letters to shareholders (Amernic, Craig & Tourish, 2010; Brennan & Conroy, 2013; Craig & Amernic, 2016). This research examined CEO spoken discourse, such as interviews with the media, which, some researchers argue, “allows for more naturalistic speech that is less tainted by preparations” (Kacewicz, 2013, p.84).

All in all, the analysis presented in this research contributes to the theory of Hubris Syndrome by further clarifying the role that linguistic markers can play in the identification of the Syndrome in line with Owen and Davidson’s (2009) original proposal that hubris manifests in language use.

9.4. Practical implications

Hubristic leadership is as much a practical problem as it is a theoretical one. Although some of the attributes of hubris (e.g., overconfidence) might be important in achieving corporate success (e.g., becoming a CEO and maintaining this position), these hubristic traits can ultimately become maladaptive and even harmful for the organisation, and, inevitably, for a CEO’s career too.

Unsurprisingly, leader hubris has been cited in relation to a number of corporate failures and various organisational difficulties (Bollaert & Petit, 2010; Brunnermeier & Pedersen, 2009). Furthermore, given that intoxication by power is the main trigger of hubris as established in literature (Brennan & Conroy, 2013), this means that it is a risk that every CEO, or even every person, might face. Because of this reason, there is a real need to identify an effective way to recognise CEO hubris in time, and consequently, to mitigate against the risk of potentially destructive leader behaviour for the organisation.

The potential employment of this research's findings in practice, alongside with raising awareness about hubris in general, might help to prevent organisational failures induced or aggravated by a CEO's hubris. What is more, utilising linguistic markers of hubris in a work setting could serve as a potential early warning sign and an indicator of incipient or extant hubris and therefore allow hubris to be recognised in time for interventions against it to be made. Fundamentally, establishing a framework for the easier, more accurate and timely identification of hubris could ensure that businesses, as well as individuals, are able to recognise the origins of hubris, monitor the development of it and its change over time and protect against its consequences if required.

Based on the four studies described in this thesis, the proposed practical suggestions to identify linguistic markers of hubris are as follows: the use of certain linguistic categories as indicators of hubris, the use of the proposed classification described in this research to analyse and classify linguistic markers of hubris and the use of the machine learning approach for the automatic identification of hubristic speech. Overall, with certain limitations all three above-mentioned techniques were proven to be suitable for the exploration and analysis of leaders' hubris.

First, effective procedures to identify potentially hubristic individuals could be taken in the leader selection and development process by using certain linguistic categories as indicators of hubris. An overarching theme across the three main studies reported in this thesis was that hubristic speech is indicated by an increase or decrease in the use of certain linguistic categories in an individual's language. The linguistic categories worth one's attention include the high use of singular and plural pronouns (i.e., 'mine', 'we', 'I'), impersonal pronouns (i.e., 'somebody', 'other', 'anybody'), and verbs, including common verbs and auxiliary verbs (i.e., 'must', 'can', 'obtain'). There are also other promising linguistic categories (i.e., use of certainty and tentative tone, words referring to quantity, lack of words related to affiliation) as indicated by the results obtained in this doctoral

study. However practical employment of the study results should start with the core categories mentioned earlier as a baseline.

Building on the above, the leader selection and development process could incorporate linguistic checks based on the leader's spoken discourse samples in addition to the psychometric testing that is commonly used in business (Edenborough, 2005). Such personality testing for certain patterns in an individual's language could allow organisations to identify traces of hubris, if present, at an early stage and to continuously monitor hubris development during the CEO's tenure in a leadership position. Such practice could even potentially be implemented by the leader him/herself as a means to protect one's leadership skills from acquiring or succumbing to 'dark side' traits, that, as well as hubris, might include narcissism, Machiavellianism and psychopathy. However, the practicalities and the ethical implications of such intervention would have to be determined.

What is more, current leader assessment and development tools are "typically based on competency models, which focus on positive attributes associated with effective leaders and desirable leader qualities" (Padilla, Hogan & Kaiser, 2007, p.189). This indicates a clear need to expand the leader assessment and development practices to also include 'undesirable' personality attributes (i.e., hubris, narcissism) in order to identify and, in turn, protect against the destructive tendencies in leaders.

Given the current issues with the leader selection and development process, the use of the above-mentioned techniques could provide a greater insight into hubris lexicon with the ability to indicate specific examples of linguistic markers in spoken discourse produced by a CEO. In addition, use of well-established word count software provides an opportunity to obtain scores for linguistic categories that are based on clearly defined and standardised measures. Results obtained in such a manner are based on a precise mathematical computation that uses pre-defined and standardised

dictionaries of words for any discourse used. Because of this reason, the results of such ‘linguistic checks’ would be accurate and free from personal biases.

On the other hand, this inevitably carries a risk of subjectivity by the interpreter of the results, given the lack of an established baseline for what amount of certain linguistic expressions counts as a high or low score and marks an individual as ‘hubristic’. In particular, once such ‘linguistic checks’ are done, what should these results be compared to (i.e., general population, other CEOs) in order to establish an accurate recommendation regarding an individual’s hubristic traits? This is a risk that a practical employment of ‘hubris checks’ currently faces: there is no established ‘normal range’ for the linguistic categories linked with hubris as well as standardised software that is specifically designed for hubris identification.

However, although comparison of the results of such ‘linguistic checks’ without the baseline might be tricky at this point, organisations could still benefit from tracking the scores obtained for these categories over time. For example, if the ‘linguistic check’ scores for the categories associated with hubris indicate a continuous increase on a yearly basis, this might indicate a risk and suggest the need for a closer investigation.

In addition to the above-mentioned ‘linguistic check’ that could be employed during the CEO selection process or within the organisations as a tool to assess leader hubris on a regular basis, this research has also proposed a way to better interpret the results obtained from such ‘linguistic checks’. The framework for the classification of linguistic markers of hubris, as proposed by this doctoral research, could be used to more accurately understand, analyse and group accordingly linguistic markers of hubris. Essentially, the framework would allow the classification of linguistic markers of hubris into five categories: Strong Markers of Hubris by Presence, Weak Markers of

Hubris by Presence, Strong Markers of Hubris by Absence, Weak Markers of Hubris by Absence and Generic Markers of CEO language.

In particular the proposed framework could help organisations and individuals to recognise the type of marker (i.e., ‘by presence’ or ‘by absence’), category of the marker (i.e., ‘generic marker’, ‘a marker of hubris’) and the strength of it (i.e., ‘weak’ or ‘strong’). This, in turn, would help organisations and individuals to determine whether there is a risk of hubris (i.e., if the markers of hubris are present) and whether an intervention is required (i.e., if linguistic markers identified are classed as ‘strong’).

Lastly, the final practical implication from this research is offered by the completely new field of machine learning in the study of hubris. Given that one of the most important factors in preventing hubristic leadership is the presence of internal checks and balances in the organisation, machine learning could serve as an efficient and accurate tool to check for hubristic traits at any given point of time. Given the current rise of big data and artificial intelligence, organisations might be more inclined to employ such tools in their business practices.

All in all, the proposed recommendations (the use of certain linguistic categories as indicators of hubris, the proposed classification for markers and the machine learning technique) present some great opportunities for further research and have some significant, practical implications for determining the linguistic markers of hubris, and, in turn, mitigating the potentially detrimental effects of hubristic leadership.

9.5. Research limitations and future directions

Besides a variety of novel findings, this research has also faced some challenges which resulted in certain limitations of the study. They are predominantly related to the fact that at-a-distance

analysis techniques (i.e., LIWC based framework, machine learning approach) have rarely been used, or have not been used at all, in the hubris research to date.

Since human personality is so complex, there is a possibility that hubristic leaders will exhibit some characteristics of non-hubristic language whilst non-hubristic leaders might express certain hubristic discourse features. Therefore, it is also important to take into account the small sample size of the study ($N=10$) when interpreting the results. In addition, a bigger sample size of CEOs would allow for a better understanding of the difference between the language of those acquiring hubris and those that have been classified as non-hubristic leaders.

What is more, there are certain limitations of some of the techniques employed in this doctoral study. For example, the multiple comparisons used in Study 2 to construct the framework should be treated with caution, given the possibility that finding significant or insignificant differences might be due to chance alone. If this technique is used in future research, it might be beneficial to consider using relevant statistical techniques that mitigate the occurrence of erroneous inferences due to multiple comparisons (Westfall, Tobias & Wolfinger, 2011).

Currently one of the main issues for the research studies described in this thesis, as well as for hubris research in general, is the absence of a clearly formulated theory for Hubris Syndrome. In addition, the fact that Hubris Syndrome itself overlaps with other related concepts such as narcissism, complicates the process of recognising this phenomenon in isolation even further. Because of this, one of the first steps for future research in the field of hubris should be distinguishing Hubris Syndrome from or establishing the degree of overlap with other related concepts, such as overconfidence and Narcissistic Personality Disorder. This would allow the future research concerning the identification of hubris to deliver more accurate and precise

findings. The possibility of co-morbidity (e.g., of Hubris Syndrome and NPD) should not be overlooked.

Another practical downside of the identification of hubris is that researchers, organisations and the media tend to focus on hubris only after the negative consequences are present. Therefore, the issue of hubris being a ‘rear-mirror phenomenon’ – identified only after the fact – remains. In addition, it is difficult to notice hubris in time due to the prevalence of certain hubristic traits in the business field generally. For example, hubristic traits such as excessive confidence, boldness and ambition are often seen as desirable leadership traits. Consequently, these traits are attributed to hubris only once the organisation has experienced some negative outcomes because of the possession of these traits.

Yet another issue of hubris identification faced by the research described here is representativeness and validity of the secondary materials used. For example, the question remains as to what extent the secondary data materials used in the empirical studies of this thesis were not prepared in advance, hence, limiting the possibility of assessing a CEO’s true personality accurately. Research studies described in this thesis attempted to mitigate the above-mentioned issue by using spoken materials (interviews with CEOs) which, according to the research, are less likely to be prepared in advance, especially in the case of live interviews. However, the question as to what the best secondary data materials for the identification of hubris are remains and should be explored further by future research in this field.

In addition, although several software packages were found promising in identifying linguistic markers of hubris (i.e., DICTION (Amernic, Craig & Tourish, 2010; Garrard et al., 2014)), other avenues in terms of software packages and statistical techniques in general should also be explored. For example, the present research used DICTION in the Pilot Study and LIWC software in Study

1 and Study 2. As noted in Chapters 6 and 7, LIWC and the theory of natural language use (Pennebaker et al., 2003) that this software is based on, have been found to offer a strong theoretical basis for the identification and analysis of linguistic markers of hubris as well as provide a solid tool to do so.

However, the use of LIWC has also had several limitations, such as an overlap between categories (i.e., certain words appear across several LIWC categories), the broadness of some categories (i.e., the ‘relativity words’ dimension in LIWC contains more than 950 words) and the overall applicability of certain categories in the research of hubris (i.e., death related words). Furthermore, some LIWC categories contain words from several grammar fields (i.e., verbs, adjectives, nouns), hence their accuracy in determining hubristic markers should be reviewed, validated and treated with some caution. Given all the above, more exploratory work should be done in future around other, alternative analysis techniques and tools to interpret results.

For example, the use of certain linguistic categories (i.e., impersonal pronouns, auxiliary verbs, function words, negations, negative emotion words) have never previously been directly linked to hubris in published research, however the research described in this thesis indicates their potential link to hubris. The absence of words related to the future is also an interesting finding because research studies to date have never focused on the potential of the grammar tenses to indicate hubristic language.

However, given that the use of verbs and auxiliary verbs were noted by this research as linguistic markers of hubris and both of these dimensions (verbs and auxiliary verbs) contain words that are mainly in the present tense, the importance of these LIWC dimensions in indicating signs of hubris is worth exploring further. What is more, this suggests that there is a need for further research in

this field, exploring a wider range of linguistic categories and their potential to reveal hubristic speech.

Besides the limitations of the analysis techniques used, time was another factor that was not accounted for in the present research. The sampling strategy employed by this research focuses only on the data from the ‘most hubristic year’ (the last full year of being a CEO) and did not attempt to analyse the changes in a CEO’s language longitudinally. This seems to be the overarching limitation across hubris research in general as most research studies on hubris to date have mainly used cross-sectional and time-series methods and had only a limited number of subjects (Sadler-Smith, 2016).

The use of the cross-sectional analysis in this doctoral research meant that some promising methods for identifying Hubris Syndrome were not used in the studies described in this thesis. For example, research by Garrard et al (2014) suggested that the ‘keyness’ (a ratio of key words between the main and the reference sample) is a useful metric when identifying hubristic language and applied it in the longitudinal analysis of the transcribed spoken language produced by study subjects (British Prime Ministers) over a number of years in the office. This allowed to discover “words and phrases whose rate of use changed (in a positive or negative direction) as a function of time in office” (p.169).

The studies described in this thesis could not implement the above-mentioned technique due to the cross-sectional nature of research design (the linguistic analysis was conducted only on the data for the ‘most hubristic year’ for each subject). Although the results of these cross-sectional studies were promising, the use of ‘keyness’ metric should be further explored, especially given the importance of the duration of power for the development of Hubris Syndrome (Owen & Davidson, 2009).

Furthermore, finding and obtaining the data for hubristic CEOs proved to be a challenge. This is due to the limited number of lengthy interviews given in the required ‘most hubristic’ year from which the data was collected for each CEO and, compared to the general population, because of the relatively small population of CEOs overall. The lack of available data did not only impede the pace of the research, but also aggravated the use of the certain research techniques (i.e., machine learning, see Chapter 8).

In addition, the above-mentioned challenge of finding and obtaining data has also affected the sampling strategy employed by this doctoral study. For example, the Pilot Study used Jack Welch (formerly of General Electrics) as a representative of the hubristic sample and Paul Polman (Unilever) as a representative of the non-hubristic sample. However, Jack Welch was not included in the subsequent studies due to the lack of data for the required year whilst Paul Polman was excluded because of the re-defined sampling strategy post pilot-study. Please see section 3.8.1 in Chapter 3 for further details on the amended sampling strategy and data used in this research.

In terms of tools to recognise signs or ‘markers’ of hubris, some progress has been made in the exploratory research on how hubris’ symptoms manifest in leader’s language use (Craig & Amernic, 2016). So far, the best attempts to identify hubris were made by using at-a-distance measures (see Chapter 2 for a summary of previous research using such at-a-distance approaches). This, however, highlights a clear need for a wider range of methods to study the phenomenon of hubris, including the use of ethnographic techniques, action research, participant observation, organisational story-telling, case studies and other methods.

Adding to the above, hubris is often positioned as a ‘male phenomenon’ because the majority of escalated cases about hubristic leadership tend to have a male leader in charge (i.e., Richard Fuld at Lehman Brothers, George Bush and Iraq war case, Fred Goodwin at Royal Bank of Scotland).

The research presented in this thesis has also faced the limitation noted above – all the participants in hubristic and non-hubristic samples were white British or American males, coming primarily from upper middle class families. With this being a limitation, future studies might better benefit from a more balanced ratio concerning gender, race, age and social class. Notwithstanding the existing research, including this thesis, future studies could also look to explore hubris in CEOs of any combination of exclusive ethnicity (i.e., black males, female CEOs, CEOs from a lower class background).

The only hubristic female leaders studied to date is a political leader, the UK's former Prime Minister Margaret Thatcher (Garrard et al., 2014) and Carly Fiorina, the former CEO of the technology corporation Hewlett-Packard (Hayward, 2007). The lack of hubristic female leaders in research studies might be a result of too few women being in leadership positions in the first place, the 'glass ceiling' through which they must break as they ascend the organisational ladder (Oakley, 2000). Alternatively, personality differences (i.e., men tend to be more overconfident than women (Picone, Dagnino & Mina, 2014)) and the feminine tendency towards a more empathetic leadership style could also contribute to such disbalance between female and male leaders.

The studies described in this thesis have focused solely on the individual level hubris. In future studies contextual factors should also be explored (i.e., identifying and analysing factors that contribute to leader's hubris). Moreover, the notion of 'corporate hubris' should be studied in order to determine the relationship between individual and corporate hubris. Although several studies to date briefly referred to the effects of corporate hubris (Ladd, 2012; Mason, 2004; Sullivan, 2014), future research should develop a better understanding as to what the key aspects in the corporate culture that contribute to the development of corporate hubris are. What is more, as businesses around the world function in slightly different ways based on the cultural values and accepted

behaviours within that culture, a question can be raised as to whether some organisations and individuals, depending on the accepted cultural norms, might be more susceptible to hubris.

Existing research on hubris focuses on two very specific fields – politics and business – while ignoring the rest of the leadership areas (e.g., military, sports, other) that should also be taken into consideration. Besides, studies to date were conducted with only relatively small data samples which prevents the overall generalisability of the conclusions (see Table 2.7 in Chapter 2). The research presented in this thesis has also faced the same issues. First, this research analysed only business leaders, occupying the position of CEO. Second, it had a relatively small sample ($N=10$) of ten CEOs. It should be noted, however, that although the sample in the research studies described here was relatively small, ($N=10$), a vast number of the data points (more than 46,000 words) were analysed in order to mitigate the issue regarding the sample size and it was felt that data saturation was reached.

In addition to tackling the data constraints, future research should also examine the linguistic markers of hubris ‘by absence’. Research studies to date have mainly focus on linguistic markers of hubris ‘by presence’ (existing patterns in language that identify hubris), neglecting the possibility that there might also be some markers ‘by absence’ (patterns in one’s language that are present in non-hubristic language, but absent in hubristic language) (Craig & Amernic, 2016; Garrard et al., 2014). This notion has never been explored by researchers in the hubris field and therefore should be addressed in future studies.

Original studies in the field argued that hubris is a ‘dark side’ trait which inevitably leads to a myriad of deleterious effects for the leader and the organisation (Hayward & Hambrick, 1997; Li & Tang, 2010; Roll, 1986). In addition, the focus of the research was on the hubristic leader alone

(Hayward, 2007; Owen, 2012), without taking into consideration any contextual or situational factors.

What is more, the original proposal by Owen and Davidson (2009) to identify Hubris Syndrome was based on 14 symptoms and offered a baseline framework for the identification of hubris. However, this Hubris symptomology received a number of criticisms, especially due to the fact that the majority of symptoms proposed overlap with other mental health disorders such as narcissism. Because of this reason suggestions for a refinement of the symptoms were made in order to make the 'diagnosis' of hubris more accurate and robust (Russell, 2011). In addition to the above, it should be investigated whether hubris is essentially the "tail end of a normal psychological trait" (Loch, 2016, p.101) as opposed to a clinical medical condition (Owen & Davidson, 2009).

As noted by Akstinaite (2016), "in understanding the roots of 'hubris' and 'Hubris Syndrome' on the part of those in leadership roles and their childhood development experiences, there would appear to be little or no research at all" (p.203). The question of the origins of hubris should also be addressed by future research studies, enabling better understanding of the phenomenon and its developmental process.

However, in conceptualising hubris, taking into account the context in which a hubristic leader is operating is vital. For example, in order to identify and mitigate hubris, such factors as organisational governance structure, processes and practices, composition and performance of the board members and others should be considered (Sadler-Smith et al., 2016). Building on the above, in recent years the understanding of hubris has started to shift, suggesting that hubris is a process as opposed to a trait (Sadler-Smith et al., 2016). Based on the processual view, leadership is a continuous process that changes and evolves through time (Uhl-Bien et al., 2007), therefore

hubristic leadership should be seen as a continuous process with a number of highs and lows as well (Wray & Sadler-Smith, 2016).

As suggested by Picone, Dagnino and Mina (2014) and supported by the research findings summarised in this doctoral study, future studies in the field of hubris should focus on a variety of currently unexplored issues, such as the antecedents of hubris, links between hubris, judgements, and decision-making, and factors that could mitigate the impact of hubris. In addition, the above-mentioned aspects of contextual and situational factors which impact and, potentially, contribute to the development of hubris, should also be explored.

9.6. Conclusions

Language plays an especially important role in business leadership since CEOs are expected to verbally interact with their colleagues, subordinates and other stakeholders. Moreover, CEO's language helps to create a certain desired image for the CEO itself and the organisation (Amernic, Craig, & Tourish, 2010). However, the discourse of a CEO is influenced by their personality characteristics and therefore, leaders express their beliefs, values and other personality characteristics, including hubristic traits, through language.

The research described in this doctoral study reviewed and explored the theory of Hubris Syndrome and its symptomology more fully in the organisational context. It clarified the definition of hubris which enables a better understanding of this construct and also allows for the establishment of more precise methods to identify CEO hubris, such as identifying linguistic markers that might indicate extant or incipient hubris trait in CEOs using computational linguistics and machine learning approaches.

Although the research described in this thesis has made some promising attempts in recognising leader hubris, the question of how to identify accurately, or diagnose, hubris and hence prevent this phenomenon from occurring still has no definitive answers. Whilst there is some promising research emerging in the field (Craig & Amernic, 2016; Garrard et al., 2014), there is still a need for further investigation and trialling in practice in order to fully understand the hubris concept, process of acquiring it, ways of recognising its occurrence at an early stage and the techniques or interventions for restraining, reducing and/or completely eliminating it.

Another important question that has often been raised by researchers and practitioners is how to find the fine balance between an excess or deficiency of relevant traits such as confidence and ambition necessary for a leadership position. It seems that current recruitment practices for leadership positions seek people that exhibit behavioural traits that can also be attributed to hubris. Perhaps, as has been already suggested in previous research, a certain degree of hubris is inevitable and even necessary in order to become a successful and well-known business leader.

This, therefore, raises the question as to whether a certain amount of hubris is required for successful leadership and what is the tipping point after which it becomes damaging? Is there a 'limit' for the level of hubris in one's personality after which the nemesis is imminent? In addition, given the similarity of results obtained between two samples for some linguistic categories, one could question whether a CEO's language indicates 'hubris' or 'leadership' and how these two concepts relate in the field of the corporate leadership.

The research described in this thesis employs a unique methodology, consisting of several qualitative and quantitative methods. Furthermore, the use of at-a-distance measures provides a way to access the otherwise difficult to reach population of CEOs and allow for the identification of certain linguistic categories attributed to hubris in leaders. One of the key contributions of this

research emerges from the integration of knowledge and research instruments from three distinctive areas of studies: management science, linguistics, and organisational psychology. Such unification of several study areas allows new insights into the identification and analysis of hubris through CEO language.

The research presented in this thesis regards hubris as an array of a CEO's personality. Because of this, every business leader, and potentially every individual, possesses a certain degree of hubristic traits, which may become accentuated under specific contextual conditions (i.e., obtaining a position of power). These hubristic traits manifest in an individual's language and a number of studies, including the ones presented in this thesis, have attempted to prove the existence of consistent differences between the rhetoric of hubristic and non-hubristic leaders.

The importance of this research lies in the refinement of the theory of Hubris Syndrome and expansion of the previous findings on linguistic markers of hubris. Besides successfully proving that there are some subtle differences between hubristic and non-hubristic language, this research has also suggested several innovative techniques to identify those differences. Most importantly, it answered the main question raised by this research: what are, if any, the linguistic markers of CEO hubris and how may these markers be identified?

9.7. Chapter summary

Chapter 9 is the final chapter of this thesis and focuses on the theoretical interpretation of the findings obtained in the Pilot Study and Studies 1, 2 and 3. It also provides the overall conclusion to the research described in this thesis. The main aim of this chapter was to provide an overview of the research journey, findings and practical implications of this research in order to enable future studies to build on the results and recommendations raised by this doctoral research.

The chapter is divided into several sections. The first two sections provided an overview of the research and interpreted findings from all four studies (the Pilot Study and three main studies) described in this thesis. The third and fourth sections reviewed theoretical and practical implications of the research that could be applied in organisational contexts alongside being used in future research studies. The last two sections raised various questions that existing research does not yet have answers for and discussed the limitations of the research studies described. Moreover, it also suggested several areas that future research should explore and provided a conclusion to this research.

In conclusion, this chapter aimed to summarise insights gained from this doctoral study into what the linguistic markers of CEO hubris are. Although results obtained from small samples of five CEOs each might not be generalizable, these findings provide some helpful directions and recommendations for future research into the field of hubris and offer an extended foundation upon which to build. For example, the findings of this doctoral research highlight some potential linguistic markers of CEO hubris in a business context (e.g., extensive use of verbs, personal pronouns). It also raises a number of interesting considerations and possibilities and opens the doors to further investigation of tracking the changes in hubristic CEOs' natural language use over time.

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APPENDICES

Appendix 1. Ethical Review of Research Projects

Does my Research Project require Ethical review?

- a) procedures involving any risk to a participant's health (for example intrusive physiological or psychological procedures);
YES NO
- b) research involving the donation of bodily material, organs and the recently deceased;
YES NO
- c) surveys, questionnaires and any research, the nature of which might be offensive, distressing or deeply personal for the particular target group;
YES NO
- d) proposals which involve financial payments or payments in kind to participants above reimbursement of expenses;
YES NO
- e) proposals for research that intends to use undergraduate students as participants;
YES NO

f) proposals wishing to use children under the age of 16 or those over 16 who are unable to give informed consent (e.g., people with learning disabilities; see Mental Capacity Act 2005) as participants;

YES NO

g) research proposals to be carried out by persons unconnected with the University, but wishing to use staff and/or students as participants (see 4.4);

YES NO

h) proposals which investigate existing working or professional practices at the researcher's own place of work (including staff surveys);

YES NO

i) research involving access to records of personal or sensitive confidential information, including genetic or other biological information, concerning identifiable individuals;

YES NO

j) research where the safety of the researcher may be in question;

YES NO

k) proposals which require participants to take part in the study without their knowledge and consent at the time;

YES NO

l) research involving prisoners and young offenders.

YES NO

If the answer to any of the above questions is yes then your project requires an ethical review.

Appendix 2. Shortlisted hubristic CEOs from Business Source Complete (full list)

#	CEO	Company	Nationality	Resource
1	Bill Gates	Microsoft	American	Wall Street Journal - Eastern Edition. 6/4/2008, Vol. 251 Issue 130, pB2.
2	Jerry Yang	Yahoo	American	Wall Street Journal - Eastern Edition. 6/4/2008, Vol. 251 Issue 130, pB2.
3	Mark Zuckerberg	Facebook	American	Wall Street Journal - Eastern Edition. 6/4/2008, Vol. 251 Issue 130, pB2.
4	Richard Griffiths	BMG	British	Wall Street Journal - Eastern Edition. 3/17/2003, Vol. 241 Issue 52, pB1.
5	Rolf Schmidt-Holz	BMG	German	Wall Street Journal - Eastern Edition. 3/17/2003, Vol. 241 Issue 52, pB1.
6	Rupert Murdoch	News Corporation	Australian	Journal of Business Ethics. Dec2013, Vol. 118 Issue 2, p379-394. 16p.
7	Jeffrey Skilling	Enron	American	Journal of Business Ethics. Jul2011, Vol. 101 Issue 4, p563-575. 13p.
8	Kenneth Lay	Enron (Chairman)	American	Journal of Business Ethics. Jul2011, Vol. 101 Issue 4, p563-575. 13p.
9	Howard Schultz	Starbucks	American	Journal of Business Ethics. Jul2011, Vol. 101 Issue 4, p563-575. 13p.
10	Jim Donald	Starbucks	American	Journal of Business Ethics. Jul2011, Vol. 101 Issue 4, p563-575. 13p.
11	Rick Wagoner	General Motors	American	Journal of Business Ethics. Jul2011, Vol. 101 Issue 4, p563-575. 13p.
12	Richard Fuld	Lehman Brothers	American	Business Ethics Quarterly. Jan2018, Vol. 28 Issue 1, p15-29
13	Steve Jobs	Apple	American	Academy of Management Review. Oct2017, Vol. 42 Issue 4, p703-725.
14	Jamie Dimon	JP Morgan	American	American Banker. 4/10/2015, Vol. 180 Issue F314.
15	Ken Lewis	Bank of America Corporation	American	Wake Forest Law Review. Fall2013, Vol. 48 Issue 3, p745-770. 26p.
16	Jon Corzine	MF Global Holdings	American	Wake Forest Law Review. Fall2013, Vol. 48 Issue 3, p745-770. 26p.
17	Angelo Mozilo	Countrywide Financial	American	Wake Forest Law Review. Fall2013, Vol. 48 Issue 3, p745-770. 26p.
18	Aubrey McClendon	Chesapeake Energy	American	Wake Forest Law Review. Fall2013, Vol. 48 Issue 3, p745-770. 26p.
19	Rajat Gupta	McKinsey, Goldman Sachs	American	Wake Forest Law Review. Fall2013, Vol. 48 Issue 3, p745-770. 26p.
20	Russell Wasendorf	Peregrine Financial Group	American	Wake Forest Law Review. Fall2013, Vol. 48 Issue 3, p745-770. 26p.
21	Lee B. Farkas	Taylor Bean and Whitaker	American	Wake Forest Law Review. Fall2013, Vol. 48 Issue 3, p745-770. 26p.
22	Albert "Jack" Stanley	KBR	American	Wake Forest Law Review. Fall2013, Vol. 48 Issue 3, p745-770. 26p.
23	Gilbert Fiorentino	Systemax	Unknown	Wake Forest Law Review. Fall2013, Vol. 48 Issue 3, p745-770. 26p.
24	Jeffery S. Fraser	NIC	Unknown	Wake Forest Law Review. Fall2013, Vol. 48 Issue 3, p745-770. 26p.
25	John Browne	British Petroleum	British	Journal of Business Ethics. Dec2013, Vol. 118 Issue 2, p379-394.
26	Jack Welch	General Electrics	American	Leader to Leader. Spring2007, Vol. 2007 Issue 44, p52-58.
28	Donald Trump	The Trump Organisation	American	Comparative American Studies An International Journal, 15(1-2), 12-15.
29	Fred Goodwin	RBS	Scottish	Mortgage Strategy (Online Edition). 7/1/2015, p1-1. 1p.
30	Travis Kalanick	Uber	American	HR Magazine. Oct 2017, Vol. 62 Issue 8, p18-18. 1p.
31	James Cayne	Bear Stearns	American	Journal of Leadership, Accountability and Ethics. Apr2012, Vol. 9 Issue 2, p68-82.
32	John Thain	Merrill Lynch	American	Journal of Leadership, Accountability and Ethics. Apr2012, Vol. 9 Issue 2, p68-82.
33	Edward Liddy	AIG	American	Journal of Leadership, Accountability and Ethics. Apr2012, Vol. 9 Issue 2, p68-82.
34	Bernard Ebbers	WorldCom	American	Electronic Engineering Times (01921541). 7/8/2002, Issue 1226, p52. 2/5p. 1
35	Elon Musk	Tesla, Space X	American	Academy of Management Review. Oct2017, Vol. 42 Issue 4, p703-725.

Appendix 3. Shortlisted hubristic CEOs from media articles (full list)

#	CEO	Company	Nationality	Resource
1	Travis Kalanick	Red Swoosh, Uber	American	https://www.ft.com/content/d890585e-d102-11e7-9dbb-291a884dd8c6
2	Marissa Mayer	Yahoo	American	http://variety.com/2016/digital/features/marissa-mayer-yahoo-ceo-1201781310/
3	Rupert Murdoch	News Corporation	Australian	https://www.economist.com/news/business/21636753-why-phone-hacking-affair-has-left-rupert-murdoch-better-sailing-through-scandal
4	Leo Apotheker	HP	German	http://aswathdamodaran.blogspot.co.uk/2012/12/acquisition-hubris-over-confident-ceos.html
5	Michael Eisner	Walt Disney	American	http://aswathdamodaran.blogspot.co.uk/2012/12/acquisition-hubris-over-confident-ceos.html
6	Mark Zuckerberg	Facebook	American	http://aswathdamodaran.blogspot.co.uk/2012/12/acquisition-hubris-over-confident-ceos.html
7	Kenneth Lay	Enron	American	https://hbr.org/2014/04/rooting-out-hubris-before-a-fall
8	Hugh Grant	Monsanto	British	http://www.independent.co.uk/news/science/monsanto-chief-admits-hubris-is-to-blame-for-public-fears-over-gm-10128951.html
9	Jamie Dimon	JP Morgan	American	http://www.theguardian.com/commentisfree/2013/mar/15/jp-morgan-jamie-dimon-heidi-moore
10	John Browne	BP	English	http://www.lorrdavidowen.co.uk/wp-content/uploads/2015/03/Latest-Advances-in-Psychiatry-symposium.pdf
11	Steve Jobs	Apple	American	http://www.lorrdavidowen.co.uk/wp-content/uploads/2015/03/Latest-Advances-in-Psychiatry-symposium.pdf
12	Jeffrey Skilling	Enron	American	http://jimhighsmith.com/hubris-versus-humility-search-adaptive-leadership/
13	Fred Goodwin	RBS	Scottish	http://www.slate.com/articles/business/moneybox/2008/12/whos_the_worlds_worst_banker.html
14	Richard Fuld	Lehman Brothers	American	http://www.slate.com/articles/business/moneybox/2008/12/whos_the_worlds_worst_banker.html
15	James Cayne	Bear Stearns	American	http://www.slate.com/articles/business/moneybox/2008/12/whos_the_worlds_worst_banker.html
16	Donald Trump	The Trump Organisation	American	https://www.newyorker.com/news/daily-comment/is-political-hubris-an-illness
17	Elon Musk	Tesla, Space X	American	http://www.bbc.co.uk/news/technology-35967714
18	Ron Johnson	J. C. Penney	American	http://www.rightattitudes.com/2013/04/11/ron_johnson_debacle_at_jcpenney/
19	Martin Shkreli	Turing Pharmaceuticals	American	http://www.nbcnews.com/business/business-news/martin-shkreli-high-profile-hubris-hastened-fall-experts-say-n481951
20	John Meriwether	Long-Term Capital Management	American	http://www.forbes.com/2009/08/24/hubris-gamblers-ruin-leadership-managing-varghese.html
21	Howard Schultz	JP Morgan	American	https://hbr.org/2010/07/the-hbr-interview-we-had-to-own-the-mistakes
22	Dean Kamen	Segway	American	http://www.industryweek.com/companies-amp-executives/executive-hubris-ruining-companies
23	Jack Welch	General Electrics	American	http://capitalismmagazine.com/2002/02/prime-mover-of-business-jack-welch/

Appendix 4. Annual ranking of the Best-Performing CEOs in the World (HBR, 2015)

1. Lars Rebien Sørensen, Novo Nordisk
2. John Chambers, Cisco Systems
3. Pablo Isla, Inditex
4. Elmar Degenhart, Continental
5. Martin Sorrell, Wpp
6. Stephen Luczo, Seagate Technology
7. Jon Fredrik Baksaas, Telenor
8. George Scangos, Biogen
9. Michael Wolf, Swedbank
10. Fujio Mitarai, Canon
11. Leslie Wexner, L Brands
12. Howard Schultz, Starbucks
13. Florentino Pérez Rodríguez, Acs
14. Jacques Aschenbroich, Valeo
15. Benoît Potier, Air Liquide
16. Carlos Brito, Anheuser-Busch Inbev
17. Lars Rasmussen, Coloplast
18. Kasper Rorsted, Henkel
19. Alexander Cutler, Eaton
20. Martin Winterkorn, Volkswagen
21. Mark Parker, Nike
22. Martin Gilbert, Aberdeen Asset Management
23. Johan Thijs, Kbc
24. Roberto Egydio Setubal, Itaú Unibanco
25. Laurence Douglas Fink, Blackrock
26. Martin Bouygues, Bouygues
27. Sergio Marchionne, Fiat Chrysler
28. Simon Wolfson, Next
29. Jen-Hsun Huang, Nvidia
30. Norbert Reithofer, Bmw
31. Ronnie Leten, Atlas Copco
32. Michael Ward, Csx
33. Terry Gou (Tai-Ming Gou), Hon Hai Precision Industry
34. Eric Wiseman, Vf
35. Tadashi Yanai, Fast Retailing
36. James Taiclet Jr., American Tower
37. Douglas Berthiaume, Waters
38. Blake Nordstrom, Nordstrom
39. Maurice Lévy, Publicis
40. Carlos Ghosn, Renault
41. Herbert Hainer, Adidas
42. John Martin, Gilead Sciences
43. John Mackey, Whole Foods
44. Bernard Arnault, Christian Dior
45. Huateng (Pony) Ma, Tencent
46. Marc Benioff, Salesforce.Com
47. Debra Cafaro, Ventas
48. Lars Renström, Alfa Laval
49. Mark Bristow, Randgold Resources
50. Renato Alves Vale, Ccr

51. Íñigo Meirás, Ferrovial
52. Johan Molin, Assa Abloy
53. Fabrizio Freda, Estée Lauder
54. Christopher Connor, Sherwin-Williams
55. Jean-Paul Agon, L'oréal
56. Terry Lundgren, Macy's
57. Lamberto Andreotti, Bristol-Myers Squibb
58. Olivier Piou, Gemalto
59. Gilles Schnepp, Legrand
60. Robert Iger, Walt Disney
61. David Thodey, Telstra
62. Paolo Rocca, Tenaris
63. John Hambergren, Mckesson
64. George Paz, Express Scripts
65. Richard Cousins, Compass
66. Hugh Grant, Monsanto
67. Michel Landel, Sodexo
68. Tidjane Thiam, Prudential
69. Daniel Amos, Aflac
70. Richard Fairbank, Capital One
71. Jef Colruyt, Colruyt
72. Peter Botten, Oil Search
73. Glenn Chamandy, Gildan Activewear
74. Flemming Ornskov, Shire
75. Frederick Smith, Fedex
76. Ajaypal Banga, Mastercard
77. Alfred Chan Wing Kin, Hong Kong And China Gas
78. Masayoshi Son, Softbank
79. Neal Patterson, Cerner
80. Shigenobu Nagamori, Nidec
81. Carol Meyrowitz, Tjx
82. Wes Bush, Northrop Grumman
83. André Desmarais, Power Corporation Of Canada
84. Paul Desmarais Jr., Power Corporation Of Canada
85. Leonard Schleifer, Regeneron Pharmaceuticals
86. Dieter Zetsche, Daimler
87. Jeffrey Bezos, Amazon
88. Michael Dobson, Schroders
89. W. Galen Weston, George Weston
90. Mark Bertolini, Aetna
91. Larry Merlo, Cvs Health
92. Steve Ells, Chipotle Mexican Grill
93. Thomas Ebeling, Prosiebensat.1
94. Ulf Schneider, Fresenius
95. Charles Bunch, Ppg Industries
96. Philip Pascall, First Quantum
97. Richard Anderson, Delta Air Lines
98. Douglas Baker Jr., Ecolab
99. Wolfgang Eder, Voestalpine
100. Vittorio Colao, Vodafone

Appendix 5. Annual ranking of the Highest Rated CEOs (*Glassdoor*, 2017)

1. Benno Dorer, The Clorox Company
2. Jim Kavanaugh, World Wide Technology
3. Michael F. Mahoney, Boston Scientific
4. Craig B. Thompson, Memorial Sloan Kettering
5. Martin Rankin, Fast Enterprises
6. Jen-Hsun Huang, NVIDIA
7. Bob Bechek, Bain and Company
8. Elon Musk, SpaceX
9. Brian Halligan, HubSpot
10. Mark Zuckerberg, Facebook
11. Steve Beachamp, Paylocity
12. Dominic Barton, McKinsey and Company
13. Brad Smith, Intuit
14. Corey Schiller and Asher Raphael, Power Home Remodeling
15. Marc Benioff, Salesforce
16. Charles C. Butt, H E B
17. Sundar Pichai, Google
18. Oscar Munoz, United Airlines
19. Shantanu Narayen, Adobe
20. John Legere, T-Mobile
21. Pamela M. (Pam) Nicholson, Enterprise Holdings
22. Stephen B. Burke, NBCUniversal
23. Thomas E. Richards, CDW
24. Bill McDermott, SAP
25. Tim Pierce, Morrison Healthcare
26. Michael R. Bloomberg, Bloomberg L.P.
27. Joseph R. Sivewright, Nestlé Purina
28. Chet Cadieux III, QuikTrip
29. Satya Nadella, Microsoft
30. Alex Gorsky, Johnson and Johnson
31. Rami Rahim, Juniper Networks
32. Anant Yardi, Yardi Systems
33. Richard D. Fairbank, Capital One
34. David Overton, Cheesecake Factory
35. Jeff Weiner, LinkedIn
36. Lynsi Snyder, In-N-Out Burger
37. Dan T. Cathy, Chick-fil-A
38. Jack Dorsey, Square Square
39. Dara Khosrowshahi, Expedia
40. Cathy Engelbert, Deloitte
41. Donald W. (Don) Slager, Republic Services
42. Brad Jackson, Slalom
43. Pierre Nanterme, Accenture
44. G. Brint Ryan, LLC
45. Calvin McDonald, Sephora
46. Martin Mucci, Paychex
47. Alan D. Schnitzer, Travelers
48. Spencer Rascoff, Zillow
49. Christopher Nassetta, Hilton
50. Hugh Grant, Monsanto Company

51. Rich Templeton, Texas Instruments
52. Mark G. Parker, NIKE
53. Tim Cook, Apple
54. Aron J. Ain, Kronos Incorporated
55. Ed Bastian, Delta Air Lines
56. Robert E. Sulentic, CBRE
57. Kevin A. Lobo, Stryker
58. Peter Agnefjall, IKEA
59. Tim Mayopoulos, Fannie Mae
60. Samuel Allen, John Deere
61. Ken May, Topgolf
62. Richard A. Gonzalez, AbbVie
63. Bharat Masrani, TD
64. J Mark Baiada, Home Health Care
65. Mary Barra, General Motors
66. Horacio D. Rozanski, Booz Allen Hamilton
67. Michael J. Dowling, Northwell Health
68. Bernard J. Tyson, Kaiser Permanente
69. David W. Nelms, Discover
70. Mark Weinberger, EY
71. Wayne T. Smith, BASF Corporation
72. Gordon B. Logan, Sport Clips
73. Abby Johnson, Fidelity Investments
74. Lloyd C. Blankfein, Goldman Sachs
75. John R. Strangfeld, Prudential
76. David S. Taylor, Procter and Gamble
77. Hubert Joly, Best Buy
78. Thomas A. Kennedy, Raytheon
79. George S. Barrett, Cardinal Health
80. Bob Faith, Greystar
81. Rick Waddell, Northern Trust
82. Laurence D. Fink, BlackRock
83. Pat Gelsinger, VMware
84. Robin Hayes, JetBlue
85. Jamie Dimon, J.P. Morgan
86. Jerry Stritzke, REI
87. Devin Wenig, eBay
88. Craig Jelinek, Costco Wholesale
89. Wesley G. Bush, Northrop Grumman
90. John E. Schlifske, Northwestern Mutual
91. Kelly Ortberg, Rockwell Collins
92. Pat Esser, Cox Communications
93. Tricia Griffith, Progressive Insurance
94. Gene Hall, Gartner
95. Anthony Moraco, SAIC
96. Gary C. Kelly, Southwest Airlines
97. Ronald D. Croatti, UniFirst
98. Blake W. Nordstrom, Nordstrom
99. Marillyn Hewson, Lockheed Martin
100. Katrina Lake, Stitch Fix

Appendix 6. Annual ranking of the World's Greatest Leaders (*Fortune*, 2015)

1. Tim Cook, Apple
2. Mario Draghi, European Central Bank
3. Xi Jinping, People's Republic of China
4. Pope Francis, Pontiff Catholic Church
5. Narendra Modi, Prime Minister India
6. Taylor Swift, Big Machine Records
7. Joanne Liu, Medecins Sans Frontieres
8. John Roberts Jr., U.S. Supreme Court
9. Mary Barra, General Motors
10. Joshua Wong, Hong Kong Pro-Democracy Movement
11. Johnetta Elzie and DeRay McKesson, Ferguson
12. Jeremy Farrar, Wellcome Trust
13. James Comey, FBI
14. Ai-Jen Poo, National Domestic Workers Alliance
15. Mark Carney, Bank of England
16. Ellen Johnson, President Liberia
17. Howard Schultz, Chairman and CEO Starbucks
18. Bill and Melinda Gates, Bill and Melinda Gates Foundation
19. Pete Frates, ALS "Ice Bucket Challenge"
20. Mike Duggan and Kevyn Orr, Mayor and Former Emergency Manager Detroit
21. Helena Morrissey, CEO Newton Investment Management
22. Beatrice Mtetwa, Human rights activist in Zimbabwe
23. Elon Musk, Tesla Motors and SpaceX
24. Tri Rismaharini, Indonesia
25. Mark Zuckerberg, Facebook
26. Yao Ming, NBA
27. Jeff Bezos, Amazon
28. Kailash Satyarthi, Bachpan Bachao Andolan
29. Lei Jun, Xiaomi
30. Bayan Mahmoud Al-Zahrani, Saudi Arabia
31. LeBron James, Cleveland Cavaliers
32. Mark Bertolini, Aetna
33. Ngozi Okonjo-Iweala, Finance Minister Nigeria
34. Raj Panjabi, Last Mile Health
35. Adm. William McRaven (Ret.), University of Texas
36. Carolyn Miles, Save the Children
37. Frances Hesselbein, Frances Hesselbein Leadership Institute
38. Jamie Dimon, JPMorgan Chase
39. Anthony Fauci, NIAID (NIH)
40. Patrick Awuah, Ashesi University College
41. Mitch Daniels, Purdue University
42. Richard Pazdur, FDA's Office of Hematology and Oncology Products
43. Courtney Banghart, Princeton Tigers Women's Basketball Team
44. Travis Kalanick, Uber
45. Jimmy Fallon, The Tonight Show
46. Daniel Barenboim, Berlin State Opera
47. Adam Silver, NBA
48. Richard Liu, JD
49. John Mackey, Whole Foods Market
50. Akira Miyawaki, Japanese Center for International Studies in Ecology

Appendix 7. Annual ranking of the most Influential Philanthropists and Social Entrepreneurs (*Richtopia*, 2017)

1. Warren Buffet
2. George Soros
3. Elon Musk
4. Bill Gates
5. J. K. Rowling
6. Richard Branson
7. Mike Bloomberg
8. Oprah Winfrey
9. Tim Cook
10. Barack Obama
11. Bill Clinton
12. Melinda Gates
13. Jimmy Wales
14. Michelle Obama
15. Narendra Modi
16. Hillary Clinton
17. Mark Zuckerberg
18. Steve Wozniak
19. Earvin Magic Johnson
20. Leonardo DiCaprio
21. Shakira Ripoll
22. Mark Cuban
23. Russel Simmons
24. Marc Benioff
25. Nicolas Kristof
26. Naomi Klein
27. Marc Ruffalo
28. Jack Dorsey
29. Ariana Huffington
30. Seth Rogen
31. Eric Schmidt
32. Larry Fitzgerald
33. James Cameron
34. Paul Allen
35. Cory Booker
36. Gary Player
37. Jamie Oliver
38. Guy Kawasaki
39. Tim Ferriss
40. Jason Calacanis
41. Steve Case
42. Eva Langoria
43. Paul Graham
44. Nicholas Thompson
45. Anil Dash
46. Bill McKibben
47. Bryant McGill
48. Dave McClure
49. Marc Andreessen
50. Richard Florida
51. Garry Sinise
52. Michael Dell

53. David Robinson
54. Brad Kaselowski
55. Muhammad Yunus
56. Helen Hunt
57. Kara Swisher
58. Angelina Jolie
59. Reid Hoffman
60. Evan Williams
61. Shaun Diddy Combs
62. Chris Anderson
63. Bryan Solis
64. Ashton Kutcher
65. Biz Stone
66. Eric Trump
67. Giancarlo Esposito
68. Marc Suster
69. Kristi Yamaguchi
70. Lauren Conrad
71. John Battelle
72. William Shatner
73. Larry Ellison
74. Liam Neeson Obe
75. Kobe Bryant
76. Cullen Jones
77. Om Malik
78. Ben Affleck
79. Cindy Gallop
80. Jermaine Jackson
81. Larry King
82. Craig Kielburger
83. Leeza Gibbons
84. Dick Costolo
85. Eric Ries
86. Randi Zuckenber
87. Raul Krausthausen
88. Prince Andrew (Duke of York)
89. Aliaune Thiam (Akon)
90. Nikki and Brie Bella
91. Usher Raymon IV
92. Assaad Razzouk
93. Mark Teixeira
94. Dave Morin
95. Jason Silva
96. Maria Popova
97. Justin Kan
98. Drew Houston
99. AJ Joshi
100. Teresa Palmer
101. Ben Parr
102. Joseph Jett
103. Joey Lawrence
104. Nancy O'Dell
105. Bobby Bones
106. Chris Anderson
107. Natalia Vadianova
108. Caterina Fake

109. Alicia Keys
110. TJ Manotoc
111. Chad Hurley
112. Freddie Wong
113. Willie McGinest
114. Steve Francis
115. Phil Keoghan
116. Ron Garan
117. Annie Duke
118. Ty Pennigton
119. Divine Chocolate
120. Jeremy Affeldt
121. Casey Wasserman
122. Sir Ken Robinson
123. Demetria Lovato
124. Dolly Parton
125. Matthew Taylor
126. Doug Davis
127. Majora Carter
128. Leila C. Janah
129. Gurmeet Rahim
130. Tom Watson
131. Imran Khan
132. Brad Feld
133. Blake Mycoskie
134. Pierre Omidyar
135. David De Rothschild
136. John Wood
137. Ethan Zohn
138. Stephen Ganhan
139. Sarah Brown
140. Tamara Tunie
141. Shane Rose
142. Kristen Renton
143. Antanas Guoga
144. Shonali Burke
145. Elton John
146. Gregory Barker (Lords)
147. Leah Busque
148. Harjinder S Kukreja
149. Roger James Hamilton
150. Janet Fouts
151. Greg Secker
152. Stephanie McMahon
153. Jonas Chartick
154. Seth Godin
155. Mark Hovarth
156. M. G. Siegler
157. Wayne Chang
158. Jonathan Greenblatt
159. Scott Harrison
160. Dinis Guarda
161. Ann Handley
162. Stefani Germanotta
163. Chris Guillebeau
164. Tom Steyer

165. Beth Kanter
166. Manny Pasquiao
167. Julie Bishop
168. Leanne Pittsford
169. Simon Mainwaring
170. Erin Schrode
171. Shaun Frankson
172. John Kluge
173. Daniel Jacobs
174. Jeffrey Levin
175. Paul Rieckhoff
176. Mitch Kapur
177. Lea Black
178. Cara Brookins
179. Lord Ashcroft
180. Eric Greitens
181. Alex Osterwalder
182. W. Brett Wilson
183. Kon Karapanagiotidis
184. Christian Payne
185. Tony. O. Elumelu
186. Paige Craig
187. Adam Milstein
188. Jeff Strater
189. Anthonia Orji
190. Devin D. Thrope
191. Craig Brown
192. Marie Forleo
193. Wayne Elsey
194. Paul Polman
195. Lon Harris
196. Ioannis Ioannou
197. Byan Kelly
198. Tim Berners-Lee
199. Katie Stanton
200. Gary C. Bizzo

Appendix 8. Shortlisted non-hubristic CEOs (full list)

HBR's ranking	Glassdoor's ranking	Fortune's ranking	Richtopia's ranking
Jeff Bezos	-	Jeff Bezos	-
John Chambers	John Chambers	-	-
Martin Sorrell	John E. Schlifske	Tim Cook	Jack Dorsey
Stephen Luczo	Charles C. Butt	Mina Guli	Steve Case
Leslie Wexner	Scott Scherr	Larry Fink	Dave McClure
Hugh Grant	Hugh Grant	-	-
Alexander Cutler	Lloyd C. Blankfein	Mina Guli	Michael S. Dell
Marc Benioff	Marc Benioff	Marc Benioff	Marc Benioff
Mark Parker	Mark Parker	-	-
Martin Gilbert	Glenn Johnson	Mina Guli	Elon Musk
Laurence Douglas Fink	-	Anna Maria Chávez	Bill Gates
-	Tim Cook	-	Tim Cook
-	Mike Bloomberg	-	Mike Bloomberg
Warren Buffet	-	-	Warren Buffett
Simon Wolfson	Jeff Weiner	Reshma Saujani	Chad Hurley
Michael Ward	Craig Jelinek	-	Wayne Elsey
Eric Wiseman	John Legere	-	Paul Polman
James Taiclet Jr	Jim Weddle	-	-
Douglas Berthiaume	John S. Watson	-	-
Blake Nordstrom	Blake Nordstrom	-	-
John Martin	Mark Weinberger	-	-
John Mackey	A.G. Lafley	-	-
Debra Cafaro	Lyndon Rive	-	-
Christopher Connor	Christopher Connor	-	-
Terry Lundgren	Mickey Drexler	-	-
Robert Iger	Robert Iger	-	-
David Thodey	Calvin McDonald	-	-
Frederick Smith	Frederick Smith	-	-
Richard Cousins	John B. Veihmeyer	-	-
George Paz	Brad Smith	-	-
Daniel Amos	Alex Gorsky	-	-
Richard Fairbank	William McNabb	-	-
Petter Botten	Brian M. Krzanich	-	-
Glen Chamandy	Tom Linebarger	-	-
John Hammergren	Jeremy Stoppelman	-	-
Neal Patterson	Brian Chesky	-	-
Richard Anderson	Richard Anderson	-	-
Andre Desmarais	Arne Sorenson	-	-
Paul Desmarais	Ken Chenault	-	-
Leonard Schleifer	David Dyson	-	-
Michael Dobson	James P. Gorman	-	-
Willard Gordon Galen Weston	Charlie Mayfield	-	-
Mark Bertolini	Mark Weinberger	-	-
Larry Merlo	Ratheesan Yoganathan	-	-
Steve Ells	Andrew Witty	-	-
Charles Bunch	Richard Hanscott	-	-
Philip Pascal	Larry Page	-	-
Carol Meyrowitz	Kris Hagerman	-	-
Douglas Baker Jr.	James Dimon	-	-
George Scangos	-	-	-

Appendix 9. Interview with Jack Welch used in the Pilot Study (*HBR*, 1989)

I prefer the term “business leader.” Good business leaders create a vision, articulate the vision, passionately own the vision, and relentlessly drive it to completion. Above all else, though, good leaders are open. They go up, down, and around their organization to reach people. They don’t stick to the established channels. They’re informal. They’re straight with people. They make a religion out of being accessible. They never get bored telling their story.

Real communication takes countless hours of eyeball to eyeball, back and forth. It means more listening than talking. It’s not pronouncements on a videotape, it’s not announcements in a newspaper. It is human beings coming to see and accept things through a constant interactive process aimed at consensus. And it must be absolutely relentless. That’s a real challenge for us. There’s still not enough candor in this company.

I mean facing reality, seeing the world as it is rather than as you wish it were. We’ve seen over and over again that businesses facing market downturns, tougher competition, and more demanding customers inevitably make forecasts that are much too optimistic. This means they don’t take advantage of the opportunities change usually offers. Change in the marketplace isn’t something to fear; it’s an enormous opportunity to shuffle the deck, to replay the game. Candid managers—leaders—don’t get paralyzed about the fragility of the organization. They tell people the truth. That doesn’t scare them because they realize their people know the truth anyway.

We’ve had managers at GE who couldn’t change, who kept telling us to leave them alone. They wanted to sit back, to keep things the way they were. And that’s just what they did—until they and most of their staffs had to go. That’s the lousy part of this job. What’s worse is that we still don’t understand why so many people are incapable of facing reality, of being candid with themselves and others.

But we are clearly making progress in facing reality, even if the progress is painfully slow. Take our locomotive business. That team was the only one we’ve ever had that took a business whose forecasts and plans were headed straight up, and whose market began to head straight down, a virtual collapse, and managed to change the tires while the car was moving. It’s the team that forecast the great locomotive boom, convinced us to invest \$300 million to renovate its plant in Erie, and then the market went boom all right—right into a crater. But when it did, that team turned on a dime. It reoriented the business.

Several of our other businesses in the same situation said, “Give it time, the market will come back.” Locomotive didn’t wait. And today, now that the market is coming back, the business looks great. The point is, what determines your destiny is not the hand you’re dealt; it’s how you play the hand. And the best way to play your hand is to face reality—see the world the way it is—and act accordingly.

For a large organization to be effective, it must be simple. For a large organization to be simple, its people must have self-confidence and intellectual self-assurance. Insecure managers create complexity. Frightened, nervous managers use thick, convoluted planning books and busy slides filled with everything they’ve known since childhood. Real leaders don’t need clutter. People must have the self-confidence to be clear, precise, to be sure that every person in their organization—highest to lowest—understands what the business is trying to achieve. But it’s not easy. You can’t believe how hard it is for people to be simple, how much they fear being simple. They worry that if they’re simple, people will think they’re simpleminded. In reality, of course, it’s just the reverse. Clear, tough-minded people are the most simple.

Yes. In 1981, when we first defined our business strategy, the real focus was Japan. The entire organization had to understand that GE was in a tougher, more competitive world, with Japan as the cutting edge of the new competition. Nine years later, that competitive toughness has increased by a factor of 5 or 10. We face a revitalized Japan that’s migrated around the world—to Thailand, Malaysia, Mexico, the United States—and responded successfully to a massive yen change. Europe is a different game today. There are great European business people, dynamic leaders, people who are changing things. Plus you’ve got all the other Asian successes.

So being number one or number two globally is more important than ever. But scale alone is not enough. You have to combine financial strength, market position, and technology leadership with an organizational focus on speed, agility, and simplicity. The world moves so much faster today. You can be driving through Seoul, talking to France on the phone and making a deal, and have a fax waiting for you when you get back to the United States with the deal in good technical shape. Paolo Fresco, senior vice president of GE International, has been negotiating around-the-clock for the past two days on a deal in England. Last night I was talking with Larry Bossidy, one of our vice chairmen, who was in West Germany doing another deal. We never used to do business this way. So you can be the biggest, but if you're not flexible enough to handle rapid change and make quick decisions, you won't win.

First, we took out management layers. Layers hide weaknesses. Layers mask mediocrity. I firmly believe that an overburdened, overstretched executive is the best executive because he or she doesn't have the time to meddle, to deal in trivia, to bother people. Remember the theory that a manager should have no more than 6 or 7 direct reports? I say the right number is closer to 10 or 15. This way you have no choice but to let people flex their muscles, let them grow and mature. With 10 or 15 reports, a leader can focus only on the big important issues, not on minutiae.

We also reduced the corporate staff. Headquarters can be the bane of corporate America. It can strangle, choke, delay, and create insecurity. If you're going to have simplicity in the field, you can't have a big staff at home. We don't need the questioners and the checkers, the nitpickers who bog down the process, people whose only role is to second-guess and kibitz, the people who clog communication inside the company. Today people at headquarters are experts in taxes, finance, or some other key area that can help people in the field. Our corporate staff no longer just challenges and questions; it assists. This is a mind-set change; staff essentially reports to the field rather than the other way around.

So many CEOs disparage staff and middle management—you know, "If only those bureaucrats would buy into my vision." When you talk about "nitpickers" and "kibitzers," are you talking about lousy people or about good people forced into lousy jobs? People are not lousy, period. Leaders have to find a better fit between their organization's needs and their people's capabilities. Staff people, whom I prefer to call individual contributors, can be tremendous sources of added value in an organization. But each staff person has to ask, How do I add value? How do I help make people on the line more effective and more competitive? In the past, many staff functions were driven by control rather than adding value. Staffs with that focus have to be eliminated. They sap emotional energy in the organization. As for middle managers, they can be the stronghold of the organization. But their jobs have to be redefined. They have to see their roles as a combination of teacher, cheerleader, and liberator, not controller.

Cutting the groups and sectors eliminated communications filters. Today there is direct communication between the CEO and the leaders of the 14 businesses. We have very short cycle times for decisions and little interference by corporate staff. A major investment decision that used to take a year can now be made in a matter of days. We also run a Corporate Executive Council, the CEC. For two days every quarter, we meet with the leaders of the 14 businesses and our top staff people. These aren't stuffy, formal strategic reviews. We share ideas and information candidly and openly, including programs that have failed. The important thing is that at the end of those two days everyone in the CEC has seen and discussed the same information. The CEC creates a sense of trust, a sense of personal familiarity and mutual obligation at the top of the company. We consider the CEC a piece of organizational technology that is very important for our future success.

People always overestimate how complex business is. This isn't rocket science; we've chosen one of the world's more simple professions. Most global businesses have three or four critical competitors, and you know who they are. And there aren't that many things you can do with a business. It's not as if you're choosing among 2,000 options. You mentioned review systems. At our 1986 officers' meeting, which involves the top 100 or so executives at GE, we asked the 14 business leaders to present reports on the competitive dynamics in their businesses. How'd we do it? We had them each prepare one-page answers to five questions: What are your market dynamics globally today, and where are they going over the next several years? What actions have your competitors taken in the last three years to upset those global dynamics? What have you done in the last three years to affect those dynamics? What are the most dangerous things your competitor could do in the next three years to upset those dynamics? What are the most effective

things you could do to bring your desired impact on those dynamics? Five simple charts. After those initial reviews, which we update regularly, we could assume that everyone at the top knew the plays and had the same playbook. It doesn't take a genius. Fourteen businesses each with a playbook of five charts. So when Larry Bossidy is with a potential partner in Europe, or I'm with a company in the Far East, we're always there with a competitive understanding based on our playbooks. We know exactly what makes sense; we don't need a big staff to do endless analysis. That means we should be able to act with speed. Probably the most important thing we promise our business leaders is fast action. Their job is to create and grow new global businesses. Our job in the executive office is to facilitate, to go out and negotiate a deal, to make the acquisition, or get our businesses the partners they need. When our business leaders call, they don't expect studies—they expect answers.

Take the deal with Thomson, where we swapped our consumer electronics business for their medical equipment business. We were presented with an opportunity, a great solution to a serious strategic problem, and we were able to act quickly. We didn't need to go back to headquarters for a strategic analysis and a bunch of reports. Conceptually, it took us about 30 minutes to decide that the deal made sense and then a meeting of maybe two hours with the Thomson people to work out the basic terms. We signed a letter of intent in five days. We had to close it with the usual legal details, of course, so from beginning to end it took five months. Thomson had the same clear view of where it wanted to go—so it worked perfectly for both sides.

Another of our jobs is to transfer best practices across all the businesses, with lightning speed. Staff often put people all over the place to do this. But they aren't effective lightning rods to transfer best practice; they don't have the stature in the organization. Business leaders do. That's why every CEC meeting deals in part with a generic business issue—a new pay plan, a drug-testing program, stock options. Every business is free to propose its own plan or program and present it at the CEC, and we put it through a central screen at corporate, strictly to make sure it's within the bounds of good sense. We don't approve the details. But we want to know what the details are so we can see which programs are working and immediately alert the other businesses to the successful ones.

Simple doesn't mean easy, especially as you try to move this approach down through the organization. When you take out layers, you change the exposure of the managers who remain. They sit right in the sun. Some of them blotch immediately; they can't stand the exposure of leadership. We now have leaders in each of the businesses who own those businesses. Eight years ago, we had to sell the idea of ownership. Today the challenge is to move that sense of ownership, that commitment to relentless personal interaction and immediate sharing of information, down through the organization. We're very early in this, and it's going to be anything but easy. But it's something we have to do.

In addition to locomotives, which I've already discussed, we've had major delayering and streamlining in almost all of our businesses, and they have made significant improvements in total cost productivity. The CEC concept is flowing down as well. For example, each of the businesses has created its own executive committee to meet on policy questions. These committees meet weekly or monthly and include the top staff and line people from the businesses. Everyone in the same room, everyone with the same information, everyone buying into the targets. Each business also has an operations committee. This is a bigger group of maybe 30 people for each business: 5 staffers, 7 people from manufacturing, 6 from engineering, 8 from marketing, and so on. They get together every quarter for a day and a half to thrash out problems, to get people talking across functions, to communicate with each other about their prospects and programs. That's 30 people in 14 businesses, more than 400 people all together, in a process of instant communication about their businesses and the company.

You see, I operate on a very simple belief about business. If there are six of us in a room, and we all get the same facts, in most cases, the six of us will reach roughly the same conclusion. And once we all accept that conclusion, we can force our energy into it and put it into action. The problem is, we don't get the same information. We each get different pieces. Business isn't complicated. The complications arise when people are cut off from information they need. That's what we're trying to change. Work-Out is absolutely fundamental to our becoming the kind of company we must become. That's why I'm so passionate about it.

Appendix 10. Interview with Paul Polman used in the Pilot Study (*HBR*, 2012)

We thought about some of the megatrends in the world, like the shift east in terms of population growth and the growing demand for the world's resources. And we said, "Why don't we develop a business model aimed at contributing to society and the environment instead of taking from them?" We look at the entire life cycle—from field consumption to disposal—and we have about 50 measurable goals throughout our supply chain. We want to reduce our overall environmental footprint, to source our agricultural resources sustainably, and to help 1 billion people get access to nutrition and achieve well-being.

There are clear signs of stress around the world, coming from the "other 99%." A billion people still go to bed hungry. A child dies of starvation every six seconds. Our form of capitalism has brought us far, but it hasn't solved everything. We think that businesses that are responsible and actually make contributing to society a part of their business model will be successful. They are audacious objectives. Nobody has ever made such a public commitment, and nobody has ever achieved anything like this. Otherwise the world wouldn't be facing these challenges. So, yes, they make us a bit uncomfortable. But we think we can get there, or close to it.

As a company, we have a long history of doing the right thing. When William Lever [later Lord Leverhulme] started the company, in the 19th century, Britain had big hygiene problems. So he invented bar soap—not to make more money, but because in Victorian England one out of two babies didn't make it past year one. That established the company's values, and we need to build on them. Before we launched our plan, only 10% of our materials were sourced sustainably. Now, after just one year with new stretch targets, we're sourcing 24% sustainably. I always turn that question around: How would you make the case that notdoing this could help society and mankind? For proper long-term planning, you've got to take your externalities into account, in order to be closer to society. It's clear that if companies build this thinking into their business models and plan carefully, it will accelerate growth.

We disagree—because if what you do is properly planned and part of a business model, then it's not a cost. Think about climate change. For Unilever alone, the cost last year was well over 200 million euros—from the effects of droughts, floods, tsunamis, and earthquakes. Add to that the political crises that arise from inequitable, unsustainable growth where part of the population is being left behind. Some estimate that the total profits of the consumer goods industry could be wiped out in 30 years if no action is taken. Responsible business thinks about this. When we first launched the plan, it was as much an act of faith as a careful thinking about all the angles. But we were willing to take the risks in a calculated way because it built on our values. We don't know what kinds of challenges we'll be facing in the future. All we can do is make sure that the organization is prepared. So we're creating a culture where it's OK to take risks and OK if some of them don't work out. But we have to be agile enough to change when we need to.

The biggest challenge, to be honest, is surviving the transition. You have to be sure the incentive systems are well designed. Plus the complexity of the issues—water, food, energy—is such that it's always going to be tempting to just give up and walk away. But if you're willing to persist, there are opportunities out there.

Consider sustainable sourcing. That can give you a higher yield per acre, which means over time your cost comes down. That's true with palm oil; it's true with tea. And if you work with local communities on soil management, you create livelihoods for people who then buy your products. Our brands all have a social, an economic, and a product mission. We build all that into our RandD program. We spend a tremendous amount of time measuring the total impact of our activities across the whole supply chain—from the sourcing side to our factories to the consumer side. We're very data-driven, and we hold people accountable as we go through the journey. This is not some foo-foo dust. It's hard-wired, and you get what you measure. We think that anything we accomplish here is directly linked to the bottom line. There are always skeptics and critics. So we need to deliver. We've created an environment where our business can be more focused on the long term. We abolished quarterly reporting. We no longer give earnings guidance. We changed our compensation system so that it's more focused on the long term. But you can't just sit here and say everything will be fine in 10 years' time. You need to deliver.

In his book about capitalism at risk, Roger Martin, of the Rotman School, talks about the problems with trying to manage expectations. He uses GE as an example—how it achieved, to the penny, its projected earnings each quarter. And all of a sudden, when Jack Welch left as CEO, the thing fell off the cliff. That’s a situation we want to avoid. Oh, definitely. I did it the day I started this job, because I figured I couldn’t be fired on my first day. Since then we’ve seen many companies follow suit and go to biannual reporting. It has saved us work, and I don’t have to constantly explain to the market how the weather was slightly worse than we expected, or Easter fell a little early, or the dates of Ramadan changed. It has allowed us to focus instead on a mature discussion with the market about our long-term strategy. We spend a disproportionate amount of time with them explaining what we’re doing and discussing our longer-term strategy, which has become easier because we don’t do the quarterly reports.

First of all, you have to accept that our job isn’t just about creating shareholder wealth. A myopic view of driving shareholder wealth at the expense of everything else will not create a company that’s built to last. Second, you need to attract a shareholder base that supports your strategy—not the other way around. So we actively seek one that is aligned with our longer-term strategy. We tell hedge funds and short-term speculators, “You don’t belong in this company. The sheer fact that you buy a few shares doesn’t give you the right to mess up our strategy.” We don’t condemn them, but they can go somewhere else. That’s been quoted a few times because, unfortunately, I made the comment at Davos. But there are many people who make their decisions on the basis of short-term interests, versus the interests of society at large.

You’re always susceptible to criticism when the numbers don’t support what you’re trying to do. So far, our share price has outperformed the industry’s, and we’ve been able to move forward without a lot of criticism. But I do worry that if, in any six-month period, our results are not good, the cynics and critics will come out. We need to be strong enough to work our way through that if it happens. Most CEOs expect to serve in their jobs for three to five years. In this tough economic environment, it probably seems like the best option is simply to hunker down. Yeah, you can’t run too far ahead. A leader who looks over his shoulder and doesn’t see anybody behind him is not very comfortable.

I call it “the crisis of ethics,” and it has made a lot of people think differently about how society needs to function. Not in the sense of questioning capitalism per se—I’m a capitalist at heart—but in the sense of how to achieve it. We need to fine-tune the system, and one way to do that is through socially responsible investment. I’m encouraged by the progress I see, and more companies are willing to be a bit more daring; they’re starting to create a critical mass.

Unfortunately, there are still people in the comfort zone who think the problem isn’t there. They don’t know that they are part of the problem. The fact is, it’s unsustainable to have 15% of the world’s population using 50% of the resources. Companies that don’t want to participate in finding a solution risk being isolated by society. You’ve seen that happening with some banks to a certain extent. So people can be in denial and say that the normal Milton Friedman-type of thinking about the laws of economics will prevail. But frankly, that thinking has brought us to where we are, which requires an accelerated evolution of the way we do business.

We understand that. But if you satisfy the basic conditions of price and quality and then provide more on top, you will be in a significantly better position. With Lipton, we have moved to sustainable tea sourcing. Sure, the tea needs to taste good and the price needs to be competitive. But if we also do sustainable sourcing, it gives us a lift and consumers think it’s even better. We have more than 2 billion consumers using our brands every day. And increasingly they are connected, which gives us opportunities to involve them and communicate with them. Part of our model is to turn our company over to them to some extent. In the past, consumers might have been tempted to say, “I have my little sustainable Lipton tea bag, but what difference does it make? Especially when my neighbor doesn’t and drives a big SUV to boot.” But now we’re able to show consumers that it does make a difference. Two billion of you are drinking tea. So ask for sustainably sourced tea, because you can become a force for good. If 2 billion want something, companies will change.

The research that we and others have done shows that consumer apathy is increasingly a myth. Look at how quickly the Occupy Wall Street movement spread. It shows that people are thinking about things, that they feel excluded from

a system that isn't working for them. An Indian farmer might not talk about climate change, but he will tell you that his water level has gone down one meter. People are looking for solutions, and if governments don't provide them, they'll find businesses that do. Ben and Jerry's is a wonderful example. It is now supporting gay marriage in the UK, because the consumer base is asking for that. This is a brand, by the way, that doesn't advertise. It just uses social media. This is a brand that totally represents its user base.

A lot of the challenges we face require forming coalitions with NGOs, governments, and industry partners. When we went public with Unilever's sustainable living plan and audacious targets, people worried that we would attract criticism. Actually the opposite has happened, because we went out there with a human face and made it clear that we don't have all the answers. We made it clear that if others felt these things were important, they could help us and join us and be part of the solution. Unfortunately, politicians have become too short term in their thinking. Most lack any courage and just want to get reelected. In the U.S., in particular, politicians seem to have a limited understanding of, or interest in, how the world functions. I think that for the next several years, the U.S. will be more internally focused, while China and India won't be willing yet to step up and assume the responsibility that comes with size. This creates a tremendous opportunity for responsible companies to step up, to be a force for good.

Compensation that isn't linked to performance one way or another is difficult for people to understand. Yet any system where a few people get enormous benefits but the costs or risks have to be borne by society is unacceptable. The answer is transparency. Think about professional sports: People don't object to the salaries that players get, because they're transparent. It's the lack of transparency—especially in the financial sector—between performance, long-term performance, and compensation that bothers people.

We link payouts to long-term performance. My salary has been frozen since the day I came to the company, because we think there is no need to increase it. We had a very good year last year, but our bonus payouts were based on less than a 100% rating because we set our targets high.

That's not for me to judge. I'm very fortunate. My father worked two jobs to be able to send his kids to school and university. I'm very grateful for that. It's more important to worry about the responsibilities you have than the compensation. Well, I'm just starting to learn, because this is my first CEO job and I'm only in year four. But I think it's important to operate with a high degree of integrity and to spend a lot of time enhancing your company's values. The biggest challenge is to keep your humility. The moment a CEO starts to justify how good he is and talk about all the things he's achieved, it's probably time to go.

That's true. In previous decades the world was growing and everything was going up. Value was created, and share prices rose. That's not the case now. So the people who lead companies need to be able to deal with far more volatility, far more transparency. They have to be able to work more closely with other organizations to achieve their goals. There is so much ambiguity and change—you have to be agile. And you have to make sure your company is a learning organization. One big challenge has been figuring out the spacing and sequential implementation of everything we're doing. To use an analogy, we're basically changing the engine while we keep the car running. There are things I wish we'd done sooner. I wish I'd spent more time on diversity of the workforce. We're nowhere near where we need to be for tomorrow's world.

I had studied in my home country, the Netherlands. Originally I wanted to be a priest, but I gave that up and studied economics. Then I went to the University of Cincinnati. I was taking night classes and met a lot of PandG people there. I didn't have any money, so I took a job as a maintenance man in what turned out to be a PandG building. That's how I ended up there! Life is serendipity. I was talking to my son recently, and he asked, "What should I do?" I always say you should create opportunities and then select one and go for it. Don't look back.

Appendix 11. Jack Welch's letter to shareholders used in the Pilot study (GE, 2000)

The initiatives are playing a critical role in changing GE, but the most significant change in GE has been its transformation into a Learning Company. Our true "core competency" today is not manufacturing or services, but the global recruiting and nurturing of the world's best people and the cultivation in them of an insatiable desire to learn, to stretch and to do things better every day. By finding, challenging and rewarding these people, by freeing them from bureaucracy, by giving them all the resources they need—and by simply getting out of their way—we have seen them make us better and better every year.

We have a Company more agile than others a fraction of our size, a high-spirited company where people are free to dream and encouraged to act and to take risks. In a culture where people act this way, every day, "big" will never mean slow. This is all about people—"soft stuff." But values and behaviors are what produce those performance numbers, and they are the bedrock upon which we will build our future. The rest of our letter will describe these abiding values and beliefs because they are at the heart and soul of everything we do, what we stand for, what we stand on and, most important, where we are going. It's the first and most important of our values. Integrity means always abiding by the law, both the letter and the spirit. But it's not just about laws; it is at the core of every relationship we have. Inside the Company, integrity establishes the trust that is so critical to the human relationships that make our values work. With that trust, employees can take risks and believe us when we say a "miss" doesn't mean career damage.

With trust, employees can set stretch performance goals and can believe us when we promise that falling short is not a punishable offense. Integrity and trust are at the heart of the informality we cherish. There are no witnesses needed to conversations, nor the need to "put it in writing." None of that—our word is enough. In our external dealings, with our unions and governments, we are free to represent our positions vigorously, in a constructive fashion, to agree or disagree on the issues, knowing that our integrity itself is never an issue. A period of transition is a period of change, and some of our values will be modified to adapt to what the future brings. One will not: our commitment to integrity, which, beyond doing everything right, means always doing the right thing. We've long believed that when the rate of change inside an institution becomes slower than the rate of change outside, the end is in sight. The only question is when.

Learning to love change is an unnatural act in any century-old institution, but today we have a Company that does just that: sees change always as a source of excitement, always as opportunity, rather than as threat or crisis. We're no better prophets than anyone else, and we have difficulty predicting the exact course of change. But we don't have to predict it. What we have to do is simply jump all over it! Our moves in Europe, Mexico, Japan and the rest of Asia during the '90s were risky, richly-rewarded big swings at fast-breaking change, as was our leap into digitization, and more recently our decision to acquire Honeywell. We strive every day to always have everyone in the organization see change as a thrilling, energizing phenomenon, relished by all, because it is the oxygen of our growth.

Bureaucracies love to focus inward. It's not that they dislike customers; they just don't find them as interesting as themselves. Today we have a Company doing its very best to fix its face on customers by focusing Six Sigma on their needs. Key to this focus is a concept called "span," which is a measurement of operational reliability for meeting a customer request. It is the time window around the Customer Requested Delivery Date in which delivery will happen. High span shows poor capability to hit a specific date; low span reflects great capability; and zero span is always the objective.

With span, the measurement is based on the day the customer wants the product. When the order is taken, that date becomes known to everyone, from the first person in the process receiving the castings, circuit boards or any other components from the supplier, all the way through to the service reps who stand next to the customer as the product is started up for the first time. Every single delivery to every single customer is measured and in the line of sight of

everyone; and everyone in the process knows he or she is affecting the business-wide measurement of span with every action taken. The object is to squeeze the two sides of the delivery span, days early and days late, ever closer to the center: the exact day the customer desired. Plastics has reduced its span from 50 days to 5; Aircraft Engines from 80 days to 5; Mortgage Insurance took it from 54 days to 1.

GE completed more than 2000 Six Sigma projects "at the customer, for the customer," last year. Here we took GE resources and applied them to our customers' biggest needs, using Six Sigma as a foundation. The focus has been totally inside our customer operations. The wins have been significant: improving locomotive reliability, reducing medical CT scan wait times and improving airline operations. It's not that we know all the answers but we're totally committed to finding them; and committed to externalizing all of our initiatives for the benefit of the customer. Over the long term, we believe this will differentiate GE in the eyes of the customer.

One of the biggest mistakes large institutions can make is indulging the compulsion to "manage" their size. They become impressed with how big they are and at the same time nervous about the need to control their size, to get their arms around it. This often leads to more layers, structure and bureaucracy—and eventually stifled and frustrated people. We see size differently. We understand its inherent limitations—on speed and on clarity of communications, among other things—and we fight every day to create the quickness and spirit of a small company. But we appreciate the one huge advantage size offers: the ability to take big swings, big risks, and to live outside the technology envelope, to live in the future. Size allows us to invest hundreds of millions of dollars in an enormously ambitious program like the GE90, the world's highest-thrust jet engine, and the "H" turbine, the world's highest-efficiency turbine generator. Size allows us to introduce at least one new product in every segment, every year, in medical diagnostics, or to spend hundreds of millions on new plastics capacity, or to continue to invest in a business during a down cycle, or to make over 100 acquisitions a year, year after year.

Our size allows us to do this knowing that we don't have to be perfect, that we can take more risks, knowing that not all will succeed. That's because our size—far from inhibiting innovation, the conventional stereotype—actually allows us to take more and bigger swings. We don't connect with every one, but the point is, our size allows us to miss a few—without missing a beat. We cultivate the hatred of bureaucracy in our Company and never for a moment hesitate to use that awful word "hate." Bureaucrats must be ridiculed and removed. They multiply in organizational layers and behind functional walls—which means that every day must be a battle to demolish this structure and keep the organization open, ventilated and free. Even if bureaucracy is largely exterminated, as it has been at GE, people need to be vigilant—even paranoid—because the allure of bureaucracy is part of human nature and hard to resist, and it can return in the blink of an eye. Bureaucracy frustrates people, distorts their priorities, limits their dreams and turns the face of the entire enterprise inward.

...our size—far from inhibiting innovation, the conventional stereotype—actually allows to take more and bigger swings. We don't connect with every one, but the point is, our size allows us to miss a few—without missing a beat. In a digitized world, the internal workings of companies will be exposed to the world, and bureaucracies will be seen by all for what they are: slow, self-absorbed, customer insensitive—even silly. One leads to the other. Self-confidence is the indispensable leadership characteristic. It can come from early family life, from sports, from school success, or it can be acquired through opportunities to lead, to take business risks, to be challenged and to win. It is the obligation of every leader to give everyone the business challenges that provide opportunities to develop personal self-confidence. We see, day after day, people's lives—and not just their business lives—utterly transformed by the self-confidence born of meeting big challenges.

Appendix 12. Paul Polman's letter to shareholders used in the Pilot study (Unilever, 2014)

In a volatile environment consistency of results is key. Our model calls for consistent, competitive, profitable and responsible growth. With 2.9% underlying sales growth, and good profit progress, this is the fifth consecutive year of top and bottom line growth. This was achieved despite a challenging external environment. Our business is growing ahead of our markets with 60% gaining share and we believe this growth is also competitive. The Unilever Sustainable Living Plan (USLP) helps to ensure growth is responsible. The consistency of our delivery is underlined by the fact that our average growth over the last five years is 4.9%, making us one of the most reliable performers in our industry.

Very challenging and among the most difficult I can remember. We certainly faced more headwinds than tailwinds. For the first time in many years, for example, we had to confront the reality of largely flat developed markets and markedly slowing emerging markets. Indeed, markets slowed from some 3.5% in 2013 to around 2.5% in 2014. At the same time, the world continued to be rocked by a combination of geopolitical instability and natural, climate-related disasters that have sadly become the norm. All of these add a cost to doing business, which is why we believe that confronting these issues and looking for solutions to them – rather than just being buffeted by events – is the only long-term viable growth model. Agility is equally important in this environment and we have worked hard once again to reduce complexity and evolve the organisational model for speed and efficiency.

The ability to deliver results while balancing the needs of our multiple stakeholders. The consistency of our delivery, even in these unusually volatile and uncertain conditions, helps. It reassures me that the fundamental pillars of the business are strong and that we have developed the resilience needed to compete even in the most difficult circumstances. What pleased me specifically was that we were able to take the short-term measures necessary to respond to events – further tightening our belts, for example, and simplifying the organisation through initiatives like Project Half for Growth – while at the same time continuing to invest in the long-term drivers of growth. The launches of some of our biggest brands into new markets – like Omo in the Gulf, Clear in Japan or Lifebuoy in China – were great examples of this. We also made a number of strategic acquisitions over the year to help strengthen our portfolio further: the Talenti superpremium ice cream business in North America, for example, and the Qinyuan water purification business in China, both take us into some attractive segments of the market.

I was equally delighted by the progress we made during 2014 in increasing our proportion of female managers. There is much still to do, but beating our stretching targets and ending the year with women representing 43.3% of all managers was a great achievement and a real sign of the commitment felt across Unilever to make progress in this area. Finally we have made further progress on sustainable sourcing, decoupling growth from environmental impact and increasing positive social impact throughout our value chain. This has further enhanced our corporate reputation and lowered risk and costs.

Weakening consumer demand certainly impacted our underlying sales growth yet it provided a great opportunity to accelerate our efficiency effort. Growth was therefore profitable, with an improvement in core operating margin of 0.4 percentage points, driven by strong savings programmes. Tight control of working capital contributed to another year of healthy cash flow delivery (more than €3.1 billion) which – combined with the improvement in operating margin – contributed to earnings per share (EPS) growth of 2% (or 11% adjusted for currency impact).

Even though we have made significant strides over recent years in improving our organisational agility and our ability to respond quickly to events, there is still room for improvement. I would like to have seen us react a little quicker, for example, to the slowdown in a number of markets, particularly China, where frankly we were caught off-guard by the speed and scale of weakening consumer demand. In terms of our categories, all of them contributed – albeit in different ways – to the overall performance of the Group and I have confidence in the strength and long-term growth potential of our portfolio. We took steps last year to sharpen the portfolio even further with a number of strategic acquisitions and disposal of non-core brands, although there is always scope to do more and I would like to see the level of activity accelerate in the year ahead. It is also clear that we still need to do more to get our Foods category growing again, although we are winning market share. This is a tough business to be in – with much of our portfolio

in flat or even declining developed markets – but we have to do more to leverage the strength of our wonderful Foods brands and bring back the growth momentum. By contrast, while our Home Care and Refreshment categories delivered good or solid growth, we need to increase the levels of cash and profitability if we are to invest in the many growth opportunities. These will all be priorities in 2015.

Meeting the diverse interests of multiple stakeholders is a challenge for a company of Unilever's size but also a great opportunity given our Vision to grow in a sustainable and socially inclusive way. Once again, we made good progress.

There is no doubt that over the long term our investors have benefited from their continued belief in Unilever, with total shareholder return increasing by a further 18% in 2014. Our employees remain a key priority of course and, despite the constrained economic environment, we did not compromise on our investments in training, personal development, safety and other employee support programmes. It was heartening to see employee engagement scores remain at historically high levels in our annual Global People Survey (GPS), with improvements across all five metrics. It is also clear that the demand to join Unilever has never been greater. We received over 2 million applications or expressions of interest in 2014 and for the second year running Unilever was ranked the third most in-demand employer among jobseekers on LinkedIn, behind only Apple and Google, as more and more young people want to work for purpose-driven organisations.

We also made progress in our commitment to serve a wider group of stakeholders through the USLP and our Vision of growing the business while reducing our environmental footprint and increasing our positive social impact, not only in that part of the business under our direct control but throughout the whole value chain. This manifests itself in many different ways – everything from playing our part in putting an end to deforestation to ensuring we embrace and advance human rights principles throughout the length of our supply chain. You can see a number of examples set out in other parts of this report. It was pleasing to see our efforts recognised once again in 2014, including regaining sector leadership in the prestigious Dow Jones Sustainability Index (DJSI) and being ranked – for the fourth year running – as the Number One Company in the Globescan/SustainAbility index of leading sustainability experts around the world.

Operating in an environment of almost unprecedented volatility and complexity will remain a big challenge for everyone. Few people predicted that in 2014 we would see such a sharp slowdown in some of the major world economies or the escalation of geopolitical conflicts or the outbreak of pandemics like Ebola and oil prices ending the year at less than US \$50 a barrel. We must be prepared for a similarly unpredictable year in 2015. The key is to have a model that responds to people's needs and concerns, and an organisation that is both resilient and agile in the face of growing economic and geopolitical uncertainty. We achieved that again in 2014 and I want to thank – and recognise – the supreme efforts of our 172,000 colleagues and the many more partners around the world.

We expect the economic pressures to continue. Consumer demand in emerging markets is likely to remain subdued for some time to come. There is still little sign of a recovery in Europe and, while conditions in North America have improved, any increase in consumer demand is likely to be slow and shoppers will remain focused on value. We are also prepared for managing any continuing volatility on the world's currency markets and for what could be fluctuations in commodity costs as a result of the reduction in oil prices. At the same time, we expect the levels of competitive activity – both from global competitors and, increasingly, from local players – to remain high in 2015. Despite these pressures, we are confident that with the many positive changes we have already made to Unilever we are well placed to continue delivering our objectives of volume growth ahead of our markets, steady and sustainable improvements in core operating margin, and strong cash flow.

Appendix 13. Reasoning for linguistic categories used in the Pilot Study and Study 1

LIWC dimension	Used in previous HS research?	Research	Comments	Similar research studies that used it	Research	Reason for inclusion, if other
Word count (WC)	YES	Garrard et al (2014).	Used as a general metric for comparison purposes.	N/A	N/A	N/A
Words per sentence (WPS)	NO	N/A	N/A	N/A	N/A	General metric provided by the software.
Words longer than six letters (sixltr)	NO	N/A	N/A	N/A	N/A	General metric provided by the software.
Function words (function)	NO	N/A	N/A	Authors suggested that function words carry significant psychological meanings and reflect one's personality and psychological state.	Chung & Pennebaker (2007). Slatcher & Chung (2005).	N/A
Personal pronouns (ppron)	YES	Garrard et al (2014).	Assumed that higher number of personal pronouns (i.e., I, mine, me) can potentially be an indication of the HS.	Used to identify status.	Chung & Pennebaker (2007).	N/A
Pronoun "I" and its derivatives (I)	YES	Amernic, Craig & Tourish (2010). Garrard et al (2014).	Same as above - assumed that a higher number of self-references is an indication of hubris.	Used to identify status. Used to identify narcissism.	Chung & Pennebaker (2007). Aktas et al (2010).	N/A
Pronoun "We" and its derivatives (we)	YES	Garrard et al (2014). Owen & Davidson (2009).	Assumed that use of the royal 'we' in places where first person singular pronoun should be used indicates HS; on contrary higher number of "we" versus "I" might indicate the opposite.	N/A	N/A	N/A

Auxiliary verbs (auxverb)	PARTIALLY	N/A	N/A	N/A	N/A	See comments regarding Verbs. Used in previous hubris research as a subset of other categories (i.e., activity words, verbs).
Conjunctions (conj)	YES	Garrard et al (2014).	Research has found that increased number of conjunction words (i.e., 'and') might be an indication of the development of HS.	N/A	N/A	N/A
Negations (negate)	YES	Garrard et al (2014).	Research has found that increased number of negations in the language (i.e., 'no') might be an indication of the development of HS.	N/A	N/A	N/A
Common verbs (verb)	PARTIALLY	Amernic, Craig & Tourish (2010).	Authors used DICTION master variable 'Activity' to measure potential signs of hubris which includes language featuring movement, change, implementation (hence, mainly verbs in terms of grammar structures).	N/A	N/A	N/A
Affective processes related words (affect)	PARTIALLY	Amernic, Craig & Tourish (2010).	Authors used such DICTION categories as Rapport, Communication, Human Interest to measure affect as they all cover certain aspects covered by 'affect' category in LIWC.	N/A	N/A	N/A
Positive emotion words (posemo)	YES	Amernic & Craig (2014). Short and Palmer (2008).	Authors of both articles suggested that optimism could be an indication of overconfidence (and subsequently hubris).	N/A	N/A	N/A
Negative emotion words (negemo)	NO	N/A	N/A	Using the category to understand differences and psychological state of different political leaders	Pennebaker, Slatcher & Chung (2005).	N/A

Discrepancy words (discrep)	YES	Garrard et al (2014).	Research has found that increased number of discrepancy words (i.e., 'shall') might be an indication of the development of HS.	N/A	N/A	N/A
Tentative tone (tentat)	NO	N/A	N/A	N/A	N/A	Included as an opposite category from Certainty which has been hypothesised to strongly link with hubris. Hypothesised to have some negative scores (higher scores for non-hubristic people).
Certainty tone (certain)	YES	Amernic, Craig & Tourish (2010). Garrard et al (2014).	Assumed that hubristic CEO language will have a higher number of certainty metrics (verbal behaviours) than non-hubristic. Certainty variable in DICTION used to measure certainty in previous articles.	N/A	N/A	N/A
Affiliation related words (affiliation)	PARTIALLY	Amernic, Craig & Tourish (2010).	Authors used such DICTION categories as Rapport, Communication, Human Interest to measure affect as they all cover certain aspects covered by 'affiliation' category in LIWC.	N/A	N/A	N/A
Achievement related words (achieve)	YES	Amernic, Craig & Tourish (2010).	Authors used an 'accomplishment' category in their calculation to measure hubris with DICTION which is equivalent to 'achievement' category in LIWC. Authors have also used a close reading technique and identified a strong link between achievement related language and hubristic characteristics.	N/A	N/A	N/A
Power related words (power)	PARTIALLY	N/A	N/A	Power linked vocabulary used to indicate Narcissism.	Craig & Amernic (2011).	HS is said to be triggered by power.

Appendix 14. Definition and examples for categories used in the Pilot Study and Study 1

LIWC dimension	Examples
Words per sentence (WPS)	N/A
Words longer than six letters (sixltr)	N/A
Function words (function)	About, absolutely, mostly
Personal pronouns (ppron)	Him, me, us, them
Pronoun “I” and its derivatives (I)	I, myself, me
Pronoun “We” and its derivatives (we)	Ourselves, us, we
Impersonal pronouns (ipron)	Another, it, someone
Auxiliary verbs (auxverb)	Are, can, has
Adverbs (adverb)	Definitely, just, only
Negations (negate)	Couldn’t, none, won’t
Common verbs (verb)	Appear, enter, open
Affective processes related words (affect)	Happy, sorry, cried
Positive emotion words (posemo)	Amazing, relief, won
Negative emotion words (negemo)	Dissatisfied, ignore, rage
Cognitive processes related words (cogproc)	Apparently, ought, suppose
Insight related words (insight)	Accept, believe, realise
Tentative tone (tentat)	Anyone, depends, fairly
Certainty tone (certain)	Absolutely, clearly, every
Affiliation related words (affiliation)	Collaborate, join, love
Achievement related words (achieve)	Ability, purpose, strategy
Power related words (power)	Ambitious, high, over
Reward related words (rewards)	Achievable, best, get
Risk related words (risk)	Careful, crisis, safe

Appendix 15. Materials used in Study 1, Study 2 and Study 3

CEO	Company	Material/Date	Link to source/material
Steve Jobs (HCEO)	Apple	Interview with New York Times (Jan, 2008)	http://bits.blogs.nytimes.com/2008/01/15/the-passion-of-steve-jobs/
		Interview with Fortune (Mar, 2008)	http://archive.fortune.com/galleries/2008/fortune/0803/gallery.jobsqna.fortune/index.html
Donald Trump (HCEO)	The Trump Organisation	Interview with TGD (Oct, 2014)	https://www.golfdigest.com/story/donald-trump-interview
		Interview with Forbes (Feb, 2014)	https://www.forbes.com/sites/andersonantunes/2014/02/18/donald-trump-on-the-worlds-second-most-powerful-woman-who-is-he/#6d33e703314e
Howard Schultz (HCEO)	Starbucks	Interview with TIME magazine (Feb, 2015)	http://time.com/3696580/howard-schultz-starbucks-america/
		Interview with CNBC (Mar, 2015)	http://www.cnbc.com/2015/03/19/cnbc-transcript-starbucks-founder-chairman-president-ceo-howard-schultz-speaks-with-cnbc-jim-cramer-on-mad-money-tonight.html
		Speech at Annual Shareowners meeting (Mar, 2001)	https://seekingalpha.com/article/3015706-starbucks-sbux-ceo-howard-schultz-hosts-2015-annual-meeting-of-shareholders-conference-transcript
Elon Musk (HCEO)	Space X, Tesla	Interview with PBS Newshour (May, 2015)	http://www.pbs.org/newshour/bb/starbucks-offering-workers-college-education-hold-debt/
		Interview with Askmen (Jan, 2015)	http://uk.askmen.com/entertainment/right-stuff/elon-musk-interview-4.html
		Interview with The Texas Tribune (Jun, 2015)	https://www.texastribune.org/2015/01/13/livestream-interview-with-elon-musk/
		Interview with TechRadar (Sept, 2015)	http://www.techradar.com/news/car-tech/elon-musk-dieselgate-proves-the-car-industry-needs-a-rethink-1305259/2
Jamie Dimon (HCEO)	JP Morgan	Interview with Asian Review (Jul, 2015)	http://asia.nikkei.com/magazine/20150709-AmericAsian/Exclusive-Interview/JPMorgan-chief-sees-better-times-ahead-for-world-economy
		Interview with Bloomberg (Oct, 2015)	http://www.hitc.com/en-gb/2015/10/19/jamie-dimon-ceos-shouldnt-make-earnings-forecasts/page/1/
Travis Kalanick (HCEO)	Uber	Interview with CNBC (Mar, 2016)	https://www.cnbc.com/2016/03/28/cnbc-transcript-interview-with-travis-kalanick-ceo-and-co-founder-of-uber.html
		Interview with Business Insider (Aug, 2016)	http://uk.businessinsider.com/travis-kalanick-interview-on-self-driving-cars-future-driver-jobs-2016-8?r=US&IR=T
		Interview with CBS News (Mar, 2016)	https://www.cbsnews.com/news/uber-ceo-travis-kalanick-drive-problem-solving-transportation-charlie-rose/
		Interview with Gadgets Now (Jan, 2016)	https://www.gadgetsnow.com/tech-news/Uber-CEO-Travis-Kalanicks-take-on-India-China-and-startups/articleshow/50631502.cms

Jeff Bezos (NHCEO)	Amazon	Interview with the Hollywood Reporter (Aug, 2016)	http://www.hollywoodreporter.com/features/amazon-prime-day-ceo-jeff-808535
		Interview with the Telegraph (Aug, 2016)	http://www.telegraph.co.uk/technology/amazon/11800890/jeff-bezos-interview-amazon-prime-jeremy-clarkson.html
		Interview with the Business Insider (Nov, 2015)	https://hurricane-capital.wordpress.com/2015/11/30/business-insider-amazon-ceo-jeff-bezos-interview-part-i/
Mark Parker (NHCEO)	NIKE	Interview with Portland Business Journal (Jan, 2015)	http://www.bizjournals.com/portland/print-edition/2015/01/30/ceo-of-the-year-an-exclusive-interview-with-nike.html
		Interview with Hypebeast (Oct, 2015)	http://hypebeast.com/2015/10/mark-parker-details-in-collaboration?utm_source=affiliatesandutm_medium=commissionjunctionandutm_campaign=VigLinkandutm_content=Mark+Parker%3A+Details+In+Collaboration
Robert Iger (NHCEO)	Walt Disney	Interview with CNBC (Apr, 2015)	http://www.cnbc.com/2015/04/16/cnbc-exclusive-cnbc-transcript-cnbc-julia-boorstin-speaks-with-disney-ceo-bob-iger-on-cnbc-power-lunch-today.html
		Interview with CNBC (May, 2015)	http://www.cnbc.com/2015/05/05/cnbc-exclusive-cnbc-transcript-disney-chairman-ceo-bob-iger-speaks-with-cnbc-squawk-on-the-street-today.html
		Interview with Los Angeles Times (Jun, 2015)	http://www.latimes.com/entertainment/envelope/cotown/la-et-ct-disney-iger-quotes-20150607-story.html
		Interview with CNBC (Jul, 2015)	https://www.cnbc.com/2015/07/27/cnbc-exclusive-cnbc-excerpts-the-walt-disney-company-ceo-bob-iger-speaks-with-cnbc-squawk-box-today.html
		Interview with ESPN (Apr, 2015)	https://www.espnfrontrow.com/2015/04/disney-ceo-bob-iger-talks-espns-future-world-congress-sports/
Mike Bloomberg (NHCEO)	Bloomberg	Interview with NDTV (Apr, 2015)	http://www.ndtv.com/india-news/full-transcript-walk-the-talk-with-michael-bloomberg-752108
		Interview with ValueWalk (Jul, 2015)	http://www.valuewalk.com/2015/07/blankfein-bloomberg-on-the-u-s-economy-fed-policy-and-2016-full-transcript/?all=1
		Interview with Asian Review (Oct, 2015)	http://asia.nikkei.com/Business/Companies/Leading-from-the-front
John Chambers (NHCEO)	Cisco	Interview with Business Insider (Jul, 2014)	http://www.businessinsider.com/cisco-ceo-john-chambers-interview-2014-7?IR=T
		Interview with CRN (Aug, 2014)	http://www.crn.com/slide-shows/networking/300073614/crn-exclusive-30-tough-questions-for-ciscos-john-chambers.htm/pgno/0/1

1 Appendix 16. Data used for Steve Jobs (Year 2008)

2 We all had cell phones. We just hated them, they were so awful to use. The software was terrible. The hardware wasn't
3 very good. We talked to our friends, and they all hated their cell phones too. Everybody seemed to hate their phones.
4 And we saw that these things really could become much more powerful and interesting to license. It's a huge market.
5 I mean a billion phones get shipped every year, and that's almost an order of magnitude greater than the number of
6 music players. It's four times the number of PCs that ship every year.
7 It was a great challenge. Let's make a great phone that we fall in love with. And we've got the technology. We've got
8 the miniaturization from the iPod. We've got the sophisticated operating system from Mac. Nobody had ever thought
9 about putting operating systems as sophisticated as OS X inside a phone, so that was a real question. We had a big
10 debate inside the company whether we could do that or not. And that was one where I had to adjudicate it and just
11 say, 'We're going to do it. Let's try.' The smartest software guys were saying they can do it, so let's give them a shot.
12 And they did.
13 We did iTunes because we all love music. We made what we thought was the best jukebox in iTunes. Then we all
14 wanted to carry our whole music libraries around with us. The team worked really hard. And the reason that they
15 worked so hard is because we all wanted one. You know? I mean, the first few hundred customers were us. It's not
16 about pop culture, and it's not about fooling people, and it's not about convincing people that they want something
17 they don't. We figure out what we want. And I think we're pretty good at having the right discipline to think through
18 whether a lot of other people are going to want it, too. That's what we get paid to do. So you can't go out and ask
19 people, you know, what the next big There's a great quote by Henry Ford, right? He said, 'If I'd have asked my
20 customers what they wanted, they would have told me "A faster horse."
21 We do no market research. We don't hire consultants. The only consultants I've ever hired in my 10 years is one firm
22 to analyse Gateway's retail strategy so I would not make some of the same mistakes they made. But we never hire
23 consultants, per se. We just want to make great products.
24 "When we created the iTunes Music Store, we did that because we thought it would be great to be able to buy music
25 electronically, not because we had plans to redefine the music industry. I mean, it just seemed like writing on the wall,
26 that eventually all music would be distributed electronically. That seemed obvious because why have the cost? The
27 music industry has huge returns. Why have all this when you can just send electrons around easily?
28 We don't get a chance to do that many things, and everyone should be really excellent. Because this is our life. Life is
29 brief, and then you die, you know? So this is what we've chosen to do with our life. We could be sitting in a monastery
30 somewhere in Japan. We could be out sailing. Some of the executive team could be playing golf. They could be
31 running other companies. And we've all chosen to do this with our lives. So it better be damn good. It better be worth
32 it. And we think it is. The reason is, is because you can't do what you can do at Apple anywhere else. The engineering
33 is long gone in most PC companies. In the consumer electronics companies, they don't understand the software parts
34 of it. And so you really can't make the products that you can make at Apple anywhere else right now. Apple's the only
35 company that has everything under one roof.
36 There's no other company that could make a MacBook Air and the reason is that not only do we control the hardware,
37 but we control the operating system. And it is the intimate interaction between the operating system and the hardware
38 that allows us to do that. There is no intimate interaction between Windows and a Dell notebook. Our DNA is as a
39 consumer company -- for that individual customer who's voting thumbs up or thumbs down. That's who we think
40 about. And we think that our job is to take responsibility for the complete user experience. And if it's not up to par,
41 it's our fault, plain and simply.
42 We've got really capable people at Apple. I made Tim Cook COO and gave him the Mac division and he's done
43 brilliantly. I mean, some people say, 'Oh, God, if Jobs got run over by a bus, Apple would be in trouble.' And, you
44 know, I think it wouldn't be a party, but there are really capable people at Apple. And the board would have some
45 good choices about who to pick as CEO. My job is to make the whole executive team good enough to be successors,
46 so that's what I try to do. My job is to not be easy on people. My job is to make them better. My job is to pull things
47 together from different parts of the company and clear the ways and get the resources for the key projects. And to take
48 these great people we have and to push them and make them even better, coming up with more aggressive visions of
49 how it could be. Apple is a \$30 billion company, yet we've got less than 30 major products. I don't know if that's ever
50 been done before. Certainly the great consumer electronics companies of the past had thousands of products. We tend
51 to focus much more. People think focus means saying yes to the thing you've got to focus on. But that's not what it
52 means at all. It means saying no to the hundred other good ideas that there are. You have to pick carefully.
53 I'm actually as proud of many of the things we haven't done as the things we have done. The clearest example was
54 when we were pressured for years to do a PDA, and I realized one day that 90% of the people who use a PDA only
55 take information out of it on the road. They don't put information into it. Pretty soon cellphones are going to do that,

56 so the PDA market's going to get reduced to a fraction of its current size, and it won't really be sustainable. So we
57 decided not to get into it. If we had gotten into it, we wouldn't have had the resources to do the iPod. We probably
58 wouldn't have seen it coming.

59 We've got 25,000 people at Apple. About 10,000 of them are in the stores. And my job is to work with sort of the top
60 100 people, that's what I do. That doesn't mean they're all vice presidents. Some of them are just key individual
61 contributors. So when a good idea comes, you know, part of my job is to move it around, just see what different people
62 think, get people talking about it, argue with people about it, get ideas moving among that group of 100 people, get
63 different people together to explore different aspects of it quietly, and, you know - just explore things."

64 When I hire somebody really senior, competence is the ante. They have to be really smart. But the real issue for me
65 is, Are they going to fall in love with Apple? Because if they fall in love with Apple, everything else will take care of
66 itself. They'll want to do what's best for Apple, not what's best for them, what's best for Steve, or anybody else.

67 Recruiting is hard. It's just finding the needles in the haystack. We do it ourselves and we spend a lot of time at it. I've
68 participated in the hiring of maybe 5,000-plus people in my life. So I take it very seriously. You can't know enough
69 in a one-hour interview. So, in the end, it's ultimately based on your gut. How do I feel about this person? What are
70 they like when they're challenged? Why are they here? I ask everybody that: 'Why are you here?' The answers
71 themselves are not what you're looking for. It's the meta-data.

72 That allows us to innovate at a much faster rate than if we had to wait for Microsoft, like Dell and HP and everybody
73 else does. Because Microsoft has their own timetable, for probably good reasons. I mean Vista took what -- seven or
74 eight years? It's hard to get your new feature that you need for your new hardware if it has to wait eight years. So we
75 can set our own priorities and look at things in a more holistic way from the point of view of the customer. It also
76 means that we can take it and we can make a version of it to fit in the iPhone and the iPod. And, you know, we certainly
77 couldn't do that if we didn't own it. When you hire really good people you have to give them a piece of the business
78 and let them run with it. That doesn't mean I don't get to kibitz a lot. But the reason you're hiring them is because
79 you're going to give them the reins. I want them making as good or better decisions than I would. So the way to do
80 that is to have them know everything, not just in their part of the business, but in every part of the business.

81 So what we do every Monday is we review the whole business. We look at what we sold the week before. We look at
82 every single product under development, products we're having trouble with, products where the demand is larger
83 than we can make. All the stuff in development, we review. And we do it every single week. I put out an agenda --
84 80% is the same as it was the last week, and we just walk down it every single week. We don't have a lot of process
85 at Apple, but that's one of the few things we do just to all stay on the same page. At Pixar when we were making Toy
86 Story, there came a time when we were forced to admit that the story wasn't great. It just wasn't great. We stopped
87 production for five months.... We paid them all to twiddle their thumbs while the team perfected the story into what
88 became Toy Story. And if they hadn't had the courage to stop, there would have never been a Toy Story the way it is,
89 and there probably would have never been a Pixar.

90 We called that the 'story crisis,' and we never expected to have another one. But you know what? There's been one on
91 every film. We don't stop production for five months. We've gotten a little smarter about it. But there always seems to
92 come a moment where it's just not working, and it's so easy to fool yourself - to convince yourself that it is when you
93 know in your heart that it isn't. Well, you know what? It's been that way with [almost] every major project at Apple,
94 too.... Take the iPhone. We had a different enclosure design for this iPhone until way too close to the introduction to
95 ever change it. And I came in one Monday morning, I said, 'I just don't love this. I can't convince myself to fall in love
96 with this. And this is the most important product we've ever done.'

97 And we pushed the reset button. We went through all of the zillions of models we'd made and ideas we'd had. And we
98 ended up creating what you see here as the iPhone, which is dramatically better. It was hell because we had to go to
99 the team and say, 'All this work you've done for the last year, we're going to have to throw it away and start over, and
100 we're going to have to work twice as hard now because we don't have enough time.' And you know what everybody
101 said? 'Sign us up. That happens more than you think, because this is not just engineering and science. There is art, too.
102 Sometimes when you're in the middle of one of these crises, you're not sure you're going to make it to the other end.
103 But we've always made it, and so we have a certain degree of confidence, although sometimes you wonder. I think the
104 key thing is that we're not all terrified at the same time. I mean, we do put our heart and soul into these things.

105 It was difficult for a while because for various reasons the Mac had not been accepted by a lot of people, who went
106 with Windows. And we were just working really hard, and our market share wasn't going up. It makes you wonder
107 sometimes whether you're wrong. Maybe our stuff isn't better, although we thought it was. Or maybe people don't
108 care, which is even more depressing. It turns out with the iPod we kind of got out from that operating-system glass
109 ceiling and it was great because [it showed that] Apple innovation, Apple engineering, Apple design did matter. The
110 iPod captured 70% market share. I cannot tell you how important that was after so many years of laboring and seeing

111 a 4% to 5% market share on the Mac. To see something like that happen with the iPod was a great shot in the arm for
112 everybody.

113 We made more. We worked harder. We said: 'This is great. Let's do more.' I mean, the Mac market share is going up
114 every single quarter. We're growing four times faster than the industry. People are starting to pay a little more attention.
115 We've helped it along. We put Intel processors in and we can run PC apps alongside Mac apps. We helped it along.
116 But I think a lot of it is people have finally started to realize that they don't have to put up with Windows - that there
117 is an alternative. I think nobody really thought about it that way before. It was very simple. The Mac faithful will drive
118 to a destination, right? They'll drive somewhere special just to do that. But people who own Windows - we want to
119 convert them to Mac. They will not drive somewhere special. They don't think they want a Mac. They will not take
120 the risk of a 20-minute drive in case they don't like it.

121 But if we put our store in a mall or on a street that they're walking by, and we reduce that risk from a 20-minute drive
122 to 20 footsteps, then they're more likely to go in because there's really no risk. So we decided to put our stores in high-
123 traffic locations. And it works. Things happen fairly slowly, you know. They do. These waves of technology, you can
124 see them way before they happen, and you just have to choose wisely which ones you're going to surf. If you choose
125 unwisely, then you can waste a lot of energy, but if you choose wisely it actually unfolds fairly slowly. It takes years.
126 One of our biggest insights [years ago] was that we didn't want to get into any business where we didn't own or control
127 the primary technology because you'll get your head handed to you. We realized that almost all - maybe all - of future
128 consumer electronics, the primary technology was going to be software. And we were pretty good at software. We
129 could do the operating system software. We could write applications on the Mac or even PC, like iTunes. We could
130 write the software in the device, like you might put in an iPod or an iPhone or something. And we could write the
131 back-end software that runs on a cloud, like iTunes.

132 So we could write all these different kinds of software and make it work seamlessly. And you ask yourself, What other
133 companies can do that? It's a pretty short list. The reason that we were very excited about the phone, beyond that fact
134 that we all hated our phones, was that we didn't see anyone else who could make that kind of contribution. None of
135 the handset manufacturers really are strong in software.

136 Here's how I look at it. Everybody's tried to make a great product for the living room. Microsoft's tried, we've tried --
137 everybody's tried. And everybody's failed. We failed, so far. So there's a whole bunch of people that have tried, and
138 every single one of them failed, including us. And that's why I call it a hobby. It's not a business yet, it's a hobby.
139 We've come out with our second try -- 'Apple TV, Take 2' is what we call it internally. We realized that the first
140 product we did was about helping you view the content of whatever you had in iTunes on your Mac or PC, and
141 wirelessly sending it to your widescreen TV. Well, it turns out that's not what people really wanted to do. I mean,
142 yeah, it's nice to see your photos up on the big screen. That's frosting on the cake, but it's not the cake. What everybody
143 really wanted, it turned out, was movies.

144 So we began the process of talking to Hollywood studios and were able to get all the major studios to license their
145 movies for rental. And we only have about 600 movies so far ingested on iTunes, but we'll have thousands later this
146 year. We lowered the price to \$229. And we'll see how it does. Will this resonate and be something that you just can't
147 live without and love? We'll see. I think it's got a shot. We've had one of these before, when the dot-com bubble burst.
148 What I told our company was that we were just going to invest our way through the downturn, that we weren't going
149 to lay off people, that we'd taken a tremendous amount of effort to get them into Apple in the first place -- the last
150 thing we were going to do is lay them off. And we were going to keep funding. In fact we were going to up our R&D
151 budget so that we would be ahead of our competitors when the downturn was over. And that's exactly what we did.
152 And it worked. And that's exactly what we'll do this time.

153 I'm going to be the first one in line to buy one of these. I've been lusting after this. It doesn't matter how good or bad
154 the product is, the fact is that people don't read anymore. Forty percent of the people in the U.S. read one book or less
155 last year. The whole conception is flawed at the top because people don't read anymore. Having created a phone, it's
156 a lot harder than it looks. We'll see how good their software is and we will see how consumers like it and how quickly
157 it is adopted. I think Google has achieved their goal without Android, and now I think Android hurts them more than
158 it helps them. It's just going to divide them and people who want to be their partners.

159 We are not going to go there with the cable cards. That whole industry, their go-to-market strategy is pretty loopy and
160 it's fractured. Our model is like DVD. Bill's retiring from Microsoft is a big deal. It's a significant event, and I think
161 he should be honoured for the contributions he's made.

162 **Appendix 17. Data used for Donald Trump (Year 2014)**

163 I was going to the Wharton School of finance, at the University of Pennsylvania, and I had friends that were golfers.
164 I'd never played golf—I always played baseball and football and stuff. And so I'd go out to Cobbs Creak, in
165 Philadelphia, yeah, a public course, a rough course, no grass on the tees, no nothing, but it was good, and great people.
166 All hustlers out there. I mean, more hustlers than any place I've seen to this day. I played golf with my friends, and
167 then I started to play with the hustlers. And I learned a lot. I learned about golf, I learned about gambling. I learned
168 about everything. Very self-taught. Pretty much a natural golfer. I've won a lot of club championships. Anytime I win
169 a club championship, I'm proud of those rounds. Club championships are like our majors. Well, I've shot numerous
170 times in the 60s, but I have the club record for an amateur at my course in Palm Beach, which is a world-class course,
171 with a rating of 155. Er, 66. From the blues. That's from not all the way back, but it's from the blues, so that's pretty
172 good.

173 I sorta got into the business by accident. I started off in Palm Beach. It's complicated, but essentially I won that land
174 in a lawsuit, 600 acres, and I said, What am I gonna do now? And I said, I'm gonna build a great golf course. And that's
175 what I did. Then I went to Westchester, during the down market, and I bought it out of foreclosure from a bank, 215
176 acres, and I built the course there. It's beautiful. Those were the first two. I built them from scratch. And they are very
177 successful.

178 And then as time went by I started buying courses that were already built and rebuilt them, which I actually like better.
179 Only great ones. And I'd buy 'em for 10, 15 cents on the dollar. I mean, one guy, I bought a course, it cost \$58 million
180 to build, and I bought it for \$3 million. No, that I can't say. It's ... it's too nasty. I bought it for 3, now I put 7 into it, I
181 rebuilt it and everything, but it cost \$58 million, I bought it for 3. Well, it's an interesting question. It's a relatively
182 small part of it. You know, I own buildings. I'm a builder; I know how to build. Nobody can build like I can build.
183 Nobody. And the builders in New York will tell you that. I build the best product. And my name helps a lot. It's a small
184 percentage, but it's a very valuable percentage.

185 It's good if you have great locations and great courses. I'm not a believer in these guys that go out to the middle of
186 nowhere and build a beautiful course, and nobody comes. I believe in location, and I believe in great courses. Look,
187 somebody made the statement that Donald Trump has built or owns the greatest collection of golf courses, ever, in the
188 history of golf. And I believe that is 100 percent true. No, not at all, I don't expect to. It's not my main business. And
189 I'm not looking anymore. I don't wanna buy any more golf clubs. This is the greatest piece of land in America.
190 Phenomenal. Nobody knows about it. I've totally rebuilt it, two courses, all on the Potomac River. It will be one of the
191 great gems of golf. It'll be one of the great tournament venues of the world. There is no better piece of land in my
192 opinion in the United States. They're made with both. It's a great question.

193 This is Aberdeen, which in all fairness, nothing is going to compete with that. One of the greatest courses ever built in
194 the world. These are the largest dunes in the world, and it's a big success. It's a very good question. Huh? Well, that's
195 an interesting point. But I love the creation of beautiful things. I love, as an example, Doonbeg in Ireland, which I
196 bought this year. Doonbeg is going to be incredible. One of the great pieces of property in the world. Doral is a great
197 thing, 800 acres in the middle of Miami. I bought that [in 2012]. Miami is on fire, you know it's doing so well. Doral
198 is great. Spectacular. I only buy great ones. Like I bought a place called Pine Hill that's right next to Pine Valley, a
199 place called Pine Hill. It's now called Trump National Golf Club Philadelphia. It is as good as Pine Valley, if not better.
200 Yes, I really believe it. And if you went there, you would say it, too. And everybody that goes there says it.

201 I think it's as good as Pine Valley, OK? People from Pine Valley are playing it all the time, and some say it's just as
202 good, and some say it's better. It was built by an aficionado who went bust. I bought it out of receivership. And I
203 brought it to the highest standard, you know, because when I buy them, I spend a lot of money. It's fantastic. Sold out.
204 A tremendous success. And then Turnberry came up. You know, it's a super trophy. I mean, that's one of the great
205 pieces of art. I view these things as artwork. I'll put a lot of money into Turnberry. And I said, don't worry about it. I
206 will not make any changes to the course without the strict approval of the Royal & Ancient.

207 Right, so my brand is a very hot brand... It stands for quality and luxury. If I didn't use my name, Turnberry would not
208 be nearly as successful as it can be. This isn't an ego thing; this is business. I've got the hottest brand in the world. I
209 decide to employ a bit of trumpery on Trump by citing unnamed sources who disagree with him. I tell him that I asked

210 people in the golf industry what they think the Trump brand stands for, and offer an example of one that was less than
211 flattering. Trump bristles. He demands to know the source. He says, "If you put that in, it's no longer a good story, it's
212 not even a fair story" and adds that the unnamed person is "gutless" for not going on the record. Trump says, "There is
213 nobody more aesthetic than me."
214 Just the opposite, I can't comment on that. But just exactly the opposite. Forget it. One of the biggest politicians in
215 Scotland, he said to me, "It was never even thought of or mentioned, and as soon as you bought it they tried to spread
216 that rumor." That's the story of my life. They did it just to get my goat. Well, they didn't get my goat. An R&A
217 spokesman told Golf Digest: "Turnberry is a wonderful Open venue, and we look forward to taking the Championship
218 back there in due course. We are very comfortable with Mr. Trump's plans for Turnberry and will liaise on any changes
219 to the Ailsa course. He has a strong track record of investing in golf, and we know that he will look to make
220 improvements to the course and the facilities."
221 So, I bought the land, 2,000 acres, on the North Sea. Largest dunes in the world, most spectacular dunes anywhere in
222 the world. Everybody said, "Why did you buy it—you'll never be able to build anything there." I said, "You're probably
223 right, but I'll take a shot." Over a four-year period I was able, through litigation, to break the zoning. I got the course
224 approved, got it built. The course is full, by the way, it's doing record business. Rave reviews. I can't get friends of
225 mine on the course. One of the great courses. So then, even though they promised they wouldn't, they propose they
226 wanna build one of these really stupid wind farms in the North Sea, fairly near my course. And you know they're
227 terrible, they kill all the birds, they're bad environmentally, it's a bad form of energy, it's very inefficient and very
228 costly. They're bad in so many ways.
229 Not the business. Look, I'm an artist. Right now when you look, you see the North Sea, the waves crashing against the
230 shore, you see the magnificence of this body of water. I don't want to be looking at rusty windmills all over the place.
231 Because that's what happens to them—they all turn to rust, and they're disgusting. And I said until such time as that
232 project is killed, I'm not building anymore. I'm not gonna be staring at windmills. And in my opinion, the wind farm
233 will never happen. I think they'll back down. And when that happens, when they announce that they're gonna abandon
234 it, then I'll start the second course. I would have never gotten it approved. I've done this all my life. Well, if, if ...
235 Yeah, look, what people don't know is that a poll came out, 93-percent approval rating in the poll. There have been
236 stories about how incredible this has been for Aberdeen. It's been a huge, huge success for Aberdeen. Everyone's doing
237 well because of my golf course. It's so successful, and the people love me over there. They love me for building it.
238 Aberdeen is booming because of me. You can't get a hotel room because of me. One thing I'll say, whenever I build,
239 the area succeeds.
240 Look, 93 percent of the people in Aberdeen love me. I'm gonna find out. It was one of the newspapers that did it. We
241 have great popularity in Aberdeen. Look, I don't even know what he looks like. But he fought and lost. I had two
242 people that fought me, really, three people. And they're the only ones that get publicity. The hundreds of people that
243 supported me get no publicity. It's very sad. Well, he lost. I don't know why he's a hero. He lost. If you met him, you
244 wouldn't think he's a hero. No, I don't have admiration for ... for what? Look, he is somebody who fought me and lost.
245 And, by the way, his place is nowhere near my golf course. I didn't even need his property. My people made a deal
246 with him twice, to sell, and he broke the deal. He wanted more money. I think I've done a great service for Scotland,
247 and a lot of people are giving me credit for it.
248 The course in Dubai is gonna be amazing. There are a lot of people that think that. It's what I do. It's being built to the
249 absolute highest standards of tournament golf. Well, they want to have it, because you have the European Tour's "Race
250 to Dubai." In all fairness, that's their big tournament. I don't know that they're going to have a Ryder Cup there, but if
251 they do, that would be the course they'd wanna use because it's the best course. I just got back from Dubai, actually,
252 and it's really fantastic. No. I have a lot of people that would like to do courses, but you know, unless I own 'em, it's
253 not of interest to me. And honestly, it's such a long trip and, you know, I really like doing courses that I will play.
254 OK, I'm glad you asked the question. I have great respect for Mike Davis [USGA executive director] and the USGA.
255 But I'm an honest person—I'm a very honest person—and I think that Pinehurst on television looked horrible. It was
256 very bad for golf. And many players thought it, but they just don't want to say it. Bubba Watson was the only one that
257 had the courage to speak his mind. First of all, turtleback greens. I am a good golfer—I just won another senior club
258 championship, so I'm fairly happy about that—but turtleback greens are a disgrace, and Pinehurst has many of them.

259 It's very unfair when you hit a perfect shot to the pin and you end up with a 30-yard chip shot. It's ridiculous. That has
260 nothing to do with golf. The television ratings were abysmal.

261 I don't care. The ratings were abysmal. My wife couldn't care less about golf, but she loves watching the Masters. So
262 she comes into the room where I'm watching, and she said, "Oh, darling, that's so sad; oh, darling, what happened to
263 the course? Did they have a fire—what happened? Oh, that's so sad." She felt sorry for the course. You know what it
264 looked like? It made it look like they don't have money to water the grass. I have nothing against Pinehurst, but I think
265 the greens are ridiculous, and the look on television was terrible. Golf is very much about beauty. And they took the
266 beauty away.

267 No. There's a difference between a Turnberry, which has a little brown in the fairways and creates a good run on the
268 ball, and a course that looked like it was a burned-out pile of rubbish. You know, I studied with great interest how
269 beautiful Royal Liverpool looked on television. Wasn't that a great Open Championship? And did you notice how
270 green everything was? It was beautiful. With, by the way, tinges of brown. I love the way the course looked. It was
271 magnificent. See, I'm an artist, and to me Pinehurst was very bad for golf. A terrible disservice to golf.

272 Nobody has received more environmental awards than I have. I have received many, many environmental awards. I
273 think that argument is fine if you're talking about the desert. But water in North Carolina comes pouring from the
274 skies—you don't have to go get it. The rain is unbelievable. So why would they have destroyed that course? It was a
275 horror show. Looking at that burned-out monstrosity on television was one of the saddest things I've ever seen in golf.
276 First of all, golf should be an aspirational game. And I think that bringing golf down to the lowest common denominator
277 by trying to make courses ugly because they want to save water, in a state that has more water ... I would make golf
278 aspirational, instead of trying to bring everybody into golf, people that are never gonna be able to be there anyway.
279 You know, they're working so hard to make golf, as they say, a game of the people. And I think golf should be a game
280 that the people want to aspire to through success.

281 It was always meant to be, and people get there through success. The great athletes, they all are golfers. They all want
282 to play golf. It can still be. But they cheapen the game with what they're doing, in my opinion. Golf should be an
283 aspirational game, and they're taking aspiration out of it. And it's also a game of great beauty. There was nothing
284 beautiful about Pinehurst. I will tell you, as somebody that understands selling, courses like that will kill golf. Because
285 nobody wants to play it. I think it's all fine, it's all good. But they have to keep it at a high level. It should be based on
286 aspiration. Sure, it's proven to be true, now more than at any time. Look, just turn on the news. Well, no. My statement
287 is certainly true.

288 See, here's a building I'm just starting construction on next week, that's in Washington, D.C. That's the old post office,
289 an 1890 building. Right next to the White House, one of the great buildings, tallest building in Washington, D.C. That
290 I own, you know. It's great. Well, not all people. But it's a vicious place. The world is a vicious place. You know, the
291 lions and tigers, they hunt for food, we hunt for sport. So, it can be a very vicious place. You turn on the television and
292 you look at what's happening... Well, for business, probably the word fear would be better. To be honest, it's better to
293 be knowledgeable, in terms of business. You have to be smart.

294 That's a room concept for Turnberry. You see, it's an interesting question, your last one. All different types of people.
295 I know a lot of ruthless people that are lousy businessmen. And I know some very nice people that are very good in
296 business. And I know people that are very brilliant, that are very vicious. Those tend to be the toughest. Um, I would
297 never say; I mean, I don't know. I try to be as nice as possible. Uh, you know, I have great relationships. I do. I think
298 energy is genetic, if you want to know the truth. You know, I'll tell you what, I do great work, and I know people that
299 do great work and they're not acknowledged. Frank Sinatra was a good friend of mine, and I know people that sing
300 better than Frank Sinatra, but nobody knows who they are. With me, they know who I am. So I believe you can do
301 great things, but if people don't know about it, what difference does it make? Um, probably, but... not too often. I don't
302 know. I don't know. It might be a disaster. I think it could be a disaster.

303 My instincts say this is the best moment, and they hardly fail. I know Brazil has many problems, the country is known
304 worldwide for its high tax burden, which is not a good thing to be known for. I also watched the recent protests on
305 television and I don't think that was wonderful. What I thought was wonderful was seeing the Pope in Rio (...). I love
306 the Brazilian, particularly the Brazilian women, they are really incredible. Who is 'he'? Never heard of him. America

307 is becoming a state of social well-being and, worse, eating dust in the race with other countries. Look at China's
308 strength in comparison to ours. It is unacceptable. Obama has weakened the economy.
309 That's all work of a New York prosecutor who is trying to extort me. There is \$40 million at stake. I think Obama
310 himself is behind this, they met one day before this story emerged. As for the small group of outraged students, what
311 can I say? They saw an opportunity to make money and are going after it. I'm ready for whatever comes on my way
312 (...). I like politics. And my children are ready to take my place in the company. I will decide at the right time. I like
313 the feeling of getting out of a lift, stepping into Fifth Avenue and hearing someone screaming 'Trump! Trump! You're
314 fired!' Nobody thought I was going to be big on television, and then I dominated the ratings and my name was on
315 everybody's lips. But being a celebrity is good 70% of the time — it gives you fame, money and power. But I also
316 enjoy some privacy once and while. Generally, I don't like it. These are incompetent people who were born this way,
317 there's no need to humiliate. But I love firing thieves. I love it. And I've crossed some true professional thieves in my
318 life.
319 I don't read much. Mostly I read contracts, but usually my lawyers do most of the work. There are too many pages.
320 Do you know what book I enjoy reading? The Art of the Deal, by Donald Trump.
321 I will never change this hairstyle, I like it. It fits my head. Those who criticize me are only losers and envy people.
322 And it is not a wig, it's my hair. Do you want to touch it?

323 **Appendix 18. Data used for Howard Schultz (Year 2015)**

324

325 Well, in all fairness, Jim, I don't think that's the question. Let's first look at the situation in the country today. Between
326 Ferguson, Madison, Wisconsin, New York, Cleveland, there obviously is-- the country is being torn apart by racial
327 injustice and a level of racism that we haven't seen publicly for a very long time. I think Starbucks has had a long
328 history of recognizing that we have a national footprint, and we want to answer the question in the affirmative, "Can
329 we use our scale for good?" All we're trying to do is potentially do something catalytic to start a conversation. We
330 don't want to be intrusive on any level, and in many ways this is what we did a year ago when we had the Concert for
331 Valor and raised a level of awareness, when in fact most of the American people did not know very much about the
332 two and a half million people who are serving in Iraq and Afghanistan. So, in conjunction with USA Today in
333 producing this document which'll be in our stores, as well as soon as over two million USAs on Friday, we're simply
334 trying to raise the awareness, the level of empathy and compassion necessary to bridge the cultural divide that exists
335 in this country today. If a customer or a barista wants to opt out of it, it is not mandated. It's simply an act of kindness,
336 if in fact the customer wants to receive a cup, and understand that we're just trying to raise the level of awareness and
337 sensitivity, and perhaps that person may have a conversation with a coworker or somebody else as a result of the fact
338 that we took this initiative.

339 This is not marketing. It's not PR. And I think what happened yesterday was a little bit misguided about what took
340 place on social media. It was out of context. In addition to that, we announced today that there are six million
341 disconnected youth in this country. The majority of them are black and latino. They're not in school. They're not
342 working. They're ages of 16 to 24, and like what we did with veterans on the hire initiative, we announced today that
343 we're gonna hire at least 10,000 of them over the next three years. And I think lastly, and I know it's longwinded, I
344 think it's just in a time in America where race relations, diversity, and inclusion affects all of us, and I think the country
345 would be best served, and we would all be best served, if we could live in harmony and live together.

346 Well, no, I wasn't, because I knew that this is an issue that obviously has a high degree of emotion attached to it and
347 is very complicated. But let's go back to the beginning. I have held town hall meetings across the country, with
348 employees in Los Angeles, New York, Oakland, St. Louis and in Chicago. I've also met with Chief Bratton, I've met
349 with Chief Beck in LA, I met with Chief O'Toole in Seattle. So, I've tried to do my homework and really understand
350 how could Starbucks use its scale for good. I recognize that when you are taking on an issue like this and you're
351 establishing leadership and potentially going against the grain, there are going to be people who are going to be angry
352 and upset. But I, you know, what I try and do every day is ask myself, "Is this initiative in the interest of our people,
353 our customers, and our shareholders?" This was discussed at length at a board meeting a month and a half ago, and I
354 give great credit for our board to recognize that this is a time when we all should not be a bystander, and we have to
355 have a level of engagement on this issue. I also think that the country is at a tipping point, and how long are we going
356 to ignore these issues before something very serious happens?

357 More serious than has happened in isolated Ferguson or Madison and in New York? This is a nationwide problem, a
358 problem that we need to address, a problem that's been going on for hundreds of years. Starbucks is not going to solve
359 the problem unto itself, but can we be a catalyst for a positive dialogue with our customers and our people and
360 potentially elicit the help and support of other businesses and business leaders? And I will tell you, I have heard from
361 other CEOs and other businesses who have complimented me and the company on this initiative and want to know
362 more information about potentially what else they could do inside their own company. So. Yes.

363 Well, I think you're missing something. If A, if a barista does not want to write on the cup, they don't have to. And if
364 a customer doesn't want to accept it, they don't have to. But Jim, writing on the cup is a small piece of this overall
365 strategy. The big piece of the strategy is Starbucks and USA, starting Friday, creating real content that will help all of
366 our customers understand something. And I think this is vitally important. Whether a person wants to admit it or not,
367 we all have some level of unconscious bias. And if we could approach that with a higher degree of empathy and
368 compassion and understanding, it'll go a long way to bridge the divide. Writing on the cup is a de minimis piece of
369 this issue, and it's not something that's going to last long. It was a catalyst to start this. What's going to last long is our

370 company saying that we believe that there is a serious problem in America. We're in every community almost in
371 America, and can we use our stores and our national footprint for good? I would also tell you lastly, and I think this
372 is the most important piece of this, this decision would not have been made in the affirmative if the large majority of
373 our people weren't supportive of it and very proud to participate in it. And so every open forum I've had across the
374 country, our people have encouraged me and asking the question, "How could Starbucks get outside of its small self
375 in relative to the small meetings we're having, and enlarge this to a larger conversation?"

376 Well, I think you said it better than me, so thank you. It is voluntary. It's voluntary for our people, it's voluntary to the
377 customer. Starbucks is a primary place for people to have conversation, to meet. It's a social place. We're obviously
378 not going to do anything to dilute the integrity of the third place between home and work, which Starbucks provides
379 every day in this deep sense of community. But perhaps, perhaps we can be a catalyst for some people to take the
380 message and take it away, take it to their children, take it to their workers, to co workers, and have a conversation
381 about race. And one of the things we learned throughout the country in having these meetings is creating a safe place
382 where people felt an opportunity to talk about their life experience and what happened taught other people who were
383 not like them an opportunity for greater understanding and compassion. And I think that is what's needed.

384 Well, I can without question tell you Jim that there's no part of this on any level that's about marketing or PR or trying
385 to get more business. You know the company, and I think you've known me too well to know that this is from our
386 heart and from our conscience, asking ourselves, "How can we use our scale for good?" I don't think it's going to hurt
387 business. We certainly have not seen that in the last 24 hours. This is going to have a long tail to it. I think people trust
388 the brand, they trust the intentions of the company, they trust our people, and I have great faith that our people will do
389 the right thing and not put any customer in a situation where they're being handed something they don't want to carry.
390 Yeah, but I want to say something. I, you know, I'm not in the business of short-term rewards on a 24-hour cycle.
391 We're building a great, enduring company. The stock split, the delivery opportunity with Postmates, they have a
392 significant national infrastructure that will leverage all the things we want to do. We talked to a number of companies.
393 They clearly won based on merit. And then we're going to have delivery in certain buildings. We announced directly
394 that we'll have delivery in the Empire State Building. And one thing we did announce today which is quite significant,
395 and that is a joint venture with one of the largest ready-to-drink beverage manufacturers and distributors in the country
396 of China, with over one million points of distribution. And they'll be bottling and distributing bottled Frappuccino in
397 China with a joint venture with Tingi. That is a huge deal for the company, going forward.

398 The role and responsibility of a for-profit public company can't be just about making money. It has to be about giving
399 back, and it has to be about achieving the balance between profit and social impact. What I noticed early on is people
400 had a lot of shame about their personal debt. And you have to peel the onion back, and finally someone has enough
401 courage to say, I'm so embarrassed, but I have \$5,000 in debt and I haven't been able to pay it off. People, I think,
402 their self-esteem was crushed as a result of failing the first time and then being saddled with that debt.

403 I think when I sat in a room with these young kids and felt hopelessness from them, it took me back to a different time
404 in my life, living in the projects of Brooklyn, New York. I can remember as if it was right now. And I still have the
405 scars and the shame of what it meant to be a poor kid. The goal of the company is not move them out of the company.
406 The goal of the company is to give them new tools, new resources and obviously a broader comprehensive education
407 to do many other things within Starbucks. That's exactly right. But I also — I'm doing it because I recognize that,
408 more than ever, that not only do we have to exceed the expectations of our customers, but we have to exceed the
409 expectations of our people to succeed.

410 I don't think that is a solution. I don't think it ends well. We have a lens on almost every community in America....
411 At 4:30 in the morning, I wake up and see the numbers of basically every store from yesterday. I think the private
412 sector simply has to take a larger role than they have in the past. Our responsibility goes beyond the P&L and our
413 stock price.... If half the country or at least a third of the country doesn't have the same opportunities as the rest going
414 forward, then the country won't survive. That's not socialism.

415 Before I introduce our special guests this morning, I think I wanted to share with you that if you have been to these
416 meetings before, they are emotional, they have got an overriding message, but this meeting is going to be a little bit
417 different, because we are going to tackle a subject that is making its rounds throughout America and tearing up so
418 many lives and so many people and so many families. And we are going to get to that in the second half of the

419 meeting. The overriding message today will not only be about shareholder value, it will be about the humanity of
420 the company and what I posed last year. And that is the role and responsibility of a for-profit company and what we
421 at Starbucks believe is our overriding responsibility, not just to make a profit, not just to build shareholder value,
422 but to in fact have social impact and demonstrate the conscience of our company. Thank you.

423 So, let me begin by just introducing some special guests that are here today. First and foremost, the Starbucks Board
424 of Directors is here. Thank you very much. I also want to acknowledge with great pride, a 6-year board member
425 who is now the President and Chief Operating Officer of the company and that's Kevin Johnson. Thank you, Kevin.
426 Starbucks international business partners, many of them are here in the audience, they have traveled from all over
427 the world. Thank you for coming, thanks to the partnership and thanks what you do all over the world and now in
428 66 countries outside of the U.S. I also want to recognize members of the military and their spouses, thank you,
429 including Starbucks owned Armed Forces Network and then we have a large group of military that have come from
430 Joint Base Lewis-McChord and General Kenneth Dahl and if all of the members of military and their families would
431 stand up and be recognized, it would be our pleasure. Thank you. Let's all stand. Thank you.

432 And lastly, there are so many Starbucks partners who are here today. There is tens of thousands watching on the
433 webcast all over the world, the heroic things that all of you do every single day behind the scenes in bringing the
434 Starbucks experience to life, the shareholder value that we have created this year and years in the past are do not to
435 the senior leaders of the company, but the people who were the green apron. Thank you very, very much. Okay. So,
436 23 years ago at the IPO Starbucks had 125 stores and a market cap of \$250 million. Since then for the most part we
437 have led a very charmed public life, up until the cataclysmic financial crisis of 2008 when the market cap of
438 Starbucks unfortunately dropped to \$5.3 billion from the high at that point of \$26 billion in 2006. However, if you
439 look at the company today, a lot has changed. There are 22,000 stores in 66 countries. Last week we served over 75
440 million customers. We now employ over 300,000 people all over the world who are proudly wearing the green apron
441 and as I stand here today I am proud to share with you that the market cap of Starbucks is at its all-time high at \$70
442 billion. It's a long way from 2008 and I just want to say with great humility, thank you all so much for your belief
443 and your confidence in our ability to transform the company when we returned in 2008.

444 In terms of your investment if you go back to 2008, I think that's a 1200% gain, that's 12X on your money. We are
445 incredibly proud of that. I don't think we can do that every 5 years, 6 years, 7 years, but enjoy it while it last. Now
446 over the years there have been a number of significant financial milestones that Starbucks has had. But some how
447 whenever I have shared with you one of those milestones, it seems to have resonated more with you than other things
448 and that was the 5, 2-for-1 stock splits that we have had throughout our public life. So let's start the meeting by
449 sharing with you that the Board of Directors has authorized our sixth 2-for-1 stock split. So that concludes the
450 meeting and we will see you next year.

451 So putting the math on that going back to '92 at the IPO if you invested \$10,000 in 1992 and there are a few of you
452 who are here that's worth about two – almost \$2 million today, so congratulations. But as all of you know, we in
453 many, many ways look at the company through many lenses. And although the financial success and the numbers
454 are meaningful and it's important that's not exactly what would you kind of do everyday or really trying to do
455 everyday is really build trust with you, our customers, our partners and build the equity of the Starbucks brand. And
456 our brand, I must say is probably stronger and more relevant today, almost every part of the world than any other
457 time in our history. As evidenced by Fortune magazine for the 13th consecutive year naming Starbucks on its most
458 admired company list and for the second consecutive year we were number five.

459 I was kind of disappointed with that to be honest with you. And the truth is that I know the leadership team that you
460 will meet in a little while and most - all of us at Starbucks aspire to be number one, to become the most admired,
461 recognized and respected brand in the world. And the question is how are we going to that, and if you go back to
462 the history of the company to the very early days, we had an unusual business proposition and we said to all of our
463 leaders, all of our managers then and now that if we want to exceed the expectations of our customers, then as
464 managers and leaders we need to first exceed the expectations of our people.

465 And in terms of shareholder value, we must as leaders as stewards of the company link shareholder value to value
466 for our people. And the history of the company has been based on just that, but this year alone has been the year of
467 significant investments back to the people of Starbucks, over \$200 million in healthcare benefits, but let me just put

468 an asterisk on that and so all of you understand. For 25 years before the Affordable Care Act, Starbucks is paying
469 for and providing comprehensive health insurance to every employee, including part-timers, over \$200 million went
470 back to our people this year in Bean Stock, which was a program again unparalleled in which we created stock
471 options for every single employee, including part-timers, since its inception over \$1 billion has gone back to our
472 partners in the form of stock options in equity and lastly over \$70 million this year alone in 401(k) contributions.
473 And so what I want you to all understand is that Starbucks goes forward? We have to continue to understand that
474 this is not a zero-sum game. Shareholder value and all the things that have created value for you and your families
475 as shareholders must be directly linked in terms of the value for our people, sharing success with them and taking
476 them along on this journey. Now, when I think about the company in the future, it all goes back to our people and it
477 all goes back to the humanity and the relationship that we have built now with 300,000 people, but not through a
478 slogan and not through marketing, but real actions every single day that demonstrates the reservoir of trust that we
479 must have with everyone who wears the green apron.

480 Now, every now and then, I get an e-mail or a letter where I meet a Starbucks partner that shares a very emotional
481 story with me of how Starbucks Coffee Company has enabled them to buy a house, a car, an education, all though
482 Bean Stock. And then there is sometimes where someone shares a story with me that is so emblematic of the
483 conscience to values, the culture and the guiding principles of the company. Let me share one with you. So, behind
484 me is a photo of the Pike Place market. And last fall, we had a District Manager Conference in which we bought
485 about 3,000 district managers from all over the world to Seattle and we literally shut down the market. It was a
486 magical majestic evening and it was really a wonderful opportunity for us to meet so many partners who represent
487 us from around the world.

488 And naturally, I was meeting partners for the first time. I was taking photographs. I was saying hello to lots of
489 people. Well, a woman tapped me on the shoulder about 100 yards away from our store and she says the following:
490 I have been with the company for 15 years and I have been waiting for 15 years to tell you a secret. And she starts
491 to cry. And I say okay, what is it? And she said I can't tell you the secret here. I have been waiting 15 years. I have
492 been waiting 15 years to tell you the secret, but I want to walk into the Pike Place store with you for the first time.
493 So, we walk about 100 yards to the Pike Place store. She is crying. I really know at this point kind of don't know
494 what's going to happen. I want someone to convince me that she actually is a Starbucks partner. She was a little off.
495 So, we go into the store and people are hovering around us, because she really is having trouble emotionally
496 controlling herself. And then she tells me this story. And then I think you will understand why she was so emotional.
497 She said Howard, I have worked for Starbucks for 15 years and I am a District Manager, but it did not start out that
498 way. 15 years ago, my husband and I were living in a car and my husband was very, very sick and we had no health
499 insurance. It doesn't matter how we have got there, I can only tell you we were not bad people, we didn't commit
500 any crime, but we made a lot of bad decisions. I saw an ad in the local paper for a part-time barista in the town that
501 we were living in the car. I had nowhere to take a shower. We had very little clothes, so we parked the car in the
502 back of the gas station and I went to the gas station bathroom. I cleaned myself up as best I could. I didn't really
503 have any makeup. My clothes weren't clean and I went for the job interview.

504 My secret is I lied on the job interview in terms of the application when it said your residence. And I never told
505 anyone we were living in a car. And this she fast forwards and she says Howard 15 years later I am the District
506 Manager for Starbucks. I manage 12 stores, 300 people. I have a home. My husband's healthcare was paid for by
507 Starbucks as a result of the health insurance that we provide at our company. And she concludes by saying Starbucks
508 did not change my life, Starbucks saved my life. And I have been waiting 15 years to tell you this story. And at that
509 moment, it wasn't about the share price, it's wasn't about comp store sales, it wasn't about the next market, it was
510 emblematic of how we started the company, why we started the company and it's all about opportunity. It's all about
511 the promise of America. It's all about the American dream and giving people who perhaps thought they never could
512 access to it. So what I want you to take away from that story is despite the scale, the geography, the ubiquity, the
513 size of Starbucks, we are still the same company that started in the Pike Place Market. One extraordinary cup of
514 coffee, one customer, one Starbucks partner doing everything we can to elevate the human experience in our store
515 with our people in the communities that we serve and literally every single day trying to build a different kind of
516 company that balances profit and shareholder value with benevolence.

517 Now like comprehensive health insurance and equity in the form of stock options, this past year we introduced
518 another ground breaking benefit for our people. Now we employ thousands of people in the U.S. alone and so we
519 went out to them and we said given the challenges that we all have and the constraints that we have economically.
520 If Starbucks was going to create a new benefit that did not exist which is the benefit that would be most meaningful
521 to you. And almost 70% of our partners that were pulled said access to education. So in a defining moment, just like
522 comprehensive health insurance and being stuff defining moment for the company in partnership with Arizona State
523 University, we literally became the first company in America just like we did with health insurance and just like we
524 did with equity in the form of stock options to offer free college tuition for juniors and seniors and once again
525 demonstrating the conscience of Starbucks Coffee Company. This was a landmark program.

526 **Appendix 19. Data used for Elon Musk (Year 2015)**

527

528 Ha! I said that it is disappointing humans won't reach Mars in my lifetime. But if you had to pick one place to die,
529 then yeah, Mars would be pretty cool. It's better than dying on Earth.

530 We have hit the limit of physics with the combustion engine, so the improvements with diesel technology are quite
531 incremental. What I imagine happened at VW is that lots of engineers were under a lot of pressure to make
532 improvements but they hit a wall and then trickery was the only option. What we need is a fundamental architectural
533 change in the car industry. Moving to electric vehicles really is the only way to achieve zero emissions driving. And
534 why do we need it? Listen, your air intake is right up against the exhaust pipe of the car in front. If you really want to
535 do serious damage to health, wrap your lips around an exhaust pipe. Something needs to be done to correct the
536 economic error that's going on with CO2 emissions. If you ask any economist, they will tell you the same thing, that
537 we are currently not pricing CO2 correctly. The cost of CO2 is tiny! If the CO2 capacity of the air and the ocean is
538 like a bank account, then we are just spending like it's nothing. So in that regard, all CO2 activities are being subsidised
539 in some way. Every gasoline or diesel car is not paying its way for CO2. There are two ways to address that: put a real
540 price on CO2 or subsidise electric vehicles that don't produce the same amount of CO2. So let's put a price on CO2 at
541 a power plant level, and at a car level. So all the people that say the electric vehicles push the emissions to the power
542 plant can be corrected. We'll pay our way too. I'm totally happy with that. Technologically, it's possible to do it soon.
543 But there's a difference between me speculating when it will be and me *telling* you when it will be. I'm just speculating
544 here, but I think it will be technologically possible in three years but it's going to be up to regulators to finally approve
545 a self-driving car. We will have to compile a lot of statistical evidence to show that the accident rate is lower with
546 autonomy. And even at that point, regulators typically have to look at the evidence before imposing new rules. It takes
547 at least a year. So realistically, it will be another five years until we see one on the road.

548 I hope that electric vehicles become at least a few per cent of all vehicles produced globally. The important thing to
549 bear in mind is that there are 2 billion cars and trucks in the global fleet. So even when there are a few million EVs on
550 the road, that's still not even beyond the decimal point.

551 Hopefully by 2020, the global EV sales will be at least a few per cent and I hope Tesla is at the forefront of that. I
552 want the success of Tesla not to be measured on sales but how much we accelerate electric vehicle production in
553 general. Tesla is still a tiny company and we are currently only using a fraction of the production output of the Fremont
554 site. When Toyota and GM were there, they were producing a million cars a year. Even with the upcoming Model S
555 and Model X operating at high production, we will still only do 100,000 cars a year. Tesla gets a ton of press but we're
556 a tiny company. Which can be good, can be bad. We expect to see the first Tesla batteries rolling off the line in spring
557 of next year. Full production will happen after that but we are set to push ahead now. We will also focus on the
558 Powerwall, which is our consumer-facing product that allows users to store energy in the home and use it later. It
559 makes a lot of sense for markets that already use solar power and smart meters in the home. Places like Germany and
560 Australia.

561 We also have another product that will be sold to the big energy plants, where their capacity to produce is two or three
562 times greater than demand. So they can store this surplus energy and be more efficient. Man, there's like a new battery
563 innovation every day. I am not aware of anything that is currently better than what we will be producing in Gigafactory
564 1. Maybe our rivals have something cool but we are usually the first company that these guys call, because we have
565 more volume in batteries than anyone else. If you want to sell something, you want to sell it to the biggest investor.
566 You know, at Tesla we have a policy that we shun the idea of paying someone to like our car... And you have to pay
567 a *lot* of money to get a car in a Bond film. I think the whole product placement thing in movies is getting a little out
568 of control. But would Bond drive our car? I think so.

569 That was amazing, fantastic, hard to believe really. I'd like to. It's not the reason I'm doing this, but I do want to go
570 into space at some point. Of course. It's quite likely that it will be by the end of 2016 -- in a little more than two years.
571 There is a difference if you want to have a dramatic improvement in safety and emergency systems. As it is, our cargo
572 Dragon maintains sea-level pressure and normal room temperature in the pressurised module. If somebody had stowed

573 away on any of our flights, they would have made it to ISS and back fine, no problem. We're required to transport
574 biological cargo -- fish and mice, that kind of thing -- so it has to be able to support life. And the pressurised cargo
575 area is quite big: 12 cubic meters -- plenty of room for a person.

576 Well, I came close to not succeeding myself [in 2008]. I'm very focused on trying to create the best product. In my
577 case I'm a seer, but I'm a seer because I have to be. What I really spend my time doing is the engineering. The
578 companies are a way to amplify great engineering by working with smart people. Important technology problems get
579 solved that way. If you look at space companies, they've failed either because they've had a technical solution where
580 success was not one of the possible outcomes, they were unable to attract a critical mass of talent or they just ran out
581 of money before they got to the finish line. The finish line is usually a lot further away than you think it is. There have
582 been a number of attempts, and we have not succeeded yet. I would say that SpaceX is evolutionary, not revolutionary,
583 so my comments are hardly from the standpoint of having succeeded rather than from aspiring to succeed -- and
584 believing that we're close. The potential problem is that Earth's gravity is quite strong. It's just barely possible to
585 escape Earth's orbit with chemical rockets. Expendable rockets, which many smart people have worked on in the past,
586 get maybe 2% of liftoff mass to orbit -- really not a lot. Then, when they've tried reusability, it's resulted in negative
587 payload, a 0 to 2% *minus* payload [laughs]. The trick is to figure out how to create a rocket that, if it were expendable,
588 is so efficient in all of its systems that it would put 3% to 4% of its mass into orbit.

589 On the other side, you have to be equally clever with the reusability elements such that the reusability penalty is no
590 more than 2%, which would leave you with a net ideally of still 2% of usable load to orbit in a reusable scenario, if
591 that makes sense. You have to pry those two things apart: Push up payload to orbit, push down the mass penalty for
592 reusability -- and have enough left over to still do useful work. Fear is a hard thing to deal with. I feel it quite strongly.
593 If I think something is important enough, I'll make myself do it in spite of fear. But it can really sap the will. I hate
594 fear, I wish I had it less. I've been in physical danger before. The funny thing is I've not actually been that nervous.
595 In South Africa when I was growing up, my father had a private plane we'd fly in incredibly dangerous weather and
596 barely make it back. This is going to sound slightly crazy, but my father also had a share in an emerald mine in Zambia.
597 I was 15 and really wanted to go with him but didn't realise how dangerous it was. I couldn't find my passport so I
598 ended up grabbing my brother's -- which turned out to be six months overdue! So we had this plane load of contraband
599 and an overdue passport from another person. There were AK-47s all over the place and I'm thinking, "Man, this
600 could really go bad." I also almost died of malaria in 2001 -- I was within a day and a half of being unrecoverable.
601 Actually company death -- not succeeding with the company -- causes me a lot more stress than physical danger. What
602 happened back in 2008 was much worse.

603 I don't think we need the moon as an interim step. The tricky thing with ion drives of various kinds or just
604 electromagnetic propulsion is that they require a lot of energy. What you're really looking for in a spaceship is
605 momentum transfer. The faster you shoot stuff out the back, the energy required scales with the square of velocity,
606 meaning you need crazy amounts of energy to achieve any significant thrust in an ion engine. That's the essential
607 challenge. So people like Franklin -- basically it's a very interesting ion engine he's got there, but it requires a big
608 nuclear reactor or something like that. I do think you'd want to use an ion engine on the way to Mars. But it's going
609 to have a pretty small effect -- maybe 5% to 10% is what we're seeing right now in the absence of a nuclear reactor.
610 And this assumes you have a perfect ion engine. The ion engine is going to help a little bit, but not a lot in the absence
611 of a big nuclear reactor.

612 I mostly hope they do useful things for the world. One has -- I have five. I want them to do things that will make them
613 happy. I also want to make sure they're not "trust-fund kids" that don't add anything to the world. I just want them to
614 add more than they take. That will be a great outcome.

615 People should pursue what they're passionate about. That will make them happier than pretty much anything else.
616 You want to do things you're passionate about but also are useful to other people. For example, to make an
617 embarrassing sort of admission here, I like video games [laughs]. In fact, that's what got me into software engineering
618 when I was a kid. I wanted to make money so I could buy a better computer so I could play better video games --
619 nothing like saving the world or anything like that. Obviously just playing video games is not really contributing to
620 anyone. So you want to do things that contribute to society -- that you also like. In almost any industry, if you're
621 passionate about doing a great job and making people that buy your product or service as happy as possible, it's really

622 fulfilling. There's a tendency to focus on one person and think somehow that person singlehandedly does these things.
623 But it's important to emphasize -- and I'm not just giving this lip service -- that the only reason I was able to accomplish
624 things is the great people willing to work with me. A company is a group of people organized to create a product or
625 service, and that product or service is only as good as the people in the company -- and how excited they are about
626 creating it. I do want to recognize a ton of super-talented people. Without them, I would have accomplished very little.
627 I just happen to be the face of the companies.

628 Yeah, I think certainly safety's really important. I think it's particularly important when there's the potential for mass
629 destruction. Ya know, it's - I think AI is something that is risky at the civilization level, not merely at the individual
630 risk level, and that's why it really demands a lot of safety research. "That's why I've committed to fund \$10 million
631 worth of AI safety research, and I'll probably do more." I think that's just the beginning.

632 I'm in Texas? I hope it's only twice. Right, absolutely. Really, all we're saying at Tesla is that we want to be able to
633 sell our cars directly to consumers in Texas. I think this is directly in line with the ethos of Texas. In fact, restricting
634 what consumers can do, in terms of buying direct, is extremely un-Texan. It's very weird that it even exists. I mean, if
635 you think of something like Michael Dell's company Dell Direct. Dell started his company in Texas selling direct to
636 consumers. If the same laws had existed for computers as it does for cars then Dell wouldn't exist, or it would be in
637 some other state. It really - I think it's something on the books that most Texans aren't even aware of, that is
638 fundamentally un-Texan and needs to be changed. The law currently says that in order to sell a car in Texas you have
639 to sell through a franchised dealer, but this exists only for alcohol and cars, which is weird. Probably that shouldn't
640 exist either, but it's just weird that it's cars. What the - ya know. We can sell direct in every other country in the world,
641 and every state in the United States except for about half a dozen. We're just asking for essentially a modification of
642 the law to allow for us to sell direct to consumers.

643 Yeah, I don't think we're a huge threat to the car dealers. Yeah, we might grow from 0.1% to 1% perhaps, or 2%, but
644 it's not something that I think is fundamentally a threat to the car dealers and the problem is that the incumbent car
645 dealers have a conflict of interest. They make all their money from selling gasoline cars. For them to then tout the
646 advantages of an electric car when most of their money is coming from gasoline cars - it's a conflict of interest. They're
647 not going to do that. So, if we were to go through them, we'd fail.

648 Yeah, but they always - electric cars sales in the United States are very low. In the long term yes. We've actually struck
649 compromises in a number of other states where we've allowed to open - let's take the state of New York for example,
650 we're allowed to have up to five stores in the state of New York. So, if we were to do something like that proportionally
651 in Texas, maybe we'd have - because Texas is a bigger state - seven stores. Then say, after seven stores, at that point,
652 we'd have to go to franchises or something like that. Yeah, absolutely. Yeah. We'd certainly consider that down the
653 road but I can certainly say that anyone who's been a huge jerk to us thus far is not going to be one of those franchisees.
654 No, if they've been punching us in the face, they shouldn't expect we're going to be their friend.

655 I think there's a couple of points that are worth clarifying. For Tesla, sales and demand are two different things. The
656 way that sales is measured is in terms of deliveries. Whereas, for the rest of the car industry, because the cars aren't
657 ordered in advance, demand and deliveries are the same thing. Their cars are out on the lot - they're not built to order,
658 they're out on the lot. So, it's extremely common for people to misunderstand demand and sales for Tesla. Accounting
659 for Tesla sales is how many cars we deliver but the measure of demand is how many cars have been ordered. We have
660 far more cars ordered than we can deliver, right now. We're trying to solve that problem by ramping up our production.
661 It's important to note that the demand for our cars significantly exceeds our production capacity, currently. Yes. Maybe
662 at some point this will become clear, but because Tesla is like a different animal than the rest car industry, the numbers
663 mean different things. People look at our deliveries, or sales, and take that as a proxy for demand. Whereas the actual
664 proxy for demand is how many unfulfilled ordered do we have? It's more like the aircraft business where they'll have
665 an order backlog. Right now, the wait time for a Tesla, if you order one, is anywhere from three to five months. A
666 month? If we can get it down to low single digit weeks, I think that's ideal.

667 Well, there certainly are taxes on electricity generation. There's registration fees and that kind of thing. Well, gas taxes
668 can't be very high because the price of gas in Texas is real low. It's like super-cheap. Yeah, sure they should. Maybe
669 there should be, at some point, some increased tax on electric gas or something like that to match that of gasoline cars,

670 but I can't imagine - like I said - that there's very much revenue generated from Texans on gasoline, given the low
671 price of gasoline.

672 I think there's a lot more awareness. There actually are a lot of Tesla customers in Texas. Yeah, but still, there's a lot
673 of supporters, and I think there's a lot more awareness in the Texas state legislature this time than there was last time.
674 We are being out-lobbied by the car dealers association by, probably, 10 to 1. Well, I certainly hope not, but yeah, it's
675 certainly crazy. The Texas Auto Dealers Association has really pulled out all the stops. They've said they'll spend all
676 it takes to win. I think they're outspending us at least 10 to 1, maybe more, but at the end of the day I think we have
677 the people of Texas on our side, because all we're trying to do is give people in Texas the right to choose how they
678 buy their car. Why should they be denied that right? Who does? That's most unfortunate. It wasn't punishment. It
679 certainly wasn't helpful, but it wasn't punishment, no. We are actually still strongly considering the long term - and
680 please, I hope this doesn't become some huge news article - but we are considering, in the long, future vehicle and
681 battery plants and Texas would certainly be a strong contender for those.

682 Yeah, I've been doing business in Texas for 13 years - when we established the rocket development facility in
683 McGregor, near Waco. That's worked out really well for us. It's the most advanced rocket development facility in the
684 world at this point. It's something the people of Texas are very proud about. We're establishing the first commercial
685 orbital launch site in the world at Boca Chica near Brownsville. So I think - I mean, I love Texas. I come here a lot.
686 Certainly a big big fan.

687 I think, within the space community, certainly, it was I think well understood. The mission was completely successful
688 in delivering cargo to the space station, which was the primary mission, and I would consider partly successful in
689 trying to do something that's never been attempted before - which is to land a rocket stage successfully. Every other
690 rocket in the world, the rocket stage is basically smashed into the atmosphere, explode and then further explode when
691 they hit the ocean, or the steppes of Kazakhstan or something like that - if it's a Russian rocket. There's a whole
692 industry collecting rocket parts out there in Kazakhstan. They have a launch site in Plesetsk as well. Basically, the
693 Siberian steppes collectively. But all the other rockets, like the European rockets and the Boeing and Lockheed rockets,
694 all of their stages basically just smash bits and land somewhere at the bottom of the ocean. What we were trying to do
695 was to land our rocket stage - because it's a very difficult thing. This thing is coming in from hypersonic velocity. It's
696 got to multiple relights of the main engine. It's got attitude control thrusters. It's got slosh baffles. It's got these
697 hypersonic grid fins. This is extremely difficult.

698 Well, yeah. In the rocket industry, this is considered sort of crazy, and very unlikely to succeed. Certainly very unlikely
699 to succeed. As it turns out, we were able to actually hit the drone ship. It was sort of at higher velocity landing than -
700 yeah. It's what we call a RUD - a rapid unscheduled disassembly. It's a technical term. I think we've got a decent
701 chance of landing it intact on one of the later missions this year. Yeah, in about three or four weeks we've got another
702 flight. This is actually a tougher re-entry condition - it's coming in hotter and faster than the last flight, so that does
703 throw a little bit more - it makes it a little trickier, but we've got 50% more hydraulic fluid, which was the - we ran out
704 of hydraulic fluid last time. So I think we may fail the landing again, but hopefully for a different reason. I expected
705 it to fail. Yeah yeah, I said we've got a best of 50% chance and even that I said I'm kinda making that up. Ya know, I
706 said I don't really know.

707 We haven't actually received that money yet. Well, I mean, I think the way to look at it is more like you're a landlord
708 and you're looking for anchor tenants. You're trying to make the decision of if we try to bring this company or this
709 facility to Texas, is it going to be a net gain for the state or is it not? Sometimes you'll be right about that, sometimes
710 wrong. It's important to structure any incentives such that it's a guaranteed win for the state. In the case of the incentives
711 for the Boca Chica facility, we have to repay that money Yes. Yes. Yes. A lot of them are directly tied. So we create
712 the job, then we get on a per-job basis some incentive. Umm... no, I think we would not have come. "No, we wouldn't
713 have come because it would have been quite rude to not have offered incentives." It more like - what I mean is, a state
714 has to show that it really wants a company to be there. Ultimately, SpaceX will spend hundreds of millions of dollars
715 on that facility. Vastly in excess of what the incentives would be. So, how much do the incentives really make a
716 difference in the grand scheme of things? Not that big of a difference but it's sort of like, it's - you don't feel welcome.
717 It doesn't feel like this state really cares unless it does something. There's got to be a little bit of skin in the game.
718 There's got to be some contribution. Ya know, that's all it really is.

719 Sure. I think, first of all it's like - I think when thinking about these things, we need to say what is right? What is the
720 origin of this law - why is there this restriction at all? The restriction actually originates from when a bunch of the big
721 car companies tried to get back their franchises and engaged in nefarious behavior to do that - particularly Ford under
722 Jack Nasser. They put all these pressure tactics on the car dealer - on the franchisees, to sell the franchises back to the
723 car company. Then, the reaction from the franchisees, who had bought and paid for their franchises and who had
724 invested all this money - their cause was just and they went with their just cause to the legislature and they said, look,
725 if we abort our franchise and we've invested our time and money to build this franchise it is not right for the franchiser
726 to then engage in pressure tactics to then force us to sell it back them at a fire sale price. Obviously, that would be -
727 their cause was just. But now they're taking legislation that was meant for a just cause and then applying it to an unjust
728 cause, which is to say that a company that has never granted them a franchise must be forced to grant them a franchise.
729 This is not right. No, I don't think it should be a Tesla-only bill. That wouldn't be fair. It should be, perhaps, limited
730 to new technology vehicles or limited to a certain number of stores or something like that. I don't think it should be
731 just for Tesla, but nor should it erode the franchise that they've bought and paid for and put a lot of time into. That
732 wouldn't be right either. It should just be that if somebody hasn't granted them a franchise, they shouldn't be forced to
733 grant them a franchise. It'd be like if Apple came here and wanted to sell computers then with the same legislation
734 they'd have to like, give out Apple franchised stores or something. That wouldn't make any sense.
735 They've alive and well. No, basically, in more than 40 out of 50 states that we sell cars the dealers are doing fine.
736 Nobody's in trouble or.. No terrible thing has happened to the dealers in any of the other states. We currently sell in
737 over 30 countries and these franchise restrictions don't exist in any of those countries, and the dealers are fine there
738 too. Yeah, absolutely, and there's plenty of examples where there are franchise restaurants and company owned
739 restaurants or a mixture of franchise and company owned. Like McDonalds has a mixture of company owned and
740 franchised next door. It works fine. So, I think it's a pretty reasonable thing to ask that if we want to sell direct that we
741 have the right to do so and that consumers in Texas have the right to choose how they want to buy their car.
742 I know we're running short on time, but there is one announcement that I'd like to make. This is the transportation
743 forum. We're going to create a Hyperloop test facility. I don't know if people have read about - it's kind of a new mode
744 of transport. Yeah. In order to help things along we're going to create a Hyperloop test track. Something that's maybe
745 on the order of a five mile loop. Texas in the leading candidate. There's no quid pro quo here. It certainly would be
746 nice. It would be appreciated. We're just figuring that out. I was just discussing it with some members of my team last
747 night, who are pretty excited about doing this. I actually don't know, but we're not asking for any money from the
748 state. Yeah. Yeah, but if somebody wants to chip in, I won't stop them. This would be kind of a sub-scale track and
749 the thing we were talking about last night - it's not fully formed, we're just sort of figuring it out - is to have a test
750 facility where different teams from university or even little companies that people form, could use this test track to
751 validate their ideas on designing the pod system for the Hyperloop. The test track is an expensive capital item, so if
752 we can build the test track and then offer that for use by companies or the teams of students to try out their pod design.
753 Something that we might end up doing - or, at least it sounded good last night, after a couple of drinks - Shoot from
754 the hip. There's this really awesome competition called Formula SAE where students groups work together to design
755 and build a race car and then they race it at the end of the season and whoever builds the best race car wins. Yeah, but
756 it's pretty sophisticated. Some of our best engineers have come from that program and really learnt who to do great
757 engineering as a result of that. So I think it could be kind of fun to have some sort of Formula SAE thing for the
758 Hyperloop. People could compete on, say, who could make the pod go the fastest. Maybe compete on other
759 dimensions. I think that could be pretty fun. We're going to talk to the Formula SAE organizers and see if they think
760 this would be good. Yeah.

761 **Appendix 20. Data used for Jamie Dimon (Year 2015)**

762

763 You know I was very happy with our results. We had like a 12% return on tangible common equity which is double
764 what a lot of other people are doing. Market shares are up in almost every business. And you know listen we have
765 vicissitudes. I think people overreact to short-term stuff. I also think when we compare actual results with estimates
766 skin in the game. It would be better if we finished that. But if you have 5 or 6 people with jurisdiction and each one is
767 considered independent, it's hard to get them to the table.

768 So I think it will be better down the road, I don't think it will happen while I'm still at JPMorgan, that we kind of
769 skinny down how many regulators there are. They're not listening. They have a lot to do; they're exhausted too by the
770 way. They're trying to implement what they've been given the job by legislators. And so they're trying to get that done.
771 Privately a lot of them know that there are too many regulators and too many rules and they want to make it simpler.
772 Over time that will probably happen. It's just not going to happen in the next couple of years and so. It won't happen
773 in the next couple years. It's possible that people will look back and eventually say let's look at these things and
774 improve them. Simply, strengthen, improve. Change the things that didn't work. Add things that might be better, that
775 would work. I know. No. No. It is very, very, we have a lot of constituency. So I have 250,000 employees. We bank
776 15 million households in America. We bank in 150 countries around the world. You know and you've got to do what's
777 right for your company, whether or not you agree with it.

778 It's impossible for a bank to fight the United States government. And what you're trying to do is minimize the damage
779 to your company as best you can. You know the alternative would be to go to court, fight in 5 or 6 different courts,
780 you know be dragged through the mud for years and you'll still end up paying that kind of money. Look maybe he
781 would have done a better job if he was in my seat. But I don't know. But I'm not going to jeopardize my company.
782 And you know, at the end of the day, banks are, you know, if governments don't, we have to operate under the laws
783 of the land. Which we've always done around the world. And we can't afford to take an indictment of certain sorts. I
784 mean it could damage the company so much that we go in generally say we want to settle. You know please listen to
785 us.

786 When I went to see Eric Holder, I didn't go down painting (PH) the table. I said, Eric I'm here to surrender. You're my
787 judge and my jury. I have no choice. But before you pass judgment please listen to what I have to say. And I went
788 through Bear Sterns, I went through WaMu I went through all the wonderful things, the cities, states, schools,
789 hospitals. You know TARP was \$700 billion. Bear Sterns and WaMu were at \$600 billion. We did a lot. I think we
790 got some credit for that, so they've said. I don't know how they came to the numbers. Yeah. I'm going to leave that to
791 you guys to look at the proportionality of all those fines and stuff and what was fair or not. I just don't want to comment.
792 I'm trying to do the right thing for my company. You know I'm trying to get some of this stuff behind us. So first of
793 all... I always, I hope not. I always look at it from the standpoint of the client first. Don't look at it from the standpoint
794 of the bank first. So if you say large corporations, they're going to need equity, debt, derivatives, M&A, cash
795 management, all those services we provide. And if you look at consumers, they're going to need deposits, investment
796 advice; you know credit cards, debit cards, all those services we provide. More and more on the mobile phones and
797 all that. If you look at middle market companies we bank 60,000 in America, they're still going to need what we
798 provide. So of course we'll be there. And the question is who's going to be providing these services in the most
799 economic way that clients are happy? I point out our clients are very happy with us. Customer sat scores have never
800 been higher, ever. You know. I'm not going to speak about Glencore particularly. I think they've been a very talented
801 bright company for a long period of time. And no company doesn't, you know, hit a bump. Every company I know
802 ever has had that problem. The strength of a company is usually how it gets through that kind of stuff. Not whether
803 they don't have it or not.

804 Well look, I don't know why everyone is always so surprised. OK? Commodity prices have moved 15% consistently
805 over my whole lifetime. It only takes, you know, oil, supply and demand, 90 million barrels a day. I mean supply went
806 up to 92 and demand was 90, prices fell 50%. Those kind of moves happen in cotton, corn, soy beans, wheat, you
807 know, sugar, cocoa, you name it. Interest rates, stocks. No one should be completely shocked when supply and demand
808 gets imbalanced that prices move dramatically. So the goal of a JPMorgan is to be prepared. I'm not predicting it. I'm

809 just saying we're prepared for it. Those things happen. And I think a lot of players are they know those things can
810 happen. And the best players, when they come out of it, will probably do quite well actually. No. We never, again
811 we're not directional. So we had never had huge positions in physical or something like that. You know that we would
812 have lost that kind of money.

813 First of all, I'm in favour of competition. So I'm not against shadow banks, non-banks competing banks or any of that
814 stuff. But I do think if you're a regulator you should be looking outside just the banking system. Particularly since
815 more and more things are going there. A lot of the mortgage business has gone outside of banking. The FHA business
816 has gone outside of banking. You see a lot of competitors out in Silicon Valley which I think is a good thing. And
817 they just should be paying attention to it. And they are by the way. You see the CFPB and a bunch of other people
818 looking at peer-to-peer lending and all that. So it's just to monitor. I don't think any of that stuff is systemic risk. At
819 this point no. So I think a very important thing, it's not about me. It's about the company. So the board thinks about
820 that all the time and stuff like that. I think we have enormous talent. I do worry very much that they will be recruited
821 by everybody else. And my job and the board's job is to retain them. And I'm very close to a lot of them. They're great
822 at what they do. They're great partners. So hopefully I won't lose any of them. JPMorgan is a very strong company
823 and we have a very strong bench.

824 Let me first say that our clients are completely safe. We move six to ten trillion dollars a day. Your deposit's safe, the
825 movement's safe. We're actually very good at this. We did announce a breach that we had. We made it voluntarily
826 because all the information was public. Name, address, email. But it was a breach. We thought we should tell our
827 shareholders. We spent \$250 million a year, that number is going up; could double the next two years easily. It's a big
828 deal. But we're safe. And I think what people have to do is have perimeter controls, internal controls like you know,
829 these change of passcodes. If someone gets your passcode, they get inside your systems, your protection is track that.
830 So you can make sure if that happened, you're on top of it, too.

831 Oh 300 – would be 300,000 or something. It's a huge number. And they're mostly – they mostly don't get through. If
832 the banks are good at this, the feds can be good at it. In fact, a former director of national security was on [TV](#) and said
833 people at JPMorgan are like the best at it. So – I'm not saying we are, but he said something like that. And if you look
834 at the real breaches, where they get your social security, your mother's maiden name, your security code, your credit
835 card number – those haven't been the banks. Those have been other people. And so we pay the price for that. And it's
836 incumbent upon all of us – merchants, banks, retailers, everyone – to come up with a better systems. And we are. We
837 have a whole new generation of security things coming out called tokenization and chip – the chip that make it much
838 harder for criminals. And then there's other companies set of standards. They'll protect their own credit card numbers,
839 etc.

840 This is a permanent battle that will be – people will lose battles, and you've also got to be prepared for that. Like what
841 are you going to do if something goes wrong where you can continue to serve your client, continue to do the things,
842 protect yourself from damage. And protect your client from damage. So this is a big deal. It's not going to go away in
843 our lifetime. And it's also an example, by the way, where government – I think government and business are
844 collaborating pretty well. We need to do more. You know, a lot of our collaborations is not real time. We need real
845 time. You know, the government or other banks can see – there could be attack right now on these wires with this kind
846 of malware, and we could put immediate protection against that. So we've even informed banks of other things we're
847 having, help them. We tell the government; they can disseminate it. The government knew about it – mostly, we knew
848 about it first. The government may know about it. They see stuff coming. So we need real collaboration. And
849 eventually cyber security is going to be a part of WTO, World Trade, and – and public policy and global relations.
850 This can't go on. I mean, you can't have it where people are stealing IPs, stealing money, attacking you, and if it's
851 state-sanctioned allow it. It won't. Eventually it will be taken much more seriously by governments.

852 I'm actually doing fine. I'm happy to be — I never stopped working, but I'm mostly back to full health, back to
853 working full time. I had throat cancer, for those who don't know. It's a tough thing to go through, and I did exactly
854 what my — I have exceptional doctors. I did exactly what they told me to do. But on December 4th, I got a — after
855 all this treatment, radiation, chemo, I got that kind of clean bill of health, no evidence of cancer in my body. It's a
856 very good sign. Obviously, I'm going to be monitored for the next three years, but it's not definitive, but it's as good
857 as can be, so...And my family was enormously supportive of this. I got hundreds of thousands of emails and calls,

858 and the people at the company were great, the board was great, and I don't wish it on anybody, but I'm glad it's over.
859 No, not really. Because I've always — people always ask me what your value system is and I always put “family”
860 first and “country/humanity” second, and kind of JPMorgan kind of down here: not unimportant. You know, I spend
861 a lot of time with my family. I adore all of them, three children and my wife and you know, I don't know if I could
862 do more. They have their jobs, they've got their careers, they're all busy and doing things like that...If I do a good
863 job here, I can help people with their careers. We help, you know, consumers and big businesses. We help countries
864 and banks, central banks, governments, sovereign wealth funds, and we're hugely charitable. You know, the work we
865 do in Detroit, we've hired 8,000 veterans. So this is my contribution. It's the best I can do. And so it hasn't really
866 changed that. And I like working.

867 We see very broad-based, moderate, growth. Most of the sectors are quite strong. I don't see any major potholes, and
868 I believe [the economy] is strengthening. I think the politics have gotten better in the United States, which makes it
869 easier to pass legislation, budgets and treaties. More people are working, lending is up and savings are up. These are
870 all positive signs for a strengthening economy. hard to predict, could be either September or December I personally
871 think the sooner the better because that would be a good sign that the Fed believes the economy is significantly
872 stronger. There is a lot of focus on that first rate move, and I'm not sure how important that is. I speak to lots of people
873 around the world, and no one would tell you that 25 basis points will make a difference to them. If it is a small rate
874 raises, no impact. I think that the world expects it. So, usually, something that is fairly expected is already factored in.
875 I also think that you have to think that America is raising rates because the economy is getting stronger. That's probably
876 good, all things being equal, for emerging markets, not bad, even though it may not be great for all their currencies.
877 I think normalization is a good thing. I don't think that necessarily is going to damage the emerging economies. And
878 I also believe that most of the emerging economies have a fairly large amount of foreign exchange reserves, relative
879 to 10 years ago. Over the longer term, China will grow by about 6% or 7% per year. The Chinese authorities usually
880 react pretty quickly to unfolding economic events, and you've seen them recently change a whole bunch of policies to
881 be more conducive to growth. They have the power and capability to macro-manage the economy -- to accomplish
882 their growth objectives -- which means they're pretty much going to come close to what they say is going to happen.
883 India is a huge democracy. Prime Minister Modi has ambitions to try to fix the infrastructure, the rules, taxes,
884 education, and to lift up the Indian people. And we're hopeful that that's going to create positive momentum. And it
885 has; the country is doing far better. It's hard in all countries. Democracy is hard, but it's better than the alternatives. It
886 can take a long time to get the rules in place that are conducive to growing, sometimes. But Prime Minister Modi is
887 strong enough, and he's accomplished much. Their growth may be 6% or 7% this year, and that's quite good.
888 Europe is the most complicated place, in my opinion. But I wanted to start by saying that the eurozone -- there are two
889 reasons they formed the European Union. One is for political peace and rationalization. And I think that's a good thing
890 for a continent that went through hundreds of years of wars. I believe it's a good thing that people say, "Can we find
891 a way to live together in peace?" And they did, for the most part. The second is the economic union -- creating a big
892 common market, like the United States, so that you can compete across borders. There are common rules, regulations,
893 and simplification, and that is still a good reason, too. When they put their monetary union together, that created a
894 rigidity that made it hard for currency fluctuations. They don't really have a solution to that. So, the best thing to do is
895 muddle through and maybe, over time, create a solution of that, if someone really wanted to exit, the legal basis on
896 which you could exit. Because right now there almost doesn't exist one. It's a guess, and people aren't prepared for it.
897 And because of that, you're going to have slow growth and, unfortunately, while there may not be huge volatility,
898 there will be volatility.

899 I'm optimistic about it. So, Abenomics, quantitative easing, fiscal policy -- we know all the issues. But the "third
900 arrow" (of structural reform) is critically important. Japan has some of the best companies in the world, and if you
901 look at their technology, their capability, it's extraordinary. And part of the reason some Japanese companies have
902 underperformed financially was corporate governance and board structures. Now the Japanese companies are more
903 focused on that. To have two independent directors -- I think it's good to have outside people look at you and think of
904 what you could be doing better. Those are voluntary, but most of the companies told me they're going to do it. And I
905 think it's good for them to say our returns on equity, for example, should be higher. Also, I think some could be more
906 ambitious.

907 And part of [Japanese companies] growing and expanding around the world is ... going to help the Japanese keep their
908 lifestyles [despite Japan's] demographics, as a declining population, and [to] make it more conducive to women to go
909 to work, I think, is a plus. Most of the rest of the world does it, though I recognize the challenges. You have your own
910 culture and your own ways of doing things. I hope Japan continues on this path. You never know exactly how new
911 policies are going to work. That doesn't mean you shouldn't try them. There are two types of depreciation. There is
912 one where you're manipulating currencies. And that's not what Japan is doing. Manipulating currencies is when you're
913 going into the marketplace and buying something in large amounts to depress the value of the currency. The goal of
914 what Japan's central bank is doing is to create growth. If it actually creates growth, in the long run, it will lead to
915 appreciation. The yen is trading where it's trading because people are guessing about people's future interest rates,
916 dollar and yen and about the future growth potential of the economies. And, if this policy works, then the yen will
917 probably strengthen.

918 JPMorgan is a very good franchise. And the way you should look at a franchise, a business, is from the standpoint of
919 the customers. We are among the most successful global investment banks, most successful global asset managers,
920 and, in the United States, one of the most successful retail and commercial bankers. We do a great job for customers.
921 Our commercial bank is only in the U.S. We are serving what you call SMEs -- small businesses, private companies.
922 They're not the largest companies in the world, but think of the next -- the Fortune 1,000. Again, it's been very steady.
923 It's done nothing but grow for years. We've accommodated the new rules and regulations. We've served our clients
924 and had quite good returns. And we continued to build the business, even in the worst of times. We do business all
925 over America. If you went to all those little towns in America, JPMorgan was there in good times and bad times, and,
926 in fact, helped a lot of people through the tough times. And we know that's when they need us the most. We're
927 diversified, we're stable and consistent. Our businesses benefit from each other. As a matter of fact 25% of our U.S.
928 investment banking business.

929 **Appendix 21. Data used for Travis Kalanick (Year 2016)**

930
931 I mean, really Uber is one of these wild rides that you can't totally plan for and so the way we approach the business
932 is slightly different we sort of take it, I don't wanna say, I mean we do plan in the business, but from the entrepreneurs
933 perspective it's about solving problems. It's about what are the interesting, complex, worthwhile, valuable problems
934 to solve and we go after them. You could have never predicted where we are now and I don't know if I could predict
935 where we are going. And so, one way I like to describe this is, being at Uber, you know, whether it's myself running
936 it or any of my employees, it's like you're driving a car down the road, pretty good clip, but its foggy. And so you've
937 really gotta hold on to that steering wheel and you gotta keep your eyes on the road. You don't have enough time to
938 look back at where you've been and you can only see so far ahead, but we enjoy the journey every day. So, look, our
939 mission is transportation as reliable as running water, everywhere for everyone and we've got a long way to go.

940 Well look I think it starts at that mission but then you say how do you make transportation as reliable as running water
941 everywhere? Like it means you're in China, but it also means you are in Pakistan, we just launched Lahore and
942 everywhere else in the world. OK, so that's a start but then you say everyone, and so that means you have to get the
943 price down low enough that everyone can use it, it's that everybody moves around in their cities, how do you make it
944 so affordable that everybody can use Uber to get around, and that's where the real innovation comes and once you see
945 it, once you see it like that, you're like, wow the work never ends, and so that's kind of how we think about what we
946 do. Well, you know, I think the non-intuitive thing about our business is that the cheaper the service gets, the more
947 luxurious it gets. Let me explain. I like to say time is a luxury. Well, when the price goes down, you have more riders
948 because more riders can afford it. But if you have more riders that means you have more drivers, and if you have more
949 drivers that means that your pick up times are shorter. It also means that wherever you go in a city, you're more likely
950 to get a ride back. And so it just so happens in our business non-intuitively, when the price goes down, the system or
951 the product or the service becomes more luxurious. And so this isn't a race to the bottom in sort of the traditional
952 sense, it's that the lower we go, the better the service gets. And that's why we do what we do.

953 Look I mean you know we're here in China, we have the most fierce competition here in this country. I like to say if
954 that hypothetical happens, I know that I'm going to be losing an hour or two sleep that night and maybe for 100 nights
955 following that, but that's part of the fun. You know it makes us better that's for sure, but it makes us better because we
956 are just very very focused on how do we deliver a better experience for riders, how do we do a great job building a
957 platform for drivers. Well look, you know, I think the context that you have to see when it comes to Uber and
958 specifically actually ground transportation industry around the world, is that this is an industry that has been built and
959 designed to outlaw competition. And so when somebody or an entity comes in and represents competition for the first
960 time in decades, it becomes, you know, some people call it disruptive, but it's about change and it's actually about
961 positive change cos when we go to a city, we are telling cities and cities like here in China, we're like within the next
962 year we're gonna create 20,000 jobs, we're gonna take hundreds of thousands of cars off the road which is going to
963 make pollution in the air much better and save people time like, that's just fundamentally good, how can we bring so
964 much good so quickly? It's because we are going into a system that had no competition before we came. And so, some
965 places are better at sort of embracing that change than others but the change is so positive and so straight forward that
966 it's why we're in 400 cities. It's why in all the cities that we've rolled out in we are, we still operate there. Even when
967 it creates a little bit of angst with that change, that change is so positive that it ultimately works out. You know – It's
968 really a mix, I mean the way it works for Uber is it's really city by city and every city is different. So I can't bucket
969 Bogota and Bangalore, I can't put them in the same bucket. I can't put Stockholm in the same category as Singapore,
970 they're all very different. Now there's different kinds of cities. What we could say about in the developing world is
971 that the fares are really low and they're really low because often in the developing world labor is quite a bit, it's just a
972 lot less expensive, and so that means you can get the price really far down, that means that you see hyper growth, I
973 mean really really intense growth, because they're really in the developing world there is no reason to own a car
974 because the price can go so low. In the developed world, the prices are much higher, labour is of course more expensive
975 and so owning a car might be in some cases cheaper than taking Uber. Our job is to get, taking Uber cheaper than
976 owning a car and that's where all the innovation still is to come.

977 Well look I think there has to be a sort of an understanding of the overall context of our Chinese journey, our China
978 journey. In January 2015 we had maybe 1-2% market share and today, 15 months later, 14 months later we're right
979 around 30% market share. And so that's phenomenal, possibly unprecedented, growth in a multibillion dollar industry
980 here in China. We're obviously very excited about that but you have to, if you're gonna compete in China you have to
981 be willing to invest. If you internet technology and cross it with an old industry and magic and progress and big things
982 can happen. And for us we're internet plus transportation but what happens. Look I mean I think there's a lot of
983 misperceptions about China, and about how it works and you don't really understand it, and I never really understood
984 it until I spent a lot of time here but the Chinese culture is incredibly entrepreneurial and it also, y'know, has incredible
985 educational institutions, they have great engineering here and so I think the surprise that maybe a lot of folks will be
986 seeing in the next 5-10 years Is the amount of innovation that's gonna be happening in Beijing, is gonna start to rival
987 what we see in the Bay area right. I like to say that the global innovation hubs in the coming 10 years is about the 3
988 Bays. It's the Bay Area, its Beijing and its Bangalore. And Beijing's rise as a technology hub is about to be seen in a
989 big way, at least that's my sense, and as an entrepreneur that's exciting to me because you know entrepreneurs want to
990 be where all the action is, and there's a lot of exciting work being done.

991 Well look I think the private markets have been incredibly liquid... The private markets, I mean you only have to
992 open the financial news on your favourite website, and you see the private markets are incredibly liquid, lots of folks
993 getting hundreds of million or billions of dollars in investment, there's a lot of money out there looking for the next
994 big thing, looking to invest in tech and innovation, and what that means, well our competitors around the world, they're
995 going out there and getting that investment and because of the way our system works, we can't be in a position where
996 we're running a small profitable business, but they're deeply investing and we're not matching that and so our strategy
997 is to make sure that we are raising as much as our competitors are, that our balance sheets is as healthy as theirs is,
998 and remember we have lots of competitors all over the world because we're global, but then a second part is to more
999 efficiently spend every dollar, and if you do those two things then you're on even footing from a balance sheet
1000 perspective, especially net cash, and you are more efficiently spending those dollars that's on the income statement
1001 then you eventually do well, and so that's our strategy, is it raise the funding and how we think about things, but what's
1002 really been happening over the last six months is that we've just been watching literally hundreds of cities go profitable,
1003 we've just tightened up the operation, things are just, you know we're getting good at running profitable cities, and of
1004 course it may be in an almost Amazonian kind of way, I like to take our profits in some places and then invest it in
1005 others, and that's working out well so far. I mean, look I don't know, and the reason I don't know is because I'm not
1006 yet sure how much invest China will, how much investment will take to get to profitability in China, but I'm optimistic
1007 that within the next couple of years we're going to start seeing Chinese cities start to prop up and be profitable... Most
1008 definitely, and the reason why is, like look I'm an entrepreneur, I want to move as fast as I possibly can, I want to
1009 build something that endures, and we've raised, I don't know the last 18 months something like, somewhere in the
1010 neck of the woods of 10 billion dollars, we're not in need of public capital if that makes sense, but there also of course
1011 is that sort of, I call it the moral obligation with investors who put money in they need to see liquidity and of course
1012 we have employees as well who put in a lot of blood, sweat and tears to make Uber successful, and they own equity
1013 and so we have to ultimately find liquidity for all shareholders. I'm going to make sure it happens as late as possible.
1014 I mean I'll, I'll keep you posted, I have no idea. Okay far enough...Fair enough understood. And particularly for
1015 technology companies in China, I mean there's a lot of money going around right now. Well look, I think we're at, at
1016 some point it's gotten to the irrational place and that's a little bit unfortunate because I think it tweaks, it's hard to run
1017 an efficient market place when there's too much money floating around, but at the end of the day it's just the reality,
1018 there's a lot of money going after an incredibly huge market, that's of course transportation, that's my perspective on
1019 the industry that we're in, but there's other industries as well and so you, what I like to say, when you get into something
1020 that feels like a bubble or at least feels irrational is that you still want to build a company that has a strong discipline
1021 business building culture, and when the irrational comes is you have to sort of find ways to contain it and we spend
1022 time on that because it's important that in our cities, we've so much of our team operating in these cities around the
1023 world, it's important that right culture, that right business building culture sort of provides all of them. Not true. I have
1024 no idea.

1025 We are investing in driverless technology and the answer there, what that's about is, look Google's investing in this
1026 stuff, they've been doing it for 10 years almost, why? Well a million people a year die in cars, and how many more
1027 millions get injured, it's just needless right, and how much time, how much worse is our lives because we're sitting
1028 there with a steering wheel in our hands being stressed out and frustrated with traffic remember, well I don't know if
1029 I mentioned earlier but I'm from Los Angeles, I grew up in Los Angeles, I literally spent years of my life continuously
1030 if you put it all together sitting behind a steering wheel, driving frustrated in traffic, when you can give people their
1031 time back, and when you run these cars more efficiently and there's no more traffic, this is magic. So the investment
1032 thesis makes sense and now you've got Google, Apple, Tesla manufacturers all going into the future and for us for
1033 Uber it's about do we resist the future or do we make sure that we're part of it? And I mean there's only one answer
1034 for us especially when we think about the taxi industry and how they're trying to resist it, and so then we look at that
1035 as a sort of a moment, an opportunity for what we call optimistic leadership is how you partner with cities for that
1036 transition, and how do you do that in an optimistic way.

1037 I mean there's probably some good ones, I don't have any on the top of my head but there are some funny ones out
1038 there, yeah... I'll have to get back to you on that one but there's some good ones. I mean that's a really good question,
1039 I'm an engineer by trade, and what engineers do is they go and build, and they don't think a lot about storytelling, they
1040 don't think a lot about opening things up and sort of doing a lot of communications and PR it's just not something we
1041 naturally do, or it's certainly not something I naturally do. And what I've learned as we've gotten bigger is that it's
1042 really really important for us to take all opportunities to tell our story, because as we grow and have a bigger impact
1043 on cities, if we don't tell our story somebody else will and sometimes that's fine but if it's someone in an industry that's
1044 maybe, is seeing change too fast or really is attached to the old ways of doing things then maybe it's not the accurate
1045 story, maybe it's not giving the full picture and so that's something we've had to learn to do overtime.

1046 Does anybody know what that looks like? I mean, I try not to focus on things I have no control over, or can have any
1047 impact on, and we've got a business to build, we are serving cities and building transportation systems in hundreds of
1048 cities around the world, so we're pretty focused on that, don't know what a sort of presidential election is going to look
1049 like at the end and I certainly don't know what's going to happen after, but I would encourage all candidates to really
1050 think about how much progress new technologies can bring to cities, how many hundreds of thousands or millions of
1051 jobs can be created, and of course all things we see that we do in terms of lowering congestion, lowering pollution,
1052 lowering drunk driving, making the roads safer, there's just so many positives there that I hope that regardless of who
1053 the candidate is from what party, I hope they can see those positives and allow this kind of progress to continue. I
1054 totally mind you saying. No that's fine...

1055 Well I try not to separate the world into groups of generations, like you can read writings from [inaudible] thousands
1056 of years ago and he's like those damn kids right they're not responsible, they're not this, they're not that and if he was
1057 right and all the people between him and now are right, wow we would be a pretty, we'd be pretty degenerated at this
1058 point, but I really think of all people as mostly the same, we all have families, we all have sort of dreams and hopes, I
1059 think maybe what it is if there is a young entrepreneur out there, we have a cultural value which we call the champions
1060 mind set, and a lot of people think about maybe it's LeBron James going in for the dunk when they think about a
1061 champion but at Uber we think about, the way we define it is, when you get out on the field you put all of your heart,
1062 you put all your passion and you don't leave an ounce of energy on the field, you put it all out there, and when you're
1063 doing a start-up, you're an entrepreneur you're going to get knocked down, and so the key is well when you see
1064 adversary and you get knocked down, get back up. And if you put everything you've got and you put it all out there
1065 and you get back up when you get knocked down it's very hard to fail, and that's very much how we think about things
1066 at Uber and that's really how I think about entrepreneuring in general.

1067 I think it starts with understanding that the world is going to go self-driving and autonomous. Because, well, a million
1068 fewer people are going to die a year. Traffic in all cities will be gone. Significantly reduced pollution and trillions of
1069 hours will be given back to people — quality of life goes way up. Once you go, "All right, there's a lot of upsides
1070 there" and you have folks like the folks in Mountain View, [California,] a few different companies working hard on
1071 this problem, this thing is going to happen. So if that's happening, what would happen if we weren't a part of that
1072 future? If we weren't part of the autonomy thing? Then the future passes us by, basically, in a very expeditious and
1073 efficient way.

1074 That is the trillion-dollar question, and I wish I had an answer for you on that one, but I don't. What I know is that I
1075 can't be wrong. Right? I have to make sure that I'm ready when it's ready or that I'm making it ready. So, I have to be
1076 tied for first at the least. Remember, Uber is a global business. We don't think just in terms of US. There's a ton of
1077 places around the world that will clear the path to make sure that safer roads, that are more humane, that give time
1078 back to the people, that have less congestion and are less polluting — they'll make that happen tomorrow if the tech
1079 is right. So it's all about the tech. I could geek out with you on the tech and what needs to be done, but in order to
1080 make this a reality, there's literally things that haven't been invented yet. That's what makes this problem special and
1081 interesting and challenging. It's not just an engineering challenge that's deterministic, and I know what I have to build.
1082 We are figuring out as we go what has to be built because, even when you have the world's experts on this challenge,
1083 there are things that even if you're Google, or even if you're anybody, Apple, all the guys that are working on it, there
1084 are things that haven't been invented yet. And that's part of the fun.

1085 Well, it's not about whether I think it is — it's that it has to be. So, if we are not tied for first, then the person who is
1086 in first, or the entity that's in first, then rolls out a ride-sharing network that is far cheaper or far higher-quality than
1087 Uber's, then Uber is no longer a thing. Yeah, we are definitely not building the cars, and I don't know who is going to
1088 own the fleet, but somebody is going to have to maintain it. Yeah, I believe it is. And at the same time, remember,
1089 technology moves forward, we are talking about a million lives a year being saved. You know there was once a time
1090 you made a phone call and there was a person that, the operator, had to do switching, right? Or there were literally
1091 hundreds of thousands of people employed to build telephone booths. And then cellphones came and it is a beautiful
1092 thing, but then that created a whole new industry and all new kinds of jobs. And look at Uber. Uber exists because of
1093 mobile telephones. And what did we do with that? Well, there are millions of people that make an income every day
1094 because of it. And that happened in six years. It couldn't have been predicted. So what's next? So in that way, I guess
1095 maybe I am a technology optimist, but I have a lot of good data on my side. Part 1 is, yes, we are getting in the trucking
1096 business. Part 2 is that it is a multitrillion-dollar business globally as well. I have always talked about the consumer
1097 ground-transport business being a multitrillion-dollar business. Now there's this other one called trucking. It is a
1098 challenging, interesting, nuanced business, and it is going to be intense getting into it, but that's exciting to me. We'll
1099 just have to see how it grows over time, and it is a bit early. We are still in sort of the R&D phase, if that makes sense.

1100 Well, first I've got to get those bridges right, Biz. If I don't get them right, I've got a real problem. Our main jam right
1101 now is Pittsburgh. I literally have hundreds of scientists and engineers. You want them to be close to the action, period.
1102 Yes, now we've got a new West Coast thing, too — San Francisco as well as Palo Alto. And that's important because
1103 my whole thing on this is ... we need to be working with all the great minds, and San Francisco ain't enough, like
1104 you've gotta be in Palo Alto because these folks don't want to be on the 101 [the congested highway that links Silicon
1105 Valley to San Francisco]. We're gonna get those bridges right, I promise, but you also want your engineers and your
1106 scientists close to the action, and that's why Pittsburgh is where we start. It'll be city by city, but I promise you we will
1107 go to all of them.

1108 You know, I think it's -- how should I put it? We look at all of the cities and the hundreds and millions or billions of
1109 people that live in cities around the world. And we know that the transportation systems there are just not -- they're
1110 not serving everybody's needs," Kalanick said. "I mean, even here in New York, with a great mass transit system,
1111 there's still two-and-a-half million cars going over those bridges every day. And so, we just believe we can help the
1112 city do better. We are generally a little bit forward leaning when it comes to trying to make progress happen. So if you
1113 are passionate about solving problems, and sometimes I just like to describe this as like -- imagine a really great math
1114 professor with no problems to solve," he said. "That's kind of how I feel about my work. And so, it's not about a man
1115 in a hurry. It's more about really interesting problems in the world and how you lean into them and solve things that
1116 people maybe thought weren't even possible to solve. And that's fun.

1117 Our operations in India are an incredibly important part of our business so if my calendar allows, than I spend as much
1118 time as I can here. Sometimes you have a specific purpose like participating in Startup India, and once you have that
1119 then you'd obviously spend time with the team and see how the business is going. There's what I call 'storytelling' --
1120 letting my team know that here I am, here's what Uber is about and what we are up to right now, and this is what we
1121 are looking for in the future. There's just the intangible of being on the ground. Sometime it's going beyond our own
1122 business, like participating in the ecosystem of startups here in India. As an entrepreneur, it's important to me to find

1123 ways of giving back or mentoring. The whole attitude of problem solving, building businesses, we like to say always
1124 be jugaadi, that's part of our DNA and that's how we roll.

1125 There was an announcement made which was about putting together our mentorship programme. We will select 20
1126 startups who apply, we will have me and different members of our executive staff - many of whom were entrepreneurs
1127 themselves -- provide some perspective on technology and building businesses. We'll fly 10 of these startups to our
1128 headquarters in San Francisco. For us, it's just a way of giving back in some fashion. We are doing it not because
1129 anyone asked but because we have a passion. I like to say, you have to be empathetic to reality. You can bend reality
1130 but you cannot break it. For instance, when it comes to cash in India, my team here worked on me for a long time to
1131 make that a thing. If you get stuck too much with the way you want the world to be, you will find that the world passes
1132 you by. As an entrepreneur and as a startup, you have to find a balance between where you want the world to go to
1133 and where it actually is. Hopefully it follows the path you think it will, but sometimes it bends the other way and goes
1134 on a fork on the road you did not expect. That is part of the fun. So yes, we take cash on Ubers in India.
1135 I think we may be in a place, someday, when this is not the case but I think today it is probably an incredibly important
1136 thing for us to be doing. Sometimes, I tell my team, look if I'm wrong I want to know today and not in six months.
1137 Payments are done differently here. If digital payments are too cumbersome, then we have to provide options to
1138 people. There is a different between scaling and growing and a non-negotiable. We've always wanted to provide
1139 quality customer care support. As you get into millions of rides per day, centralizing that in some way makes for
1140 higher quality.

1141 You do some of these things as you get bigger. I had no idea Uber would get this big. Uber's journey is like being in
1142 a car you are driving at a pretty good speed and it's foggy. You are holding on to the wheels and there's a bead of
1143 sweat on your forehead; you don't have time to look back and see where you've been and you can only look so far
1144 ahead. So yes, there's lots that I did not plan for but that doesn't put it the category of non-negotiables. Another thing
1145 that's been an evolution for the company is that when we first launched in Delhi, Mercedes S classes were picking you
1146 up. That's how Uber starts in every city. But ultimately we realized that a low-cost product is actually more luxurious
1147 than a high-cost one, if you believe time is a luxury. When you have a low-cost product, a lot more people can use it,
1148 which means there are many more cars on the roads which will bring down your pick-up times and improve your
1149 reliability goes up. The confidence that wherever you go, you'll get a ride back is invaluable. We do have country
1150 heads in a quite a few places, though none quite as amazing as Amit (Jain, Uber's India head). I'm going to get in
1151 trouble for saying that (laughs) ... Amit and I have a really good relationship. India is a big market for us and we
1152 wanted to make sure that we got a really strong executive to run what would ultimately be a multi-billion dollar
1153 business. That's not quite right, what is happening is that we are investing a billion dollars in India. But we have never
1154 considered making Uber India a separate entity.

1155 I'm uncomfortable with it too! China is a totally different kind of market, the regulatory environment or doing business
1156 there is in so many ways different from the rest of the world. Having a joint venture partner, Baidu, is just the kind of
1157 thing you need there to get started. In terms of the kind of burn you need to participate in the market there and in India,
1158 it's not my natural place or disposition. But when the business is in hyper-growth mode, you will not be competitive
1159 if you are not giving some kind of subsidy. The question is, how efficiently are you spending them? Can you spend
1160 every dollar more efficiently than the other guy? And that becomes how you compete. To be clear, for us it's much
1161 smaller here than in China. These are two different situations, we are getting pretty close to being a 50% player here
1162 in India, although it's not happened yet. We are still the number two, but we are getting very close to being an even
1163 player here.

1164 The overall business here is at a different stage compared to China. We are multiple bigger in China than where we
1165 are in India. That doesn't take away from the fact that India is still our third largest market. There's US, China and
1166 India. These are big stakes no matter what. But the Chinese market is literally 30% of all our trips combined globally.
1167 India has grown faster in the past few months than China but on a lower base. So we say, we will compete when others
1168 are spending large amounts on subsidies and be competitive, but spend those dollars more efficiently. Are we super
1169 excited about a world that's not so irrationally exuberant on the funding side? Most definitely. I grew up as an
1170 entrepreneur in 2001, when I started a networking software company. You had to be super crazy to do that. But you
1171 also had to be super disciplined, as every dollar mattered.

Appendix 22. Data used for Jeff Bezos (Year 2015)

It's how our whole model works. When people join Prime, they buy more of everything we sell. They buy more shoes, they buy power tools and so on. How you pay for great content is an important part of making great content available. Is this something we can imagine is someone's favourite show? One way you can think about TV is you can say, "I want to make something that millions and millions of people are going to watch." If that's your starting point, you paint yourself into a corner and you often end up with homogenized, uninteresting content. If you say, "Let's hire the world's greatest storytellers. Let's encourage them to take risks," then you're going to end up with a remarkable story, and remarkable stories always find an audience.

I don't think so. I don't think it's useful. I don't want our team obsessing over ratings. I want them obsessing over quality. If they can pull that off, we will have millions of happy viewers. Maybe. Every once in a while we give a little more data. We grew 53 percent year-over-year, so it's a big number. And it's a global audience. Prime members are more likely to renew because of Prime Instant Video. They're more likely to start a free trial. They're more likely to convert from free to paid. Instead of setting a long-range goal, I would just say we're going to keep pushing forward, making more and more. We're still sort of filling a pipeline. But I like the vision of doing things frequently. The reason we're doing this is because we want Prime members to value their membership. If you look at the upward trajectory of how much content we're creating per quarter, it's increasing very rapidly. I don't envision that slowing anytime soon.

I breathed a huge sigh of relief. You know Woody. If he ever gets optimistic, then I'll be worried. As long as he's pessimistic and anxious, I think we're in good shape. Oh, absolutely. I can't say what we will or won't do in the future, but I can promise we'll try lots of new things. I think they're important to the creators. The audience also likes it. Is it the only thing that matters? No, but it's very good validation of the quality of the work that the team is doing. I do, only socially. From a business point of view, I don't need to be involved in those meetings. Roy and his team have all of that authority to make those decisions and move forward, and they don't need me. I don't need to interject myself. The way you get good storytelling is important because the process can matter. That's why I like our approach. I'm not even saying it's the right approach, I'm just saying it's ours. It's this very rigorous process to say yes, but then once we say yes, we keep our Amazon Studios team size very small so that's consistent with not wanting to interfere with the work the storyteller does. For example, I'll give you the alternate scenario that would be horrific in my mind, which is that I'm sitting there in Seattle and Roy is sending me early drafts of *Transparent* season-two scripts and I'm giving Jill ideas. How in the world could I possibly help Jill? I can help Jill by leaving her alone. And everyone at Amazon takes that same approach.

Then we probably shouldn't pick that person in the first place. Doing what Jill does is super hard, and there are only a limited number of people who are great at it. My view: We need to focus on those people. The best assurance is what's happening, which is just that it's working. Companies don't stop doing the things that are working. They stop doing the things that are failing. And this is already working. It's available on hundreds of devices from Xbox to Roku to smart TVs. If you want to see our very best experience, get a Fire TV. Millions of folks around the world already have. Start from the customer and work backwards. Focusing on customer needs is very motivating because customers will never be satisfied. Also, it's OK to fail — you should expect to fail. A pioneering culture is one that rewards experimentation even as it embraces the fact that it is going to lead to failure. We're continuing to conduct flight tests on rapidly improving designs. That testing is going well, and we are very pleased with the R&D progress. The long pole in the tent here will be regulatory approvals.

Well, yes, and in fact we have in the past. And you have to understand, there are many ways of thinking about this, but the reality is that Amazon is a collection of several businesses and initiatives. And we have some very significant, very profitable, more established businesses that are free cash-flow generating. Very significantly. And fortunately, the way I think about it, we have lots of opportunities to invest in this new initiatives, and we take advantage of those

opportunities. So, it's kind of like we built this lemonade stand, you know, twenty years ago. The lemonade stand has become very profitable over time. But we also decided to use our skills and the assets that we've acquired over time to open up a hamburger stand, and a hot dog stand, and so on and so on. So we're investing in new initiatives.

Look, you know. Warren Buffett has this great quote, he says: "You can hold a rock concert, and that's okay. And you can hold a ballet, and that's okay. Just don't hold a rock concert and advertise it as ballet." Investors come in all shapes and sizes. They have different investment horizons, different approaches, different beliefs about what the right kind of portfolio looks like. And, so it's not when you know people use Wall Street as a shorthand. But there isn't one type of investor, they come in different shapes and sizes. You have to be super clear about what kind of company you're trying to build, what your approach is. We laid that out in our 1997 annual shareholder letter. We said we were going to take big bets. We said they were gonna fail. We said some of them hopefully were gonna work. We said we were gonna to invest for the long term, that we were gonna to take advantage of market opportunities as they arose. And there's a certain kind of investor who is aligned with that approach. And so again, you could hold the ballet or the rock concert, and both can work. Just be clear about which one you are, and then people can self-select.

I would say it's very difficult for a publicly traded company to switch. So if you have been holding a rock concert, and then you wanna have a ballet. That transition is gonna be difficult. But if you've done it from the very beginning, and then I don't think it's not that difficult to do. Where's this part where you're extra nice to me because I'm an investor? And the company is... Look, we would all love our numbers to be smooth lines up into the light. That would be terrific, but that's not how it works, you know. Those numbers are output measures. And you, I guess you could try to manage for the quarterly earnings very precisely. But, I think personally that would be a mistake. Most of the work that we put into any particular quarter happened years ago. So it's not, you know, there aren't that many knobs you could turn during a quarter. Or, I mean you can. But that's like eating your seed corn if you turn those knobs. You don't wanna do that. And so, it's a... you know people, I think that if you focus on the inputs you can control of your business instead of your outputs, in the long term you get better results. So the Benjamin Graham quote here is that "In the short-term the market is a voting-machine. In the long-term it's a weighing machine." And I think people are well-advised to build a company that wants to be weighed and not voted upon. That means having good returns on invested capital, having lots of free cash-flow. But if you said to me, if I said, here's a job I would reject. If someone came to me and said Jeff; I want your job to be to drive up the Amazon stock price, and just manage that directly. That might sound ridiculously to some of you, but many companies actually do this. They actually go out and they try to sell the stock. That's kind of the final output. It's much better to say; let's not do that, that's not gonna be sustainable. It's kind of a silly approach. What are the inputs to a higher stock price? So, okey free cash-flow and return on invested capital are inputs to a higher stock price. So okay, let's keep working backwards. What are the inputs to free cash-flow? And you keep working backwards until you get to something that's controllable. And a controllable input for free cash-flow would be something like lower cost structure. And you back up from there and you say, you know if we could improve our picking efficiency in our fulfilment centers and reduce defects. Defects are very very costly. You know reducing defects at the root is one of the best ways to lower cost structure. And so, that starts to be a job could accept. You would say, you know, a reasonable person would say I have no idea how to drive up the stock price, I cannot manage that directly, it's not a controllable input. But I can make a picking algorithm more efficient and that would reduce cost structure and then you know follow that chain all along the way. That's what you do in all of these businesses. You want customer obsession. You wanna invent your way out of boxes. Invent your way into the future. You wanna be patient, and you wanna have operational excellence. So that is you're finding defects at the root and then you're fixing them.

Yeah...And we do a lot of things unusual there. So, you know. We don't meet with our biggest investors. We meet with investors who have low portfolio turns. So, you know. Investors, many investors, many investment funds have very high portfolio turns. They turn their portfolio multiple times per year. They're not really investors, they're traders. It's nothing wrong with that, it's just a different thing. But where are you gonna spend your time and energy is one of

the most important things in life. We all have a limited amount of time. Where you spend it, and how you spend it, is just an incredibly levered way to think about the world. So if you're gonna spend time, you know, explaining the stock, the company really. We don't really explain the stock, we explain the company, to people. You should do it to people who are long-term investors rather than traders. That's our point of view.

Well, I... so, since 1997 at almost every all hands meeting, we have two o-hands meeting a year. And almost every all hands meeting I remind employees that if the stock is up 10 % this month, don't feel 10 % smarter. Because when the stock is down 10 % some month you're gonna have to feel 10 % dumber, and it's not gonna feel as good. And so, you know ownership, we give most of our compensation, is done in terms of stock compensation. And part and parcel with ownership is a mentality of long-term thinking. You know, owners think longer-term than renters do. So I have a friend who rented his house to some tenants, and instead of getting a Christmas tree stand at Christmas, they just nailed the Christmas tree into the hard-wood floors of the house. No owner would ever do that, and, but sometimes, that's a bad tenant. You know there are good tenants. But that's a bad tenant. Because you know, it's the same thing no one ever washed a rental car. And, you know you take better care of the things that you own, and... but one of the responsibilities of ownership, and definitely deep inside the Amazon culture, is to think about the fundamentals of the business and not the daily fluctuations in the stock price. There's no information in that. Yeah, there's a succession plan for me and all of our senior executives. And... Yeah, absolutely. Secret.

I saw Mission Impossible 5 with my kids. It's terrific, it's extremely good. Sports has become a big thing. There were many, many thousands watching live...and it was really quite amazing. I'm a consumer of media of all kinds. But that kind of media is a whole new segment that is very exciting. Starting with customers, working backwards – that's the kind of thing that has become a habit at Amazon. We also have an eagerness to invent that is a deep part of our culture, as is a willingness to think long term. We can work on things that don't need to work for five, six, seven years...there aren't many companies willing to take that kind of time horizon. And then finally a culture of operational excellence, and I mean that in the sense that Toyota might mean it. Finding defects, doing root cause analysis, working to fix things - that kind of operational excellence has also become a big part of who we are. So when you apply those four things they work in a lot of different parts of our business. It makes total sense that the world's largest store has the world's largest puzzle.

Twenty years? Isn't that amazing. In some ways it seems as if it all just happened yesterday, and in some ways it seems like 100 years. The original Amazon plan was focused exclusively on books, and I expected the company to grow slowly over a large number of years. But it actually grew very quickly right from the beginning. These are very humble roots I can assure you," he smiles. "I drove the packages to the Post Office in my Chevy Blazer. Disruption is a consequence of customers liking the new way. Maybe it's just a mind-set...but a better mind-set, and one that we use, is: How do you delight customers? We don't seek to disrupt, we seek to delight. If you invent something completely new and radical and customers don't care about it, it's not disruptive. Radical invention is only disruptive if customers love it. Our three most durable inventions at this point – and we're of course always looking for more – are Prime, Marketplace and AWS. I think that would be a big distraction and really there would be very little benefit from it. I'm hopeful we might find a fourth over time, we have many things in the pipeline. But I would say those three are at the top of the list of the things we've created over the last 20 years that have a good chance, as long as we continue to work hard, of being here 10 years from now, 20 years from now.

Prime is one that hundreds of millions of consumers know about. I think it's the most important. I don't really think of it in that way – I think of it as a single piece. The same was true when we launched it 10 years ago. There's a sense that Prime is an all-you-can-eat buffet – and of course when you have an all-you-can-eat-buffet, the heavy eaters turn up first. So it's very common for something like this to be in an investment phase for a certain period of time. It can't just be one show, it has to be a number of things. We have a lot of things in the pipeline, which I think viewers in the UK and around the world are going to love. And I think Clarkson's new show is going to be one of those. I think we're in a golden age of television, so if you go back in time even just five years, you couldn't get A-list talent to do TV

serials, or, if you could, it was a rare thing. But that's flipped completely. The investment is very high now in serialised TV, and the amount of time you have to tell a story is much greater. That format change opens up a lot of storytelling possibilities, which, when mixed with the movie-like production standards, and the A-list talent, is why we're seeing amazing television. One day Prime Air deliveries will be as common as seeing a mail truck. The technical problems are very straight ahead. The biggest issue, or the biggest thing that needs to be worked on, is the regulatory side.

What I would say is that in the scheme of things the UK regulatory agencies have been very advanced. The FAA is catching up a little here in the US, but the UK has been, I'd say, a very encouraging example of good regulation. I think we like what we see there. Physical stores have obviously been around for hundreds of years. And the companies that are experts at them are very good at their businesses. So I think it's an area where we need to be very humble. If Amazon were to do physical stores we'd need to have something that's a little different. I just get all weak-kneed around entrepreneurs. I just love it. If I have a meeting with an entrepreneur, I'm always charmed by them. Absolutely. In my personal investments I'm mostly doing things that I'm curious about. And passionate about. In many cases I don't necessarily expect them to be good investments. I was not seeking to buy a newspaper. I ended up having some long conversations with Don, and the actual details of the acquisition were incredibly simple. I know him so well and he's such a high integrity person, I didn't negotiate with him, I paid the price he asked, I did no due diligence, he told me everything about the company including all the wonderful things and all the terrible things and he walked me through every nook and cranny and I would say it's turned out to be exactly how he described it in every way.

The financials of the Post are very difficult. And that's not unique to the Post, it's a problem that many newspapers have. I've liked every phase of the company. I loved the beginning, and I love it just as much now. I took my extended family on vacation in the south of France, and we had an unbelievable time, and we had great food, and we were there for a week. But when I got back to Seattle I ran in to the office, I danced in. I love my job and consider myself incredibly lucky – and that's been true for 20 years, it hasn't changed. I hope so. Almost all the people I work with on a daily basis, are paid volunteers – at this point I've been working with them for more than a decade, and they can do whatever they want, they could be sipping margaritas on a beach, but they're here. Paid volunteers are the best people to work with as they're here for the right reasons. I have a team of people that I love. And we get to work in the future, and that's so fun, so I hope so.

Appendix 23. Data used for Mark Parker (Year 2015)

Collaboration takes people from different worlds to places they might not have gone on their own. Of course, it invites new ideas from the outside, but it also accelerates your own thinking. In my experience, when the right creatives connect, it can be like setting off a chemical reaction. I find that incredibly stimulating and potentially very powerful. We are fortunate at Nike because we have the opportunity to work with a lot of different communities. We could be focused on something as specific as a sneaker or as immense as climate change, but the important thing is that through the process, we keep learning and move closer to realizing our own potential. Mutual learning is absolutely critical to any successful partnership. We bring an expert to the table – whether it’s athlete insights or material innovation or global reach – that many of our creative partners don’t have. Of course, we then look to our partners to provide an insight or skill or point of view that we may not have. By combining knowledge, we bring out the best in each other.

But it goes deeper than just an exchange of knowledge. There’s a more personal benefit to Nike that’s harder to measure. Being open and curious to the world through collaboration is a way to nourish and inspire our own creative culture. We know who we are: we are the company that serves athletes. We expand what they can do through new inventions and we inspire them to do more. At the same time, we also recognize the cultural impact of sports. Over the years it’s connected us to brands like COMME des GARÇONS, Stüssy, and Supreme and creatives like Tom Sachs, Marc Newson and Riccardo Tisci. Through the creative exchange with each of them, we’ve unlocked new ideas. We go into any creative relationship with an open mind, and I hope our partners do the same. Regardless of how we get there, the most important outcome is that we make something better or more interesting.

When you problem solve with another partner, you naturally share the capabilities you have to come up with the best outcome. As the company who is leading and defining the future of sport, we have knowledge, access to advanced materials, and capabilities that no one has. It’s a big reason why creative partners seek us out. We want to encourage that exchange; seeing how others interpret your brand and what they can do with our vast set of tools is a big part of why we do it in the first place. One way a collaboration can go wrong is if your connection is inauthentic or overly prescriptive. Our collaborations aren’t transactions. They are relationships – ones that have been built over months or years before they even come to fruition. You really have to be passionate about the same parts of the universe for any partnership to work. Nike collaborates with dozens of industries and communities on any given day. It’s one of our great honors and great responsibilities.

When you look back at the last 10 years, these partnerships have really accelerated across our business. We worked with Apple to develop Nike+, a platform that forever changed how we look at servicing the athlete and motivating people to do more. From a manufacturing perspective, collaborations can be the quickest way to disrupt existing models. With Flyknit, for example, we worked with others for six years to reconfigure apparel machines to make footwear uppers. It’s opened up a world of new design possibilities. In a similar way, we’ve invested in a company that has invented a way to dye products without water. We call the technology ColorDry. If you consider it takes 30 liters of water to dye a single T-shirt, the impact could be massive. Sometimes we share our IP (intellectual property) with others to accelerate global change. A recent example is when we shared eight years of materials research and analysis with the students at the London College of Fashion to improve an app that we were developing. The result is the Nike Making App that allows any designer to know the sustainable impact of the materials they choose. It’s been downloaded in 132 countries. Collaboration is a powerful strategy for unlocking new opportunities for Nike. I firmly believe that our future potential will be based, in large part, on our ability to collaborate with the right partners in the right ways. Of course. Let’s start with the athlete, Nike’s original and most important collaborator. To us, everything starts with the insight. That’s why we work with the deepest roster of athletes, to gain the most profound understanding of what’s needed to perform. I always say that as an innovation company, we’re privileged to work in the world of sports because our source of inspiration – the athlete – never stops progressing. No athlete wakes up and thinks, “Today, I want to perform the same as I did yesterday.” It’s always about getting better, which means we’ll always have new problems to solve. Our job is never done. From an internal perspective, collaboration is at the heart of Nike’s

ongoing creative process. We have a collective of brilliant, passionate people that includes over 650 designers, PhDs in our research labs, engineers, material experts, colorists – each of whom work together to pour hundreds of ideas into one product.

Collaboration among individuals, brands, and industries will only continue to accelerate as technology facilitates and enables greater connection in real time from anywhere in the world. It's why we're experiencing such an unprecedented pace of innovation in every aspect of our lives. It's clear to me that if all the ingredients are right, collaboration can help shape your vision of the future and get you there faster. I'm currently the NikeLab Global Product Director. Put simply, the role entails staying curious and keeping your eyes and ears open to those who are enriching culture and excelling in or pushing the envelope of creativity, design and art. Staying immersed within that world is key. I, along with a passionate team of people based in key global cities, help cultivate relationships and create projects that fuse Nike's sport and innovation DNA with partners from the creative community who share our passion for exploring new possibilities. Japan is a place where people not only value aesthetics and design, but also have an insatiable curiosity to go deeper into the story behind whatever subject or subcultural topic they are examining or participating in. There's not a halfway or surface mentality there and that appeals to me.

I've been going to Japan for over 17 years and of course live there with my wife, who is Japanese. I've always been quite fascinated by the way the Japanese take things from outside their own culture and reinterpret them. The UK is similar in that regard, although the Japanese way is to sometimes deconstruct, but to always refine and perfect things to an extent that is second to none. That's interesting in terms of the creative process. London, New York City, Los Angeles and Paris are all equally interesting in other ways, so I travel constantly and have even lived in some of those cities. I don't think Tokyo is an ultimate place or better than other cities. It's just where I am now and the distance from my own culture can allow for a certain amount of breathing room to think and filter the information coming in from all around, especially in today's crowded digital culture. Tokyo is definitely the first place after New York City that really embraced sneakers and the roots of the special colour/material edition phenomenon. In Japan, people like to have special limited editions of everything, from chocolate bars to cars to hamburgers, so there's a fast turnaround of ideas to keep things exciting. There's also an appreciation and willingness to embrace the new.

Conversely, I believe the Japanese also drove the heritage retro trend more than many other places due to their fascination with authenticity and their sharp eye on subculture, and the indicators that convey a belonging to a group or mind-set. For example, the first retro Nike Dunks in special colors was a Japan thing. The Nike Woven was embraced here enthusiastically as well. I believe that the approach that someone like Hiroshi Fujiwara takes, epitomizes the Japanese skill in identifying true icons, new or old, and refining and tweaking them, while still being very current and timely in doing so. He has an innate skill and intuition in that regard. Also, although he's very internationally-minded, I don't think that approach – which is really quite subtle and definitely unique to him – would have come from any other place. Japan, and Tokyo in particular, has definitely played a key role in creating some of the subculture and style codes that we now take for granted, and that are represented all over the world. One of the benefits of being involved with so many different collaborations is that every day at work is different. I'm constantly exposed to a number of fascinating ideas and people. So it's daunting to have to choose a favourite. However, two projects that personally stand out over the years are the ones we've done with Jun Takahashi and Riccardo Tisci. Jun has been an incredible partner in bringing the performance running Gyakusou collection to life. This has been a true collaboration in the sense that we've blended our leading Nike innovation and unique knowledge of athletes with Jun's aesthetic sensibility. But that hasn't been Jun's only contribution. He's a true runner and wear tests the product himself. He also has inspired many others to run, which of course is something near and dear to us at Nike.

In regards to Riccardo Tisci, it was exciting to work with a contemporary cultural icon who genuinely loves sport and the brand. Not only is Riccardo one of the industry's most respected creative directors and designers, he also has an authentic emotional connection to Nike. This enthusiasm was apparent at every stage of the process. He was thrilled to be able to use one of our most iconic sneakers as a blank canvas. His vision brought the Air Force 1 to a new place,

but it was his reverence for the shoe that made sure the project remained grounded in sport and our heritage. To be quite honest, things have not changed all that much because the process that goes into finding a creative partner to work with hasn't changed. As I've mentioned, people, trends and technologies change over time. But finding a creative partner to collaborate with who can help bring our work to a new place will always be the brief, no matter if I'm in year one of my role or year 10. The lessons I learned as a young athlete have served me well throughout my career. It's where I developed confidence, a sense of commitment to a team (and myself), the discipline it takes to achieve goals and the importance of listening to leadership. Sport is one of life's great teachers. It made all the difference in my life. I should also mention that as a runner I spent time modifying my shoes to make them work better for me. That love for product became the springboard to my first job at Nike as a designer.

If you worked with Bill, you know he was relentless in his pursuit of not just new but "better." His deep connection with athletes, his obsession for inventing, his belief in expanding a person's potential – this spirit set the tone for Nike early on and, to this day, it drives how we work and how we look at the world. Bowerman's belief in constant improvement was a great influence on me. I'm always asking, "Where can we be better?" When you serve athletes, who by definition are in a constant state of progression, we have to be looking ahead and thinking about the future opportunities across sport and our business everyday. I love the creative process but I believe strongly that creativity and business are far more powerful when they are connected. In the right ways, of course. To us, creativity is the engine for future growth. When we innovate, we unlock new products, new experiences, and new markets. We have many examples where a breakthrough idea has become a scalable business — Air technology, Free, Flyknit. Each of these was conceived through creative thinking and an authentic insight into sport, but none would've had the impact they've had without the support of the broader business. I sometimes describe my role at Nike as sitting at the mixing board, looking for the right formula to combine both art and business, depending on the unique idea or opportunity.

I believe strongly in creative freedom, but not in a "blank check" approach. As Frank Gehry has said, "the greatest source of creativity can be a timeline and a budget." Empowering and delegating are certainly crucial to any leadership role and it's important to create space for everyone across the business to think creatively. That's when your teams start anticipating opportunities and developing new models that can really create impact. We're fortunate that Nike is filled with amazing talent with diverse experience. Our employees here at WHQ come from all over the world and we operate in 190 countries. We have unique perspectives on the world and these insights have become one of our greatest competitive advantages. As leaders we have to create an environment where that expertise will thrive. My job is to know where we're going tomorrow, next quarter and in the next five to 10 years. The right people in the right positions of leadership help me shape that vision and drive it through the organization. When we're all on the same page, we focus on the biggest opportunities and increase our chances for success.

Yes, "Be a Sponge" is one of my favourite phrases at Nike. It's important to keep an open mind because inspiration can come from anywhere. I did learn that from my grandmother. As a kid, she would take me on long walks and opened my eyes to the incredible diversity of nature. We'd collect bugs, shells, rocks and seeds, anything with unusual forms and textures. I've held onto that curiosity and the need to draw creative impulses from the wider world. I like to think I foster this same curiosity and openness at Nike. We're a better company when we're aware of that wider world, building an understanding of cultures and communities. We can then take those insights, along with those we get directly from thousands of athletes, and translate them into real innovation. Nike is a brand that inspires people. But to inspire others, you have to first be inspired yourself. I think our success has been based on our commitment to innovation and great design, which really in our case starts with our commitment to the athlete—and really understanding the athlete and the insights we get from that relationship," he says. "So we translate those insights into real innovation. And that's always been the case since the very beginning. The commitment to great design and to innovation—that's really at the core to any successful business and it's a prerequisite to realize your great potential as a company. Thank you, Kelley, and hello, everyone.

We delivered another strong quarter in Q3. Revenues grew 7% to \$7.5 billion. Gross margin increased by 140 basis points to 45.9%, and diluted earnings per share increased 19% to \$0.89. We were able to deliver results like these for the quarter by leveraging the power of the NIKE portfolio. Over the last three months, the macro environment has become increasingly volatile. Foreign currency headwinds have intensified. Product input costs continue to fluctuate, and the political landscape is evolving in many countries around the world. This is the environment in which all multinational companies now operate, and NIKE is not immune to it. The difference for NIKE, however, is that we see this as an opportunity to create further separation in the marketplace. Our globally diverse portfolio of geographies, categories, brands, product types, and distribution channels gives us a distinct competitive advantage. By going deep into the business, we're able to see opportunities to serve the consumer and drive growth, despite the choppy landscape. This surgical approach to finding new dimensions of growth ensures we capture the full potential of our brands around the world. And that includes driving strong growth in areas of our business that are already well established such as Western Europe, China, North America in footwear, as well as businesses such as women's, young athletes, apparel, and e-commerce, where we are accelerating development.

These are just a few examples of the dimensions of our business where we are continuing to identify further opportunities to expand our reach and drive growth. And we do this while maintaining a disciplined approach to investing in those opportunities with the highest potential for return, so we can drive growth and manage risk over the short and the long term. This complete offense is how we can continue to deliver sustainable profitable growth. As you have seen from NIKE in the past, we know how to operate in a challenging environment better than anyone. And you will continue to see us leverage the breadth and depth of our global portfolio to do just that going forward. At NIKE, everything we do starts with the consumer. It's our obsession with serving the consumer that sharpens our focus and drives our growth. The expectations of our consumers are evolving rapidly, and we're able to meet and often exceed those expectations because we know the athlete. By working with athletes at all levels, from the elite to the everyday, we have a level of knowledge and insight that is unmatched in our industry. And we are able to use the insights that we gain to create new products and services that drive new levels of performance innovation across all of our categories.

The pace of innovation at NIKE has never been faster, and our pipeline has never been more robust. We're leveraging new tools and processes to unlock significant advancements every day. However, the starting point for innovation remains the same, and that's the athlete. Many of our greatest innovations have come from going deep into an individual sport to solve a unique athletic need. Let me highlight a few examples in our footwear business from Q3: in running, the LunarTempo, the shoe that merges speed with cushioning for a great ride over the longer runs; and then the newly redesigned Air Max 2015, our most flexible, comfortable Air Max to date. We're seeing very strong response from consumers, and I'm tremendously excited about the pipeline of products in the running category. In basketball, with his 10th signature shoe, Kobe Bryant returned to a low top, and once again pushed the limits of design. In addition to great consumer reaction to the Kobe X, players around the NBA are wearing it for its great traction and cushioning.

Appendix 24. Data used for Robert Iger (Year 2015)

Well, parks and resorts and consumer products had great quarters. But actually, all of our businesses did. There were some numbers that weren't necessarily comparable. For instance, the studio had a great quarter. But last year this quarter we had "frozen," particularly the video. So that is not a great comparison. And then on the media network side we had extra some costs at espn because of the college football playoffs and the nfl wildcard. So generally speaking, all of our businesses had a very strong quarter. But from a percentage increase perspective, parks and resorts and consumer products led the way. I think we have a great business in that we offer the consumer a great product and a great experience. So i think it starts there. It's great service, great use of intellectual property and great price-to-value relationships. I don't think you can look at gas prices or what's going on with the dollar, currency exchange issues. I think you just have to look at what is the product that we are offering, what is the experience that we are offering, and how much in demand is it. And i think clearly over these years, demand for our parks and resorts experience, not just in the united states, but globally, is increasing.

Well, we're not going to make any predictions about merchandise. But we certainly have grand plans for "star wars" merchandise. You are talking about the number one franchise in the world in terms of merchandise. And there hasn't been a film release since 2005. So we've already seen interest in this film starting to generate increased interest in the merchandise for this film. And the film is seven months away. So i think you can expect that the number one franchise in the world is only going to strengthen in terms of value, particularly on the consumer products front. But right now, what we are mostly focused on is making a great film. And i can't wait to show it to the world. Well, we have a great hand on the studio front. And as a company in terms of our intellectual property. Disney was strong to begin with and adding pixar clearly added to the strength, particularly on the animation front. And john lasseter and ed catmull, who came with pixar, turned disney animation around. Marvel, obviously a phenomenal brand, a great franchise. And the success of marvel in those films since we bought it has been well beyond our expectations when we purchased marvel in 2009. I've talked about lucas and "star wars." the best is yet to come. We have six "star wars" films in the works. There will be three released between now and may 2017. So i think as a company, we've got a great hand. We don't really need more. We clearly have demonstrated interest in intellectual property and ability to leverage it across our businesses over time, over many territories around the world. So i don't want to suggest that we are sated or not. But i don't think there are any specific needs right now. There are no holes to fill.

Well i think, first of all, with regard to verizon, i think it is very specific. We believe that they have violated our agreement, and therefore, we have taken legal action. We are certainly willing to work with various distributors to come up with packages that are of value to their consumers and also continue to provide value for us. So i don't think this is the beginning of an era of litigation between the programmers and the distributors. I think there's a lot that needs to be said and considered as it relates to the bundle. I don't want to sound polyanna-ish about this, but i don't happen to believe that the bundle as we know it is dead. We don't see any disturbing trends in that regard because we believe the bundle basically provides great value to the consumer in terms of choice and in terms of price. Now, we are in a new era of great consumer choice and consumer authority where there has been a shift. And i think consumers are going to demand more flexibility and more customization. And as a company, we've been at the forefront of offering that and being willing to offer more. Technology is, we believe, friend not foe, both to the programmer and to the consumer. I think the key in terms of bundles is, again, how much value is the consumer getting? How much choice do they have and at what price? Is the navigation good? That's really critical. User experience is going to get even more important. The last thing i want to bring up because a lot has not been said or considered about skinny packages, is that when you unbundle broadband, the broadband costs are going to go up. A lot of consumers who are buying the expanded basic bundle are getting broadband bundled with that at a bargain rate. When you go to a skinny package, you are going to have to pay for broadband separately. And that's going to be very expensive. So i haven't seen a skinny package that in my opinion creates great value to the consumer yet. But we will see. And we are open to discussion about it.

Look, we've bought some things aggressively. The college football championship is one more recent example of that. And we've also passed on some packages. We feel at espn that we've got a great hand in terms of programming. We don't believe anybody comes close. That's enabled us to drive ratings and advertising growth. And also to continue to drive sub fee growth which obviously creates huge value and hits the bottom line in very dramatic fashion. We did say, by the way, jim, that the cost for espn programming would be higher this first half of the year because of a new nfl deal. The nfl wild card, the college football playoffs. So you are not going to see costs rise in the second half of the year for espn the way they did in the first. Espn has also extended multiple deals over the next decade. So the next balloon is going to be due to the new nba deal which kicks i think in 2017,2018. But beyond that, you are not going to see the kind of dramatic cost increases that we've seen these last few years. So espn's costs are going to flatten out. We are not going to buy everything. We can't. But we're going to buy what we believe the viewer wants and what we believe is going to create value for the company.

You know, we are storytellers first. If you look at whether it's espn and their coverage of sports, you look at our movies, you look at television, we tell a lot of great stories. And people like stories. They demand stories. They like to be entertained. They like to be informed. I don't think that we are similar to procter and gamble except in the collection of great consumer brands that we have. But i think our product is consumed in vastly different ways than people will use tide or crest toothpaste, as a for instance. So i think there is some similarities because of the brand value, but i think there are a lot of things that are not like the big consumer products companies. We are going to get a little bit more specific about that on the call, but we've been buyers of our stock over the last number of years. We've actually looked at returning capital to shareholders in a variety of different ways. Clearly, we've had a great run in terms of our stock price. We've also managed to continue to increase the dividend over the years. Another big increase this past year. And we've been buying back our stock. And on top of all that, we've been investing in our businesses and acquiring companies. So we think that we've managed to deliver a great blend in terms of how we've returned capital to investors. And i don't know that that's necessarily going to continue in the exact fashion that it has. We talked about acquisitions, for instance. But i think this company's free cash flow is likely to continue to be robust. And decisions in terms of how we return capital will have to be made on an annual basis. And i'd guess that dividend increases and share buybacks are going to be part of that.

I think eventually espn becomes a business that is sold directly to the consumer. Where there is an engagement in that espn will know who their consumers are, will use that information to customize their product, enable personalization, to essentially engage in a much more effective way and also, to offer advertisers more value as well. Its easy to look at any disruptive force as a complete threat. And technology is definitely the most disruptive force that so called traditional media – whether you are in radio, whether you are in newspapers, magazines, television, is facing. No question about it. I decided, and we decided as a company, to view technology as a friend not a foe. Instead of creating one cto at disney, because our businesses use technology in so many different ways, and i didn't want to bureaucratize it or corporatize it, if that is even a word. So i kept the technology ownership in each of the businesses and i use myself as, not quite the cto – i think that was a little exaggerated, but as sort of the traffic cop and where i force people to go through intersections together and not necessarily going at one another. And its worked well. I wouldn't rule it out, but i don't think you should take that to mean that we are looking at doing that. Our civ in terms of acquisitions has pretty much been in the direction of our strategic priorities, which is let's buy content, high quality branded content – marvel, pixar, lucas, obviously good examples. Let's buy technology where it gives us an advantage, where we can use it to do the things i talked about earlier and let's buy things that give us a better or larger global foot print.

We opened up a new disney store in shanghai a few months ago. I was there the week before last, still doing extremely well. We haven't opened the theme park yet, so we don't fully know, but the research that we have done so far suggests that the chinese consumer is not really – in terms of its behavior – indicating that there is an issue with their markets. Were going all out in china with shanghai disneyland, should open in about a year. We believe in that market for a disneyland big time, obviously. We think it's probably the most exciting opportunity the company has had in a long time and definitely the most exciting opportunity we've ever had outside the united states. In terms of theft of

intellectual property, it continues to be a problem. There is a movie that has been released in the chinese marketplace that looks and feels very, very much like the movie "cars" that pixar created a few years ago. That's a problem. But it's not the kind of problem that is going to affect our theme park business or our view about investing in china. Abc is still an important business for us. Its a very healthy content creation business. Whether you are talking about the programming that we own and produce in prime time or abc news, it's a profitable business. It's a business that we are proud to be in and it's still in my heart, you know.

Well, if you look at the size of the company, because the company has grown, particularly given the acquisitions and growth in international markets, you know, there are a few of our businesses that don't loom as large as they once did, but that doesn't mean they're not important. The consumer products business that we have, which is truly global, has become a very big business for us and it is a big part of star wars. And one of the reasons that we were so interested in it is it had the profile of many other disney businesses and marvel, for instance. Consumer products is important, but the movie has to be good, too. Its probably the most important. It starts with the movie. it is funny to hear you say quiet period having just come from the hall where we showed the fans that trailer, it wasn't exactly quiet. We knew that these most ardent, passionate fans were going to go crazy when they saw that teaser trailer, but i had no idea what it was going to be like watching it with them. It was incredible the feeling in the room, everybody rising from their seats at the beginning and cheering at this moment and that moment and that moment. Of course when hans solo comes out with chuy at the end and said chuy, we're home. The crowd just went crazy. It was great.

No predictions on how big this will be. We know that star wars films did incredibly well but there hasn't been a film out since 2005 actually. And star wars 6, episode 6, actually came out in 1983. So this is episode 7 picking up from that 1983 film. That's a long time. But the movie going audience in the world is much larger than it ever was. There are markets today that were nonexistent before in terms of movie going, china being a great example of that. So we're fairly confident that this film is going to do quite well. But way too soon to make predictions and probably we will not make any in public. Yes. Clearly there is. There's work being done now by our imagineering team to develop those properties. I say properties plural because it will be at more than one theme park location but we're not ready to give details on that yet. But expect that they are coming. I'd prefer not to get into any details. Well, we're walking before we run here although we're doing a fair amount of running. The focus will really be on six films, 7, 8 and 9 and three stand-alone films. We put rebels in the marketplace on disney xd fairly recently i imagine there will be some other television development down the road, but nothing absolutely determined yet. Again, the focus right now from a creative perspective at lucas is on those films. I've seen just about everything shot. I probably will see a cut of the film i'm guessing sometime in the next three or four weeks. But without a lot of special effects, which are being done at ilm, which is the special effects house that we bought when we bought lucas films. A lot of the post production work, finishing work will be done there.

Well, star wars as a franchise and the consumer products field is one of the most successful franchises ever. It's still quite popular out there. Just look at what lego has in the market as a for instance around the world. And so this is likely to be one of our most valuable property once the movie comes out and there's huge amount of work being done across multiple segments. Hasbro has done a lot of work, lego, and then there's the games front too with ea and other games going into the market. I can't tell you exactly when, but we already are fairly confident that it was a good deal for us and it's been a good deal for george lucas as well. He took cash and disney stock and the disney stock has appreciated significantly since less than three years ago when the acquisition was made. I think in the end the shareholders of the walt disneycompany, including george lucas, will be quite happy about the investment that was made. I take one step at a time. I'm feel great about the avengers two. The age of voltron comes out may 1st in the united states. Actually opens up in some international territories before then. I think that will do just fine. The first film was the third highest grossing box office in the history of movie business. I'm not making predictions about this, but i think it's just as good if not better than the first film, so high hopes.

When I became CEO, we had been through about a decade of disappointing performance in the animation business. Except for the relationship we had with Pixar. And if you were to look at the Disney animated films from that decade — which I'll call the post-'Lion King' decade — a very few made any money. And in a number of cases, not only did they lose money but they did significant damage to the Disney brand. You can't look at your financial folks or your strategic planning folks and tell them to come up with an answer that serves your needs. You need them to be objective. You need them to be honest with you. So I didn't say, 'Go figure out how you make this pencil out.' I just said, 'Do more homework. We know how to leverage or mine value from intellectual property probably better than any media company out there. And we have the ecosystem to do it, worldwide. In each case there was a single shareholder that controlled the sale. They were all — in their own way — very personally relationship-driven. We are living in an era of incredible disruption... The consumer has a lot more power now to decide what they watch, when they watch, on what device they watch it on and how much they pay for it.

What I like about the changing technology in sports the most is that it is expanding consumption... Today you can watch it all the time on basically any mobile device or computer. ESPN in 2014 had 82 billion minutes of consumption on its digital platforms... The ability to do that did not exist five years ago. When you think about ESPN growing, one way to grow is through expanding consumption. One of the reasons ESPN has been so aggressive and innovative on being on those new platforms and continuing to innovate with new product and new ways of reaching people is because they believe in the expansion capabilities of those platforms. . . You have broadening of consumption and deepening of engagement. That is another way to grow the business.

Appendix 25. Data used for Mike Bloomberg (Year 2015)

Well, India is one of those countries that will set the world's agenda for my children. The world is changing, technology is making everybody's interest accessible, empowering people in ways never before in history. India has the scale, India has lots of problems but so does every other country, but India has a group of very intelligent people who can take the best from elsewhere and bring it back to India, but also take the best of India and export it to the rest of the world.

Cities are where 70% people of the world will live by the year 2050, already roughly half the people in the world live in cities, cities are where governments deliver services that you can measure. I don't know whether the federal government in any country keeps you safe, we never find out until you are attacked. I don't know whether some of the economic policies of federal government, is it good or bad? You can only find out later when results may be transferred back. Do you know at a city level whether the garbage is picked up, whether that person lying on the ground who needs help, gets the help? I know whether the electricity is on, goes on when I throw the switch, whether water comes out when I turn the tap, the services that I can measure and that change my life. Education for example is another one at local level. Those kinds of things I can measure and that's what cities deliver. Even no matter what the Constitution of the country is, city is where the services get really distributed.

So do other countries. We have plenty of dysfunctional cities in America too. I would like to think New York is not one of those but there are cities that don't work. The Great Michigan for example, a very big city, enormous industrial powerhouse and today if you go through the downtown there is enormous open waste land where buildings have been ripped down and there is nobody there. Now the good news is that the Governor of the state of Michigan and the Mayor are trying to bring the city back and so that may happen and I think it will, but we have our own problems, you don't own all problems of the world, even though... No, that doesn't happen in New York either. It's also true we are worried, is the air you're breathing or the water you're drinking, is that good for your body? We're always worried about whether there's crime or something, we are worried about whether somebody standing next to you is smoking and you inhale that smoke, we are worried about whether the food has quality, whether or not somebody is making sure there's no diseases. Yes and life expectancy in New York city is three years greater than it was twelve years ago and its three years greater than national average and most big cities conventionally it will be lower, in our case its bigger.

A lot of small things, we would say there's no magic bullet. It is reducing smoking; it is reducing traffic deaths with better laws and helmets, going after people who don't use seat belts. Absolutely, my aim is doing a lot on smoking and traffic, it is trying to convince people that certain foods will just make them obese and obesity kills you. It is going after fire deaths and making sure that people have smoke detectors in their houses or apartments so that they get noticed earlier and can get out in case of fire, all of these things add up to making longer and healthier lives of the people, its not like cure for everything, we'll never get there. In New York city we banned trans-fats but more importantly we grade every restaurant and in the window of the restaurant you have a sign, an A, B, C, and people don't go to B and C restaurants, so the restaurants have to clean up, and you say these things don't matter, the number of cases of salmonella at the city hospitals, way down, almost overnight, because the restaurants don't want to lose their A grade because they'll lose their business. In the end we do most things not for altruistic reasons, we do most things for selfish reasons, it's good for my business, it's good for my children's health, that's the thing that drives most of them. Yes and what they do is they clean up to re-open but some don't. There's always a chance from the state, there's always a chance of corruption. But we have a process where you can appeal and we send a different inspector and when you hear people complaining, the more they complain, the more you know it's working. My favorite little diner from around the corner where I live got closed own for a month, now I love the food but the bottom-line is they have rats in the basement, mice and cockroaches and they cleaned it up and its opening up. It didn't keep them open, got it closed down. That's not true, they found substitutes, nobody lost, in fact public health issues are popular. I know in the beginning people scream, it's not people, it's the press that is trying to make a story so that they can get

advertisements and that's what this is all about. And you will find one person who's against the smoking ban and you have that person on your walk show. But most people don't smoke and virtually nobody wants to stand next to a smoker and breathe their air and die and that you don't report because that sells advertisements. I'm sure you will, you will never do this. No, I don't think that's totally true. But look I own a big media organisation, I've got 2300 journalists, there is no question that the public buys scandal and failure, Germans have a word for it where you revel in other people's failure.

Schadenfreude and there's unfortunately the way human beings are. But my, let me tell you today, while everybody complained when I passed the ban on smoking in public restaurants and a lot of people made nasty gestures, I joke. I passed one of the restaurants I got many one-finger raised, today none of those restaurants would go back and those restaurants are doing better than they ever did before. And I kept saying people go to restaurants to eat and drink and smoke except the restaurants only make the money out of the eating and drinking and for all the time they spent smoking they are not eating and drinking. In the end it was good for the restaurants and was certainly good for the public health. We are doing okay. We are not buying FT; we are not buying anything. We are trying to put food on the table everyday. Look I'm not here to tell you how to run your city, I'm troubled enough running my city, I'm no longer running my city. Yes but I think even those people that didn't agree with me or didn't like me, they respected the fact that we said this is what we are trying to do, this is why we are trying to do and if it doesn't work after 'x' number of days, months, years, we will roll it back. And people respect that kind of honesty. I don't think you're right, but at least I know you're trying, at least I know you're doing for the right reason and I think the governments where people believe that they are honest and trying, are governments that succeed, even if the public is not in favour of the policies. And in fact if the government is always catering to what you want then you've got to believe they are doing it for political reasons, not because they think it's right. And I don't care how smart you are, you don't have all the answers and I don't have all the answers. So what I'm here to do is to try to learn what you do that could be useful back in my country and in my city, and to say, to explain what we've done and what other cities around the world have done. Because I've been involved in this organisation called C-40, of which Delhi and Mumbai are two of the seventy-five cities where we share best practices. And I've talked to a number of your Ministers. Energy is one of the big things. Question is do you focus on coal, do you focus on renewable energy, wind and solar? And I've tried to explain, I don't think you can finance coal development because people are walking away from it from all around the world, coal is a very dangerous thing, it pollutes and when people say well I have to have economic development.

It leaves a scar in people's lungs too. In America 13,000 people die every year from the effects of coal fire power plants. In India the number is enormously big, look at the pollution problems, you and other big cities. I'm going to see your Prime Minister this afternoon. I am a believer that this argument, that I have to have economic development, even if it hurts the environment and then I will get to the environment stuff, not only does it not make any sense, we cannot improve the economy unless you improve the environment. It's just not sustainable by having it in the wrong order. If Mayors are aware services are delivered and keep in mind I was a Mayor, so I'm a little bit biased... New York City has a form of government where the position of a Mayor is very powerful and that's what made it a great challenge and a great opportunity. But I think the closer you get government down where people can see who's delivering the services and how well services are delivered the better. And more the public can demand the results and the other thing that is different is social media. I was talking to one of your Ministers this morning, where I pointed out that for the first time in the world a public can tell the government what they want and ask the government directly, that's never happened before. My staff does that for me but yes.

It's a very different world in running companies and in running governments all of a sudden. You don't have the luxury of when you get hired or elected. Well I don't have to face the stockholders or the voters for 'x' number of years. They say there's a referendum on everything you do, everyday online and how governments and corporate management can deal with that remains to be seen. Yes sure. Right, you can make case over that and improve journalism, you can also take the case that it gives you an opportunity, you can also make the case that it gives you lot of competition. Every country divides the power differently and I can only talk about what's right for America. You know the way I phrase

it I can tell you how to raise your children, mine are more complex, it isn't so easy with mine. That's exactly right so I'm not here... I'm not here to teach India, I'm here to learn. I think the answer is two-fold. Yes, but it's more difficult. It will be nice to have absolute power, but we are not going to go to dictatorships in our world, okay? Democracy is messy. Winston Churchill once said you can always depend on America to do the right thing after exhausting all other possibilities, okay? So it's harder, but I've never heard of an elected official running, saying it's too complex, I won't be able to do the job, elections coming anyways, you elect me I can do it. Okay, you should hold them responsible.

I don't know. You know we did not have a dictatorship. There's the City Council, there's the courts, there's public opinion. Somebody pointed out to me that in New York City if 90% of the people loved me that still meant that 840,000 people did not. So you know it's a challenge and I always thought greater the challenge, the greater the rewards if you can succeed. If it's easy it's like golf; if you can hit the ball into the hole every time nobody will play the game. It's a fact that it is difficult to do and the more difficult it is the more it attracts people who like challenges. And the marketplace, capitalism, the voters, public takes out those who can't do the job and those that do the job survive and sometime even those who do the job don't survive. Winston Churchill after leading England through World War II was thrown out in the next election. I think most Mayors will prefer, I can answer the question backwards, I think most Mayors will prefer that the state capitals are away from the big cities. And if you look at fifty states in America I think forty-eight of them have state capitals far away from the city. The state capital likes that and the cities like that. You are not going to change that. Well the states have to devolve the power down to the Mayors; the public has to demand it and the Mayors have to put up with the fact that the Governor is round the corner and the Governor is going to be on television all the time. If the state capital is far away area the press doesn't go there and it's not on television, it's just a Mayor. If they're both next to each other they are going to be on an equal level. Okay, but let me give you another thought. It is up to the public. No government exists without the will of the majority of the public and you see that in elections here and in America and elsewhere. And with the internet, social media, the public has more power than everybody thought and less excuse for not getting a good government. In the end we get the government that we deserve and the government we ask for. And so I would start by saying in the end it's the public that's responsible. I'm not suggesting it's easy, I'm not suggesting that every government that gets elected does the right thing, does the wrong thing, but it can't just say it's somebody else's problem. Thank you, if you say so. I'm very optimistic. There is clearly a lot of job creation. There is clearly a lot of angst among people that — we are not addressing the big issues like immigration and tax policy and guns in the streets. There are worrisome things happening all around the world. But the average person is not doing all that badly. In all fairness to Obama, during his administration in the last few years, jobs have been created and the jobless rate is way down. Still plenty of people who do not have the kind of jobs they want, don't have full-time jobs and that sort of thing, but there's always going to be problems. So it is not perfect and I certainly am very worried about the future — Iran and all of these different things. But the average small business man seems to be — or business person seems to be coming back, starting another business, and being able to create jobs.

Well, I've always run my life assuming the worst is going to happen because that is what you have to prepare for. Dealing with success is easy. You have to learn how to deal with failure. And one of the things I worry about is we are not teaching our kids how to deal with failure. And Lloyd and I just did an event with this 10,000 Small Business organization that Goldman Sachs has sponsored to help small companies. And one of the things that Lloyd said was that no career goes up in a straight line. You always will have reversals. And I think we will have reversals. And in my own investment policy, I have a lot of cash in terms of the company. I worry about what can go wrong. We have got plenty of people working to make sure that things go right. But having said all of that, it is not doom and gloom. We still have the same problems. We keep kicking the can down the road. But we do seem to be able to live with that. We have not changed our tax policy in a very long time, everybody agrees it should be done, but we still go on. We have a fractured Congress that cannot get together and can't do anything, but we are still going on. So the big things you have to worry about are things like the Iran treaty, which is very worrisome to me; like our relationships with some of the other countries around the world; like our immigration policy. Those are the things that can have long-lasting consequences.

And, lastly, you come back to we are selling our birthright in terms of not having good schools for our kids and not having the same fiscal policies in government where we are not spending money today that our children will have to come up with tomorrow. You got to differentiate between investigators that buy and sell stocks and people like Lloyd Blankfein that run companies. And they have to have a much longer term. There's — you have to — I can tell you how to raise your kids. Mine are little more complex. OK? But it always seems like the — your problems are worse than the other person's. And you cannot have that. You have got to keep going on. You've got to have some confidence. You've got to invest in the future. And if you take a look at how far China, for example, has come in a very short time, we can talk about how far they have to go, but so does America. Every problem that China has, we have a comparable one. It may not be the same one here, and they approach it with a very different mentality and a very different system. They have brought 150 million people into the middle class. They still have 400-500 million people who live on a dollar a year and really need some help. But they are making a big difference for their people. And so has America made a big difference for our people. The poor in our country need a lot of help, but they are better off than the poor in many places themselves. That does not mean we should not stop. We should be thankful for how far we have come, but we have got to always realize there is more to do at Goldman Sachs, at Bloomberg, at America, at China. activists have pretty good records in terms of turning companies around. And "Businessweek" had a story about that, looking at the record of some of these people and it has been very good. But also you have to stand up. Just because somebody comes in and says you should change the business model like Goldman Sachs, it does not mean you have to go do it. That is what leadership is all about. And if his board has confidence in him and his stockholders have confidence in him, they will let him go and they'll ride with him through the tough times because he's shown in the past that he can do it. And he is not going to make all the right decisions, but long-term, he can keep going. Now the life expectancy of CEOs in America is 4-5 years, depending on how you measure it, something like that. And social media puts an instant referendum on everything. So things are different here. But still, great companies like Goldman Sachs and a lot of the other big banks here have — they've gone through good times, bad times, dealt with regulators that are rational, irrational; dealt with markets that they could not control, dealt with markets that they influenced on some things, good, bad, whatever.

No, no, but that he can control how he approaches those markets, how he puts in place the right people and the right systems and which businesses to go in, which businesses he has confidence in, his organization has confidence in. And it's not everything and he has got to make those decisions. And over a long period of time, look at the history of Goldman Sachs. On balance, they have made the right decisions. Not everyone, but on balance, this is a company that is still growing. And there are some of the other big banks that have done the same thing. You can also argue that because Congress is so fragmented and paralyzed, we don't have much of a fiscal policy and the Fed has no choice but to do some things that it was not really designed for and I do not think monetary policy is the right way to go about it. But if nobody else is going to do something, they feel an obligation — and probably right that they have to do something. Having said all of that, there does seem to be a lot of job creation. But I do not know any business person that will decide to go into a business or build a building because interest rates are at 0.25 percent versus 2.5 percent. I mean, come on. If interest rates and tax policy are the guiding factors in terms of whether an investment makes sense or not, you're making the wrong investment.

Well, I think — there's no question that they have — the Fed's low — in my mind, anyways — no question that low interest rates have exacerbated the wealth gap between the poor and the rich because the rich have assets. And that is what is being hiked here because of low interest rates, whether they own stocks or real estate or whatever the case may be. And long-term, that is a very big problem for this country. And you do not solve the problem as the populists would argue by taking things away from the rich. You solve the problem by giving opportunity to everybody and by creating jobs. And some of these things, I think — some of the policies are misguided. I, for example, am not in favor and have never been in favor of raising the minimum wage. I think you should raise the income tax credit, which does the same thing for the same people, but it spreads the burden across all the taxpayers rather than just a small number

of business people, whose inclination would be to cut back employment. Earned income tax credit does not get anybody to cut back. It gets them to hire more people. Well, there are 16 or so.

You have a lot of choice there. We'll see what happens. It is a very long way, Stephanie, from now until the primaries, a year from September. And the election a year from November. And half the people running today aren't going to — most of them will not be there then. There will be people then that aren't there now. There will be issues that we talk about then that we never thought about. All of the mishegas that you read about every day in the paper will go away and be replaced by something else. The press has to have a crisis, has to have a story, has to have excitement, and failure and scandal and that sort of thing. So there will always — Yes, that's the way it is. Compromise is not a bad word. Compromise is what democracy is all about. You get most of the people get a good percentage of what they want. A handful of people on the two sigmas out get almost nothing. And then that is the way we come together and move. But let me just give you a thought, Stephanie, we keep thinking the wrong thing when we pick the elected leaders, particularly the Presidents of the United States, governors of the states and mayors of the cities. These are not policy jobs. These are executive jobs. You have to pick somebody that knows how to run the railroad. Making — blocking and tackling, making sure when you throw the switch, the lights come on and when you turn the faucet, the water comes out. At the federal level, you have to make sure that we control our borders and we get the right leadership to get the right weapons for our troops and get great people to come and work as secretaries in all the different Cabinet offices. Policy is terribly important. But no executive — no president or governor or mayor can have all the policies themselves. They've got to get people to come and help them formulate them on all the other topics. That is what an executive does.

Goldman Sachs is a great firm not because Lloyd Blankfein makes the decisions, but because he gets the right people and he gets them to work together and he knows how to promote them and discipline them and pay them and whatever — that is what we need at the government level. That's part of the job. That's part of the job. You can't blame — the executive's job is to bring along the legislature. I don't want to use the word manage because they have their own third of the government, if you will, of power. But it is the executive's job to explain to the legislators why his or her policies are the right one and bring them along. You do not go and do a poll and ask the public what they want and then try to take them there. That is leadership from the back. You are elected to go and to say this is what I'm going to do and convince people to come along with you and have the horses to get us all there. OK. But you know, that is the executive's job, to get Congress to come together. You trade, you bribe, you threaten, you cajole, you do all these sorts of things, the same way you run your kids. You say to your kid, clean your room or you do not get your allowance. You say to your kid, you do your homework or you cannot play Angry Birds. You say to your kid, you're doing a great job and let's just do more of it. I'll help you. I'll work together. People interact on a lot of different ways. And it is the executive's job to do that with Congress as well.

So I'm a believer that our Congress has been fractured for the last 239 years. It has always been very extreme left, very extreme right. These parties have changed their views and their consistency from one side to the other. We forget history so quickly it changes. But they're still there and that is what an executive should do. And when you're looking at a presidential candidate, what you should do is figure out who will be able to do the blocking and tackling an attract good people. Because that person is not going to make all the decisions and if that person does try to make all the decisions, then you really have a problem. Well, we have been throwing the money changers out of the temple since Jesus' day, so this is not new. Nobody likes the banks. They get terrible PR. I'm not sure if there is a way to change that, incidentally. I think what they should do is be honest, finance our growth, be great corporate citizens, do the right things and not be too brash about bragging about it. You have got to do it and just assume a lot of people will understand and just understand that they are never going to like this industry. The pharmaceutical industry has the same kind of PR problem. Right, yes. I mean — Well, better living through chemistry. We used to die at age 25. Now we died age 85, they must have been doing something right. And look at — the banks have financed growth. How many people today have an education, have food in their stomach and have a roof over their head? A lot of that stuff comes out of this. And you just have to learn to live with the fact that they're not going to love you.

But deep down inside, do they really hate you? A lot of it is creation of the press. You hate bankers, don't you, Stephanie? That will get you a very — Before we started the company, while the company has been going and long after we're gone, there will always be competitors, there will always be new companies forming with new ideas and new functionality. And they'll be ... the companies that [at some point in the future] will include the conventional wisdom of how you should run companies and how products should look. We can't worry about what other people do. For 32 years I've not worried about it, and we're probably stronger today than we've ever been. But if we sit back, we won't survive. I don't think there are very many companies in the media business, the technology business, the news business, however you want to define it, that have been around for 32 years and are still at the top of their game.

Do I worry about it? Yes, that is my job. But do I change our plans? No. We have a strategy of hearing our customers out but building what we think they need down the road. And it's... in government I would call it leading from the front, rather than leading from the back. When I was mayor, nobody elected me to ask them, "What do you want?" and then try to do it. They asked me to come up with my ideas of what the future required and then convince them to come along. So there are lots of companies out there. Are they threats? Everybody is a threat. Should we change our policies? I don't think so. There're always going to be new things. We will try to, if they are useful for our customers, include them in our system, either by letting somebody come on board or by building it ourselves or by buying something. Although we don't buy very many things. And if ... we always have to be willing to accept things that we don't think will work. You spend all of your time, from when you start at a new job, every day, learning what can't be done. I spent 20 years in this company learning what couldn't be done. And I thought to myself it's time for a new person to come in.

And I found a great way to transition out, I ran for mayor of the city of New York and spent 12 years [as mayor]. I've come back basically as a new person. And, while I was away, the people that ran the company did a spectacular job, but they've spent their lives learning what can't be done. You've got to always be open to things. Having said that, you can't get trapped into doing what everybody says. If everybody knew the future, we wouldn't have a business. If everybody knew the future, nobody would have a business, everybody would have everything. Twitter is a service that people use, there is some information on it that's useful to our customers. We try to bring that to them. There's lots of information on Twitter that's not useful to our customers. And we don't try bring that. So, you know, we're open to everything. I think Twitter is a great service, but it's not the only service. And we go out to try to collect all information around the world that has anything we think to do with our customers.

ell, there're three powerhouse countries in Asia at the moment. One is Japan, one is China, one is India. I think they all represent great markets. China ... I would include Hong Kong, I would include Singapore just in that whole context of where they are. The markets are significant, they are all growing. Japan is much more mature than the other two, and we've been there for a lot longer time and have a bigger percentage of the business there. But it's hard to believe that the future isn't a lot more in Asia than it is elsewhere around the world. It was interesting that the two [competing] buyers were both news organizations ... where their entire business was in one country. One was in Japan, one was in Germany. For them, they wanted access to news and to build a brand around the world. It never made any sense for Bloomberg to buy the FT. I kept saying it and the reporters never believed me. I always said "I buy the FT every day." But we have a brand around the world. It doesn't add anything for Bloomberg. It does add [something for] the Nikkei, it would have added [something] for Springer. Whether they paid too much, only history will show. It sounds like ... a nice way to phrase it would be "a full price." But they saw value, and it may be that it's valuable to Nikkei and worth that kind of price. And Springer was willing to pay roughly that price, so if they wanted it, that's what they had to pay. I don't know their business well enough to know whether they'll get great value out of it, but we'll see.

No interest in going public. I'm a believer that this company functions best as a private company where we don't have to report quarterly earnings and have our strategy built for today. As I said before, you should build products that you think your customers are going to grow into. That doesn't sell very well to investors because they say, "How do you know? I want products that people are buying today!" So public companies don't have the flexibility. Now some do

very well. I'm not suggesting they don't, but I haven't worked for anybody for 35 years, I'm not about to start right now. And I'm a believer that we can be much more flexible. And we don't need access to capital. And we don't need to ... all of the profits of this company, or 85% of them, go to my foundation. And when I die, the foundation will take over ownership of the company, and then they will have to sell it because of the tax laws, but they will have some time to do that. You can pretty much bet your life that this will never be a public company while I am here.

Much too early to tell. There's a great group of people who are not satisfied with the way government works. Some on the left, that's the Bernie Sanders supporters, some on the right, that's the [Donald] Trump supporters. It doesn't mean that they would vote for Bernie Sanders or Trump. And it's third party ... or ... these upstart candidates seldom get to the finish line, but they may. Nobody thought that Bernie Sanders or Trump would be where they are today. There's some evidence that their appeal has not grown. It's got to a certain level, maybe declining, maybe static. It hasn't ... the percentage of the people that want either as a candidate... has not gotten greater in the last... few weeks or months. We have a system, I've always believed, that is a two-party system, and it is virtually impossible for a third party candidate to win an election. Whoever is the next president will most likely, 99% likely, be either the Republican or the Democratic primary candidate. And I don't know ... the Democrats have a race on their side. Hillary [Clinton] was going to walk away with it, and now she's got competition. Maybe [Joseph] Biden will come in, maybe Elizabeth Warren would come in. Independent means I've antagonized both sides. Not that I've captured both sides. I've precluded both sides. I'm going to wind up running my company, looking forward to doing that, right here. I'm very happy doing it. I had 12 great years where I worked hard for the public and for my kids and grandkids, and yeah, I'm very happy.

Appendix 26. Data used John Chambers (Year 2014)

What's going to be interesting is that people tend to think of each of these market transitions in isolation. I would argue that they are all happening at the same time. You have your technology transitions -- i.e., cloud, more and more software. We are going to tie software, hardware, ASICs and architectures together in ways that our counterparts are not. You have mobility, you have security, you have collaboration, you have video, you have the Internet of Everything and you have Intercloud going on. And, so, our view is that each of these together offers an opportunity for Cisco. And if we are going to become the No. 1 IT player, along with a very powerful channel partnership where we win and all of our channel partners win, you have to tie these together for customers, because you could be in a meeting when you talk about outcomes to a customer and you could have each of the groups I just said. What a customer wants is to take it from discovery to outcomes. And if we can do that as a company with our partners, they are going to pay a major premium for that. And [there will be] major benefits.

Results. First you outline vision and strategy. The majority of our engineers -- 80 [percent] to 85 percent of them -- are already software engineers. And if you watch the areas that are growing, it's software. Now what is ASICs? ASICs is hardware and software combined. You put in the hardware, something that doesn't change; you put in the software, something that changes all the time. ASICs is something that will be a combination of the two. So we have our software and hardware teams sitting side by side, developing ASICs. And before it even comes out, we are already starting on a second generation of custom ASICs where you put more software into it to get the speed. So you just embrace it. So, if you watch, watch our scale and how quickly [our] ACI [Application Centric Infrastructure] takes off versus our competitors. In fact, I would actually argue our competitors in the SDN area have very few true, paying customers and very few examples of scale. No. The goal would be you start off in certain amount of hardware, a certain amount of ASICs -- which is hardware and software combined -- and a certain amount in software, which we'll never change. You put into software what you are going to change, not monthly. If we do our job right, we will be changing software multiple times a day, just like the major web players do. And you have to build a structure that allows you to move with that speed and scale. And so what Application Centric Infrastructure does is it embraces software and [delivers] your advantages of SDN without the disadvantages.

To have a software network, virtual [and] separate from the physical network is very costly, very difficult to do problem determination, causes you to move very slow and often doesn't scale. I'm talking about players like that, yes. And so, what we will do is take those concepts and introduce new concepts like self-learning networks. It was something we started about 15 months ago, you would have never heard about it if it didn't work. We took a small, couple handfuls of people and said, 'How do you really do self-learning networks for the Internet of Everything, for optimization of the network and for security reasons?' So you will see us embrace this software and then play it out with merchant ASICs, which is how other people do it, but also with our own custom ASICs where we embed it even deeper and it goes faster -- we let the customer [decide] on openness, whichever way they want -- and hardware. That leads to the Internet of Everything, which is really going to be the driver of business productivity for the next decade. Basically, Arista is one of several dozen competitors we face and one of several dozen that are in the top peers in a product category that we compete against. We compete against them in architectures. We compete against them in terms of how you combine software and custom ASICs and merchant ASICs and hardware. And we compete against them in terms of embracing SDN in an implementation that is able to scale and able to do it with security. So the way you compete is just say 'what is your differentiation and how do you make it happen?' Now let's deal with the numbers. The product was just shipping, the Nexus 9000, two quarters ago. Twenty-five customers were [adopting] it. Last quarter, 175. Now I can't share with you what this quarter is... But where we are is, just watch our number of accounts. And watch how quickly we blow right by Arista -- either revenue-wise or number of customers. Well, I would ask three questions. First, we already have 175 customers, two quarters in, with what we are doing. Two quarters in, not five years in. Secondly, are those [NSX] customers really in scale and are they paying for it? In other words, are they large scale implementations and are they paying for it or are they just taking a segment of their enterprise licensing agreement and allocating it to NSX? I can't tell you that. You all can decide.

It's a nice way of saying, I love our hand vs. VMware and I love our hand vs. Arista. And while two to three years ago you could say we were slow in embracing in SDN, now we are going to lead. We know how to scale. We know how to tie back to Application Centric Infrastructure when it isn't about the data center but about the WAN and the edge. This is how we compete against them. In fact, they have put [the Nexus 9000 switches] in first, in standalone [mode]. And then you will see a number of them move to ACI. So we will track those ACI customers. But remember, ACI just ships this quarter. So we are in the middle of just starting at the end of the summer and then it's the implementation done through it. But that is where our selling mission has changed. We don't sell SDN. We sell programmability, investment protection, lower cost of ownership, quicker outcomes, and we combine these. Yeah, I think all of our sales force and, indirectly, our channel will have to evolve. And I was just with [Senior Vice President U.S. Enterprise] Brian Marlier and [Vice President, Business Transformation] Sandy Hogan, who run our U.S. enterprise. I can't say what they did this quarter but last quarter they grew 10 percent in a market that's growing, what, 2 percent? They sell outcomes. And they sell very tightly with our partners. So it's the ability to say 'How do you transition your sales force and your partner community with you as this transition occurs?'

And, by the way, back to the question you all alluded to earlier: Watch our win rate against Arista or our win rate vs. [other] SDN implementations. The numbers will speak for themselves. The way they deliver outcomes. The way we deliver outcomes. So it starts with how do you talk to customers in discovery mode and then it's how do you make this relatively transparent from discovery to outcomes? And how do you bring each of Cisco's franchises or, if you will, architectures to life to be able to deliver on this? It won't change. In my view, I clearly understand services is a huge part of making this work. But my ratio is 5 to 1. For every [dollar] of revenue we get for services, I want my partners to get five, and say 'How do we together deliver outcomes?' That's the transition together that I think we have to make as an industry and this is how you compete against bare metal, white-box, new startups and individual players. I think transitions will be ongoing. And this is perhaps important for the partners to understand as well. I have been through five or seven transitions -- depending on how you want to count them -- over my time here since I came in '91. They are occurring more frequently. So I think what you have to think about as a company is how do you do this architecturally and how do you build it so when these transitions occur, it's just part of a normal evolution. It's how do you build that into your DNA and, candidly, into your partners' DNA. Otherwise, the transitions that occurred every seven years, then became five and now are three -- some of them we handled smoothly, some of them we handled with a little bit of pain, but we will handle them, period, and appropriately. But I think you've got to build a company that almost runs itself every quarter at a time with a five quarter rolling type of approach. We will be constantly changing and evolving. You build that into your DNA. I think what you are going to see Cisco do is maintain a very crisp vision, strategy [and] execution ... model. We will adjust as we go through it, but if you watch these transitions we have just made, we have really set our strategy for the next three to five years. And if you watch, as a company, we have changed every player at Cisco during my time here at least three to maybe even seven times and partners didn't even notice. We are a partner-centric company, period.

It didn't matter [if it was Cisco Executive Advisor] Rick Justice, it didn't matter [if it was Cisco President] Rob Lloyd or [Cisco Senior Vice President] Chuck Robbins ... we changed services [leads], we changed CFOs, we changed marketing leads, multiple engineering leads. We do this very well. And this has allowed Cisco to stay on top for what? Two decades? Who else has stayed on top and moved into new areas with anywhere near the leadership that we have? I'd say no one. This is why I am so committed to partners. Partners are a huge part of making that happen. Now, each time we move, they have to move with us. And, if you remember, a decade ago most partners paid no attention to services. Today, it's probably 50 percent of their average revenue and maybe as much as 70 percent of their profits. We both go off of what the customers say. Our end customers. And this is where our channels have done such a great job. The channel customer satisfaction is equivalent to Cisco satisfaction -- so whether you are dealing with just us standalone or dealing with our channels. That's a huge improvement, as you all know, over the last five years. [Also,] the ability for our channels to grow and make their profits. So first is what our customers say and second is what our channels say and the results they are getting on it. Well I would probably give our partners, as a total, an "A" in how we are communicating back and forth that the change has to occur. But just like Cisco, we are in the very early stages.

And the partners vary dramatically [in terms of] where they are in the early stages of making this transition. Some of them are really running fast and are selling architectures and outcomes and results. Others are transitioning over. So it varies by geography, by type of partner, by industry, etc. This is my family. If we do this right, this transition, you won't even notice.

My goal is to make this one of the best transitions there has ever been in high tech, and I know a number of them haven't gone very well over the years. But this isn't something we have just been focused on the past year. We have been focusing on this for a decade about how we build the relationship and a strategy that the company buys into and is implemented by the company. I have the broadest base of leaders and the strongest leaders I have ever had by a factor of two- or three-fold. And I have moved the people out of the company that were passive aggressive and not as strong of a team player. So this is just one more transition. In summary, white-box ... we saw that coming three and a half years ago. If you are selling a standalone router or a standalone switch, especially if you are doing that with merchant ASICs, your differentiation -- whether it's a server white-box or a storage white-box or network white-box -- is very little. When we saw this coming, we moved to architectures so you combine the technology of the network, the custom and merchant ASICs with the software, with the hardware, with the storage and do it throughout the network and you focus on outcomes. Customers will pay a premium. If you are buying the cheapest product, that's probably not where we are going to win. If you are buying the best total cost of ownership and highest probability of outcome, we're tough to beat. If we do our job right, forever. The reason I say that with confidence is do you get these market transitions right? Do we become the No. 1 IT company for our customers? Do we get the architectures evolving right? And we have to earn that every day. So don't misunderstand; that's not brash confidence. If we do the transitions we have said right -- you sit down with all the other players. Who even thinks this way in the industry? And isn't this what customers want? And this is where partners are so powerful. We are so close to the partner community, it's one of our top ... strengths as a company. And we will evolve with our partners.

Big time. Big time. If you watched, we just announced our reorganization of engineering. We moved from selling in silos that, at times, even competed with each other to horizontal and simplicity and business outcomes. So R&D has to change not just more to software -- i.e., security or software collaboration or software in terms of Meraki or what we do in new cloud models -- but you've also got to tie these together in a way that customers see as being simple and easy to work with. That allows our partners and Cisco to focus on outcomes, and that allows you to move into the Internet of Everything which is \$19 trillion in either cost saving or profits either for governments or for business. Think how big that number is and the impact that will have on every customer we and our partners have. Well, because we bring them together, it's a hard number to break out. [Cisco Executive Vice President and Chief Development Officer] Pankaj [Patel] would give you a better estimate. But just hardware engineers are probably less than 15 or 17 percent. Key takeaway here is Cisco is the disrupter. We are going on the offense. We are not playing defense. We are not going to respond to people who are challenging. We are going to say 'Here is what the customers want and we are going to deliver it with faster speed with our partners than anybody else can.' Intercloud is a step beyond a public cloud. Think of Intercloud as Cisco services delivered from a cloud: hosted communication, security, collaboration. Think of it as our customers' private cloud capabilities. Think of it as our partners' and Cisco's architectural implementation of this, if you will, in terms of our partner clouds. And think of it in terms of a public cloud.

Our role is we see all four of them growing well and we are going to play in all four. So Amazon is a customer, a partner and, at times, a competitor. But it's a public cloud. Then our customers' own private cloud is what we help build out. Now, if we can move around workloads based upon guaranteed response times, security issues, etc. to meet the customer outcomes that they want -- that's what Intercloud really does. You can maintain, if you wanted, data sovereignty in a country. And, at the same time, that offers a huge competitive advantage. So this is classic Cisco. It's not that we are saying, 'Here is what we are doing with our own cloud and here is what we are doing with our customers' private clouds and here is what we are doing with our partners' architectural clouds built on Cisco and here is what we are doing in public.' It's how do we bring the hybrid, the private and the public together and how do we do it in a way that really accomplishes what customers want. First, as you all know, at each of the partner conferences I poll [partners] constantly. A year ago -- in fact, it's been a year and a couple months now since that partner conference -- I asked

[partners] how many thought we should move into this market. My team thought everybody would say 'yes' but I knew they wouldn't. When I asked it was fifty-fifty. And when I asked this year, it was 95 percent. We of course looked at the five percent who didn't want to do it, and we immediately went to them. I won't say who they are, but we immediately went to them. And so if you watch where we are going, watch how partnerships like the one we have with Dimension Data, how this evolves. And watch how partnerships like the one with IBM evolves. So I think all partners just need to understand how they are going to evolve here and why this is in their best interest and ours. And I don't understand the challenges. This is a complex move. It's like the Internet of Everything six or seven years ago. I had to buy people drinks to get them to talk about them. Now I have board of directors coming in, we have government leaders coming in, etc.

Let's move way beyond the NSA. Let's talk about what's so important. Customers have a right to knowing that their data is secure and so do the citizens and so do the companies. And this is not an issue unique to the U.S. Every country is involved in espionage. That's what they do. They have done it for a long time. What needs to occur is a standard of conduct and rules of the road that will guarantee to customers the supply chain and data integrity that they need. And I think that's where countries have to step up and begin to provide these guidelines and an outline to that. As you know, we don't give anybody our core software even though a number of peers do because if you get the software you can eventually, with the processing power, figure out how to break it. We don't provide backdoors. And we focus on outcomes. And if we find anyone -- doesn't matter if its hackers or governments -- involved in any of our customer environments anywhere in the world, we tell our customers, period. And we do that in the U.S., in Europe and China and India. And we have done it.

It does have. And it's mainly in a couple of countries, but it's the overall security issue where, instead of saying this is a problem, you reserve it. We are going to move to become the No. 1 security player globally. We'll use concepts such as Intercloud for data sovereignty. You begin to say, 'Here is the problem we can solve' and then, at the same time, you work with governments to say to the leadership in Europe and Germany ... 'Here is what we can do together.' And to the U.S. the same way and to India and China the same way and say, 'How do we solve this problem?' because they have equal interest. Think of how much of the supply chain comes out of China or out of Asia. This is what has made our industry so powerful is the complete globalization of the supply chain and the ability to move and for every citizen and every country in the world to potentially have a benefit from it. So this is where, I think a lot of people tend to look in the rear-vision mirror. In my letter to [President Obama] I said, 'It's interesting how we got here, but it's even more important how we go forward. How do we solve these problems together?' Part of them we will solve on our own. We are going to be very direct in terms of protecting our customers' data, information, etc. and very direct in terms of if we find any issues, regardless of where they come from, to turn them over to customers.

Well, remember, this could be any gear by any company anywhere in the supply chain. And I don't know of any government that has given those assurances. So this is where I would like to see countries come together to say these are the rules of the road or the business conduct. Now, having said that, we are going to do the same. We are going to make the equipment very difficult to tamper with. We are going to ship it with a lot of information on it, and we are going to say 'How do we do this better than anyone else?' But, remember, this is just one of 100 different ways people can gain access to information. That's why I think you need some rules of the road and that's in every country's best interest. Basically, what you are going to do and not do in supply chain. Basically, in terms of, if you find problems, it doesn't matter if it's my products, or Alcatel Lucent's products, HP's products or Huawei's products. If you find those weaknesses, I think they ought to tell the vendor, 'You got a problem, go fix it.' I think a lot of the issues go back to part of the economic implications and the impact of being able to change the world. We are going to lead in terms of data security and you are going to see us start to really focus on security as a whole. Well the last thing I would ever try to do is give one of my peers and a good friend, Joe Tucci (pictured), advice. So I think looking at how we approached our business and how multiple players in the industry, not just EMC, but HP, IBM and others approach theirs, we chose a different path. If you look at what we just outlined here, every one of our product areas are now completely coming together in a total architecture. So routing isn't separate from switching, isn't separate from collaboration, isn't separate from services, isn't separate from mobility, isn't separate from security, isn't separate from

the Internet of Everything, isn't separate from InterCloud, isn't separate from ACI, isn't separate from compute with storage with the network. They are all tied together so that our customers get the benefit and so that our products have a premium. And our ability then to continue to transform the organization, it gets results that companies who lead in these silos or are loosely coupled together, do not get.

So we took a different approach than almost everybody else in the industry in terms of [having] 18 major product families and then said 'How do you bring them together in architectures that allows you to get a premium, a quicker response from your customers, and a partner community who will standardize on you, and outcomes?' We chose a different approach here and I would argue we are getting the benefits of that. I don't know anybody would look at Cisco and who really understands our business, especially the moves we have made in the last few years, who would argue that breaking the company into pieces makes sense. I normally don't comment about my peers, but I am going to make an exception. If you watch, the industry ... has not done a good job with CEO transitions. If you watch, often when CEO transitions have occurred in high tech over the last 30 years, especially if the CEO had been the person who grew the company or the founder for a number of years, they have been rough. And you can probably count on one hand those that even went okay vs. really good. And it's one that we will make differently.

Now, Satya (pictured), I think, is perfect for Microsoft. If you watch, and watch what he has already done, he comes from a very strong technical background. He understands their culture. It would be very different to bring in somebody from outside to run Microsoft, even though people have different views, because it is so complex what goes on. Yet, you had to have somebody who was a change agent and somebody who, given their culture, is pretty technical in terms of the direction. I found him to be a breath of fresh air in terms of his willingness to make changes. And while some people might second guess him on his strategy or his implementation or his decision to size the organization right, those are decisions leaders have to make. You can't lead if you don't make the tough decisions.

We have probably done more with Microsoft, with Sayta, in the last year than we had in multiple years before that. And it wasn't that we didn't get along well with the [previous] leadership at Microsoft; we got along very well. But watch out data center announcements together. Watch what we do in terms of the market. They were on stage with us at our ACI launch. Sayta was. So it's a hard job and I don't underestimate the challenges that Sayta will face, but if I were betting on whether he's going to be successful, I think he absolutely will be. I think you have watched how our company has evolved and we have been very much focused on this. We knew that this would be a hard issue ten years ago. And if you watch the breadth and depth of our team, it's the best it's ever been. And if you watch how we are running the company, I am empowering my team more and sometimes it gets tremendous results and sometimes they make mistakes. But if you don't give them a chance to learn, then their ability to lead as a team won't be there. So we have been very much focused on how to make these transitions smooth and have been working with our board and others over the last decade and especially over the last three to five years. I think they all have to constantly do a refresh. If you watch, you could almost say, 'What product have we not refreshed recently?'

... It's the most new products we have ever launched in our history in the last year. Think about it. We have launched entirely new, two high-end routers. Those usually come, historically, every seven years. We have announced and complemented our high-end switching in the data center. We have announced a whole new set of collaboration products. We have announced architectures and really finally brought them to life. We've announced ACI and how do you drive this through and just started, literally, shipping it at this present time in terms of the implementation. We have moved from a player that no one would say is the No. 1 security player to [somebody] who many people would say, 'now Cisco is really getting serious and they could become our No. 1 security player.' The point I'm making is that it's probably 2x the amount of new products that we have ever brought out in our history. And yet, Pankag [Patel] and I and the rest of the leadership team, are saying, 'This isn't enough. We have to organize for faster speed and scale and identify the market ... and not think of those as silos, but think of those horizontally and say, 'How do those play together to bring the Internet of Everything to life?'

Appendix 27. Definition and examples for LIWC dimensions used in Study 1

LIWC dimension	Examples
Word Count (WC)	N/A
Analytical Thinking (analytic)	N/A
Clout Tone (clout)	N/A
Authentic Tone (authentic)	N/A
Emotional Tone (tone)	N/A
Words per sentence (WPS)	N/A
Words longer than six letters (sixltr)	N/A
Dictionary words (dic)	N/A
Function words (function)	it, to, no, very
Pronouns (pronoun)	I, them, itself
Personal pronouns (ppron)	I, them, her
Pronoun "I" and its derivatives (I)	I, me, mine
Pronoun "We" and its derivatives (we)	we, us, our
Pronoun "You" and its derivatives (you)	you, your, thou
Pronouns "She", "He" and their derivatives (shehe)	she, her, him
Pronoun "They" and its derivatives (they)	they, their, they'd
Impersonal pronouns (ipron)	it, it's, those
Articles (article)	a, an, the
Prepositions (prep)	to, with, above
Auxiliary verbs (auxverb)	am, will, have
Adverbs (adverb)	very, really, also
Conjunctions (conj)	and, but, whereas
Negations (negate)	no, not, never
Common verbs (verb)	eat, come, carry
Common adjectives (adj)	free, happy, long
Comparisons (compare)	greater, best, after
Interrogatives (interrog)	how, when, what
Numbers (number)	second, thousand, two
Quantifiers (quant)	few, many, much
Affective processes related words (affect)	happy, cried, positive
Positive emotion words (posemo)	love, nice, sweet
Negative emotion words (negemo)	hurt, ugly, nasty
Anxiety related words (anx)	worried, fearful, doubt
Anger related words (anger)	hate, kill, annoyed
Sadness related words (sad)	crying, grief, sad
Social processes related words (social)	mate, talk, they
Family related words (family)	daughter, dad, aunt
Friends related words (friend)	buddy, neighbour, guest
Female related words (female)	girl, her, mom
Male related words (male)	boy, his, dad
Cognitive processes related words (cogproc)	cause, know, ought
Insight related words (insight)	think, know, relate
Causations (cause)	because, effect, hence
Discrepancy words (discrep)	should, would, rather
Tentative tone (tentat)	maybe, perhaps, unsure
Certainty tone (certain)	always, never, total
Differentiation (differ)	hasn't, but, else
Perceptual processes related words (percept)	look, heard, feeling
Sight related words (see)	view, saw, seen
Hearing related words (hear)	listen, hearing, speak
Feeling related words (feel)	feels, touch, pain

Perceptual processes related words (bio)	eat, blood, pain
Body related words (body)	cheek, hands, spit
Health related words (health)	clinic, flu, pill
Sexuality related words (sexual)	love, nude, pregnant
Ingestion related words (ingest)	dish, eat, pizza
Personal drives related words (drives)	achieve, important, problem
Affiliation related words (affiliation)	ally, friend, social
Achievement related words (achieve)	win, success, better
Power related words (power)	superior, bully, passive
Reward related words (rewards)	take, prize, benefit
Risk related words (risk)	danger, doubt, hazard
Use of Past tense (focuspast)	ago, did, talked
Use of Present tense (focuspresent)	today, is, now
Use of Future tense (focusfuture)	may, will, soon
Relativity related words (relativ)	area, bend, exit
Motion related words (motion)	arrive, car, go
Space related words (space)	down, in, thin
Time related words (time)	end, until, season
Work related words (work)	job, majors, hire
Leisure related words (leisure)	cook, chat, movie
Home related words (home)	kitchen, landlord, family
Money related words (money)	audit, cash, owe
Religion related words (relig)	altar, church, temple
Death related words (death)	bury, coffin, kill
Informal language (informal)	Ah, hey, um
Swear words (swear)	bloody, damn, hell
Use of abbreviations in the language (netspeak)	btw, lol, thx
Assent words (assent)	agree, OK, yes
Non-fluencies in language (nonflu)	er, hm, umm
Filler words (filler)	I mean, you know, oh well
All punctuation (allpunc)	N/A
Periods in the text (period)	N/A
Commas in the text (comma)	N/A
Colons in the text (colon)	N/A
Semicolons in the text (semic)	N/A
Question marks in the text (qmark)	N/A
Exclamation marks in the text (exclam)	N/A
Dashes in the text (dash)	N/A
Quotation marks in the text (quote)	N/A
Apostrophes in the text (apostro)	N/A
Parentheses in the text (parenth)	N/A
Other punctuation in the text (otherp)	N/A

Appendix 28. Definition and examples for LIWC dimensions used in Study 2

LIWC dimension	Examples
Function words (Function)	it, to, no, very
Pronouns (Pronoun)	I, them, itself
Personal pronouns (Ppron)	I, them, her
Pronoun "I" and its derivatives (I)	I, me, mine
Pronoun "We" and its derivatives (We)	we, us, our
Pronoun "You" and its derivatives (You)	you, your, thou
Pronouns "She", "He" and their derivatives (Shehe)	she, her, him
Pronoun "They" and its derivatives (They)	they, their, they'd
Impersonal pronouns (Ipron)	it, it's, those
Articles (Article)	a, an, the
Prepositions (Prep)	to, with, above
Auxiliary verbs (Auxverb)	am, will, have
Adverbs (Adverb)	very, really, also
Conjunctions (Conj)	and, but, whereas
Negations (Negate)	no, not, never
Common verbs (Verb)	eat, come, carry
Common adjectives (Adj)	free, happy, long
Comparisons (Compare)	greater, best, after
Interrogatives (Interrog)	how, when, what
Numbers (Number)	second, thousand, two
Quantifiers (Quant)	few, many, much
Affective processes related words (Affect)	happy, cried, positive
Positive emotion words (Posemo)	love, nice, sweet
Negative emotion words (Negemo)	hurt, ugly, nasty
Anxiety related words (Anx)	worried, fearful, doubt
Anger related words (anger)	hate, kill, annoyed
Sadness related words (sad)	crying, grief, sad
Social processes related words (social)	mate, talk, they
Family related words (family)	daughter, dad, aunt
Friends related words (friend)	buddy, neighbour, guest
Female related words (female)	girl, her, mom
Male related words (male)	boy, his, dad
Cognitive processes related words (cogproc)	cause, know, ought
Insight related words (insight)	think, know, relate
Causations (cause)	because, effect, hence
Discrepancy words (discrep)	should, would, rather
Tentative tone (tentat)	maybe, perhaps, unsure
Certainty tone (certain)	always, never, total
Differentiation (differ)	hasn't, but, else
Perceptual processes related words (percept)	look, heard, feeling
Sight related words (see)	view, saw, seen
Hearing related words (hear)	listen, hearing, speak
Feeling related words (feel)	feels, touch, pain
Perceptual processes related words (bio)	eat, blood, pain
Body related words (body)	cheek, hands, spit
Health related words (health)	clinic, flu, pill
Sexuality related words (sexual)	love, nude, pregnant
Ingestion related words (ingest)	dish, eat, pizza
Personal drives related words (drives)	achieve, important, problem
Affiliation related words (affiliation)	ally, friend, social
Achievement related words (achieve)	win, success, better

Power related words (power)	superior, bully, passive
Reward related words (rewards)	take, prize, benefit
Risk related words (risk)	danger, doubt, hazard
Use of Past tense (focuspast)	ago, did, talked
Use of Present tense (focuspresent)	today, is, now
Use of Future tense (focusfuture)	may, will, soon
Relativity related words (relativ)	area, bend, exit
Motion related words (motion)	arrive, car, go
Space related words (space)	down, in, thin
Time related words (time)	end, until, season
Work related words (work)	job, majors, hire
Leisure related words (leisure)	cook, chat, movie
Home related words (home)	kitchen, landlord, family
Money related words (money)	audit, cash, owe
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Death related words (death)	bury, coffin, kill
Informal language (informal)	ah, hey, um
Swear words (swear)	bloody, damn, hell
Use of abbreviations in the language (netspeak)	btw, lol, thx
Assent words (assent)	agree, OK, yes
Non-fluencies in language (nonflu)	er, hm, umm
Filler words (filler)	I mean, you know, oh well

Appendix 29. Results from Validation 2 (Study 2, Donald Trump instead of Elon Musk)

	Travis Kalanick	Donald Trump	Howard Schultz	Steve Jobs	Jamie Dimon	Jeff Bezos	John Chamber s	Mike Bloomberg	Mike Parker	Robert Iger
HCEO/ NHCEO	HCEO	HCEO	HCEO	HCEO	HCEO	NHCEO	NHCEO	NHCEO	NHCEO	NHCEO
Data for year	2016	2014	2015	2008	2015	2015	2014	2015	2015	2015
Word Count (WC)	5108	5454	4150	3121	10566	3302	4732	6137	3194	3131
Function words (function)	59.44	1.12	57.69	60.04	56.30	57.09	58.69	59.77	51.31	56.37
Pronouns (pronoun)	17.50	8.23	15.90	20.31	17.56	17.50	17.35	17.16	12.90	14.08
Personal pronouns (ppron)	9.44	7.74	9.42	11.25	10.10	10.18	10.48	9.29	7.67	7.89
Pronoun “I” and its derivatives (I)	2.80	10.93	3.06	1.70	3.30	3.24	1.61	2.72	1.75	2.01
Pronoun “We” and its derivatives (we)	3.43	12.23	3.78	5.61	2.77	2.79	4.80	1.96	4.07	3.86
Pronoun “You” and its derivatives (you)	2.70	5.21	1.45	2.02	2.20	2.85	2.41	2.49	0.69	1.09
Pronouns “She”, “He” and their derivatives (shehe)	0.08	6.31	0.34	0.13	0.10	0.42	0.25	0.37	0.56	0.03
Pronoun “They” and its derivatives (they)	0.43	2.81	0.80	1.79	1.72	0.88	1.42	1.74	0.59	0.89
Impersonal pronouns (ipron)	8.05	21.12	6.48	8.97	7.43	7.33	6.87	7.87	5.23	6.20
Articles (article)	6.46	5.59	8.02	6.44	6.33	6.97	5.87	7.45	7.80	7.47
Prepositions (prep)	12.51	2.53	14.43	12.21	11.16	11.42	12.70	11.65	15.44	13.99
Auxiliary verbs (auxverb)	11.65	1.85	9.18	12.18	11.61	11.84	10.61	12.86	7.55	10.16
Adverbs (adverb)	8.28	1.54	4.92	5.96	5.64	6.33	6.34	5.39	3.76	6.80
Conjunctions (conj)	9.38	2.38	7.73	6.98	7.57	7.66	9.07	7.64	7.04	7.31
Negations (negate)	1.66	7.70	1.57	2.53	2.29	1.67	1.56	2.93	0.81	1.82
Common verbs (verb)	21.05	5.94	16.31	22.30	20.90	19.87	17.48	20.61	12.71	17.98
Common adjectives (adj)	4.60	1.74	3.18	4.26	4.40	4.88	3.11	4.14	6.23	5.11
Comparisons (compare)	2.98	0.15	1.57	2.44	2.59	2.36	1.97	2.12	3.26	2.40
Interrogatives (interrog)	2.41	0.64	1.54	2.31	1.49	1.42	2.75	2.05	1.53	1.66
Numbers (number)	1.64	0.35	2.92	1.95	2.28	1.73	2.11	1.21	1.47	1.79
Quantifiers (quant)	3.01	9.55	2.67	2.72	3.18	2.70	2.37	2.70	2.00	2.87

Affective processes related words (affect)	4.17	0.07	4.27	3.91	5.11	5.18	2.49	4.61	5.29	5.14
Positive emotion words (posemo)	3.37	0.42	3.35	2.98	3.81	3.97	1.99	3.08	4.92	4.18
Negative emotion words (negemo)	0.78	0.31	0.87	0.93	1.26	1.12	0.46	1.48	0.34	0.89
Anxiety related words (anx)	0.12	1.10	0.10	0.16	0.22	0.18	0.00	0.24	0.09	0.06
Anger related words (anger)	0.06	12.17	0.05	0.26	0.32	0.06	0.13	0.28	0.06	0.51
Sadness related words (sad)	0.27	2.48	0.29	0.16	0.22	0.36	0.04	0.24	0.03	0.10
Social processes related words (social)	9.49	1.36	12.94	14.10	10.32	10.96	13.67	11.06	9.52	8.59
Family related words (family)	0.12	1.76	0.17	0.00	0.09	0.06	0.04	0.02	0.06	0.06
Friends related words (friend)	0.08	2.68	0.34	0.06	0.07	0.03	0.74	0.00	0.47	0.06
Female related words (female)	0.00	1.83	0.36	0.00	0.05	0.03	0.00	0.03	0.13	0.00
Male related words (male)	0.14	3.41	0.07	0.16	0.16	0.39	0.25	0.36	0.53	0.06
Cognitive processes related words (cogproc)	14.29	2.70	11.57	15.44	14.47	13.29	13.57	14.13	12.49	12.84
Insight related words (insight)	2.84	1.39	2.51	3.14	3.02	2.63	2.05	2.40	3.29	2.75
Causations (cause)	2.37	0.92	1.28	2.69	1.76	1.76	3.40	1.91	2.97	2.46
Discrepancy words (discrep)	1.53	0.37	1.71	1.89	1.99	2.70	1.94	1.68	0.72	0.89
Tentative tone (tentat)	3.56	0.88	2.41	2.79	3.90	3.12	2.85	3.13	2.10	2.52
Certainty tone (certain)	1.78	0.18	1.90	2.21	1.87	1.82	1.48	2.18	1.82	1.50
Differentiation (differ)	4.17	0.20	3.13	4.39	3.87	3.15	4.37	4.60	2.69	3.67
Perceptual processes related words (percept)	1.62	0.00	1.01	1.89	1.79	2.21	2.05	1.21	1.19	1.98
Sight related words (see)	0.94	0.20	0.36	0.70	0.81	0.73	0.99	0.39	0.66	1.12
Hearing related words (hear)	0.41	7.44	0.48	0.90	0.66	0.97	0.72	0.51	0.16	0.45
Feeling related words (feel)	0.16	1.19	0.07	0.26	0.22	0.39	0.30	0.28	0.13	0.29
Perceptual processes related words (bio)	0.63	1.98	0.87	1.03	0.55	0.94	0.30	1.29	1.10	0.26
Body related words (body)	0.25	2.66	0.17	0.26	0.12	0.18	0.13	0.15	0.41	0.19
Health related words (health)	0.27	2.88	0.55	0.45	0.27	0.27	0.11	0.42	0.31	0.03
Sexuality related words (sexual)	0.06	0.26	0.00	0.00	0.00	0.03	0.00	0.00	0.13	0.03
Ingestion related words (ingest)	0.06	3.80	0.14	0.13	0.10	0.21	0.02	0.70	0.16	0.00

Personal drives related words (drives)	9.49	15.35	10.53	12.08	10.71	10.39	11.62	9.34	12.77	9.68
Affiliation related words (affiliation)	3.86	1.27	5.47	6.34	3.27	3.63	6.45	2.56	5.82	4.22
Achievement related words (achieve)	1.88	10.43	1.83	1.95	1.82	2.45	2.22	1.63	3.98	1.72
Power related words (power)	2.15	1.39	2.27	1.79	3.85	2.91	2.66	3.45	2.35	2.33
Reward related words (rewards)	2.00	5.92	1.47	2.50	2.38	2.06	1.44	2.09	2.25	1.92
Risk related words (risk)	0.33	3.28	0.39	0.54	0.76	0.58	0.57	0.73	0.16	0.16
Use of Past tense (focuspast)	2.02	3.34	3.45	5.67	2.91	2.18	2.60	2.35	1.88	4.31
Use of Present tense (focuspresent)	16.76	2.26	11.52	13.97	15.38	15.72	13.52	16.31	10.33	12.36
Use of Future tense (focusfuture)	1.94	0.11	1.47	1.44	2.03	1.82	1.63	1.79	1.06	1.98
Relativity related words (relativ)	15.35	1.47	13.88	11.57	12.56	13.02	13.74	13.52	15.59	14.98
Motion related words (motion)	3.00	0.04	1.69	2.56	2.44	2.30	3.21	2.41	2.66	2.49
Space related words (space)	8.40	0.07	7.40	5.48	6.73	6.51	6.61	7.41	8.67	7.86
Time related words (time)	4.37	0.84	5.33	3.75	3.55	4.48	4.21	3.98	4.54	4.63
Work related words (work)	3.66	0.02	4.51	4.33	5.64	4.82	4.46	4.55	4.76	4.38
Leisure related words (leisure)	0.35	0.20	0.34	1.54	0.20	1.06	0.55	0.65	1.41	1.47
Home related words (home)	0.02	0.11	0.29	0.29	0.26	0.33	0.04	0.08	0.03	0.19
Money related words (money)	2.25	0.46	2.27	1.25	3.66	3.09	1.92	1.79	1.22	3.45
Religion related words (relig)	0.02	0.02	0.05	0.16	0.05	0.12	0.00	0.13	0.09	0.00
Death related words (death)	0.04	2014	0.00	0.03	0.11	0.00	0.02	0.15	0.00	0.26
Informal language (informal)	0.88	5454	0.36	0.32	0.55	1.18	0.36	0.67	0.25	0.54
Swear words (swear)	0.04	58.07	0.00	0.06	0.02	0.03	0.00	0.00	0.00	0.00
Use of abbreviations in the language (netspeak)	0.20	19.67	0.05	0.10	0.01	0.36	0.02	0.08	0.06	0.03
Assent words (assent)	0.18	11.44	0.12	0.06	0.37	0.42	0.11	0.31	0.06	0.06
Non-fluencies in language (nonflu)	0.43	7.24	0.22	0.10	0.14	0.21	0.23	0.24	0.13	0.45
Filler words (filler)	0.02	0.29	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00

Appendix 30. Results from Validation 3 (Study 2, Donald Trump instead of Howard Schultz)

	Travis Kalanick	Elon Musk	Donald Trump	Steve Jobs	Jamie Dimon	Jeff Bezos	John Chambers	Mike Bloomberg	Mike Parker	Robert Iger
HCEO/ NHCEO	HCEO	HCEO	HCEO	HCEO	HCEO	NHCEO	NHCEO	NHCEO	NHCEO	NHCEO
Data for year	2016	2015	2014	2008	2015	2015	2014	2015	2015	2015
Word Count (WC)	5108	4803	5454	3121	10566	3302	4732	6137	3194	3131
Function words (function)	59.44	56.96	58.07	60.04	56.30	57.09	58.69	59.77	51.31	56.37
Pronouns (pronoun)	17.50	15.37	19.67	20.31	17.56	17.50	17.35	17.16	12.90	14.08
Personal pronouns (ppron)	9.44	7.31	11.44	11.25	10.10	10.18	10.48	9.29	7.67	7.89
Pronoun “I” and its derivatives (I)	2.80	2.64	7.24	1.70	3.30	3.24	1.61	2.72	1.75	2.01
Pronoun “We” and its derivatives (we)	3.43	2.39	0.29	5.61	2.77	2.79	4.80	1.96	4.07	3.86
Pronoun “You” and its derivatives (you)	2.70	0.83	1.80	2.02	2.20	2.85	2.41	2.49	0.69	1.09
Pronouns “She”, “He” and their derivatives (shehe)	0.08	0.06	0.99	0.13	0.10	0.42	0.25	0.37	0.56	0.03
Pronoun “They” and its derivatives (they)	0.43	1.37	1.12	1.79	1.72	0.88	1.42	1.74	0.59	0.89
Impersonal pronouns (ipron)	8.05	8.04	8.23	8.97	7.43	7.33	6.87	7.87	5.23	6.20
Articles (article)	6.46	7.54	7.74	6.44	6.33	6.97	5.87	7.45	7.80	7.47
Prepositions (prep)	12.51	13.97	10.93	12.21	11.16	11.42	12.70	11.65	15.44	13.99
Auxiliary verbs (auxverb)	11.65	11.41	12.23	12.18	11.61	11.84	10.61	12.86	7.55	10.16
Adverbs (adverb)	8.28	6.20	5.21	5.96	5.64	6.33	6.34	5.39	3.76	6.80
Conjunctions (conj)	9.38	5.95	6.31	6.98	7.57	7.66	9.07	7.64	7.04	7.31
Negations (negate)	1.66	1.73	2.81	2.53	2.29	1.67	1.56	2.93	0.81	1.82
Common verbs (verb)	21.05	18.34	21.12	22.30	20.90	19.87	17.48	20.61	12.71	17.98
Common adjectives (adj)	4.60	4.46	5.59	4.26	4.40	4.88	3.11	4.14	6.23	5.11
Comparisons (compare)	2.98	2.83	2.53	2.44	2.59	2.36	1.97	2.12	3.26	2.40
Interrogatives (interrog)	2.41	1.46	1.85	2.31	1.49	1.42	2.75	2.05	1.53	1.66
Numbers (number)	1.64	1.60	1.54	1.95	2.28	1.73	2.11	1.21	1.47	1.79
Quantifiers (quant)	3.01	2.77	2.38	2.72	3.18	2.70	2.37	2.70	2.00	2.87

Affective processes related words (affect)	4.17	5.12	7.70	3.91	5.11	5.18	2.49	4.61	5.29	5.14
Positive emotion words (posemo)	3.37	3.73	5.94	2.98	3.81	3.97	1.99	3.08	4.92	4.18
Negative emotion words (negemo)	0.78	1.37	1.74	0.93	1.26	1.12	0.46	1.48	0.34	0.89
Anxiety related words (anx)	0.12	0.33	0.15	0.16	0.22	0.18	0.00	0.24	0.09	0.06
Anger related words (anger)	0.06	0.27	0.64	0.26	0.32	0.06	0.13	0.28	0.06	0.51
Sadness related words (sad)	0.27	0.21	0.35	0.16	0.22	0.36	0.04	0.24	0.03	0.10
Social processes related words (social)	9.49	7.43	9.55	14.10	10.32	10.96	13.67	11.06	9.52	8.59
Family related words (family)	0.12	0.06	0.07	0.00	0.09	0.06	0.04	0.02	0.06	0.06
Friends related words (friend)	0.08	0.04	0.42	0.06	0.07	0.03	0.74	0.00	0.47	0.06
Female related words (female)	0.00	0.00	0.31	0.00	0.05	0.03	0.00	0.03	0.13	0.00
Male related words (male)	0.14	0.19	1.10	0.16	0.16	0.39	0.25	0.36	0.53	0.06
Cognitive processes related words (cogproc)	14.29	15.80	12.17	15.44	14.47	13.29	13.57	14.13	12.49	12.84
Insight related words (insight)	2.84	2.23	2.48	3.14	3.02	2.63	2.05	2.40	3.29	2.75
Causations (cause)	2.37	2.46	1.36	2.69	1.76	1.76	3.40	1.91	2.97	2.46
Discrepancy words (discrep)	1.53	2.54	1.76	1.89	1.99	2.70	1.94	1.68	0.72	0.89
Tentative tone (tentat)	3.56	4.58	2.68	2.79	3.90	3.12	2.85	3.13	2.10	2.52
Certainty tone (certain)	1.78	1.50	1.83	2.21	1.87	1.82	1.48	2.18	1.82	1.50
Differentiation (differ)	4.17	4.68	3.41	4.39	3.87	3.15	4.37	4.60	2.69	3.67
Perceptual processes related words (percept)	1.62	1.12	2.70	1.89	1.79	2.21	2.05	1.21	1.19	1.98
Sight related words (see)	0.94	0.37	1.39	0.70	0.81	0.73	0.99	0.39	0.66	1.12
Hearing related words (hear)	0.41	0.44	0.92	0.90	0.66	0.97	0.72	0.51	0.16	0.45
Feeling related words (feel)	0.16	0.25	0.37	0.26	0.22	0.39	0.30	0.28	0.13	0.29
Perceptual processes related words (bio)	0.63	0.50	0.88	1.03	0.55	0.94	0.30	1.29	1.10	0.26
Body related words (body)	0.25	0.12	0.18	0.26	0.12	0.18	0.13	0.15	0.41	0.19
Health related words (health)	0.27	0.21	0.20	0.45	0.27	0.27	0.11	0.42	0.31	0.03
Sexuality related words (sexual)	0.06	0.06	0.00	0.00	0.00	0.03	0.00	0.00	0.13	0.03
Ingestion related words (ingest)	0.06	0.08	0.20	0.13	0.10	0.21	0.02	0.70	0.16	0.00

Personal drives related words (drives)	9.49	8.47	7.44	12.08	10.71	10.39	11.62	9.34	12.77	9.68
Affiliation related words (affiliation)	3.86	2.87	1.19	6.34	3.27	3.63	6.45	2.56	5.82	4.22
Achievement related words (achieve)	1.88	2.12	1.98	1.95	1.82	2.45	2.22	1.63	3.98	1.72
Power related words (power)	2.15	2.50	2.66	1.79	3.85	2.91	2.66	3.45	2.35	2.33
Reward related words (rewards)	2.00	1.50	2.88	2.50	2.38	2.06	1.44	2.09	2.25	1.92
Risk related words (risk)	0.33	0.65	0.26	0.54	0.76	0.58	0.57	0.73	0.16	0.16
Use of Past tense (focuspast)	2.02	2.64	3.80	5.67	2.91	2.18	2.60	2.35	1.88	4.31
Use of Present tense (focuspresent)	16.76	12.93	15.35	13.97	15.38	15.72	13.52	16.31	10.33	12.36
Use of Future tense (focusfuture)	1.94	1.69	1.27	1.44	2.03	1.82	1.63	1.79	1.06	1.98
Relativity related words (relativ)	15.35	13.14	10.43	11.57	12.56	13.02	13.74	13.52	15.59	14.98
Motion related words (motion)	3.00	2.37	1.39	2.56	2.44	2.30	3.21	2.41	2.66	2.49
Space related words (space)	8.40	7.68	5.92	5.48	6.73	6.51	6.61	7.41	8.67	7.86
Time related words (time)	4.37	3.14	3.28	3.75	3.55	4.48	4.21	3.98	4.54	4.63
Work related words (work)	3.66	3.69	3.34	4.33	5.64	4.82	4.46	4.55	4.76	4.38
Leisure related words (leisure)	0.35	0.50	2.26	1.54	0.20	1.06	0.55	0.65	1.41	1.47
Home related words (home)	0.02	0.17	0.11	0.29	0.26	0.33	0.04	0.08	0.03	0.19
Money related words (money)	2.25	2.58	1.47	1.25	3.66	3.09	1.92	1.79	1.22	3.45
Religion related words (relig)	0.02	0.00	0.04	0.16	0.05	0.12	0.00	0.13	0.09	0.00
Death related words (death)	0.04	0.10	0.07	0.03	0.11	0.00	0.02	0.15	0.00	0.26
Informal language (informal)	0.88	1.04	0.84	0.32	0.55	1.18	0.36	0.67	0.25	0.54
Swear words (swear)	0.04	0.00	0.02	0.06	0.02	0.03	0.00	0.00	0.00	0.00
Use of abbreviations in the language (netspeak)	0.20	0.12	0.20	0.10	0.01	0.36	0.02	0.08	0.06	0.03
Assent words (assent)	0.18	0.69	0.11	0.06	0.37	0.42	0.11	0.31	0.06	0.06
Non-fluencies in language (nonflu)	0.43	0.23	0.46	0.10	0.14	0.21	0.23	0.24	0.13	0.45
Filler words (filler)	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.03	0.00	0.00

Appendix 31. Results from Validation 4 (Study 2, Donald Trump instead of Steve Jobs)

	Travis Kalanick	Elon Musk	Howard Schultz	Donald Trump	Jamie Dimon	Jeff Bezos	John Chamber s	Mike Bloomberg	Mike Parker	Robert Iger
HCEO/ NHCEO	HCEO	HCEO	HCEO	HCEO	HCEO	NHCEO	NHCEO	NHCEO	NHCEO	NHCEO
Data for year	2016	2015	2015	2014	2015	2015	2014	2015	2015	2015
Word Count (WC)	5108	4803	4150	5454	10566	3302	4732	6137	3194	3131
Function words (function)	59.44	56.96	57.69	58.07	56.30	57.09	58.69	59.77	51.31	56.37
Pronouns (pronoun)	17.50	15.37	15.90	19.67	17.56	17.50	17.35	17.16	12.90	14.08
Personal pronouns (ppron)	9.44	7.31	9.42	11.44	10.10	10.18	10.48	9.29	7.67	7.89
Pronoun “I” and its derivatives (I)	2.80	2.64	3.06	7.24	3.30	3.24	1.61	2.72	1.75	2.01
Pronoun “We” and its derivatives (we)	3.43	2.39	3.78	0.29	2.77	2.79	4.80	1.96	4.07	3.86
Pronoun “You” and its derivatives (you)	2.70	0.83	1.45	1.80	2.20	2.85	2.41	2.49	0.69	1.09
Pronouns “She”, “He” and their derivatives (shehe)	0.08	0.06	0.34	0.99	0.10	0.42	0.25	0.37	0.56	0.03
Pronoun “They” and its derivatives (they)	0.43	1.37	0.80	1.12	1.72	0.88	1.42	1.74	0.59	0.89
Impersonal pronouns (ipron)	8.05	8.04	6.48	8.23	7.43	7.33	6.87	7.87	5.23	6.20
Articles (article)	6.46	7.54	8.02	7.74	6.33	6.97	5.87	7.45	7.80	7.47
Prepositions (prep)	12.51	13.97	14.43	10.93	11.16	11.42	12.70	11.65	15.44	13.99
Auxiliary verbs (auxverb)	11.65	11.41	9.18	12.23	11.61	11.84	10.61	12.86	7.55	10.16
Adverbs (adverb)	8.28	6.20	4.92	5.21	5.64	6.33	6.34	5.39	3.76	6.80
Conjunctions (conj)	9.38	5.95	7.73	6.31	7.57	7.66	9.07	7.64	7.04	7.31
Negations (negate)	1.66	1.73	1.57	2.81	2.29	1.67	1.56	2.93	0.81	1.82
Common verbs (verb)	21.05	18.34	16.31	21.12	20.90	19.87	17.48	20.61	12.71	17.98
Common adjectives (adj)	4.60	4.46	3.18	5.59	4.40	4.88	3.11	4.14	6.23	5.11
Comparisons (compare)	2.98	2.83	1.57	2.53	2.59	2.36	1.97	2.12	3.26	2.40
Interrogatives (interrog)	2.41	1.46	1.54	1.85	1.49	1.42	2.75	2.05	1.53	1.66
Numbers (number)	1.64	1.60	2.92	1.54	2.28	1.73	2.11	1.21	1.47	1.79
Quantifiers (quant)	3.01	2.77	2.67	2.38	3.18	2.70	2.37	2.70	2.00	2.87

Affective processes related words (affect)	4.17	5.12	4.27	7.70	5.11	5.18	2.49	4.61	5.29	5.14
Positive emotion words (posemo)	3.37	3.73	3.35	5.94	3.81	3.97	1.99	3.08	4.92	4.18
Negative emotion words (negemo)	0.78	1.37	0.87	1.74	1.26	1.12	0.46	1.48	0.34	0.89
Anxiety related words (anx)	0.12	0.33	0.10	0.15	0.22	0.18	0.00	0.24	0.09	0.06
Anger related words (anger)	0.06	0.27	0.05	0.64	0.32	0.06	0.13	0.28	0.06	0.51
Sadness related words (sad)	0.27	0.21	0.29	0.35	0.22	0.36	0.04	0.24	0.03	0.10
Social processes related words (social)	9.49	7.43	12.94	9.55	10.32	10.96	13.67	11.06	9.52	8.59
Family related words (family)	0.12	0.06	0.17	0.07	0.09	0.06	0.04	0.02	0.06	0.06
Friends related words (friend)	0.08	0.04	0.34	0.42	0.07	0.03	0.74	0.00	0.47	0.06
Female related words (female)	0.00	0.00	0.36	0.31	0.05	0.03	0.00	0.03	0.13	0.00
Male related words (male)	0.14	0.19	0.07	1.10	0.16	0.39	0.25	0.36	0.53	0.06
Cognitive processes related words (cogproc)	14.29	15.80	11.57	12.17	14.47	13.29	13.57	14.13	12.49	12.84
Insight related words (insight)	2.84	2.23	2.51	2.48	3.02	2.63	2.05	2.40	3.29	2.75
Causations (cause)	2.37	2.46	1.28	1.36	1.76	1.76	3.40	1.91	2.97	2.46
Discrepancy words (discrep)	1.53	2.54	1.71	1.76	1.99	2.70	1.94	1.68	0.72	0.89
Tentative tone (tentat)	3.56	4.58	2.41	2.68	3.90	3.12	2.85	3.13	2.10	2.52
Certainty tone (certain)	1.78	1.50	1.90	1.83	1.87	1.82	1.48	2.18	1.82	1.50
Differentiation (differ)	4.17	4.68	3.13	3.41	3.87	3.15	4.37	4.60	2.69	3.67
Perceptual processes related words (percept)	1.62	1.12	1.01	2.70	1.79	2.21	2.05	1.21	1.19	1.98
Sight related words (see)	0.94	0.37	0.36	1.39	0.81	0.73	0.99	0.39	0.66	1.12
Hearing related words (hear)	0.41	0.44	0.48	0.92	0.66	0.97	0.72	0.51	0.16	0.45
Feeling related words (feel)	0.16	0.25	0.07	0.37	0.22	0.39	0.30	0.28	0.13	0.29
Perceptual processes related words (bio)	0.63	0.50	0.87	0.88	0.55	0.94	0.30	1.29	1.10	0.26
Body related words (body)	0.25	0.12	0.17	0.18	0.12	0.18	0.13	0.15	0.41	0.19
Health related words (health)	0.27	0.21	0.55	0.20	0.27	0.27	0.11	0.42	0.31	0.03
Sexuality related words (sexual)	0.06	0.06	0.00	0.00	0.00	0.03	0.00	0.00	0.13	0.03
Ingestion related words (ingest)	0.06	0.08	0.14	0.20	0.10	0.21	0.02	0.70	0.16	0.00

Personal drives related words (drives)	9.49	8.47	10.53	7.44	10.71	10.39	11.62	9.34	12.77	9.68
Affiliation related words (affiliation)	3.86	2.87	5.47	1.19	3.27	3.63	6.45	2.56	5.82	4.22
Achievement related words (achieve)	1.88	2.12	1.83	1.98	1.82	2.45	2.22	1.63	3.98	1.72
Power related words (power)	2.15	2.50	2.27	2.66	3.85	2.91	2.66	3.45	2.35	2.33
Reward related words (rewards)	2.00	1.50	1.47	2.88	2.38	2.06	1.44	2.09	2.25	1.92
Risk related words (risk)	0.33	0.65	0.39	0.26	0.76	0.58	0.57	0.73	0.16	0.16
Use of Past tense (focuspast)	2.02	2.64	3.45	3.80	2.91	2.18	2.60	2.35	1.88	4.31
Use of Present tense (focuspresent)	16.76	12.93	11.52	15.35	15.38	15.72	13.52	16.31	10.33	12.36
Use of Future tense (focusfuture)	1.94	1.69	1.47	1.27	2.03	1.82	1.63	1.79	1.06	1.98
Relativity related words (relativ)	15.35	13.14	13.88	10.43	12.56	13.02	13.74	13.52	15.59	14.98
Motion related words (motion)	3.00	2.37	1.69	1.39	2.44	2.30	3.21	2.41	2.66	2.49
Space related words (space)	8.40	7.68	7.40	5.92	6.73	6.51	6.61	7.41	8.67	7.86
Time related words (time)	4.37	3.14	5.33	3.28	3.55	4.48	4.21	3.98	4.54	4.63
Work related words (work)	3.66	3.69	4.51	3.34	5.64	4.82	4.46	4.55	4.76	4.38
Leisure related words (leisure)	0.35	0.50	0.34	2.26	0.20	1.06	0.55	0.65	1.41	1.47
Home related words (home)	0.02	0.17	0.29	0.11	0.26	0.33	0.04	0.08	0.03	0.19
Money related words (money)	2.25	2.58	2.27	1.47	3.66	3.09	1.92	1.79	1.22	3.45
Religion related words (relig)	0.02	0.00	0.05	0.04	0.05	0.12	0.00	0.13	0.09	0.00
Death related words (death)	0.04	0.10	0.00	0.07	0.11	0.00	0.02	0.15	0.00	0.26
Informal language (informal)	0.88	1.04	0.36	0.84	0.55	1.18	0.36	0.67	0.25	0.54
Swear words (swear)	0.04	0.00	0.00	0.02	0.02	0.03	0.00	0.00	0.00	0.00
Use of abbreviations in the language (netspeak)	0.20	0.12	0.05	0.20	0.01	0.36	0.02	0.08	0.06	0.03
Assent words (assent)	0.18	0.69	0.12	0.11	0.37	0.42	0.11	0.31	0.06	0.06
Non-fluencies in language (nonflu)	0.43	0.23	0.22	0.46	0.14	0.21	0.23	0.24	0.13	0.45
Filler words (filler)	0.02	0.00	0.00	0.02	0.00	0.00	0.00	0.03	0.00	0.00

Appendix 32. Results from Validation 5 (Study 2, Donald Trump instead of Jamie Dimon)

	Travis Kalanick	Elon Musk	Howard Schultz	Steve Jobs	Donald Trump	Jeff Bezos	John Chambers	Mike Bloomberg	Mike Parker	Robert Iger
HCEO/ NHCEO	HCEO	HCEO	HCEO	HCEO	HCEO	NHCEO	NHCEO	NHCEO	NHCEO	NHCEO
Data for year	2016	2015	2015	2008	2014	2015	2014	2015	2015	2015
Word Count (WC)	5108	4803	4150	3121	5454	3302	4732	6137	3194	3131
Function words (function)	59.44	56.96	57.69	60.04	58.07	57.09	58.69	59.77	51.31	56.37
Pronouns (pronoun)	17.50	15.37	15.90	20.31	19.67	17.50	17.35	17.16	12.90	14.08
Personal pronouns (ppron)	9.44	7.31	9.42	11.25	11.44	10.18	10.48	9.29	7.67	7.89
Pronoun “I” and its derivatives (I)	2.80	2.64	3.06	1.70	7.24	3.24	1.61	2.72	1.75	2.01
Pronoun “We” and its derivatives (we)	3.43	2.39	3.78	5.61	0.29	2.79	4.80	1.96	4.07	3.86
Pronoun “You” and its derivatives (you)	2.70	0.83	1.45	2.02	1.80	2.85	2.41	2.49	0.69	1.09
Pronouns “She”, “He” and their derivatives (shehe)	0.08	0.06	0.34	0.13	0.99	0.42	0.25	0.37	0.56	0.03
Pronoun “They” and its derivatives (they)	0.43	1.37	0.80	1.79	1.12	0.88	1.42	1.74	0.59	0.89
Impersonal pronouns (ipron)	8.05	8.04	6.48	8.97	8.23	7.33	6.87	7.87	5.23	6.20
Articles (article)	6.46	7.54	8.02	6.44	7.74	6.97	5.87	7.45	7.80	7.47
Prepositions (prep)	12.51	13.97	14.43	12.21	10.93	11.42	12.70	11.65	15.44	13.99
Auxiliary verbs (auxverb)	11.65	11.41	9.18	12.18	12.23	11.84	10.61	12.86	7.55	10.16
Adverbs (adverb)	8.28	6.20	4.92	5.96	5.21	6.33	6.34	5.39	3.76	6.80
Conjunctions (conj)	9.38	5.95	7.73	6.98	6.31	7.66	9.07	7.64	7.04	7.31
Negations (negate)	1.66	1.73	1.57	2.53	2.81	1.67	1.56	2.93	0.81	1.82
Common verbs (verb)	21.05	18.34	16.31	22.30	21.12	19.87	17.48	20.61	12.71	17.98
Common adjectives (adj)	4.60	4.46	3.18	4.26	5.59	4.88	3.11	4.14	6.23	5.11
Comparisons (compare)	2.98	2.83	1.57	2.44	2.53	2.36	1.97	2.12	3.26	2.40
Interrogatives (interrog)	2.41	1.46	1.54	2.31	1.85	1.42	2.75	2.05	1.53	1.66
Numbers (number)	1.64	1.60	2.92	1.95	1.54	1.73	2.11	1.21	1.47	1.79
Quantifiers (quant)	3.01	2.77	2.67	2.72	2.38	2.70	2.37	2.70	2.00	2.87

Affective processes related words (affect)	4.17	5.12	4.27	3.91	7.70	5.18	2.49	4.61	5.29	5.14
Positive emotion words (posemo)	3.37	3.73	3.35	2.98	5.94	3.97	1.99	3.08	4.92	4.18
Negative emotion words (negemo)	0.78	1.37	0.87	0.93	1.74	1.12	0.46	1.48	0.34	0.89
Anxiety related words (anx)	0.12	0.33	0.10	0.16	0.15	0.18	0.00	0.24	0.09	0.06
Anger related words (anger)	0.06	0.27	0.05	0.26	0.64	0.06	0.13	0.28	0.06	0.51
Sadness related words (sad)	0.27	0.21	0.29	0.16	0.35	0.36	0.04	0.24	0.03	0.10
Social processes related words (social)	9.49	7.43	12.94	14.10	9.55	10.96	13.67	11.06	9.52	8.59
Family related words (family)	0.12	0.06	0.17	0.00	0.07	0.06	0.04	0.02	0.06	0.06
Friends related words (friend)	0.08	0.04	0.34	0.06	0.42	0.03	0.74	0.00	0.47	0.06
Female related words (female)	0.00	0.00	0.36	0.00	0.31	0.03	0.00	0.03	0.13	0.00
Male related words (male)	0.14	0.19	0.07	0.16	1.10	0.39	0.25	0.36	0.53	0.06
Cognitive processes related words (cogproc)	14.29	15.80	11.57	15.44	12.17	13.29	13.57	14.13	12.49	12.84
Insight related words (insight)	2.84	2.23	2.51	3.14	2.48	2.63	2.05	2.40	3.29	2.75
Causations (cause)	2.37	2.46	1.28	2.69	1.36	1.76	3.40	1.91	2.97	2.46
Discrepancy words (discrep)	1.53	2.54	1.71	1.89	1.76	2.70	1.94	1.68	0.72	0.89
Tentative tone (tentat)	3.56	4.58	2.41	2.79	2.68	3.12	2.85	3.13	2.10	2.52
Certainty tone (certain)	1.78	1.50	1.90	2.21	1.83	1.82	1.48	2.18	1.82	1.50
Differentiation (differ)	4.17	4.68	3.13	4.39	3.41	3.15	4.37	4.60	2.69	3.67
Perceptual processes related words (percept)	1.62	1.12	1.01	1.89	2.70	2.21	2.05	1.21	1.19	1.98
Sight related words (see)	0.94	0.37	0.36	0.70	1.39	0.73	0.99	0.39	0.66	1.12
Hearing related words (hear)	0.41	0.44	0.48	0.90	0.92	0.97	0.72	0.51	0.16	0.45
Feeling related words (feel)	0.16	0.25	0.07	0.26	0.37	0.39	0.30	0.28	0.13	0.29
Perceptual processes related words (bio)	0.63	0.50	0.87	1.03	0.88	0.94	0.30	1.29	1.10	0.26
Body related words (body)	0.25	0.12	0.17	0.26	0.18	0.18	0.13	0.15	0.41	0.19
Health related words (health)	0.27	0.21	0.55	0.45	0.20	0.27	0.11	0.42	0.31	0.03
Sexuality related words (sexual)	0.06	0.06	0.00	0.00	0.00	0.03	0.00	0.00	0.13	0.03
Ingestion related words (ingest)	0.06	0.08	0.14	0.13	0.20	0.21	0.02	0.70	0.16	0.00

Personal drives related words (drives)	9.49	8.47	10.53	12.08	7.44	10.39	11.62	9.34	12.77	9.68
Affiliation related words (affiliation)	3.86	2.87	5.47	6.34	1.19	3.63	6.45	2.56	5.82	4.22
Achievement related words (achieve)	1.88	2.12	1.83	1.95	1.98	2.45	2.22	1.63	3.98	1.72
Power related words (power)	2.15	2.50	2.27	1.79	2.66	2.91	2.66	3.45	2.35	2.33
Reward related words (rewards)	2.00	1.50	1.47	2.50	2.88	2.06	1.44	2.09	2.25	1.92
Risk related words (risk)	0.33	0.65	0.39	0.54	0.26	0.58	0.57	0.73	0.16	0.16
Use of Past tense (focuspast)	2.02	2.64	3.45	5.67	3.80	2.18	2.60	2.35	1.88	4.31
Use of Present tense (focuspresent)	16.76	12.93	11.52	13.97	15.35	15.72	13.52	16.31	10.33	12.36
Use of Future tense (focusfuture)	1.94	1.69	1.47	1.44	1.27	1.82	1.63	1.79	1.06	1.98
Relativity related words (relativ)	15.35	13.14	13.88	11.57	10.43	13.02	13.74	13.52	15.59	14.98
Motion related words (motion)	3.00	2.37	1.69	2.56	1.39	2.30	3.21	2.41	2.66	2.49
Space related words (space)	8.40	7.68	7.40	5.48	5.92	6.51	6.61	7.41	8.67	7.86
Time related words (time)	4.37	3.14	5.33	3.75	3.28	4.48	4.21	3.98	4.54	4.63
Work related words (work)	3.66	3.69	4.51	4.33	3.34	4.82	4.46	4.55	4.76	4.38
Leisure related words (leisure)	0.35	0.50	0.34	1.54	2.26	1.06	0.55	0.65	1.41	1.47
Home related words (home)	0.02	0.17	0.29	0.29	0.11	0.33	0.04	0.08	0.03	0.19
Money related words (money)	2.25	2.58	2.27	1.25	1.47	3.09	1.92	1.79	1.22	3.45
Religion related words (relig)	0.02	0.00	0.05	0.16	0.04	0.12	0.00	0.13	0.09	0.00
Death related words (death)	0.04	0.10	0.00	0.03	0.07	0.00	0.02	0.15	0.00	0.26
Informal language (informal)	0.88	1.04	0.36	0.32	0.84	1.18	0.36	0.67	0.25	0.54
Swear words (swear)	0.04	0.00	0.00	0.06	0.02	0.03	0.00	0.00	0.00	0.00
Use of abbreviations in the language (netspeak)	0.20	0.12	0.05	0.10	0.20	0.36	0.02	0.08	0.06	0.03
Assent words (assent)	0.18	0.69	0.12	0.06	0.11	0.42	0.11	0.31	0.06	0.06
Non-fluencies in language (nonflu)	0.43	0.23	0.22	0.10	0.46	0.21	0.23	0.24	0.13	0.45
Filler words (filler)	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.03	0.00	0.00

Appendix 33. Data used in Study 3 in ARFF format

@relation 'Joint sample'

@attribute Text String

@attribute Class {Hubristic,Nonhubristic}

@data

'I was going to the Wharton School of finance at the University of Pennsylvania and I had friends that were golfers. I had never played golf I always played baseball and football and stuff. And so I would go out to Cobbs Creak in Philadelphia yeah a public course a rough course no grass on the tees no nothing but it was good and great people. All hustlers out there. I mean more hustlers than any place I have seen to this day. I played golf with my friends and then I started to play with the hustlers. And I learned a lot. I learned about golf I learned about gambling. I learned about everything.',Hubristic

'Very self taught. Pretty much a natural golfer. I have won a lot of club championships. Anytime I win a club championship I am proud of those rounds. Club championships are like our majors.',Hubristic

'Well I have shot numerous times in the 60s but I have the club record for an amateur at my course in Palm Beach which is a world class course with a rating of 155.',Hubristic

'Er 66. From the blues. That is from not all the way back but it is from the blues so that is pretty good.',Hubristic

'I sorta got into the business by accident. I started off in Palm Beach. it is complicated but essentially I won that land in a lawsuit 600 acres and I said What am I gonna do now. And I said I am gonna build a great golf course. And that is what I did. Then I went to Westchester during the down market and I bought it out of foreclosure from a bank 215 acres and I built the course there. it is beautiful. Those were the first two. I built them from scratch. And they are very successful.',Hubristic

'And then as time went by I started buying courses that were already built and rebuilt them which I actually like better. Only great ones. And I would buy em for 10 15 cents on the dollar. I mean one guy I bought a course it cost 58 million to build and I bought it for 3 million.',Hubristic

'No that I cannot say it is too nasty. I bought it for 3 now I put 7 into it I rebuilt it and everything but it cost 58 million I bought it for 3.',Hubristic

'Well it is an interesting question. it is a relatively small part of it. You know I own buildings. I am a builder I know how to build. Nobody can build like I can build. Nobody. And the builders in New York will tell you that. I build the best product. And my name helps a lot.',Hubristic

'it is a small percentage but it is a very valuable percentage.',Hubristic

'it is good if you have great locations and great courses. I am not a believer in these guys that go out to the middle of nowhere and build a beautiful course and nobody comes. I believe in location and I believe in great courses. Look somebody made the statement that Donald Trump has built or owns the greatest collection of golf courses ever in the history of golf. And I believe that is 100 percent true.',Hubristic

'No not at all I dont expect to. it is not my main business. And I am not looking anymore. I dont wanna buy any more golf clubs.',Hubristic

'This is the greatest piece of land in America. Phenomenal. Nobody knows about it. I have totally rebuilt it two courses all on the Potomac River. It will be one of the great gems of golf. It will be one of the great tournament venues of the world. There is no better piece of land in my opinion in the United States.',Hubristic

'They are made with both. it is a great question.',Hubristic

'This is Aberdeen which in all fairness nothing is going to compete with that. One of the greatest courses ever built in the world. These are the largest dunes in the world and it is a big success. it is a very good question. Huh.',Hubristic

'Well that is an interesting point. But I love the creation of beautiful things. I love as an example Doonbeg in Ireland which I bought this year. Doonbeg is going to be incredible. One of the great pieces of property in the world. Doral is a great thing 800 acres in the middle of Miami. I bought that in 2012 . Miami is on fire you know it is doing so well. Doral is great. Spectacular. I only buy great ones. Like I bought a place called Pine Hill that is right next to Pine Valley a place called Pine Hill. it is now called Trump National Golf Club Philadelphia. It is as good as Pine Valley if not better.',Hubristic

'Yes I really believe it. And if you went there you would say it too. And everybody that goes there says it.',Hubristic

'I think it is as good as Pine Valley OK. People from Pine Valley are playing it all the time and some say it is just as good and some say it is better. It was built by an aficionado who went bust. I bought it out of receivership. And I brought it to the highest standard you know because when I buy them I spend a lot of money. it is fantastic. Sold out. A tremendous success. And then Turnberry came up. You know it is a super trophy. I mean that is one of the great pieces of art. I view these things as artwork. I will put a lot of money into Turnberry.',Hubristic

'And I said dont worry about it. I will not make any changes to the course without the strict approval of the Royal and Ancient.',Hubristic

'Right so my brand is a very hot brand.',Hubristic

'It stands for quality and luxury. If I did not use my name Turnberry would not be nearly as successful as it can be. This is notan ego thing this is business. I have got the hottest brand in the world.',Hubristic

'I decide to employ a bit of trumpery on Trump by citing unnamed sources who disagree with him. I tell him that I asked people in the golf industry what they think the Trump brand stands for and offer an example of one that was less than flattering.',Hubristic

'Trump bristles. He demands to know the source. He says If you put that in it is no longer a good story it is not even a fair story and adds that the unnamed person is gutless for not going on the record. Trump says There is nobody more aesthetic than me. ',Hubristic

'Just the opposite I cannot comment on that. But just exactly the opposite. Forget it. One of the biggest politicians in Scotland he said to me It was never even thought of or mentioned and as soon as you bought it they tried to spread that rumor. that is the story of my life. They did it just to get my goat. Well they did not get my goat.',Hubristic

'An RandA spokesman told Golf Digest Turnberry is a wonderful Open venue and we look forward to taking the Championship back there in due course. We are very comfortable with Mr. Trump plans for Turnberry and will liaise on any changes to the Ailsa course. He has a strong track record of investing in golf and we know that he will look to make improvements to the course and the facilities. ',Hubristic

'So I bought the land 2000 acres on the North Sea. Largest dunes in the world most spectacular dunes anywhere in the world. Everybody said Why did you buy it you will never be able to build anything there. I said you are probably right but I will take a shot. ',Hubristic

'Over a four year period I was able through litigation to break the zoning. I got the course approved got it built. The course is full by the way it is doing record business. Rave reviews. I cannot get friends of mine on the course.',Hubristic

'One of the great courses. So then even though they promised they would not they propose they wanna build one of these really stupid wind farms in the North Sea fairly near my course. And you know they are terrible they kill all the

birds they are bad environmentally it is a bad form of energy it is very inefficient and very costly. They are bad in so many ways.',Hubristic

'Not the business. Look I am an artist. Right now when you look you see the North Sea the waves crashing against the shore you see the magnificence of this body of water. I dont want to be looking at rusty windmills all over the place. Because that is what happens to them they all turn to rust and they are disgusting. And I said until such time as that project is killed I am not building anymore. I am not gonna be staring at windmills. And in my opinion the wind farm will never happen. I think They will back down. And when that happens when they announce that they are gonna abandon it then I will start the second course.',Hubristic

'I would have never gotten it approved. I have done this all my life.',Hubristic

'Well if if.',Hubristic

'Yeah look what people dont know is that a poll came out 93 percent approval rating in the poll. There have been stories about how incredible this has been for Aberdeen. it is been a huge huge success for Aberdeen. Everyones doing well because of my golf course. it is so successful and the people love me over there. They love me for building it. Aberdeen is booming because of me. You cannot get a hotel room because of me. One thing I will say whenever I build the area succeeds.',Hubristic

'Look 93 percent of the people in Aberdeen love me.',Hubristic

'I am gonna find out. It was one of the newspapers that did it. We have great popularity in Aberdeen.',Hubristic

'Look I dont even know what he looks like. But he fought and lost. I had two people that fought me really three people. And they are the only ones that get publicity. The hundreds of people that supported me get no publicity. it is very sad.',Hubristic

'Well he lost.',Hubristic

'I dont know why he is a hero. He lost. If you met him you would not think he is a hero.',Hubristic

'No I dont have admiration for . for what. Look he is somebody who fought me and lost. And by the way his place is nowhere near my golf course. I did not even need his property. My people made a deal with him twice to sell and he broke the deal. He wanted more money. I think I have done a great service for Scotland and a lot of people are giving me credit for it.',Hubristic

'The course in Dubai is gonna be amazing.',Hubristic

'There are a lot of people that think that. it is what I do. it is being built to the absolute highest standards of tournament golf.',Hubristic

'Well they want to have it because you have the European Tours Race to Dubai. In all fairness that is their big tournament. I dont know that they are going to have a Ryder Cup there but if they do that would be the course they would wanna use because it is the best course. I just got back from Dubai actually and it is really fantastic.',Hubristic

'No. I have a lot of people that would like to do courses but you know unless I own em it is not of interest to me. And honestly it is such a long trip and you know I really like doing courses that I will play.',Hubristic

'OK I am glad you asked the question. I have great respect for Mike Davis USGA executive director and the USGA. But I am an honest person I am a very honest person and I think that Pinehurst on television looked horrible. It was very bad for golf. And many players thought it but they just dont want to say it. Bubba Watson was the only one that had the courage to speak his mind. First of all turtleback greens. I am a good golfer I just won another senior club championship so I am fairly happy about that but turtleback greens are a disgrace and Pinehurst has many of them. it

is very unfair when you hit a perfect shot to the pin and you end up with a 30 yard chip shot. it is ridiculous. That has nothing to do with golf. The television ratings were abysmal.',Hubristic

I dont care. The ratings were abysmal. My wife could not care less about golf but she loves watching the Masters. So she comes into the room where I am watching and she said Oh darling that is so sad oh darling what happened to the course. Did they have a fire what happened. Oh that is so sad. She felt sorry for the course. You know what it looked like. It made it look like they dont have money to water the grass. I have nothing against Pinehurst but I think the greens are ridiculous and the look on television was terrible. Golf is very much about beauty. And they took the beauty away.',Hubristic

No. There is a difference between a Turnberry which has a little brown in the fairways and creates a good run on the ball and a course that looked like it was a burned out pile of rubbish. You know I studied with great interest how beautiful Royal Liverpool looked on television. was not that a great Open Championship. And did you notice how green everything was. It was beautiful. With by the way tinges of brown. I love the way the course looked. It was magnificent. See I am an artist and to me Pinehurst was very bad for golf. A terrible disservice to golf.',Hubristic

Nobody has received more environmental awards than I have. I have received many many environmental awards.',Hubristic

I think that argument is fine if you are talking about the desert. But water in North Carolina comes pouring from the skies you dont have to go get it. The rain is unbelievable. So why would they have destroyed that course. It was a horror show. Looking at that burned out monstrosity on television was one of the saddest things I have ever seen in golf.',Hubristic

First of all golf should be an aspirational game. And I think that bringing golf down to the lowest common denominator by trying to make courses ugly because they want to save water in a state that has more water .',Hubristic

I would make golf aspirational instead of trying to bring everybody into golf people that are never gonna be able to be there anyway. You know they are working so hard to make golf as they say a game of the people. And I think golf should be a game that the people want to aspire to through success.',Hubristic

It was always meant to be and people get there through success. The great athletes they all are golfers. They all want to play golf.',Hubristic

It can still be. But they cheapen the game with what they are doing in my opinion. Golf should be an aspirational game and they are taking aspiration out of it. And it is also a game of great beauty. There was nothing beautiful about Pinehurst. I will tell you as somebody that understands selling courses like that will kill golf. Because nobody wants to play it.',Hubristic

I think it is all fine it is all good. But they have to keep it at a high level. It should be based on aspiration.',Hubristic

Sure it is proven to be true now more than at any time. Look just turn on the news.',Hubristic

Well no. My statement is certainly true.',Hubristic

See here is a building I am just starting construction on next week that is in Washington DC that is the old post office an 1890 building. Right next to the White House one of the great buildings tallest building in Washington DC That I own you know. it is great.',Hubristic

Well not all people. But it is a vicious place. The world is a vicious place. You know the lions and tigers they hunt for food we hunt for sport. So it can be a very vicious place. You turn on the television and you look at what is happening.',Hubristic

'Well for business probably the word fear would be better. To be honest it is better to be knowledgeable in terms of business. You have to be smart.',Hubristic

'that is a room concept for Turnberry. You see it is an interesting question your last one. All different types of people. I know a lot of ruthless people that are lousy businessmen. And I know some very nice people that are very good in business. And I know people that are very brilliant that are very vicious. Those tend to be the toughest.',Hubristic

'Um I would never say I mean I dont know. I try to be as nice as possible. Uh you know I have great relationships.',Hubristic

'I do. I think energy is genetic if you want to know the truth.',Hubristic

'You know I will tell you what I do great work and I know people that do great work and they are not acknowledged. Frank Sinatra was a good friend of mine and I know people that sing better than Frank Sinatra but nobody knows who they are. With me they know who I am. So I believe you can do great things but if people dont know about it what difference does it make.',Hubristic

'Um probably but. not too often.',Hubristic

'I dont know.',Hubristic

'I dont know. It might be a disaster. I think it could be a disaster.',Hubristic

'They did not ask one question about running for governor. They did not care.',Hubristic

'They probably think you are already past that. That is interesting. Did you hear what he said. He said they think I am past that. I cannot tell you how many people have said that to me. They say What are you doing running for governor. It is a good point.',Hubristic

'When you need zone changes you are political. You know I will support the Democrats the Republicans whatever the hell I have to support.',Hubristic

'I did not start the governor thing. I was approached six weeks ago by the biggest leaders in the Republican Party and I said let me think about it. And they approached me again and again and again.',Hubristic

'The only time I really considered doing it was the last time. And I wish I did it because you would have had a different result.',Hubristic

'What do you think of the plane. Are you satisfied.',Hubristic

'He is going to need lunch right now and then he will need a room for a couple nights. Whatever he needs take care of him food a change of clothes whatever. There are a lot of good looking women here.',Hubristic

'Maybe it is what I say maybe it is a look you never know what it is. But I get a lot of press. I mean you see it today. It is all over the place on television. The speech is all over. Every time I turn on the news I see myself on television. I mean I am not looking for it. You know I am watching CNN I am watching MSNBC I am watching Fox and it is all over the place. And it had a big impact.',Hubristic

'I do love provoking people. There is truth to that. I love competition and sometimes competition is provoking people. I do not mind provoking people. Especially when they are the right kind of people.',Hubristic

'I go by two things I go by how well they treat me and I go by if they are fair and if they are right. ',Hubristic

'If I am treated unfairly I will go after that reporter. The endgame would be that I think I could do an incredible job. I think this country has great potential. I want to make this country strong and rich again.',Hubristic

'Who knows what is in the deepest part of my mind. That could be possible.',Hubristic

'You know it is a lot of work to smile for an hour and a half. At the same time I always say to myself how would it be if I stood there and there was nobody wanting it. That would not be so nice either.',Hubristic

'My instincts say this is the best moment and they hardly fail. I know Brazil has many problems the country is known worldwide for its high tax burden which is not a good thing to be known for. I also watched the recent protests on television and I do not think that was wonderful. What I thought was wonderful was seeing the Pope in Rio. I love the Brazilian particularly the Brazilian women they are really incredible.',Hubristic

'Who is he. Never heard of him.',Hubristic

'America is becoming a state of social well being and worse eating dust in the race with other countries. Look at Chinas strength in comparison to ours. It is unacceptable. Obama has weakened the economy.',Hubristic

'That is all work of a New York prosecutor who is trying to extort me. There is 40 million at stake. I think Obama himself is behind this they met one day before this story emerged. As for the small group of outraged students what can I say. They saw an opportunity to make money and are going after it.',Hubristic

'I am ready for whatever comes on my way. I like politics. And my children are ready to take my place in the company. I will decide at the right time.',Hubristic

'I like the feeling of getting out of a lift stepping into Fifth Avenue and hearing someone screaming Trump. Trump. You are fired. Nobody thought I was going to be big on television and then I dominated the ratings and my name was on everybody lips. But being a celebrity is good 70 percent of the time it gives you fame money and power. But I also enjoy some privacy once and while.',Hubristic

'Generally I do not like it. These are incompetent people who were born this way there is no need to humiliate. But I love firing thieves. I love it. And I have crossed some true professional thieves in my life.',Hubristic

'I do not read much. Mostly I read contracts but usually my lawyers do most of the work. There are too many pages. Do you know what book I enjoy reading. The Art of the Deal by Donald Trump.',Hubristic

'I will never change this hairstyle I like it. It fits my head. Those who criticize me are only losers and envy people. And it is not a wig it is my hair. Do you want to touch it.',Hubristic

'Over the years you do somewhat become a little bit more conservative. I have had a great career it has been amazing. In the 1980s it was good now it is better than it has ever been. The company is bigger and stronger you see the numbers it has been an amazing thing and we are here today in Mumbai doing a spectacular job. We are really happy about it but over the years as you have great victories and a couple of defeats and hopefully there are only minor defeats you learn to be a little bit more conservative. We have built up tremendous cash reserves and lots of other things. When I was in my 20s and 30s I was not thinking about cash reserves. ',Hubristic

'I was thinking only about massive success. I did not care about anything. As you get older you realise that sometimes the old expression cash is king and sometimes that is true but it certainly makes your life a lot easier. In the early 90s when the markets collapsed the real estate markets collapsed many of my friends and many of my enemies they went bankrupt and they were gone never to be seen again. Most of them never to be seen again. I fought through it I never went bankrupt. ',Hubristic

'I never filed bankruptcy. Over the years I have had individual it is a funny thing about that I would buy a company and throw it into a chapter and negotiate a great deal and people would say Trump went bankrupt and it was crazy. We have had a couple of companies like everybody else you look at Carl Icahn Henry Kravis Leon Black you look at so many different people and they have all used those laws to their advantage. Unfortunately when I have used them it is Trump fail through it no I never went bankrupt.',Hubristic

'it is something I find beautiful. I like shaping earth as much as I like my buildings. I am lucky to have great locations. I have a lot of fun on my courses and I have made a lot of deals on them. Plus I only want to have courses where I live.',Hubristic

'it is a small part of my business but if I added the deals I make on my course to my portfolio then it would be a much bigger part of my business. If I did not play golf at my course in Westchester County then I would not have four major buildings there. Owning a great golf course gives you great power.',Hubristic

'The USGA is terrific. I have designed my course in Bedminster to the highest standards of the USGA and it is a very special course. But I dont want to be saying I want a US Open because frankly it makes me look like a jerk. I dont want to get into it. If it happens it happens. If it does not it does not. I will have equal respect for the USGA either way. Everybody knows I build the best product.',Hubristic

'It does not hurt me with the USGA but it does with some people. it is good for me personally and it makes me very popular.',Hubristic

'Some say if anyone else owned Bedminster it would be considered one of the Top 10 courses but because it is me people dont want to do it. I had a major player in the industry tell me If it was not built by you that would be considered one of the greatest courses in the world. The golf facet of my life does not go with the rest of my life which is a rough and tumble life. I work in real estate development which is the toughest business and I do it in the toughest city. I deal with ruthless people.',Hubristic

'I have the best locations. Bedminster should be in the top 10. My Florida course is the best in Florida and Trump National LA is better than Pebble Beach.',Hubristic

'that is what people say until they play my course. I have 3000 acres and 2 miles on the ocean. that is the ocean not the bay. Every single hole fronts the ocean. I love Pebble too but even people who love Pebble say Trump LA is superior to Pebble. What Pebble Beach has is history and some day Trump LA will have history though I might not be around to see it. Trump LA is also far better than Bandon Dunes in Oregon. it is unfair to compare a course in Los Angeles a great metropolitan area to one in a wasteland far away from civilization.',Hubristic

'I am about a 4. I play as much as I can but generally only on weekends. Plus because I own the course I dont feel guilty playing because I consider it work. I can say Fix that tree and then it is work. ',Hubristic

'Phil Mickelson is a very good friend of mine. Michael Jordan can really play and I dont think people realize that. Bill Clinton has a really good swing. Tom Brady is the best 6 handicap I have ever seen he swings like Ernie Els. The interesting thing is that everyone in golf is just nice. You learn a lot about people playing golf their integrity how they play under pressure.',Hubristic

'it is a really a good experience. He hits the ball very well. he is actually an amazing player for someone who does not get to play very much. We talk about golf and politics. he is a very interesting guy to be with. There are a lot of people who are great players but are not interesting. To find a good person to play with it is a chemistry. It does not have to do with the quality of someone game.',Hubristic

'I like to play with someone who can take some ribbing. If someone ball is hanging above a bunker and about to go in I may shout out Bury. But you have to know who you can do that with. I dont like playing with guys who are overly serious. You cannot forget that playing golf is not what we do for a living.',Hubristic

'Someone who cannot take the putter back on a three foot putt to win a bet. When I see the CEO of a major corporation freezing over a threefoot putt on 18 I dont know what to say. My secret is to not worry about it.',Hubristic

'I would rather not say. it is been a lot but I mostly win.',Hubristic

'No I did not. And I dont do that. I will always give a mulligan if a guy hits a terrible shot even if we are playing a match. But I dont move my ball and I dont like it when people do it. it is not appropriate.',Hubristic

'It depends on whom I am playing with. If I am playing with a bad player who is having a really tough time I will very nicely say Go ahead and hit another one. ',Hubristic

'Because Cubans a loser. You could give him Wilt Chamberlain Bill Russell Larry Bird Magic Johnson and Michael Jordan and he would still find a way to lose because he is a born loser. Some people just are. I am just doing what I like. I have major construction projects all over the world that is my main business. I have fun with golf.',Hubristic

'When you get to a certain level you are attacked and when I am attacked I fight back. And I dont forget. Cuban attacked me three years ago when he had his show The Benefactor which was a rip off of The Apprentice. I attack him every chance I get. it is so easy just look at him. His team will never win.',Hubristic

'No I dont think it does. Some people like it and some people dont. I am not a turn the other cheek guy. My thing is if you are attacked attack them back in spades. I love doing it. it is natural for me to be a combative person. I love having enemies and I love having friends. it is natural to me.',Hubristic

'Well I am worth billions and I started in an office in Brooklyn NY so I must be doing something right. A Trump building gets a higher price than any other. Look at this weekend. In Cap Cana we sold 340 million in property in one day. So how can I be doing something wrong.',Hubristic

'I do say it but I have to because my stuff is the best.',Hubristic

'Well you have to be born with a certain ability. Like Tiger and Phil in golf you have guys who work harder but Tiger and Phil are special. Same is true in business. Making money is an art. On the assumption that you have ability which is a big assumption to make a million dollars you need a great idea you need to be in the right business and you need to work hard.',Hubristic

'Luck is an important element despite the fact that we try to say it is not. But the harder you work the luckier you get.',Hubristic

'Yes I think I would. The biggest asset was not my fathers money but what I learned from my father. My father was a great negotiator and a great builder. I build better than anyone else and that is why I am successful.',Hubristic

'I see everything as an opportunity to have a good time. What I am is a very creative person.',Hubristic

'Probably. I dont like to analyze myself but sometimes being manipulative is the only way to get to the endgame.',Hubristic

'that is an interesting question. I have many rich friends who cannot get a date. I have a friend with a G5 plane who cannot get a date. He asks me Can you get me a date with that woman. and then later he asks Can you get me a second date with her. he is a very smart guy but he does not have it. He sees a woman and he gets lockjaw. it is a quality you either have or you dont. Women have always liked me. it is a quality you can try to develop but people who women like women have always liked.',Hubristic

'it is always been that way. I dont know why. Money is not ultimately what gets you a woman. She needs to be tuned in and turned on.',Hubristic

'it is not the line. it is the style the confidence the approach. Studies show that a woman knows within five seconds if she is going to sleep with you. it is the chemistry you create not the line.',Hubristic

'Ha. I said that it is disappointing humans will not reach Mars in my lifetime. But if you had to pick one place to die then yeah Mars would be pretty cool. it is better than dying on Earth.',Hubristic

'We have hit the limit of physics with the combustion engine so the improvements with diesel technology are quite incremental. What I imagine happened at VW is that lots of engineers were under a lot of pressure to make improvements but they hit a wall and then trickery was the only option.',Hubristic

'What we need is a fundamental architectural change in the car industry. Moving to electric vehicles really is the only way to achieve zero emissions driving. And why do we need it. Listen your air intake is right up against the exhaust pipe of the car in front. If you really want to do serious damage to health wrap your lips around an exhaust pipe.',Hubristic

'Something needs to be done to correct the economic error that is going on with CO2 emissions. If you ask any economist they will tell you the same thing that we are currently not pricing CO2 correctly. The cost of CO2 is tiny.',Hubristic

'If the CO2 capacity of the air and the ocean is like a bank account then we are just spending like it is nothing.',Hubristic

'So in that regard all CO2 activities are being subsidised in some way. Every gasoline or diesel car is not paying its way for CO2. There are two ways to address that put a real price on CO2 or subsidise electric vehicles that dont produce the same amount of CO2.',Hubristic

'So lets put a price on CO2 at a power plant level and at a car level. So all the people that say the electric vehicles push the emissions to the power plant can be corrected. we will pay our way too. I am totally happy with that.',Hubristic

'Technologically it is possible to do it soon. But There is a difference between me speculating when it will be and me telling you when it will be. I am just speculating here but I think it will be technologically possible in three years but it is going to be up to regulators to finally approve a self driving car.',Hubristic

'We will have to compile a lot of statistical evidence to show that the accident rate is lower with autonomy. And even at that point regulators typically have to look at the evidence before imposing new rules. It takes at least a year. So realistically it will be another five years until we see one on the road.',Hubristic

'I hope that electric vehicles become at least a few per cent of all vehicles produced globally. The important thing to bear in mind is that there are 2 billion cars and trucks in the global fleet. So even when there are a few million EVs on the road that is still not even beyond the decimal point.',Hubristic

'Hopefully by 2020 the global EV sales will be at least a few per cent and I hope Tesla is at the forefront of that. I want the success of Tesla not to be measured on sales but how much we accelerate electric vehicle production in general.',Hubristic

'Tesla is still a tiny company and we are currently only using a fraction of the production output of the Fremont site. When Toyota and GM were there they were producing a million cars a year.',Hubristic

'Even with the upcoming Model S and Model X operating at high production we will still only do 100000 cars a year. Tesla gets a ton of press but we are a tiny company. Which can be good can be bad.',Hubristic

'We expect to see the first Tesla batteries rolling off the line in spring of next year. Full production will happen after that but we are set to push ahead now.',Hubristic

'We will also focus on the Powerwall which is our consumer facing product that allows users to store energy in the home and use it later. It makes a lot of sense for markets that already use solar power and smart meters in the home. Places like Germany and Australia.',Hubristic

'We also have another product that will be sold to the big energy plants where their capacity to produce is two or three times greater than demand. So they can store this surplus energy and be more efficient.',Hubristic

'Man There is like a new battery innovation every day. I am not aware of anything that is currently better than what we will be producing in Gigafactory 1.',Hubristic

'Maybe our rivals have something cool but we are usually the first company that these guys call because we have more volume in batteries than anyone else. If you want to sell something you want to sell it to the biggest investor.',Hubristic

'You know at Tesla we have a policy that we shun the idea of paying someone to like our car. And you have to pay a lot of money to get a car in a Bond film. I think the whole product placement thing in movies is getting a little out of control.',Hubristic

'But would Bond drive our car. I think so. That was amazing fantastic hard to believe really. I would like to. It is not the reason I am doing this but I do want to go into space at some point. Of course. ',Hubristic

'It is quite likely that it will be by the end of 2016 in a little more than two years.',Hubristic

'There is a difference if you want to have a dramatic improvement in safety and emergency systems. As it is our cargo Dragon maintains sea level pressure and normal room temperature in the pressurised module. If somebody had stowed away on any of our flights they would have made it to ISS and back fine no problem. We are required to transport biological cargo fish and mice that kind of thing so it has to be able to support life. And the pressurised cargo area is quite big 12 cubic meters plenty of room for a person.',Hubristic

'Well I came close to not succeeding myself in 2008 . I am very focused on trying to create the best product. In my case I am a seer but I am a seer because I have to be. What I really spend my time doing is the engineering. The companies are a way to amplify great engineering by working with smart people. Important technology problems get solved that way. If you look at space companies they have failed either because they have had a technical solution where success was not one of the possible outcomes they were unable to attract a critical mass of talent or they just ran out of money before they got to the finish line. The finish line is usually a lot further away than you think it is.',Hubristic

'There have been a number of attempts and we have not succeeded yet. I would say that SpaceX is evolutionary not revolutionary so my comments are hardly from the standpoint of having succeeded rather than from aspiring to succeed and believing that we are close. The potential problem is that Earths gravity is quite strong. It is just barely possible to escape Earths orbit with chemical rockets. Expendable rockets which many smart people have worked on in the past get maybe 2 percent of lift off mass to orbit really not a lot. Then when they have tried reusability it is resulted in negative payload a 0 to 2 percent minus payload laughs . The trick is to figure out how to create a rocket that if it were expendable is so efficient in all of its systems that it would put 3 percent to 4 percent of its mass into orbit. ',Hubristic

'On the other side you have to be equally clever with the reusability elements such that the reusability penalty is no more than 2 percent which would leave you with a net ideally of still 2 percent of usable load to orbit in a reusable scenario if that makes sense. You have to pry those two things apart Push up payload to orbit push down the mass penalty for reusability and have enough left over to still do useful work.',Hubristic

'Fear is a hard thing to deal with. I feel it quite strongly. If I think something is important enough I will make myself do it in spite of fear. But it can really sap the will. I hate fear I wish I had it less.',Hubristic

'I have been in physical danger before. The funny thing is I have not actually been that nervous. In South Africa when I was growing up my father had a private plane we would fly in incredibly dangerous weather and barely make it back. This is going to sound slightly crazy but my father also had a share in an emerald mine in Zambia. I was 15 and really wanted to go with him but did not realise how dangerous it was. I could not find my passport so I ended up grabbing my brothers which turned out to be six months overdue. So we had this plane load of contraband and an overdue passport from another person. There were AK 47s all over the place and I am thinking Man this could really go bad. I also almost died of malaria in 2001 I was within a day and a half of being unrecoverable.',Hubristic

'Actually company death not succeeding with the company causes me a lot more stress than physical danger. What happened back in 2008 was much worse.',Hubristic

'I do not think we need the moon as an interim step.',Hubristic

'The tricky thing with ion drives of various kinds or just electromagnetic propulsion is that they require a lot of energy. What you are really looking for in a spaceship is momentum transfer. The faster you shoot stuff out the back the energy required scales with the square of velocity meaning you need crazy amounts of energy to achieve any significant thrust in an ion engine. That is the essential challenge. So people like Franklin basically it is a very interesting ion engine he is got there but it requires a big nuclear reactor or something like that. I do think you would want to use an ion engine on the way to Mars. But it is going to have a pretty small effect maybe 5 percent to 10 percent is what we are seeing right now in the absence of a nuclear reactor. And this assumes you have a perfect ion engine. The ion engine is going to help a little bit but not a lot in the absence of a big nuclear reactor.',Hubristic

'I mostly hope they do useful things for the world.',Hubristic

'One has I have five. I want them to do things that will make them happy. I also want to make sure they are not trust fund kids that do not add anything to the world. I just want them to add more than they take. That will be a great outcome.',Hubristic

'People should pursue what they are passionate about. That will make them happier than pretty much anything else. You want to do things you are passionate about but also are useful to other people. For example to make an embarrassing sort of admission here I like video games laughs . In fact that is what got me into software engineering when I was a kid. I wanted to make money so I could buy a better computer so I could play better video games nothing like saving the world or anything like that. Obviously just playing video games is not really contributing to anyone. So you want to do things that contribute to society that you also like. In almost any industry if you are passionate about doing a great job and making people that buy your product or service as happy as possible it is really fulfilling.',Hubristic

'There is a tendency to focus on one person and think somehow that person singlehandedly does these things. But it is important to emphasize and I am not just giving this lip service that the only reason I was able to accomplish things is the great people willing to work with me. A company is a group of people organized to create a product or service and that product or service is only as good as the people in the company and how excited they are about creating it. I do want to recognize a ton of super talented people. Without them I would have accomplished very little. I just happen to be the face of the companies. ',Hubristic

'Yeah I think certainly safety's really important. I think it is particularly important when there is the potential for mass destruction. Ya know it is I think AI is something that is risky at the civilization level not merely at the individual risk level and that is why it really demands a lot of safety research. that is why I have committed to fund 10 million worth of AI safety research and I will probably do more. I think that is just the beginning.',Hubristic

'I am in Texas. I hope it is only twice. Right absolutely. Really all we are saying at Tesla is that we want to be able to sell our cars directly to consumers in Texas. I think this is directly in line with the ethos of Texas. In fact restricting what consumers can do in terms of buying direct is extremely un Texan. it is very weird that it even exists. I mean if you think of something like Michael Dells company Dell Direct. Dell started his company in Texas selling direct to consumers. If the same laws had existed for computers as it does for cars then Dell would not exist or it would be in some other state. It really I think it is something on the books that most Texans are not even aware of that is fundamentally un Texan and needs to be changed. The law currently says that in order to sell a car in Texas you have to sell through a franchised dealer but this exists only for alcohol and cars which is weird. Probably that should not exist either but it is just weird that it is cars. What the ya know. We can sell direct in every other country in the world and every state in the United States except for about half a dozen. we are just asking for essentially a modification of the law to allow for us to sell direct to consumers.',Hubristic

'Yeah I dont think we are a huge threat to the car dealers. Yeah we might grow from 0 percent to 1 percent perhaps or 2 percent but it is not something that I think is fundamentally a threat to the car dealers and the problem is that the incumbent car dealers have a conflict of interest. They make all their money from selling gasoline cars. For them to then tout the advantages of an electric car when most of their money is coming from gasoline cars it is a conflict of interest. They are not going to do that. So if we were to go through them we would fail.',Hubristic

'Yeah but they always electric cars sales in the United States are very low. In the long term yes. We have actually struck compromises in a number of other states where we have allowed to open lets take the state of New York for example we are allowed to have up to five stores in the state of New York. So if we were to do something like that proportionally in Texas maybe we would have because Texas is a bigger state seven stores. Then say after seven stores at that point we would have to go to franchises or something like that. Yeah absolutely. Yeah. We would certainly consider that down the road but I can certainly say that anyone who is been a huge jerk to us thus far is not going to be one of those franchisees. No if they have been punching us in the face they should not expect we are going to be their friend.',Hubristic

'I think There is a couple of points that are worth clarifying. For Tesla sales and demand are two different things. The way that sales is measured is in terms of deliveries. Whereas for the rest of the car industry because the cars are not ordered in advance demand and deliveries are the same thing. Their cars are out on the lot they are not built to order they are out on the lot. So it is extremely common for people to misunderstand demand and sales for Tesla. Accounting for Tesla sales is how many cars we deliver but the measure of demand is how many cars have been ordered. We have far more cars ordered than we can deliver right now. we are trying to solve that problem by ramping up our production. it is important to note that the demand for our cars significantly exceeds our production capacity currently. Yes. Maybe at some point this will become clear but because Tesla is like a different animal than the rest car industry the numbers mean different things. People look at our deliveries or sales and take that as a proxy for demand. Whereas the actual proxy for demand is how many unfulfilled ordered do we have. it is more like the aircraft business where They will have an order backlog. Right now the wait time for a Tesla if you order one is anywhere from three to five months. A month. If we can get it down to low single digit weeks I think that is ideal.',Hubristic

'Well there certainly are taxes on electricity generation. There is registration fees and that kind of thing. Well gas taxes cannot be very high because the price of gas in Texas is real low. it is like super cheap. Yeah sure they should. Maybe there should be at some point some increased tax on electric gas or something like that to match that of gasoline cars but I cannot imagine like I said that There is very much revenue generated from Texans on gasoline given the low price of gasoline.',Hubristic

'I think There is a lot more awareness. There actually are a lot of Tesla customers in Texas. Yeah but still There is a lot of supporters and I think There is a lot more awareness in the Texas state legislature this time than there was last time. We are being out lobbied by the car dealers association by probably 10 to 1. Well I certainly hope not but yeah it is certainly crazy. The Texas Auto Dealers Association has really pulled out all the stops. They have said They will spend all it takes to win. I think they are outspending us at least 10 to 1 maybe more but at the end of the day I think we have the people of Texas on our side because all we are trying to do is give people in Texas the right to choose how they buy their car. Why should they be denied that right. Who does. that is most unfortunate. It was not punishment. It certainly was not helpful but it was not punishment no. We are actually still strongly considering the long term and please I hope this does not become some huge news article but we are considering in the long future vehicle and battery plants and Texas would certainly be a strong contender for those.',Hubristic

'Yeah I have been doing business in Texas for 13 years when we established the rocket development facility in McGregor near Waco. that is worked out really well for us. it is the most advanced rocket development facility in the world at this point. it is something the people of Texas are very proud about. we are establishing the first commercial orbital launch site in the world at Boca Chica near Brownsville. So I think I mean I love Texas. I come here a lot. Certainly a big big fan.',Hubristic

'I think within the space community certainly it was I think well understood. The mission was completely successful in delivering cargo to the space station which was the primary mission and I would consider partly successful in trying to do something that is never been attempted before which is to land a rocket stage successfully. Every other rocket in the world the rocket stage is basically smashed into the atmosphere explode and then further explode when they hit the ocean or the steppes of Kazakhstan or something like that if it is a Russian rocket. There is a whole industry collecting rocket parts out there in Kazakhstan. They have a launch site in Plesetsk as well. Basically the Siberian steppes collectively. But all the other rockets like the European rockets and the Boeing and Lockheed rockets all of their stages basically just smash bits and land somewhere at the bottom of the ocean. What we were trying to do was to land our rocket stage because it is a very difficult thing. This thing is coming in from hypersonic velocity. it is got to multiple relights of the main engine. it is got attitude control thrusters. it is got slosh baffles. it is got these hypersonic grid fins. This is extremely difficult.',Hubristic

'Well yeah. In the rocket industry this is considered sort of crazy and very unlikely to succeed. Certainly very unlikely to succeed. As it turns out we were able to actually hit the drone ship. It was sort of at higher velocity landing than yeah. it is what we call a RUD a rapid unscheduled disassembly. it is a technical term. I think we have got a decent chance of landing it intact on one of the later missions this year. Yeah in about three or four weeks we have got another flight. This is actually a tougher re entry condition it is coming in hotter and faster than the last flight so that does throw a little bit more it makes it a little trickier but we have got 50 percent more hydraulic fluid which was the we ran out of hydraulic fluid last time. So I think we may fail the landing again but hopefully for a different reason. I expected it to fail. Yeah yeah I said we have got a best of 50 percent chance and even that I said I am kinda making that up. Ya know I said I dont really know.',Hubristic

'We have not actually received that money yet. Well I mean I think the way to look at it is more like you are a landlord and you are looking for anchor tenants. you are trying to make the decision of if we try to bring this company or this facility to Texas is it going to be a net gain for the state or is it not. Sometimes you will be right about that sometimes wrong. it is important to structure any incentives such that it is a guaranteed win for the state. In the case of the incentives for the Boca Chica facility we have to repay that money Yes. Yes. Yes. A lot of them are directly tied. So we create the job then we get on a per job basis some incentive. Umm. no I think we would not have come. No we would not have come because it would have been quite rude to not have offered incentives. It more like what I mean is a state has to show that it really wants a company to be there. Ultimately SpaceX will spend hundreds of millions of dollars on that facility. Vastly in excess of what the incentives would be. So how much do the incentives really make a difference in the grand scheme of things. Not that big of a difference but it is sort of like it is you dont feel welcome. It does not feel like this state really cares unless it does something. There is got to be a little bit of skin in the game. There is got to be some contribution. Ya know that is all it really is.',Hubristic

'Sure. I think first of all it is like I think when thinking about these things we need to say what is right. What is the origin of this law why is there this restriction at all. The restriction actually originates from when a bunch of the big car companies tried to get back their franchises and engaged in nefarious behavior to do that particularly Ford under Jack Nasser. They put all these pressure tactics on the car dealer on the franchisees to sell the franchises back to the car company. Then the reaction from the franchisees who had bought and paid for their franchises and who had invested all this money their cause was just and they went with their just cause to the legislature and they said look if we abort our franchise and we have invested our time and money to build this franchise it is not right for the franchiser to then engage in pressure tactics to then force us to sell it back them at a fire sale price. Obviously that would be their cause was just. But now they are taking legislation that was meant for a just cause and then applying it to an unjust cause which is to say that a company that has never granted them a franchise must be forced to grant them a franchise. This is not right. No I dont think it should be a Tesla only bill. That would not be fair. It should be perhaps limited to new technology vehicles or limited to a certain number of stores or something like that. I dont think it should be just for Tesla but nor should it erode the franchise that they have bought and paid for and put a lot of time into. That would not be right either. It should just be that if somebody has not granted them a franchise they should not be forced to grant them a franchise. It would be like if Apple came here and wanted to sell computers then with

the same legislation they would have to like give out Apple franchised stores or something. That would not make any sense.',Hubristic

'They have alive and well. No basically in more than 40 out of 50 states that we sell cars the dealers are doing fine. Nobodys in trouble or. No terrible thing has happened to the dealers in any of the other states. We currently sell in over 30 countries and these franchise restrictions dont exist in any of those countries and the dealers are fine there too. Yeah absolutely and There is plenty of examples where there are franchise restaurants and company owned restaurants or a mixture of franchise and company owned. Like McDonalds has a mixture of company owned and franchised next door. It works fine. So I think it is a pretty reasonable thing to ask that if we want to sell direct that we have the right to do so and that consumers in Texas have the right to choose how they want to buy their car.',Hubristic

'I know we are running short on time but there is one announcement that I would like to make. This is the transportation forum. we are going to create a Hyperloop test facility. I dont know if people have read about it is kind of a new mode of transport. Yeah. In order to help things along we are going to create a Hyperloop test track. Something that is maybe on the order of a five mile loop. Texas in the leading candidate. There is no quid pro quo here. It certainly would be nice. It would be appreciated. we are just figuring that out. I was just discussing it with some members of my team last night who are pretty excited about doing this. I actually dont know but we are not asking for any money from the state. Yeah. Yeah but if somebody wants to chip in I will not stop them. This would be kind of a sub scale track and the thing we were talking about last night it is not fully formed we are just sort of figuring it out is to have a test facility where different teams from university or even little companies that people form could use this test track to validate their ideas on designing the pod system for the Hyperloop. The test track is an expensive capital item so if we can build the test track and then offer that for use by companies or the teams of students to try out their pod design. Something that we might end up doing or at least it sounded good last night after a couple of drinks Shoot from the hip. There is this really awesome competition called Formula SAE where students groups work together to design and build a race car and then they race it at the end of the season and whoever builds the best race car wins. Yeah but it is pretty sophisticated. Some of our best engineers have come from that program and really learnt who to do great engineering as a result of that. So I think it could be kind of fun to have some sort of Formula SAE thing for the Hyperloop. People could compete on say who could make the pod go the fastest. Maybe compete on other dimensions. I think that could be pretty fun. we are going to talk to the Formula SAE organizers and see if they think this would be good. Yeah.',Hubristic

'Well in all fairness Jim I dont think that is the question. Lets first look at the situation in the country today. Between Ferguson Madison Wisconsin New York Cleveland there obviously is the country is being torn apart by racial injustice and a level of racism that we have not seen publicly for a very long time. I think Starbucks has had a long history of recognizing that we have a national footprint and we want to answer the question in the affirmative Can we use our scale for good. All we are trying to do is potentially do something catalytic to start a conversation. We dont want to be intrusive on any level and in many ways this is what we did a year ago when we had the Concert for Valor and raised a level of awareness when in fact most of the American people did not know very much about the two and a half million people who are serving in Iraq and Afghanistan. So in conjunction with USA Today in producing this document which will be in our stores as well as soon as over two million USAs on Friday we are simply trying to raise the awareness the level of empathy and compassion necessary to bridge the cultural divide that exists in this country today. If a customer or a barista wants to opt out of it it is not mandated. it is simply an act of kindness if in fact the customer wants to receive a cup and understand that we are just trying to raise the level of awareness and sensitivity and perhaps that person may have a conversation with a coworker or somebody else as a result of the fact that we took this initiative. This is not marketing. it is not PR. And I think what happened yesterday was a little bit misguided about what took place on social media. It was out of context. In addition to that we announced today that there are six million disconnected youth in this country. The majority of them are black and latino. They are not in school. They are not working. They are ages of 16 to 24 and like what we did with veterans on the hire initiative we announced today that we are gonna hire at least 10000 of them over the next three years. And I think lastly and I know it is longwinded I think it is just in a time in America where race relations diversity and inclusion affects all of us and

I think the country would be best served and we would all be best served if we could live in harmony and live together.',Hubristic

'Well no I was not because I knew that this is an issue that obviously has a high degree of emotion attached to it and is very complicated. But lets go back to the beginning. I have held town hall meetings across the country with employees in Los Angeles New York Oakland St. Louis and in Chicago. I have also met with Chief Bratton I have met with Chief Beck in LA I met with Chief OToole in Seattle. So I have tried to do my homework and really understand how could Starbucks use its scale for good. I recognize that when you are taking on an issue like this and you are establishing leadership and potentially going against the grain there are going to be people who are going to be angry and upset. But I you know what I try and do every day is ask myself Is this initiative in the interest of our people our customers and our shareholders. This was discussed at length at a board meeting a month and a half ago and I give great credit for our board to recognize that this is a time when we all should not be a bystander and we have to have a level of engagement on this issue. I also think that the country is at a tipping point and how long are we going to ignore these issues before something very serious happens. More serious than has happened in isolated Ferguson or Madison and in New York. This is a nationwide problem a problem that we need to address a problem that is been going on for hundreds of years. Starbucks is not going to solve the problem unto itself but can we be a catalyst for a positive dialogue with our customers and our people and potentially elicit the help and support of other businesses and business leaders. And I will tell you I have heard from other CEOs and other businesses who have complimented me and the company on this initiative and want to know more information about potentially what else they could do inside their own company. So ',Hubristic

Yes.,Hubristic

'Well I think you are missing something. If A if a barista does not want to write on the cup they dont have to. And if a customer does not want to accept it they dont have to. But Jim writing on the cup is a small piece of this overall strategy. The big piece of the strategy is Starbucks and USA starting Friday creating real content that will help all of our customers understand something. And I think this is vitally important. Whether a person wants to admit it or not we all have some level of unconscious bias. And if we could approach that with a higher degree of empathy and compassion and understanding It will go a long way to bridge the divide. Writing on the cup is a de minimis piece of this issue and it is not something that is going to last long. It was a catalyst to start this. what is going to last long is our company saying that we believe that there is a serious problem in America. we are in every community almost in America and can we use our stores and our national footprint for good. I would also tell you lastly and I think this is the most important piece of this this decision would not have been made in the affirmative if the large majority of our people were not supportive of it and very proud to participate in it. And so every open forum I have had across the country our people have encouraged me and asking the question How could Starbucks get outside of its small self in relative to the small meetings we are having and enlarge this to a larger conversation. ',Hubristic

'Well I think you said it better than me so thank you. It is voluntary. it is voluntary for our people it is voluntary to the customer. Starbucks is a primary place for people to have conversation to meet. it is a social place. we are obviously not going to do anything to dilute the integrity of the third place between home and work which Starbucks provides every day in this deep sense of community. But perhaps perhaps we can be a catalyst for some people to take the message and take it away take it to their children take it to their workers to coworkers and have a conversation about race. And one of the things we learned throughout the country in having these meetings is creating a safe place where people felt an opportunity to talk about their life experience and what happened taught other people who were not like them an opportunity for greater understanding and compassion. And I think that is what is needed.',Hubristic

'Well I can without question tell you Jim that There is no part of this on any level that is about marketing or PR or trying to get more business. You know the company and I think you have known me too well to know that this is from our heart and from our conscience asking ourselves How can we use our scale for good. I dont think it is going to hurt business. We certainly have not seen that in the last 24 hours. This is going to have a long tail to it. I think people trust the brand they trust the intentions of the company they trust our people and I have great faith that our people will

do the right thing and not put any customer in a situation where they are being handed something they don't want to carry.',Hubristic

'Yeah but I want to say something. I you know I am not in the business of short term rewards on a 24 hour cycle. we are building a great enduring company. The stock split the delivery opportunity with Postmates they have a significant national infrastructure that will leverage all the things we want to do. We talked to a number of companies. They clearly won based on merit. And then we are going to have delivery in certain buildings. We announced directly that we will have delivery in the Empire State Building. And one thing we did announce today which is quite significant and that is a joint venture with one of the largest ready to drink beverage manufacturers and distributors in the country of China with over one million points of distribution. And They will be bottling and distributing bottled Frappuccino in China with a joint venture with Tingi. That is a huge deal for the company going forward.',Hubristic

'The role and responsibility of a for profit public company cannot be just about making money. It has to be about giving back and it has to be about achieving the balance between profit and social impact.',Hubristic

'What I noticed early on is people had a lot of shame about their personal debt. And you have to peel the onion back and finally someone has enough courage to say I am so embarrassed but I have 5000 in debt and I have not been able to pay it off.',Hubristic

'People I think their self esteem was crushed as a result of failing the first time and then being saddled with that debt.',Hubristic

'I think when I sat in a room with these young kids and felt hopelessness from them it took me back to a different time in my life living in the projects of Brooklyn New York. I can remember as if it was right now. And I still have the scars and the shame of what it meant to be a poor kid.',Hubristic

'The goal of the company is not move them out of the company. The goal of the company is to give them new tools new resources and obviously a broader comprehensive education to do many other things within Starbucks.',Hubristic

'That is exactly right. But I also I am doing it because I recognize that more than ever that not only do we have to exceed the expectations of our customers but we have to exceed the expectations of our people to succeed.',Hubristic

'I do not think that is a solution. I do not think it ends well.',Hubristic

'We have a lens on almost every community in America At 4 30 in the morning I wake up and see the numbers of basically every store from yesterday.',Hubristic

'I think the private sector simply has to take a larger role than they have in the past. Our responsibility goes beyond the P&L and our stock price. If half the country or at least a third of the country does not have the same opportunities as the rest going forward then the country will not survive. That is not socialism.',Hubristic

'Before I introduce our special guests this morning I think I wanted to share with you that if you have been to these meetings before they are emotional they have got an overriding message but this meeting is going to be a little bit different because we are going to tackle a subject that is making its rounds throughout America and tearing up so many lives and so many people and so many families. And we are going to get to that in the second half of the meeting. The overriding message today will not only be about shareholder value it will be about the humanity of the company and what I posed last year. And that is the role and responsibility of a for profit company and what we at Starbucks believe is our overriding responsibility not just to make a profit not just to build shareholder value but to in fact have social impact and demonstrate the conscience of our company. Thank you.',Hubristic

'So let me begin by just introducing some special guests that are here today. First and foremost the Starbucks Board of Directors is here. Thank you very much. I also want to acknowledge with great pride a 6 year board member who is now the President and Chief Operating Officer of the company and that is Kevin Johnson. Thank you Kevin.

Starbucks international business partners many of them are here in the audience they have traveled from all over the world. Thank you for coming thanks to the partnership and thanks what you do all over the world and now in 66 countries outside of the US I also want to recognize members of the military and their spouses thank you including Starbucks owned Armed Forces Network and then we have a large group of military that have come from Joint Base Lewis McChord and General Kenneth Dahl and if all of the members of military and their families would stand up and be recognized it would be our pleasure. Thank you. Lets all stand. Thank you.',Hubristic

'And lastly there are so many Starbucks partners who are here today. There is tens of thousands watching on the webcast all over the world the heroic things that all of you do every single day behind the scenes in bringing the Starbucks experience to life the shareholder value that we have created this year and years in the past are do not to the senior leaders of the company but the people who were the green apron. Thank you very very much.',Hubristic

'Okay. So 23 years ago at the IPO Starbucks had 125 stores and a market cap of 250 million. Since then for the most part we have led a very charmed public life up until the cataclysmic financial crisis of 2008 when the market cap of Starbucks unfortunately dropped to 5.3 billion from the high at that point of 26 billion in 2006. However if you look at the company today a lot has changed. There are 22000 stores in 66 countries. Last week we served over 75 million customers. We now employ over 300000 people all over the world who are proudly wearing the green apron and as I stand here today I am proud to share with you that the market cap of Starbucks is at its all time high at 70 billion. It is a long way from 2008 and I just want to say with great humility thank you all so much for your belief and your confidence in our ability to transform the company when we returned in 2008.',Hubristic

'In terms of your investment if you go back to 2008 I think that is a 1200 percent gain that is 12X on your money. We are incredibly proud of that. I do not think we can do that every 5 years 6 years 7 years but enjoy it while it last. Now over the years there have been a number of significant financial milestones that Starbucks has had. But some how whenever I have shared with you one of those milestones it seems to have resonated more with you than other things and that was the 5 2 for 1 stock splits that we have had throughout our public life. So lets start the meeting by sharing with you that the Board of Directors has authorized our sixth 2 for 1 stock split. So that concludes the meeting and we will see you next year.',Hubristic

'So putting the math on that going back to 92 at the IPO if you invested 10000 in 1992 and there are a few of you who are here that is worth about two almost 2 million today so congratulations. But as all of you know we in many many ways look at the company through many lenses. And although the financial success and the numbers are meaningful and it is important that is not exactly what would you kind of do everyday or really trying to do everyday is really build trust with you our customers our partners and build the equity of the Starbucks brand. And our brand I must say is probably stronger and more relevant today almost every part of the world than any other time in our history. As evidenced by Fortune magazine for the 13th consecutive year naming Starbucks on its most admired company list and for the second consecutive year we were number five.',Hubristic

'I was kind of disappointed with that to be honest with you. And the truth is that I know the leadership team that you will meet in a little while and most all of us at Starbucks aspire to be number one to become the most admired recognized and respected brand in the world. And the question is how are we going to that and if you go back to the history of the company to the very early days we had an unusual business proposition and we said to all of our leaders all of our managers then and now that if we want to exceed the expectations of our customers then as managers and leaders we need to first exceed the expectations of our people.',Hubristic

'And in terms of shareholder value we must as leaders as stewards of the company link shareholder value to value for our people. And the history of the company has been based on just that but this year alone has been the year of significant investments back to the people of Starbucks over 200 million in healthcare benefits but let me just put an asterisk on that and so all of you understand. For 25 years before the Affordable Care Act Starbucks is paying for and providing comprehensive health insurance to every employee including part timers over 200 million went back to our people this year in Bean Stock which was a program again unparalleled in which we created stock options for every

single employee including part timers since its inception over 1 billion has gone back to our partners in the form of stock options in equity and lastly over 70 million this year alone in 401 contributions.',Hubristic

'And so what I want you to all understand is that Starbucks goes forward. We have to continue to understand that this is not a zero sum game. Shareholder value and all the things that have created value for you and your families as shareholders must be directly linked in terms of the value for our people sharing success with them and taking them along on this journey. Now when I think about the company in the future it all goes back to our people and it all goes back to the humanity and the relationship that we have built now with 300000 people but not through a slogan and not through marketing but real actions every single day that demonstrates the reservoir of trust that we must have with everyone who wears the green apron.',Hubristic

'Now every now and then I get an e mail or a letter where I meet a Starbucks partner that shares a very emotional story with me of how Starbucks Coffee Company has enabled them to buy a house a car an education all though Bean Stock. And then there is sometimes where someone shares a story with me that is so emblematic of the conscience to values the culture and the guiding principles of the company. Let me share one with you. So behind me is a photo of the Pike Place market. And last fall we had a District Manager Conference in which we bought about 3000 district managers from all over the world to Seattle and we literally shut down the market. It was a magical majestic evening and it was really a wonderful opportunity for us to meet so many partners who represent us from around the world.',Hubristic

'And naturally I was meeting partners for the first time. I was taking photographs. I was saying hello to lots of people. Well a woman tapped me on the shoulder about 100 yards away from our store and she says the following I have been with the company for 15 years and I have been waiting for 15 years to tell you a secret. And she starts to cry. And I say okay what is it. And she said I cant tell you the secret here. I have been waiting 15 years. I have been waiting 15 years to tell you the secret but I want to walk into the Pike Place store with you for the first time. So we walk about 100 yards to the Pike Place store. She is crying. I really know at this point kind of do not know what is going to happen. I want someone to convince me that she actually is a Starbucks partner. She was a little off. So we go into the store and people are hovering around us because she really is having trouble emotionally controlling herself. And then she tells me this story. And then I think you will understand why she was so emotional.',Hubristic

'She said Howard I have worked for Starbucks for 15 years and I am a District Manager but it did not start out that way. 15 years ago my husband and I were living in a car and my husband was very very sick and we had no health insurance. It does not matter how we have got there I can only tell you we were not bad people we did not commit any crime but we made a lot of bad decisions. I saw an ad in the local paper for a part time barista in the town that we were living in the car. I had nowhere to take a shower. We had very little clothes so we parked the car in the back of the gas station and I went to the gas station bathroom. I cleaned myself up as best I could. I didn ot really have any makeup. My clothes were not clean and I went for the job interview.',Hubristic

'My secret is I lied on the job interview in terms of the application when it said your residence. And I never told anyone we were living in a car. And this she fast forwards and she says Howard 15 years later I am the District Manager for Starbucks. I manage 12 stores 300 people. I have a home. My husbands healthcare was paid for by Starbucks as a result of the health insurance that we provide at our company. And she concludes by saying Starbucks did not change my life Starbucks saved my life. And I have been waiting 15 years to tell you this story. And at that moment it was not about the share price it is was not about comp store sales it was not about the next market it was emblematic of how we started the company why we started the company and it is all about opportunity. It is all about the promise of America. It is all about the American dream and giving people who perhaps thought they never could access to it. So what I want you to take away from that story is despite the scale the geography the ubiquity the size of Starbucks we are still the same company that started in the Pike Place Market. One extraordinary cup of coffee one customer one Starbucks partner doing everything we can to elevate the human experience in our store with our people in the communities that we serve and literally every single day trying to build a different kind of company that balances profit and shareholder value with benevolence.',Hubristic

'Now like comprehensive health insurance and equity in the form of stock options this past year we introduced another groundbreaking benefit for our people. Now we employ thousands of people in the US alone and so we went out to them and we said given the challenges that we all have and the constraints that we have economically. If Starbucks was going to create a new benefit that did not exist which is the benefit that would be most meaningful to you. And almost 70 percent of our partners that were pulled said access to education. So in a defining moment just like comprehensive health insurance and being stuff defining moment for the company in partnership with Arizona State University we literally became the first company in America just like we did with health insurance and just like we did with equity in the form of stock options to offer free college tuition for juniors and seniors and once again demonstrating the conscience of Starbucks Coffee Company. This was a landmark program. You know I was very happy with our results. We had like a 12 percent return on tangible common equity which is double what a lot of other people are doing. Market shares are up in almost every business. And you know listen we have vicissitudes. I think people overreact to short term stuff. I also think when we compare actual results with estimates ',Hubristic

'skin in the game. It would be better if we finished that. But if you have 5 or 6 people with jurisdiction and each one is considered independent it is hard to get them to the table.',Hubristic

'So I think it will be better down the road I dont think it will happen while I am still at JPMorgan that we kind of skinny down how many regulators there are.',Hubristic

'They are not listening. They have a lot to do they are exhausted too by the way. They are trying to implement what they have been given the job by legislators. And so they are trying to get that done. Privately a lot of them know that there are too many regulators and too many rules and they want to make it simpler.',Hubristic

'Over time that will probably happen. it is just not going to happen in the next couple of years and so ',Hubristic

'It will not happen in the next couple years. it is possible that people will look back and eventually say lets look at these things and improve them. Simply strengthen improve. Change the things that did not work. Add things that might be better that would work.',Hubristic

'I know.No. No.',Hubristic

'It is very very we have a lot of constituency. So I have 250000 employees. We bank 15 million households in America. We bank in 150 countries around the world. You know and you have got to do what is right for your company whether or not you agree with it.',Hubristic

'it is impossible for a bank to fight the United States government. And what you are trying to do is minimize the damage to your company as best you can. You know the alternative would be to go to court fight in 5 or 6 different courts you know be dragged through the mud for years and you will still end up paying that kind of money.',Hubristic

'Look maybe he would have done a better job if he was in my seat. But I dont know.',Hubristic

'But I am not going to jeopardize my company. And you know at the end of the day banks are you know if governments dont we have to operate under the laws of the land. Which we have always done around the world. And we cannot afford to take an indictment of certain sorts. I mean it could damage the company so much that we go in generally say we want to settle. You know please listen to us.',Hubristic

'When I went to see Eric Holder I did not go down painting the table. I said Eric I am here to surrender. you are my judge and my jury. I have no choice. But before you pass judgment please listen to what I have to say. And I went through Bear Sterns I went through WaMu I went through all the wonderful things the cities states schools hospitals. You know TARP was 700 billion. Bear Sterns and WaMu were at 600 billion. We did a lot.',Hubristic

'I think we got some credit for that so they have said. I dont know how they came to the numbers.Yeah.',Hubristic

'I am going to leave that to you guys to look at the proportionality of all those fines and stuff and what was fair or not. I just don't want to comment. I am trying to do the right thing for my company. You know I am trying to get some of this stuff behind us. So first of all .',Hubristic

'I always I hope not. I always look at it from the standpoint of the client first. don't look at it from the standpoint of the bank first. So if you say large corporations they are going to need equity debt derivatives MandA cash management all those services we provide.',Hubristic

'And if you look at consumers they are going to need deposits investment advice you know credit cards debit cards all those services we provide. More and more on the mobile phones and all that.',Hubristic

'If you look at middle market companies we bank 60000 in America they are still going to need what we provide. So of course we will be there. And the question is who is going to be providing these services in the most economic way that clients are happy. I point out our clients are very happy with us. Customer sat scores have never been higher ever. You know ',Hubristic

'I am not going to speak about Glencore particularly. I think they have been a very talented bright company for a long period of time. And no company does not you know hit a bump. Every company I know ever has had that problem. The strength of a company is usually how it gets through that kind of stuff. Not whether they don't have it or not.',Hubristic

'Well look I don't know why everyone is always so surprised. OK. Commodity prices have moved 15 percent consistently over my whole lifetime. It only takes you know oil supply and demand 90 million barrels a day. I mean supply went up to 92 and demand was 90 prices fell 50 percent. Those kind of moves happen in cotton corn soy beans wheat you know sugar cocoa you name it.',Hubristic

'Interest rates stocks. No one should be completely shocked when supply and demand gets imbalanced that prices move dramatically. So the goal of a JPMorgan is to be prepared. I am not predicting it. I am just saying we are prepared for it. Those things happen. And I think a lot of players are they know those things can happen.',Hubristic

'And the best players when they come out of it will probably do quite well actually.',Hubristic

'No. We never again we are not directional. So we had never had huge positions in physical or something like that. You know that we would have lost that kind of money.',Hubristic

'First of all I am in favour of competition. So I am not against shadow banks non banks competing banks or any of that stuff. But I do think if you are a regulator you should be looking outside just the banking system. Particularly since more and more things are going there. A lot of the mortgage business has gone outside of banking. The FHA business has gone outside of banking.',Hubristic

'You see a lot of competitors out in Silicon Valley which I think is a good thing. And they just should be paying attention to it. And they are by the way. You see the CFPB and a bunch of other people looking at peer to peer lending and all that. So it is just to monitor.',Hubristic

'I don't think any of that stuff is systemic risk. At this point no.',Hubristic

'So I think a very important thing it is not about me. it is about the company. So the board thinks about that all the time and stuff like that. I think we have enormous talent. I do worry very much that they will be recruited by everybody else. And my job and the board's job is to retain them. And I am very close to a lot of them. They are great at what they do. They are great partners. So hopefully I will not lose any of them. JPMorgan is a very strong company and we have a very strong bench.',Hubristic

'Let me first say that our clients are completely safe. We move six to ten trillion dollars a day. Your deposit safe the movements safe. We are actually very good at this. We did announce a breach that we had. We made it voluntarily

because all the information was public. Name address email. But it was a breach. We thought we should tell our shareholders. We spent 250 million a year that number is going up could double the next two years easily. It is a big deal. But we are safe. And I think what people have to do is have perimeter controls internal controls like you know these change of passcodes. If someone gets your passcode they get inside your systems your protection is track that. So you can make sure if that happened you are on top of it too.',Hubristic

'Oh 300 would be 300000 or something. It is a huge number. And they're mostly they mostly do not get through. If the banks are good at this the feds can be good at it. In fact a former director of national security was on TV and said people at JPMorgan are like the best at it. So I am not saying we are but he said something like that. And if you look at the real breaches where they get your social security your mothers maiden name your security code your credit card number those have not been the banks. Those have been other people. And so we pay the price for that. And it is incumbent upon all of us merchants banks retailers everyone to come up with a better systems. And we are. We have a whole new generation of security things coming out called tokenization and chip the chip that make it much harder for criminals. And then there is other companies set of standards. They will protect their own credit card numbers etc.',Hubristic

'This is a permanent battle that will be people will lose battles and you have also got to be prepared for that. Like what are you going to do if something goes wrong where you can continue to serve your client continue to do the things protect yourself from damage. And protect your client from damage. So this is a big deal. Its not going to go away in our lifetime. And it is also an example by the way where government I think government and business are collaborating pretty well. We need to do more. You know a lot of our collaborations is not real time. We need real time. You know the government or other banks can see there could be attack right now on these wires with this kind of malware and we could put immediate protection against that. So we have even informed banks of other things we are having help them. We tell the government they can disseminate it. The government knew about it mostly we knew about it first. The government may know about it. They see stuff coming. So we need real collaboration. And eventually cyber security is going to be a part of WTO World Trade and and public policy and global relations. This cannot go on. I mean you cannot have it where people are stealing IPs stealing money attacking you and if it is state sanctioned allow it. It will not. Eventually it will be taken much more seriously by governments.',Hubristic

'I am actually doing fine. I am happy to be I never stopped working but I am mostly back to full health back to working full time. I had throat cancer for those who do not know. It is a tough thing to go through and I did exactly what my I have exceptional doctors. I did exactly what they told me to do. But on December 4th I got a after all this treatment radiation chemo I got that kind of clean bill of health no evidence of cancer in my body. It is a very good sign. Obviously I am going to be monitored for the next three years but it is not definitive but it is as good as can be so. And my family was enormously supportive of this. I got hundreds of thousands of emails and calls and the people at the company were great the board was great and I do not wish it on anybody but I am glad it is over.',Hubristic

'No not really. Because I have always people always ask me what your value system is and I always put family first and country humanity second and kind of JPMorgan kind of down here not unimportant. You know I spend a lot of time with my family. I adore all of them three children and my wife and you know I do not know if I could do more. They have their jobs they have got their careers they are all busy and doing things like that. If I do a good job here I can help people with their careers. We help you know consumers and big businesses. We help countries and banks central banks governments sovereign wealth funds and we are hugely charitable. You know the work we do in Detroit we have hired 8000 veterans. So this is my contribution. It is the best I can do. And so it has not really changed that. And I like working.',Hubristic

'We see very broad based moderate growth. Most of the sectors are quite strong. I dont see any major potholes and I believe the economy is strengthening. I think the politics have gotten better in the United States which makes it easier to pass legislation budgets and treaties. More people are working lending is up and savings are up. These are all positive signs for a strengthening economy.',Hubristic

'hard to predict could be either September or December I personally think the sooner the better because that would be a good sign that the Fed believes the economy is significantly stronger. There is a lot of focus on that first rate move and I am not sure how important that is. I speak to lots of people around the world and no one would tell you that 25 basis points will make a difference to them.',Hubristic

' If it is a small rate raises no impact. I think that the world expects it. So usually something that is fairly expected is already factored in. I also think that you have to think that America is raising rates because the economy is getting stronger. that is probably good all things being equal for emerging markets not bad even though it may not be great for all their currencies.',Hubristic

'I think normalization is a good thing. I dont think that necessarily is going to damage the emerging economies. And I also believe that most of the emerging economies have a fairly large amount of foreign exchange reserves relative to 10 years ago.',Hubristic

'Over the longer term China will grow by about 6 percent or 7 percent per year. The Chinese authorities usually react pretty quickly to unfolding economic events and you have seen them recently change a whole bunch of policies to be more conducive to growth. They have the power and capability to macro manage the economy to accomplish their growth objectives which means they are pretty much going to come close to what they say is going to happen.',Hubristic

'India is a huge democracy. Prime Minister Modi has ambitions to try to fix the infrastructure the rules taxes education and to lift up the Indian people. And we are hopeful that that is going to create positive momentum. And it has the country is doing far better. it is hard in all countries. Democracy is hard but it is better than the alternatives. It can take a long time to get the rules in place that are conducive to growing sometimes. But Prime Minister Modi is strong enough and he is accomplished much. Their growth may be 6 percent or 7 percent this year and that is quite good.',Hubristic

'Europe is the most complicated place in my opinion. But I wanted to start by saying that the eurozone there are two reasons they formed the European Union. One is for political peace and rationalization. And I think that is a good thing for a continent that went through hundreds of years of wars. I believe it is a good thing that people say Can we find a way to live together in peace. And they did for the most part.',Hubristic

' The second is the economic union creating a big common market like the United States so that you can compete across borders. There are common rules regulations and simplification and that is still a good reason too. When they put their monetary union together that created a rigidity that made it hard for currency fluctuations. They dont really have a solution to that. So the best thing to do is muddle through and maybe over time create a solution of that if someone really wanted to exit the legal basis on which you could exit. Because right now there almost does not exist one. it is a guess and people are not prepared for it. And because of that you are going to have slow growth and unfortunately while there may not be huge volatility there will be volatility.',Hubristic

'I am optimistic about it. So Abenomics quantitative easing fiscal policy we know all the issues. But the third arrow is critically important. Japan has some of the best companies in the world and if you look at their technology their capability it is extraordinary.',Hubristic

' And part of the reason some Japanese companies have underperformed financially was corporate governance and board structures. Now the Japanese companies are more focused on that. To have two independent directors I think it is good to have outside people look at you and think of what you could be doing better. Those are voluntary but most of the companies told me they are going to do it. And I think it is good for them to say our returns on equity for example should be higher. Also I think some could be more ambitious.',Hubristic

' And part of Japanese companies growing and expanding around the world is . going to help the Japanese keep their lifestyles despite Japans demographics as a declining population and to make it more conducive to women to

go to work I think is a plus. Most of the rest of the world does it though I recognize the challenges. You have your own culture and your own ways of doing things. I hope Japan continues on this path. You never know exactly how new policies are going to work. That does not mean you should not try them.',Hubristic

'There are two types of depreciation. There is one where you are manipulating currencies. And that is not what Japan is doing. Manipulating currencies is when you are going into the marketplace and buying something in large amounts to depress the value of the currency. The goal of what Japans central bank is doing is to create growth. If it actually creates growth in the long run it will lead to appreciation. The yen is trading where it is trading because people are guessing about peoples future interest rates dollar and yen and about the future growth potential of the economies. And if this policy works then the yen will probably strengthen.',Hubristic

'JPMorgan is a very good franchise. And the way you should look at a franchise a business is from the standpoint of the customers. We are among the most successful global investment banks most successful global asset managers and in the United States one of the most successful retail and commercial bankers. We do a great job for customers.',Hubristic

'Our commercial bank is only in the US We are serving what you call SMEs small businesses private companies. They are not the largest companies in the world but think of the next the Fortune 1000. Again it is been very steady. it is done nothing but grow for years. We have accommodated the new rules and regulations. We have served our clients and had quite good returns.',Hubristic

' And we continued to build the business even in the worst of times. We do business all over America. If you went to all those little towns in America JPMorgan was there in good times and bad times and in fact helped a lot of people through the tough times. And we know that is when they need us the most.',Hubristic

'we are diversified we are stable and consistent. Our businesses benefit from each other. As a matter of fact 25 percent of our US investment banking business ',Hubristic

'We all had cellphones. We just hated them they were so awful to use. The software was terrible. The hardware was not very good. We talked to our friends and they all hated their cellphones too. Everybody seemed to hate their phones. And we saw that these things really could become much more powerful and interesting to license. it is a huge market. I mean a billion phones get shipped every year and that is almost an order of magnitude greater than the number of music players. it is four times the number of PCs that ship every year.',Hubristic

'It was a great challenge. Lets make a great phone that we fall in love with. And we have got the technology. We have got the miniaturization from the iPod. We have got the sophisticated operating system from Mac. Nobody had ever thought about putting operating systems as sophisticated as OS X inside a phone so that was a real question. We had a big debate inside the company whether we could do that or not. And that was one where I had to adjudicate it and just say we are going to do it. Lets try. The smartest software guys were saying they can do it so lets give them a shot. And they did.',Hubristic

'We did iTunes because we all love music. We made what we thought was the best jukebox in iTunes. Then we all wanted to carry our whole music libraries around with us. The team worked really hard. And the reason that they worked so hard is because we all wanted one. You know. I mean the first few hundred customers were us.',Hubristic

' it is not about pop culture and it is not about fooling people and it is not about convincing people that they want something they dont. We figure out what we want. And I think we are pretty good at having the right discipline to think through whether a lot of other people are going to want it too. that is what we get paid to do.',Hubristic

' So you cannot go out and ask people you know what the next big There is a great quote by Henry Ford right. He said If I would have asked my customers what they wanted they would have told me A faster horse. ',Hubristic

'We do no market research. We dont hire consultants. The only consultants I have ever hired in my 10 years is one firm to analyze Gateways retail strategy so I would not make some of the same mistakes they made. But we never hire consultants per se. We just want to make great products.',Hubristic

' When we created the iTunes Music Store we did that because we thought it would be great to be able to buy music electronically not because we had plans to redefine the music industry. I mean it just seemed like writing on the wall that eventually all music would be distributed electronically. That seemed obvious because why have the cost. The music industry has huge returns. Why have all this when you can just send electrons around easily.',Hubristic

'We dont get a chance to do that many things and everyone should be really excellent. Because this is our life. Life is brief and then you die you know. So this is what we have chosen to do with our life. We could be sitting in a monastery somewhere in Japan. We could be out sailing. Some of the executive team could be playing golf. They could be running other companies. And we have all chosen to do this with our lives. So it better be damn good. It better be worth it. And we think it is.',Hubristic

'The reason is is because you cannot do what you can do at Apple anywhere else. The engineering is long gone in most PC companies. In the consumer electronics companies they dont understand the software parts of it. And so you really cannot make the products that you can make at Apple anywhere else right now. Apples the only company that has everything under one roof.',Hubristic

'There is no other company that could make a MacBook Air and the reason is that not only do we control the hardware but we control the operating system. And it is the intimate interaction between the operating system and the hardware that allows us to do that. There is no intimate interaction between Windows and a Dell notebook.',Hubristic

'Our DNA is as a consumer company for that individual customer who is voting thumbs up or thumbs down. that is who we think about. And we think that our job is to take responsibility for the complete user experience. And if it is not up to par it is our fault plain and simply.',Hubristic

'We have got really capable people at Apple. I made Tim Cook COO and gave him the Mac division and he is done brilliantly. I mean some people say Oh God if Jobs got run over by a bus Apple would be in trouble. And you know I think it would not be a party but there are really capable people at Apple. And the board would have some good choices about who to pick as CEO. My job is to make the whole executive team good enough to be successors so that is what I try to do.',Hubristic

'My job is to not be easy on people. My job is to make them better. My job is to pull things together from different parts of the company and clear the ways and get the resources for the key projects. And to take these great people we have and to push them and make them even better coming up with more aggressive visions of how it could be.',Hubristic

'Apple is a 30 billion company yet we have got less than 30 major products. I dont know if that is ever been done before. Certainly the great consumer electronics companies of the past had thousands of products. We tend to focus much more. People think focus means saying yes to the thing you have got to focus on. But that is not what it means at all. It means saying no to the hundred other good ideas that there are. You have to pick carefully.',Hubristic

'I am actually as proud of many of the things we have not done as the things we have done. The clearest example was when we were pressured for years to do a PDA and I realized one day that 90 percent of the people who use a PDA only take information out of it on the road. They dont put information into it. Pretty soon cellphones are going to do that so the PDA markets going to get reduced to a fraction of its current size and it will not really be sustainable. So we decided not to get into it. If we had gotten into it we would not have had the resources to do the iPod. We probably would not have seen it coming.',Hubristic

'We have got 25000 people at Apple. About 10000 of them are in the stores. And my job is to work with sort of the top 100 people that is what I do. That does not mean they are all vice presidents. Some of them are just key individual

contributors. So when a good idea comes you know part of my job is to move it around just see what different people think get people talking about it argue with people about it get ideas moving among that group of 100 people get different people together to explore different aspects of it quietly and you know just explore things.',Hubristic

'When I hire somebody really senior competence is the ante. They have to be really smart. But the real issue for me is Are they going to fall in love with Apple. Because if they fall in love with Apple everything else will take care of itself. They will want to do what is best for Apple not what is best for them what is best for Steve or anybody else.',Hubristic

'Recruiting is hard. it is just finding the needles in the haystack. We do it ourselves and we spend a lot of time at it. I have participated in the hiring of maybe 5000 plus people in my life. So I take it very seriously. You cannot know enough in a one hour interview. So in the end it is ultimately based on your gut. How do I feel about this person. What are they like when they are challenged. Why are they here. I ask everybody that Why are you here. The answers themselves are not what you are looking for. it is the meta data.',Hubristic

'That allows us to innovate at a much faster rate than if we had to wait for Microsoft like Dell and HP and everybody else does. Because Microsoft has their own timetable for probably good reasons. I mean Vista took what seven or eight years. it is hard to get your new feature that you need for your new hardware if it has to wait eight years. So we can set our own priorities and look at things in a more holistic way from the point of view of the customer. It also means that we can take it and we can make a version of it to fit in the iPhone and the iPod. And you know we certainly could not do that if we did not own it.',Hubristic

'When you hire really good people you have to give them a piece of the business and let them run with it. That does not mean I dont get to kibitz a lot. But the reason you are hiring them is because you are going to give them the reins. I want them making as good or better decisions than I would. So the way to do that is to have them know everything not just in their part of the business but in every part of the business.',Hubristic

'So what we do every Monday is we review the whole business. We look at what we sold the week before. We look at every single product under development products we are having trouble with products where the demand is larger than we can make. All the stuff in development we review. And we do it every single week. I put out an agenda 80 percent is the same as it was the last week and we just walk down it every single week.',Hubristic

'We dont have a lot of process at Apple but that is one of the few things we do just to all stay on the same page.',Hubristic

'At Pixar when we were making Toy Story there came a time when we were forced to admit that the story was not great. It just was not great. We stopped production for five months. We paid them all to twiddle their thumbs while the team perfected the story into what became Toy Story. And if they had not had the courage to stop there would have never been a Toy Story the way it is and there probably would have never been a Pixar.',Hubristic

'We called that the story crisis and we never expected to have another one. But you know what. There is been one on every film. We dont stop production for five months. We have gotten a little smarter about it. But there always seems to come a moment where it is just not working and it is so easy to fool yourself to convince yourself that it is when you know in your heart that it is not.',Hubristic

'Well you know what. it is been that way with almost every major project at Apple too. Take the iPhone. We had a different enclosure design for this iPhone until way too close to the introduction to ever change it. And I came in one Monday morning I said I just dont love this. I cannot convince myself to fall in love with this. And this is the most important product we have ever done.',Hubristic

'And we pushed the reset button. We went through all of the zillions of models we would made and ideas we would had. And we ended up creating what you see here as the iPhone which is dramatically better. It was hell because we had to go to the team and say All this work you have done for the last year we are going to have to throw it away and

start over and we are going to have to work twice as hard now because we don't have enough time. And you know what everybody said. Sign us up.',Hubristic

'That happens more than you think because this is not just engineering and science. There is art too. Sometimes when you are in the middle of one of these crises you are not sure you are going to make it to the other end. But we have always made it and so we have a certain degree of confidence although sometimes you wonder. I think the key thing is that we are not all terrified at the same time. I mean we do put our heart and soul into these things.',Hubristic

'It was difficult for a while because for various reasons the Mac had not been accepted by a lot of people who went with Windows. And we were just working really hard and our market share was not going up. It makes you wonder sometimes whether you are wrong. Maybe our stuff is not better although we thought it was. Or maybe people don't care which is even more depressing.',Hubristic

'It turns out with the iPod we kind of got out from that operating system glass ceiling and it was great because it showed that Apple innovation Apple engineering Apple design did matter. The iPod captured 70 percent market share. I cannot tell you how important that was after so many years of laboring and seeing a 4 percent to 5 percent market share on the Mac. To see something like that happen with the iPod was a great shot in the arm for everybody.',Hubristic

'We made more. We worked harder. We said This is great. Let's do more. I mean the Mac market share is going up every single quarter. We are growing four times faster than the industry. People are starting to pay a little more attention. We have helped it along. We put Intel processors in and we can run PC apps alongside Mac apps. We helped it along. But I think a lot of it is people have finally started to realize that they don't have to put up with Windows that there is an alternative. I think nobody really thought about it that way before.',Hubristic

'It was very simple. The Mac faithful will drive to a destination right. They will drive somewhere special just to do that. But people who own Windows we want to convert them to Mac. They will not drive somewhere special. They don't think they want a Mac. They will not take the risk of a 20 minute drive in case they don't like it.',Hubristic

'But if we put our store in a mall or on a street that they are walking by and we reduce that risk from a 20 minute drive to 20 footsteps then they are more likely to go in because there is really no risk. So we decided to put our stores in high traffic locations. And it works.',Hubristic

'Things happen fairly slowly you know. They do. These waves of technology you can see them way before they happen and you just have to choose wisely which ones you are going to surf. If you choose unwisely then you can waste a lot of energy but if you choose wisely it actually unfolds fairly slowly. It takes years.',Hubristic

'One of our biggest insights years ago was that we did not want to get into any business where we did not own or control the primary technology because you will get your head handed to you.',Hubristic

'We realized that almost all maybe all of future consumer electronics the primary technology was going to be software. And we were pretty good at software. We could do the operating system software. We could write applications on the Mac or even PC like iTunes. We could write the software in the device like you might put in an iPod or an iPhone or something. And we could write the back end software that runs on a cloud like iTunes.',Hubristic

'So we could write all these different kinds of software and make it work seamlessly. And you ask yourself What other companies can do that. It is a pretty short list. The reason that we were very excited about the phone beyond that fact that we all hated our phones was that we did not see anyone else who could make that kind of contribution. None of the handset manufacturers really are strong in software.',Hubristic

'Here is how I look at it. Everybody's tried to make a great product for the living room. Microsoft's tried we have tried everybody tried. And everybody failed. We failed so far.',Hubristic

'So There is a whole bunch of people that have tried and every single one of them failed including us. And that is why I call it a hobby. it is not a business yet it is a hobby.',Hubristic

'We have come out with our second try Apple TV Take 2 is what we call it internally. We realized that the first product we did was about helping you view the content of whatever you had in iTunes on your Mac or PC and wirelessly sending it to your widescreen TV.',Hubristic

'Well it turns out that is not what people really wanted to do. I mean yeah it is nice to see your photos up on the big screen. that is frosting on the cake but it is not the cake. What everybody really wanted it turned out was movies.',Hubristic

'So we began the process of talking to Hollywood studios and were able to get all the major studios to license their movies for rental. And we only have about 600 movies so far ingested on iTunes but we will have thousands later this year. We lowered the price to 2.99. And we will see how it does. Will this resonate and be something that you just cannot live without and love. we will see. I think it is got a shot.',Hubristic

'We have had one of these before when the dot com bubble burst. What I told our company was that we were just going to invest our way through the downturn that we were not going to lay off people that we would taken a tremendous amount of effort to get them into Apple in the first place the last thing we were going to do is lay them off. And we were going to keep funding. In fact we were going to up our RandD budget so that we would be ahead of our competitors when the downturn was over. And that is exactly what we did. And it worked. And that is exactly what we will do this time.',Hubristic

'It is how our whole model works. When people join Prime they buy more of everything we sell. They buy more shoes they buy power tools and so on. How you pay for great content is an important part of making great content available.',Nonhubristic

'Is this something we can imagine is someone s favourite show. One way you can think about TV is you can say I want to make something that millions and millions of people are going to watch. If that is your starting point you paint yourself into a corner and you often end up with homogenized uninteresting content. If you say Lets hire the world s greatest storytellers. Lets encourage them to take risks then you are going to end up with a remarkable story and remarkable stories always find an audience.',Nonhubristic

'I do not think so. I do not think it is useful. I do not want our team obsessing over ratings. I want them obsessing over quality. If they can pull that off we will have millions of happy viewers.',Nonhubristic

'Maybe. Every once in a while we give a little more data. We grew 53 percent year over year so it is a big number. And it is a global audience. Prime members are more likely to renew because of Prime Instant Video. They are more likely to start a free trial. They are more likely to convert from free to paid.',Nonhubristic

'Instead of setting a long range goal I would just say we are going to keep pushing forward making more and more. We are still sort of filling a pipeline. But I like the vision of doing things frequently. The reason we are doing this is because we want Prime members to value their membership. If you look at the upward trajectory of how much content we are creating per quarter it is increasing very rapidly. I do not envision that slowing anytime soon.',Nonhubristic

'I breathed a huge sigh of relief. You know Woody. If he ever gets optimistic then I will be worried. As long as he s pessimistic and anxious I think we are in good shape. Oh absolutely.',Nonhubristic

'I cannot say what we will or will not do in the future but I can promise we will try lots of new things.',Nonhubristic

'I think They are important to the creators. The audience also likes it. Is it the only thing that matters. No but it is very good validation of the quality of the work that the team is doing.',Nonhubristic

'I do only socially. From a business point of view I do not need to be involved in those meetings. Roy and his team have all of that authority to make those decisions and move forward and they do not need me. I do not need to interject myself.',Nonhubristic

'The way you get good storytelling is important because the process can matter. That is why I like our approach. I am not even saying it is the right approach I am just saying it is ours. It is this very rigorous process to say yes but then once we say yes we keep our Amazon Studios team size very small so that is consistent with not wanting to interfere with the work the storyteller does. For example I will give you the alternate scenario that would be horrific in my mind which is that I am sitting there in Seattle and Roy is sending me early drafts of Transparent season two scripts and I am giving Jill ideas. How in the world could I possibly help Jill. I can help Jill by leaving her alone. And everyone at Amazon takes that same approach.',Nonhubristic

'Then we probably should not pick that person in the first place. Doing what Jill does is super hard and there are only a limited number of people who are great at it. My view We need to focus on those people.',Nonhubristic

'The best assurance is what is happening which is just that it is working. Companies do not stop doing the things that are working. They stop doing the things that are failing. And this is already working.',Nonhubristic

'It is available on hundreds of devices from Xbox to Roku to smart TVs. If you want to see our very best experience get a Fire TV. Millions of folks around the world already have.',Nonhubristic

'Start from the customer and work backwards. Focusing on customer needs is very motivating because customers will never be satisfied. Also it is OK to fail you should expect to fail. A pioneering culture is one that rewards experimentation even as it embraces the fact that it is going to lead to failure.',Nonhubristic

'We are continuing to conduct flight tests on rapidly improving designs. That testing is going well and we are very pleased with the R and D progress. The long pole in the tent here will be regulatory approvals.',Nonhubristic

'Well yes and in fact we have in the past. And you have to understand there are many ways of thinking about this but the reality is that Amazon is a collection of several businesses and initiatives. And we have some very significant very profitable more established businesses that are free cash flow generating. Very significantly. And fortunately the way I think about it we have lots of opportunities to invest in this new initiatives and we take advantage of those opportunities. So it is kind of like we built this lemonade stand you know twenty years ago. The lemonade stand has become very profitable over time. But we also decided to use our skills and the assets that we have acquired over time to open up a hamburger stand and a hot dog stand and so on and so on. So we are investing in new initiatives.',Nonhubristic

'Look you know. Warren Buffett has this great quote he says You can hold a rock concert and that is okay. And you can hold a ballet and that is okay. Just do not hold a rock concert and advertise it as ballet. Investors come in all shapes and sizes. They have different investment horizons different approaches different beliefs about what the right kind of portfolio looks like. And so it is not when you know people use Wall Street as a shorthand. But there is not one type of investor they come in different shapes and sizes. You have to be super clear about what kind of company you are trying to build what your approach is. We laid that out in our 1997 annual shareholder letter. We said we were going to take big bets. We said they were gonna fail. We said some of them hopefully were gonna work. We said we were gonna to invest for the long term that we were gonna to take advantage of market opportunities as they arose. And there is a certain kind of investor who is aligned with that approach. And so again you could hold the ballet or the rock concert and both can work. Just be clear about which one you are and then people can self select.',Nonhubristic

'I would say it is very difficult for a publicly traded company to switch. So if you have been holding a rock concert and then you wanna have a ballet. That transition is gonna be difficult. But if you have done it from the very beginning and then I do not think it is not that difficult to do.',Nonhubristic

'Where is this part where you are extra nice to me because I am an investor. And the company is.',Nonhubristic

'Look we would all love our numbers to be smooth lines up into the light. That would be terrific but that is not how it works you know. Those numbers are output measures. And you I guess you could try to manage for the quarterly earnings very precisely. But I think personally that would be a mistake. Most of the work that we put into any particular quarter happened years ago. So it is not you know there are not that many knobs you could turn during a quarter. Or I mean you can. But that is like eating your seed corn if you turn those knobs. You do not wanna do that. And so it is a you know people I think that if you focus on the inputs you can control of your business instead of your outputs in the long term you get better results. So the Benjamin Graham quote here is that In the short term the market is a voting machine. In the long term it is a weighing machine. And I think people are well advised to build a company that wants to be weighed and not voted upon. That means having good returns on invested capital having lots of free cash flow. But if you said to me if I said here is a job I would reject. If someone came to me and said Jeff I want your job to be to drive up the Amazon stock price and just manage that directly. That might sound ridiculously to some of you but many companies actually do this. They actually go out and they try to sell the stock. That is kind of the final output. it is much better to say lets not do that that is not gonna be sustainable. it is kind of a silly approach. What are the inputs to a higher stock price. So okey free cash flow and return on invested capital are inputs to a higher stock price. So okay lets keep working backwards. What are the inputs to free cash flow. And you keep working backwards until you get to something that is controllable. And a controllable input for free cash flow would be something like lower cost structure. And you back up from there and you say you know if we could improve our picking efficiency in our fulfilment centers and reduce defects. Defects are very very costly. You know reducing defects at the root is one of the best ways to lower cost structure. And so that starts to be a job could accept. You would say you know a reasonable person would say I have no idea how to drive up the stock price I cannot manage that directly it is not a controllable input. But I can make a picking algorithm more efficient and that would reduce cost structure and then you know follow that chain all along the way. That is what you do in all of these businesses. You want customer obsession. You wanna invent your way out of boxes. Invent your way into the future. You wanna be patient and you wanna have operational excellence. So that is you are finding defects at the root and then you are fixing them.',Nonhubristic

'Yeah ',Nonhubristic

'And we do a lot of things unusual there. So you know. We do not meet with our biggest investors. We meet with investors who have low portfolio turns. So you know. Investors many investors many investment funds have very high portfolio turns. They turn their portfolio multiple times per year, they are not really investors they are traders. it is nothing wrong with that it is just a different thing. But where are you gonna spend your time and energy is one of the most important things in life. We all have a limited amount of time. Where you spend it and how you spend it is just an incredibly levered way to think about the world. So if you are gonna spend time you know explaining the stock the company really. We do not really explain the stock we explain the company to people. You should do it to people who are long term investors rather than traders. That is our point of view.',Nonhubristic

'Well I so since 1997 at almost every all hands meeting we have two o hands meeting a year. And almost every all hands meeting I remind employees that if the stock is up 10 percent this month do not feel 10 percent smarter. Because when the stock is down 10 percent some month you are gonna have to feel 10 percent dumber and it is not gonna feel as good. And so you know ownership we give most of our compensation is done in terms of stock compensation. And part and parcel with ownership is a mentality of long term thinking. You know owners think longer term than renters do. So I have a friend who rented his house to some tenants and instead of getting a Christmas tree stand at Christmas they just nailed the Christmas tree into the hard wood floors of the house. No owner would ever do that and but sometimes that is a bad tenant. You know there are good tenants. But that is a bad tenant. Because you know it is the same thing no one ever washed a rental car. And you know you take better care of the things that you own and but one of the responsibilities of ownership and definitely deep inside the Amazon culture

is to think about the fundamentals of the business and not the daily fluctuations in the stock price. There is no information in that.',Nonhubristic

'Yeah there is a succession plan for me and all of our senior executives. And Yeah absolutely. Secret.',Nonhubristic

I saw Mission Impossible 5 with my kids. it is terrific it is extremely good. ',Nonhubristic

'eSports has become a big thing. There were many many thousands watching live and it was really quite amazing. I am a consumer of media of all kinds. But that kind of media is a whole new segment that is very exciting.',Nonhubristic

'Starting with customers working backwards that is the kind of thing that has become a habit at Amazon. We also have an eagerness to invent that is a deep part of our culture as is a willingness to think long term. We can work on things that do not need to work for five six seven years there are not many companies willing to take that kind of time horizon.',Nonhubristic

'And then finally a culture of operational excellence and I mean that in the sense that Toyota might mean it. Finding defects doing root cause analysis working to fix things that kind of operational excellence has also become a big part of who we are. So when you apply those four things they work in a lot of different parts of our business.',Nonhubristic

'It makes total sense that the worlds largest store has the worlds largest puzzle.',Nonhubristic

'Twenty years. is not that amazing. In some ways it seems as if it all just happened yesterday and in some ways it seems like 100 years.',Nonhubristic

'The original Amazon plan was focused exclusively on books and I expected the company to grow slowly over a large number of years. But it actually grew very quickly right from the beginning. These are very humble roots I can assure you he smiles. I drove the packages to the Post Office in my Chevy Blazer.',Nonhubristic

'Disruption is a consequence of customers liking the new way. Maybe it is just a mind set but a better mind set and one that we use is How do you delight customers.',Nonhubristic

'We do not seek to disrupt we seek to delight. If you invent something completely new and radical and customers do not care about it it is not disruptive. Radical invention is only disruptive if customers love it.',Nonhubristic

'Our three most durable inventions at this point and we are of course always looking for more are Prime Marketplace and AWS.',Nonhubristic

I think that would be a big distraction and really there would be very little benefit from it.',Nonhubristic

I am hopeful we might find a fourth over time we have many things in the pipeline. But I would say those three are at the top of the list of the things we have created over the last 20 years that have a good chance as long as we continue to work hard of being here 10 years from now 20 years from now.',Nonhubristic

'Prime is one that hundreds of millions of consumers know about. I think it is the most important.',Nonhubristic

I do not really think of it in that way I think of it as a single piece.',Nonhubristic

'The same was true when we launched it 10 years ago. There is a sense that Prime is an all you can eat buffet and of course when you have an all you can eat buffet the heavy eaters turn up first. So it is very common for something like this to be in an investment phase for a certain period of time. ',Nonhubristic

'It cannot just be one show it has to be a number of things. We have a lot of things in the pipeline which I think viewers in the UK and around the world are going to love. And I think Clarksons new show is going to be one of those.',Nonhubristic

'I think we are in a golden age of television so if you go back in time even just five years you could not get A list talent to do TV serials or if you could it was a rare thing. But that is flipped completely.',Nonhubristic

'The investment is very high now in serialised TV and the amount of time you have to tell a story is much greater. That format change opens up a lot of storytelling possibilities which when mixed with the movie like production standards and the A list talent is why we are seeing amazing television.',Nonhubristic

'One day Prime Air deliveries will be as common as seeing a mail truck. The technical problems are very straight ahead. The biggest issue or the biggest thing that needs to be worked on is the regulatory side.',Nonhubristic

'What I would say is that in the scheme of things the UK regulatory agencies have been very advanced. The FAA is catching up a little here in the US but the UK has been I would say a very encouraging example of good regulation. I think we like what we see there.',Nonhubristic

'Physical stores have obviously been around for hundreds of years. And the companies that are experts at them are very good at their businesses. So I think it is an area where we need to be very humble.',Nonhubristic

'If Amazon were to do physical stores we would need to have something that is a little different.',Nonhubristic

'I just get all weak kneed around entrepreneurs. I just love it. If I have a meeting with an entrepreneur I am always charmed by them. ',Nonhubristic

'Absolutely. In my personal investments I am mostly doing things that I am curious about. And passionate about. In many cases I do not necessarily expect them to be good investments.',Nonhubristic

'I was not seeking to buy a newspaper. I ended up having some long conversations with Don and the actual details of the acquisition were incredibly simple.',Nonhubristic

'I know him so well and he is such a high integrity person I did not negotiate with him I paid the price he asked I did no due diligence he told me everything about the company including all the wonderful things and all the terrible things and he walked me through every nook and cranny and I would say it is turned out to be exactly how he described it in every way.',Nonhubristic

'The financials of the Post are very difficult. And that is not unique to the Post it is a problem that many newspapers have.',Nonhubristic

'I have liked every phase of the company. I loved the beginning and I love it just as much now .',Nonhubristic

'I took my extended family on vacation in the south of France and we had an unbelievable time and we had great food and we were there for a week.',Nonhubristic

'But when I got back to Seattle I ran in to the office I danced in. I love my job and consider myself incredibly lucky and that is been true for 20 years it hasn t changed.',Nonhubristic

'I hope so. Almost all the people I work with on a daily basis are paid volunteers at this point I have been working with them for more than a decade and they can do whatever they want they could be sipping margaritas on a beach but they are here. Paid volunteers are the best people to work with as they are here for the right reasons. I have a team of people that I love. And we get to work in the future and that is so fun so I hope so.',Nonhubristic

'what is going to be interesting is that people tend to think of each of these market transitions in isolation. I would argue that they are all happening at the same time. You have your technology transitions ie cloud more and more software. We are going to tie software hardware ASICs and architectures together in ways that our counterparts are not. You have mobility you have security you have collaboration you have video you have the Internet of Everything and you have Intercloud going on. And so our view is that each of these together offers an opportunity for Cisco. And if we are going to become the No 1 IT player along with a very powerful channel partnership where we win and

all of our channel partners win you have to tie these together for customers because you could be in a meeting when you talk about outcomes to a customer and you could have each of the groups I just said. What a customer wants is to take it from discovery to outcomes. And if we can do that as a company with our partners they are going to pay a major premium for that. And there will be major benefits.',Nonhubristic

'Results. First you outline vision and strategy. The majority of our engineers 80 percent to 85 percent of them are already software engineers. And if you watch the areas that are growing it is software. Now what is ASICs. ASICs is hardware and software combined. You put in the hardware something that doesn't change you put in the software something that changes all the time. ASICs is something that will be a combination of the two. So we have our software and hardware teams sitting side by side developing ASICs. And before it even comes out we are already starting on a second generation of custom ASICs where you put more software into it to get the speed.',Nonhubristic

'So you just embrace it. So if you watch watch our scale and how quickly our ACI Application Centric Infrastructure takes off versus our competitors. In fact I would actually argue our competitors in the SDN area have very few true paying customers and very few examples of scale.',Nonhubristic

'No The goal would be you start off in certain amount of hardware a certain amount of ASICs which is hardware and software combined and a certain amount in software which we will never change. You put into software what you are going to change not monthly. If we do our job right we will be changing software multiple times a day just like the major web players do. And you have to build a structure that allows you to move with that speed and scale. And so what Application Centric Infrastructure does is it embraces software and delivers your advantages of SDN without the disadvantages.',Nonhubristic

'To have a software network virtual and separate from the physical network is very costly very difficult to do problem determination causes you to move very slow and often doesn't scale.',Nonhubristic

'I am talking about players like that yes. And so what we will do is take those concepts and introduce new concepts like self learning networks. It was something we started about 15 months ago you would have never heard about it if it didn't work. We took a small couple handfuls of people and said How do you really do self learning networks for the Internet of Everything for optimization of the network and for security reasons. So you will see us embrace this software and then play it out with merchant ASICs which is how other people do it but also with our own custom ASICs where we embed it even deeper and it goes faster we let the customer decide on openness whichever way they want and hardware. That leads to the Internet of Everything which is really going to be the driver of business productivity for the next decade.',Nonhubristic

'Basically Arista is one of several dozen competitors we face and one of several dozen that are in the top peers in a product category that we compete against.',Nonhubristic

'We compete against them in architectures. We compete against them in terms of how you combine software and custom ASICs and merchant ASICs and hardware. And we compete against them in terms of embracing SDN in an implementation that is able to scale and able to do it with security.',Nonhubristic

'So the way you compete is just say what is your differentiation and how do you make it happen. Now let's deal with the numbers. The product was just shipping the Nexus 9000 two quarters ago. Twenty five customers were adopting it. Last quarter 175. Now I cannot share with you what this quarter is But where we are is just watch our number of accounts. And watch how quickly we blow right by Arista either revenue wise or number of customers.',Nonhubristic

'Well I would ask three questions. First we already have 175 customers two quarters in with what we are doing. Two quarters in not five years in. Secondly are those NSX customers really in scale and are they paying for it. In other words are they large scale implementations and are they paying for it or are they just taking a segment of their enterprise licensing agreement and allocating it to NSX. I cannot tell you that. You all can decide.',Nonhubristic

'It is a nice way of saying I love our hand vs. VMware and I love our hand vs. Arista. And while two to three years ago you could say we were slow in embracing in SDN now we are going to lead. We know how to scale. We know how to tie back to Application Centric Infrastructure when it is not about the data center but about the WAN and the edge. This is how we compete against them.',Nonhubristic

'In fact they have put the Nexus 9000 switches in first in standalone mode. And then you will see a number of them move to ACI. So we will track those ACI customers. But remember ACI just ships this quarter. So we are in the middle of just starting at the end of the summer and then it is the implementation done through it.',Nonhubristic

'But that is where our selling mission has changed. We do not sell SDN. We sell programmability investment protection lower cost of ownership quicker outcomes and we combine these.',Nonhubristic

'Yeah I think all of our sales force and indirectly our channel will have to evolve. And I was just with Senior Vice President U.S. Enterprise Brian Marlier and Vice President Business Transformation Sandy Hogan who run our U.S. enterprise. I cannot say what they did this quarter but last quarter they grew 10 percent in a market that is growing what 2 percent. They sell outcomes. And they sell very tightly with our partners. So it is the ability to say How do you transition your sales force and your partner community with you as this transition occurs.',Nonhubristic

'And by the way back to the question you all alluded to earlier Watch our win rate against Arista or our win rate vs. other SDN implementations. The numbers will speak for themselves.',Nonhubristic

'The way they deliver outcomes. The way we deliver outcomes. So it starts with how do you talk to customers in discovery mode and then it is how do you make this relatively transparent from discovery to outcomes. And how do you bring each of Cisco franchises or if you will architectures to life to be able to deliver on this.',Nonhubristic

'It will not change. In my view I clearly understand services is a huge part of making this work. But my ratio is 5 to 1. For every dollar of revenue we get for services I want my partners to get five and say How do we together deliver outcomes. That is the transition together that I think we have to make as an industry and this is how you compete against bare metal white box new startups and individual players.',Nonhubristic

'I think transitions will be ongoing. And this is perhaps important for the partners to understand as well. I have been through five or seven transitions depending on how you want to count them over my time here since I came in '91. They are occurring more frequently.',Nonhubristic

'So I think what you have to think about as a company is how do you do this architecturally and how do you build it so when these transitions occur it is just part of a normal evolution. It is how do you build that into your DNA and candidly into your partners DNA. Otherwise the transitions that occurred every seven years then became five and now are three some of them we handled smoothly some of them we handled with a little bit of pain but we will handle them period and appropriately. But I think you have got to build a company that almost runs itself every quarter at a time with a five quarter rolling type of approach. We will be constantly changing and evolving. You build that into your DNA.',Nonhubristic

'I think what you are going to see Cisco do is maintain a very crisp vision strategy and execution model. We will adjust as we go through it but if you watch these transitions we have just made we have really set our strategy for the next three to five years. And if you watch as a company we have changed every player at Cisco during my time here at least three to maybe even seven times and partners didn't even notice. We are a partner centric company period.',Nonhubristic

'It didn't matter if it was Cisco Executive Advisor Rick Justice it didn't matter if it was Cisco President Rob Lloyd or Cisco Senior Vice President Chuck Robbins we changed services leads we changed CFOs we changed marketing leads multiple engineering leads. We do this very well. And this has allowed Cisco to stay on top for what. Two decades. Who else has stayed on top and moved into new areas with anywhere near the leadership that we have. I'd say no one. This is why I am so committed to partners. Partners are a huge part of making that happen. Now each

time we move they have to move with us. And if you remember a decade ago most partners paid no attention to services. Today it is probably 50 percent of their average revenue and maybe as much as 70 percent of their profits.',Nonhubristic

'We both go off of what the customers say. Our end customers. And this is where our channels have done such a great job. The channel customer satisfaction is equivalent to Cisco satisfaction so whether you are dealing with just us standalone or dealing with our channels. That is a huge improvement as you all know over the last five years.',Nonhubristic

'Also the ability for our channels to grow and make their profits. So first is what our customers say and second is what our channels say and the results they are getting on it.',Nonhubristic

'Well I would probably give our partners as a total an A in how we are communicating back and forth that the change has to occur. But just like Cisco we are in the very early stages. And the partners vary dramatically in terms of where they are in the early stages of making this transition. Some of them are really running fast and are selling architectures and outcomes and results. Others are transitioning over. So it varies by geography by type of partner by industry etc.',Nonhubristic

'This is my family. If we do this right this transition you will not even notice.',Nonhubristic

'My goal is to make this one of the best transitions there has ever been in high tech and I know a number of them haven't gone very well over the years. But this is not something we have just been focused on the past year. We have been focusing on this for a decade about how we build the relationship and a strategy that the company buys into and is implemented by the company. I have the broadest base of leaders and the strongest leaders I have ever had by a factor of two or three fold. And I have moved the people out of the company that were passive aggressive and not as strong of a team player. So this is just one more transition.',Nonhubristic

'In summary white box we saw that coming three and a half years ago. If you are selling a standalone router or a standalone switch especially if you are doing that with merchant ASICs your differentiation whether it is a server white box or a storage white box or network white box is very little. When we saw this coming we moved to architectures so you combine the technology of the network the custom and merchant ASICs with the software with the hardware with the storage and do it throughout the network and you focus on outcomes. Customers will pay a premium. If you are buying the cheapest product that is probably not where we are going to win. If you are buying the best total cost of ownership and highest probability of outcome we are tough to beat.',Nonhubristic

'If we do our job right forever. The reason I say that with confidence is do you get these market transitions right. Do we become the No 1 IT company for our customers. Do we get the architectures evolving right. And we have to earn that every day. So do not misunderstand that is not brash confidence. If we do the transitions we have said right you sit down with all the other players. Who even thinks this way in the industry. And isn't this what customers want.',Nonhubristic

'And this is where partners are so powerful. We are so close to the partner community it is one of our top strengths as a company. And we will evolve with our partners.',Nonhubristic

'Big time. Big time. If you watched we just announced our reorganization of engineering. We moved from selling in silos that at times even competed with each other to horizontal and simplicity and business outcomes. So R and D has to change not just more to software i.e. security or software collaboration or software in terms of Meraki or what we do in new cloud models but you have also got to tie these together in a way that customers see as being simple and easy to work with. That allows our partners and Cisco to focus on outcomes and that allows you to move into the Internet of Everything which is 19 trillion in either cost saving or profits either for governments or for business. Think how big that number is and the impact that will have on every customer we and our partners have.',Nonhubristic

'Well because we bring them together it is a hard number to break out. Cisco Executive Vice President and Chief Development Officer Pankaj Patel would give you a better estimate. But just hardware engineers are probably less than 15 or 17 percent.',Nonhubristic

'Key takeaway here is Cisco is the disrupter. We are going on the offense. We are not playing defense. We are not going to respond to people who are challenging. We are going to say Here is what the customers want and we are going to deliver it with faster speed with our partners than anybody else can. ',Nonhubristic

'Intercloud is a step beyond a public cloud. Think of Intercloud as Cisco services delivered from a cloud hosted communication security collaboration. Think of it as our customers private cloud capabilities. Think of it as our partners and Cisco architectural implementation of this if you will in terms of our partner clouds. And think of it in terms of a public cloud.',Nonhubristic

'Our role is we see all four of them growing well and we are going to play in all four. So Amazon is a customer a partner and at times a competitor. But it is a public cloud. Then our customers own private cloud is what we help build out.',Nonhubristic

'Now if we can move around workloads based upon guaranteed response times security issues etc. to meet the customer outcomes that they want that is what Intercloud really does. You can maintain if you wanted data sovereignty in a country. And at the same time that offers a huge competitive advantage. So this is classic Cisco. It is not that we are saying Here is what we are doing with our own cloud and here is what we are doing with our customers private clouds and here is what we are doing with our partners architectural clouds built on Cisco and here is what we are doing in public. It is how do we bring the hybrid the private and the public together and how do we do it in a way that really accomplishes what customers want.',Nonhubristic

'First as you all know at each of the partner conferences I poll partners constantly.',Nonhubristic

'A year ago in fact it is been a year and a couple months now since that partner conference I asked partners how many thought we should move into this market. My team thought everybody would say yes but I knew they wouldn't. When I asked it was fifty fifty. And when I asked this year it was 95 percent. We of course looked at the five percent who didn't want to do it and we immediately went to them. I will not say who they are but we immediately went to them.',Nonhubristic

'And so if you watch where we are going watch how partnerships like the one we have with Dimension Data how this evolves. And watch how partnerships like the one with IBM evolves. So I think all partners just need to understand how they are going to evolve here and why this is in their best interest and ours. And I do not understand the challenges. This is a complex move. It is like the Internet of Everything six or seven years ago. I had to buy people drinks to get them to talk about them. Now I have board of directors coming in we have government leaders coming in etc.',Nonhubristic

'Lets move way beyond the NSA. Lets talk about what is so important. Customers have a right to knowing that their data is secure and so do the citizens and so do the companies. And this is not an issue unique to the U.S. Every country is involved in espionage. That is what they do. They have done it for a long time.',Nonhubristic

'What needs to occur is a standard of conduct and rules of the road that will guarantee to customers the supply chain and data integrity that they need. And I think that is where countries have to step up and begin to provide these guidelines and an outline to that.',Nonhubristic

'As you know we do not give anybody our core software even though a number of peers do because if you get the software you can eventually with the processing power figure out how to break it. We do not provide backdoors. And we focus on outcomes. And if we find anyone doesn't matter if its hackers or governments involved in any of our customer environments anywhere in the world we tell our customers period. And we do that in the U.S. in Europe and China and India. And we have done it.',Nonhubristic

'It does have. And it is mainly in a couple of countries but it is the overall security issue where instead of saying this is a problem you reserve it. We are going to move to become the No 1 security player globally. we will use concepts such as Intercloud for data sovereignty. You begin to say Here is the problem we can solve and then at the same time you work with governments to say to the leadership in Europe and Germany Here is what we can do together. And to the U.S. the same way and to India and China the same way and say How do we solve this problem. because they have equal interest. Think of how much of the supply chain comes out of China or out of Asia. This is what has made our industry so powerful is the complete globalization of the supply chain and the ability to move and for every citizen and every country in the world to potentially have a benefit from it.',Nonhubristic

'So this is where I think a lot of people tend to look in the rear vision mirror. In my letter to President Obama I said It is interesting how we got here but it is even more important how we go forward. How do we solve these problems together. Part of them we will solve on our own. We are going to be very direct in terms of protecting our customers data information etc. and very direct in terms of if we find any issues regardless of where they come from to turn them over to customers.',Nonhubristic

'Well remember this could be any gear by any company anywhere in the supply chain. And I do not know of any government that has given those assurances. So this is where I would like to see countries come together to say these are the rules of the road or the business conduct. Now having said that we are going to do the same. We are going to make the equipment very difficult to tamper with. We are going to ship it with a lot of information on it and we are going to say How do we do this better than anyone else. But remember this is just one of 100 different ways people can gain access to information. That is why I think you need some rules of the road and that is in every country s best interest.',Nonhubristic

'Basically what you are going to do and not do in supply chain. Basically in terms of if you find problems it doesn't matter if it is my products or Alcatel Lucent s products HP s products or Huawei s products. If you find those weaknesses I think they ought to tell the vendor You got a problem go fix it.',Nonhubristic

'I think a lot of the issues go back to part of the economic implications and the impact of being able to change the world. We are going to lead in terms of data security and you are going to see us start to really focus on security as a whole.',Nonhubristic

'Well the last thing I would ever try to do is give one of my peers and a good friend Joe Tucci pictured advice. So I think looking at how we approached our business and how multiple players in the industry not just EMC but HP IBM and others approach theirs we chose a different path.',Nonhubristic

'If you look at what we just outlined here every one of our product areas are now completely coming together in a total architecture. So routing isn't separate from switching isn't separate from collaboration isn't separate from services isn't separate from mobility isn't separate from security isn't separate from the Internet of Everything isn't separate from InterCloud isn't separate from ACI isn't separate from compute with storage with the network. They are all tied together so that our customers get the benefit and so that our products have a premium. And our ability then to continue to transform the organization it gets results that companies who lead in these silos or are loosely coupled together do not get.',Nonhubristic

'So we took a different approach than almost everybody else in the industry in terms of having 18 major product families and then said How do you bring them together in architectures that allows you to get a premium a quicker response from your customers and a partner community who will standardize on you and outcomes. We chose a different approach here and I would argue we are getting the benefits of that. I do not know anybody would look at Cisco and who really understands our business especially the moves we have made in the last few years who would argue that breaking the company into pieces makes sense.',Nonhubristic

'I normally do not comment about my peers but I am going to make an exception. If you watch the industry has not done a good job with CEO transitions. If you watch often when CEO transitions have occurred in high tech over the

last 30 years especially if the CEO had been the person who grew the company or the founder for a number of years they have been rough. And you can probably count on one hand those that even went okay vs. really good. And it is one that we will make differently.',Nonhubristic

'Now Satya I think is perfect for Microsoft. If you watch and watch what he has already done he comes from a very strong technical background. He understands their culture. It would be very different to bring in somebody from outside to run Microsoft even though people have different views because it is so complex what goes on. Yet you had to have somebody who was a change agent and somebody who given their culture is pretty technical in terms of the direction. I found him to be a breath of fresh air in terms of his willingness to make changes. And while some people might second guess him on his strategy or his implementation or his decision to size the organization right those are decisions leaders have to make. You cannot lead if you do not make the tough decisions.',Nonhubristic

'We have probably done more with Microsoft with Sayta in the last year than we had in multiple years before that. And it wasn't that we didn't get along well with the previous leadership at Microsoft we got along very well. But watch out data center announcements together. Watch what we do in terms of the market. They were on stage with us at our ACI launch. Sayta was. So it is a hard job and I do not underestimate the challenges that Sayta will face but if I were betting on whether he's going to be successful I think he absolutely will be.',Nonhubristic

'I think you have watched how our company has evolved and we have been very much focused on this. We knew that this would be a hard issue ten years ago. And if you watch the breadth and depth of our team it is the best it is ever been. And if you watch how we are running the company I am empowering my team more and sometimes it gets tremendous results and sometimes they make mistakes. But if you do not give them a chance to learn then their ability to lead as a team will not be there.',Nonhubristic

'So we have been very much focused on how to make these transitions smooth and have been working with our board and others over the last decade and especially over the last three to five years.',Nonhubristic

'I think they all have to constantly do a refresh. If you watch you could almost say What product have we not refreshed recently. ',Nonhubristic

' It is the most new products we have ever launched in our history in the last year. Think about it. We have launched entirely new two high end routers. Those usually come historically every seven years. We have announced and complemented our high end switching in the data center. We have announced a whole new set of collaboration products. We have announced architectures and really finally brought them to life. we have announced ACI and how do you drive this through and just started literally shipping it at this present time in terms of the implementation. We have moved from a player that no one would say is the No 1 security player to somebody who many people would say now Cisco is really getting serious and they could become our No 1 security player. ',Nonhubristic

'The point I am making is that it is probably 2x the amount of new products that we have ever brought out in our history. And yet Pankag Patel and I and the rest of the leadership team are saying This isn't enough. We have to organize for faster speed and scale and identify the market and not think of those as silos but think of those horizontally and say How do those play together to bring the Internet of Everything to life. ',Nonhubristic

'Collaboration takes people from different worlds to places they might not have gone on their own. Of course it invites new ideas from the outside but it also accelerates your own thinking. In my experience when the right creatives connect it can be like setting off a chemical reaction. I find that incredibly stimulating and potentially very powerful.',Nonhubristic

'We are fortunate at Nike because we have the opportunity to work with a lot of different communities. We could be focused on something as specific as a sneaker or as immense as climate change but the important thing is that through the process we keep learning and move closer to realizing our own potential.',Nonhubristic

'Mutual learning is absolutely critical to any successful partnership. We bring an expert to the table whether it is athlete insights or material innovation or global reach that many of our creative partners do not have. Of course we then look to our partners to provide an insight or skill or point of view that we may not have. By combining knowledge we bring out the best in each other.',Nonhubristic

'But it goes deeper than just an exchange of knowledge. There is a more personal benefit to Nike that is harder to measure. Being open and curious to the world through collaboration is a way to nourish and inspire our own creative culture.',Nonhubristic

'We know who we are we are the company that serves athletes. We expand what they can do through new inventions and we inspire them to do more.',Nonhubristic

'At the same time we also recognize the cultural impact of sports. Over the years it is connected us to brands like COMME des GARÇONS Stüssy and Supreme and creatives like Tom Sachs Marc Newson and Riccardo Tisci. Through the creative exchange with each of them we have unlocked new ideas.',Nonhubristic

'We go into any creative relationship with an open mind and I hope our partners do the same. Regardless of how we get there the most important outcome is that we make something better or more interesting.',Nonhubristic

'When you problem solve with another partner you naturally share the capabilities you have to come up with the best outcome. As the company who is leading and defining the future of sport we have knowledge access to advanced materials and capabilities that no one has. it is a big reason why creative partners seek us out. We want to encourage that exchange seeing how others interpret your brand and what they can do with our vast set of tools is a big part of why we do it in the first place.',Nonhubristic

'One way a collaboration can go wrong is if your connection is inauthentic or overly prescriptive. Our collaborations are not transactions. They are relationships ones that have been built over months or years before they even come to fruition. You really have to be passionate about the same parts of the universe for any partnership to work.',Nonhubristic

'Nike collaborates with dozens of industries and communities on any given day. it is one of our great honors and great responsibilities.',Nonhubristic

'When you look back at the last 10 years these partnerships have really accelerated across our business. We worked with Apple to develop Nike a platform that forever changed how we look at servicing the athlete and motivating people to do more.',Nonhubristic

'From a manufacturing perspective collaborations can be the quickest way to disrupt existing models. With Flyknit for example we worked with others for six years to reconfigure apparel machines to make footwear uppers. it is opened up a world of new design possibilities.',Nonhubristic

'In a similar way we have invested in a company that has invented a way to dye products without water. We call the technology ColorDry. If you consider it takes 30 liters of water to dye a single T shirt the impact could be massive.',Nonhubristic

'Sometimes we share our IP intellectual property with others to accelerate global change. A recent example is when we shared eight years of materials research and analysis with the students at the London College of Fashion to improve an app that we were developing. The result is the Nike Making App that allows any designer to know the sustainable impact of the materials they choose. it is been downloaded in 132 countries.',Nonhubristic

'Collaboration is a powerful strategy for unlocking new opportunities for Nike. I firmly believe that our future potential will be based in large part on our ability to collaborate with the right partners in the right ways.',Nonhubristic

'Of course. lets start with the athlete Nike s original and most important collaborator. To us everything starts with the insight. That is why we work with the deepest roster of athletes to gain the most profound understanding of what is needed to perform.',Nonhubristic

'I always say that as an innovation company we are privileged to work in the world of sports because our source of inspiration the athlete never stops progressing. No athlete wakes up and thinks Today I want to perform the same as I did yesterday. it is always about getting better which means we ll always have new problems to solve. Our job is never done.',Nonhubristic

'From an internal perspective collaboration is at the heart of Nike s ongoing creative process. We have a collective of brilliant passionate people that includes over 650 designers PhDs in our research labs engineers material experts colorists each of whom work together to pour hundreds of ideas into one product.',Nonhubristic

'Collaboration among individuals brands and industries will only continue to accelerate as technology facilitates and enables greater connection in real time from anywhere in the world. it is why we are experiencing such an unprecedented pace of innovation in every aspect of our lives. it is clear to me that if all the ingredients are right collaboration can help shape your vision of the future and get you there faster.',Nonhubristic

'I am currently the NikeLab Global Product Director. Put simply the role entails staying curious and keeping your eyes and ears open to those who are enriching culture and excelling in or pushing the envelope of creativity design and art. Staying immersed within that world is key. I along with a passionate team of people based in key global cities help cultivate relationships and create projects that fuse Nike s sport and innovation DNA with partners from the creative community who share our passion for exploring new possibilities.',Nonhubristic

'Japan is a place where people not only value aesthetics and design but also have an insatiable curiosity to go deeper into the story behind whatever subject or subcultural topic they are examining or participating in. There is not a halfway or surface mentality there and that appeals to me.',Nonhubristic

'I have been going to Japan for over 17 years and of course live there with my wife who is Japanese. I have always been quite fascinated by the way the Japanese take things from outside their own culture and reinterpret them. The UK is similar in that regard although the Japanese way is to sometimes deconstruct but to always refine and perfect things to an extent that is second to none. That is interesting in terms of the creative process.',Nonhubristic

'London New York City Los Angeles and Paris are all equally interesting in other ways so I travel constantly and have even lived in some of those cities. I do not think Tokyo is an ultimate place or better than other cities. it is just where I am now and the distance from my own culture can allow for a certain amount of breathing room to think and filter the information coming in from all around especially in today s crowded digital culture.',Nonhubristic

'Tokyo is definitely the first place after New York City that really embraced sneakers and the roots of the special colour/material edition phenomenon. In Japan people like to have special limited editions of everything from chocolate bars to cars to hamburgers so there is a fast turnaround of ideas to keep things exciting. There is also an appreciation and willingness to embrace the new.',Nonhubristic

'Conversely I believe the Japanese also drove the heritage retro trend more than many other places due to their fascination with authenticity and their sharp eye on subculture and the indicators that convey a belonging to a group or mind set. For example the first retro Nike Dunks in special colors was a Japan thing. The Nike Woven was embraced here enthusiastically as well.',Nonhubristic

'I believe that the approach that someone like Hiroshi Fujiwara takes epitomizes the Japanese skill in identifying true icons new or old and refining and tweaking them while still being very current and timely in doing so. He has an innate skill and intuition in that regard. Also although he is very internationally minded I do not think that approach which is really quite subtle and definitely unique to him would have come from any other place.',Nonhubristic

'Japan and Tokyo in particular has definitely played a key role in creating some of the subculture and style codes that we now take for granted and that are represented all over the world.',Nonhubristic

'One of the benefits of being involved with so many different collaborations is that every day at work is different. I am constantly exposed to a number of fascinating ideas and people. So it is daunting to have to choose a favourite.',Nonhubristic

'However two projects that personally stand out over the years are the ones we have done with Jun Takahashi and Riccardo Tisci. Jun has been an incredible partner in bringing the performance running Gyakusou collection to life. This has been a true collaboration in the sense that we have blended our leading Nike innovation and unique knowledge of athletes with Jun's aesthetic sensibility. But that hasn't been Jun's only contribution. He is a true runner and wears tests the product himself. He also has inspired many others to run which of course is something near and dear to us at Nike.',Nonhubristic

'In regards to Riccardo Tisci it was exciting to work with a contemporary cultural icon who genuinely loves sport and the brand. Not only is Riccardo one of the industry's most respected creative directors and designers he also has an authentic emotional connection to Nike. This enthusiasm was apparent at every stage of the process. He was thrilled to be able to use one of our most iconic sneakers as a blank canvas. His vision brought the Air Force 1 to a new place but it was his reverence for the shoe that made sure the project remained grounded in sport and our heritage.',Nonhubristic

'To be quite honest things have not changed all that much because the process that goes into finding a creative partner to work with hasn't changed. As I have mentioned people trends and technologies change over time. But finding a creative partner to collaborate with who can help bring our work to a new place will always be the brief no matter if I am in year one of my role or year 10.',Nonhubristic

'The lessons I learned as a young athlete have served me well throughout my career. It is where I developed confidence a sense of commitment to a team and myself the discipline it takes to achieve goals and the importance of listening to leadership. Sport is one of life's great teachers. It made all the difference in my life. I should also mention that as a runner I spent time modifying my shoes to make them work better for me. That love for product became the springboard to my first job at Nike as a designer.',Nonhubristic

'If you worked with Bill you know he was relentless in his pursuit of not just new but better. His deep connection with athletes his obsession for inventing his belief in expanding a person's potential this spirit set the tone for Nike early on and to this day it drives how we work and how we look at the world. Bowerman's belief in constant improvement was a great influence on me. I am always asking Where can we be better. When you serve athletes who by definition are in a constant state of progression we have to be looking ahead and thinking about the future opportunities across sport and our business everyday.',Nonhubristic

'I love the creative process but I believe strongly that creativity and business are far more powerful when they are connected. In the right ways of course. To us creativity is the engine for future growth. When we innovate we unlock new products new experiences and new markets. We have many examples where a breakthrough idea has become a scalable business Air technology Free Flyknit. Each of these was conceived through creative thinking and an authentic insight into sport but none would've had the impact they've had without the support of the broader business. I sometimes describe my role at Nike as sitting at the mixing board looking for the right formula to combine both art and business depending on the unique idea or opportunity.',Nonhubristic

'I believe strongly in creative freedom but not in a blank check approach. As Frank Gehry has said the greatest source of creativity can be a timeline and a budget. Empowering and delegating are certainly crucial to any leadership role and it is important to create space for everyone across the business to think creatively. That is when your teams start anticipating opportunities and developing new models that can really create impact. We are fortunate that Nike is filled with amazing talent with diverse experience. Our employees here at WHQ come from all over the world and

we operate in 190 countries. We have unique perspectives on the world and these insights have become one of our greatest competitive advantages. As leaders we have to create an environment where that expertise will thrive. My job is to know where we are going tomorrow next quarter and in the next five to 10 years. The right people in the right positions of leadership help me shape that vision and drive it through the organization. When we are all on the same page we focus on the biggest opportunities and increase our chances for success.',Nonhubristic

'Yes Be a Sponge is one of my favourite phrases at Nike. It is important to keep an open mind because inspiration can come from anywhere. I did learn that from my grandmother. As a kid she would take me on long walks and opened my eyes to the incredible diversity of nature. We'd collect bugs shells rocks and seeds anything with unusual forms and textures. I've held onto that curiosity and the need to draw creative impulses from the wider world. I like to think I foster this same curiosity and openness at Nike. We are a better company when we are aware of that wider world building an understanding of cultures and communities. We can then take those insights along with those we get directly from thousands of athletes and translate them into real innovation. Nike is a brand that inspires people. But to inspire others you have to first be inspired yourself.',Nonhubristic

'I think our success has been based on our commitment to innovation and great design which really in our case starts with our commitment to the athlete and really understanding the athlete and the insights we get from that relationship he says. So we translate those insights into real innovation.',Nonhubristic

'And that is always been the case since the very beginning.',Nonhubristic

'The commitment to great design and to innovation that is really at the core to any successful business and it is a prerequisite to realize your great potential as a company.',Nonhubristic

'Thank you Kelley and hello everyone.',Nonhubristic

'We delivered another strong quarter in Q3. Revenues grew 7 percent to 7.5 billion. Gross margin increased by 140 basis points to 45.9 percent and diluted earnings per share increased 19 percent to 0.89. We were able to deliver results like these for the quarter by leveraging the power of the NIKE portfolio.',Nonhubristic

'Over the last three months the macro environment has become increasingly volatile. Foreign currency headwinds have intensified. Product input costs continue to fluctuate and the political landscape is evolving in many countries around the world. This is the environment in which all multinational companies now operate and NIKE is not immune to it.',Nonhubristic

'The difference for NIKE however is that we see this as an opportunity to create further separation in the marketplace. Our globally diverse portfolio of geographies categories brands product types and distribution channels gives us a distinct competitive advantage. By going deep into the business we are able to see opportunities to serve the consumer and drive growth despite the choppy landscape.',Nonhubristic

'This surgical approach to finding new dimensions of growth ensures we capture the full potential of our brands around the world. And that includes driving strong growth in areas of our business that are already well established such as Western Europe China North America in footwear as well as businesses such as women's young athletes apparel and e-commerce where we are accelerating development.',Nonhubristic

'These are just a few examples of the dimensions of our business where we are continuing to identify further opportunities to expand our reach and drive growth. And we do this while maintaining a disciplined approach to investing in those opportunities with the highest potential for return so we can drive growth and manage risk over the short and the long term. This complete offense is how we can continue to deliver sustainable profitable growth. As you have seen from NIKE in the past we know how to operate in a challenging environment better than anyone. And you will continue to see us leverage the breadth and depth of our global portfolio to do just that going forward.',Nonhubristic

'At NIKE everything we do starts with the consumer. It is our obsession with serving the consumer that sharpens our focus and drives our growth. The expectations of our consumers are evolving rapidly and we are able to meet and often exceed those expectations because we know the athlete. By working with athletes at all levels from the elite to the everyday we have a level of knowledge and insight that is unmatched in our industry. And we are able to use the insights that we gain to create new products and services that drive new levels of performance innovation across all of our categories.',Nonhubristic

'The pace of innovation at NIKE has never been faster and our pipeline has never been more robust. We are leveraging new tools and processes to unlock significant advancements every day. However the starting point for innovation remains the same and that is the athlete. Many of our greatest innovations have come from going deep into an individual sport to solve a unique athletic need.',Nonhubristic

'Let me highlight a few examples in our footwear business from Q3 in running the LunarTempo the shoe that merges speed with cushioning for a great ride over the longer runs and then the newly redesigned Air Max 2015 our most flexible comfortable Air Max to date. We are seeing very strong response from consumers and I am tremendously excited about the pipeline of products in the running category.',Nonhubristic

'In basketball with his 10th signature shoe Kobe Bryant returned to a low top and once again pushed the limits of design. In addition to great consumer reaction to the Kobe X players around the NBA are wearing it for its great traction and cushioning.',Nonhubristic

'Well India is one of those countries that will set the world's agenda for my children. The world is changing technology is making everybody's interest accessible empowering people in ways never before in history. India has the scale India has lots of problems but so does every other country but India has a group of very intelligent people who can take the best from elsewhere and bring it back to India but also take the best of India and export it to the rest of the world.',Nonhubristic

'Cities are where 70 percent people of the world will live by the year 2050 already roughly half the people in the world live in cities cities are where governments deliver services that you can measure. I do not know whether the federal government in any country keeps you safe we never find out until you are attacked. I do not know whether some of the economic policies of federal government is it good or bad. You can only find out later when results may be transferred back. Do you know at a city level whether the garbage is picked up whether that person lying on the ground who needs help gets the help. I know whether the electricity is on goes on when I throw the switch whether water comes out when I turn the tap the services that I can measure and that change my life. Education for example is another one at local level. Those kinds of things I can measure and that is what cities deliver. Even no matter what the Constitution of the country is city is where the services get really distributed.',Nonhubristic

'So do other countries. We have plenty of dysfunctional cities in America too. I would like to think New York is not one of those but there are cities that do not work. The Great Michigan for example a very big city enormous industrial powerhouse and today if you go through the downtown there is enormous open waste land where buildings have been ripped down and there is nobody there. Now the good news is that the Governor of the state of Michigan and the Mayor are trying to bring the city back and so that may happen and I think it will but we have our own problems you do not own all problems of the world even though.',Nonhubristic

'No that doesn't happen in New York either. It is also true we are worried is the air you are breathing or the water you are drinking is that good for your body. We are always worried about whether there's crime or something we are worried about whether somebody standing next to you is smoking and you inhale that smoke we are worried about whether the food has quality whether or not somebody is making sure there's no diseases',Nonhubristic

'Yes and life expectancy in New York city is three years greater than it was twelve years ago and its three years greater than national average and most big cities conventionally it will be lower in our case its bigger.',Nonhubristic

'A lot of small things we would say there's no magic bullet. It is reducing smoking it is reducing traffic deaths with better laws and helmets going after people who do not use seat belts',Nonhubristic

'Absolutely my aim is doing a lot on smoking and traffic it is trying to convince people that certain foods will just make them obese and obesity kills you. It is going after fire deaths and making sure that people have smoke detectors in their houses or apartments so that they get noticed earlier and can get out in case of fire all of these things add up to making longer and healthier lives of the people it's not like cure for everything we will never get there.',Nonhubristic

'In New York city we banned trans fats but more importantly we grade every restaurant and in the window of the restaurant you have a sign an A B C and people do not go to B and C restaurants so the restaurants have to clean up and you say these things do not matter the number of cases of salmonella at the city hospitals way down almost overnight because the restaurants do not want to lose their A grade because they'll lose their business. In the end we do most things not for altruistic reasons we do most things for selfish reasons it is good for my business it is good for my children's health that is the thing that drives most of them.',Nonhubristic

'Yes and what they do is they clean up to re open but some do not',Nonhubristic

'There's always a chance from the state there's always a chance of corruption. But we have a process where you can appeal and we send a different inspector and when you hear people complaining the more they complain the more you know it is working. My favorite little diner from around the corner where I live got closed down for a month now I love the food but the bottom line is they have rats in the basement mice and cockroaches and they cleaned it up and its opening up',Nonhubristic

'It didn't keep them open got it closed down',Nonhubristic

'That is not true they found substitutes nobody lost in fact public health issues are popular. I know in the beginning people scream it is not people it is the press that is trying to make a story so that they can get advertisements and that is what this is all about. And you will find one person who's against the smoking ban and you have that person on your walk show. But most people do not smoke and virtually nobody wants to stand next to a smoker and breathe their air and die and that you do not report because that sells advertisements.',Nonhubristic

'I am sure you will you will never do this',Nonhubristic

'No I do not think that is totally true. But look I own a big media organisation I've got 2300 journalists there is no question that the public buys scandal and failure Germans have a word for it where you revel in other people's failure',Nonhubristic

'Schadenfreude and there's unfortunately the way human beings are. But my let me tell you today while everybody complained when I passed the ban on smoking in public restaurants and a lot of people made nasty gestures I joke. I passed one of the restaurants I got many one finger raised today none of those restaurants would go back and those restaurants are doing better than they ever did before. And I kept saying people go to restaurants to eat and drink and smoke except the restaurants only make the money out of the eating and drinking and for all the time they spent smoking they are not eating and drinking. In the end it was good for the restaurants and was certainly good for the public health.',Nonhubristic

'We are doing okay. We are not buying FT we are not buying anything. We are trying to put food on the table everyday. Look I am not here to tell you how to run your city I am troubled enough running my city I am no longer running my city',Nonhubristic

'Yes but I think even those people that didn't agree with me or didn't like me they respected the fact that we said this is what we are trying to do this is why we are trying to do and if it doesn't work after x number of days months years we will roll it back. And people respect that kind of honesty. I do not think you are right but at least I know you are trying at least I know you are doing for the right reason and I think the governments where people believe

that they are honest and trying are governments that succeed even if the public is not in favour of the policies. And in fact if the government is always catering to what you want then you have got to believe they are doing it for political reasons not because they think it is right. And I do not care how smart you are you do not have all the answers and I do not have all the answers. So what I am here to do is to try to learn what you do that could be useful back in my country and in my city and to say to explain what we have done and what other cities around the world have done. Because I've been involved in this organisation called C 40 of which Delhi and Mumbai are two of the seventy five cities where we share best practices. And I've talked to a number of your Ministers. Energy is one of the big things. Question is do you focus on coal do you focus on renewable energy wind and solar. And I've tried to explain I do not think you can finance coal development because people are walking away from it from all around the world coal is a very dangerous thing it pollutes and when people say well I have to have economic development.',Nonhubristic

'It leaves a scar in people's lungs too. In America 13 000 people die every year from the effects of coal fire power plants. In India the number is enormously big look at the pollution problems you and other big cities',Nonhubristic

'I am going to see your Prime Minister this afternoon. I am a believer that this argument that I have to have economic development even if it hurts the environment and then I will get to the environment stuff not only does it not make any sense we cannot improve the economy unless you improve the environment. It is just not sustainable by having it in the wrong order.',Nonhubristic

'If Mayors are aware services are delivered and keep in mind I was a Mayor so I am a little bit biased.',Nonhubristic

'New York City has a form of government where the position of a Mayor is very powerful and that is what made it a great challenge and a great opportunity. But I think the closer you get government down where people can see who's delivering the services and how well services are delivered the better. And more the public can demand the results and the other thing that is different is social media. I was talking to one of your Ministers this morning where I pointed out that for the first time in the world a public can tell the government what they want and ask the government directly that is never happened before.',Nonhubristic

'My staff does that for me but yes.',Nonhubristic

'It is a very different world in running companies and in running governments all of a sudden. You do not have the luxury of when you get hired or elected. Well I do not have to face the stockholders or the voters for x number of years. They say there's a referendum on everything you do everyday online and how governments and corporate management can deal with that remains to be seen. ',Nonhubristic

'Right you can make case over that and improve journalism you can also take the case that it gives you an opportunity you can also make the case that it gives you lot of competition.',Nonhubristic

'Every country divides the power differently and I can only talk about what is right for America. You know the way I phrase it I can tell you how to raise your children mine are more complex it isn't so easy with mine.',Nonhubristic

'That is exactly right so I am not here. I am not here to teach India I am here to learn.',Nonhubristic

'I think the answer is two fold. Yes but it is more difficult. It will be nice to have absolute power but we are not going to go to dictatorships in our world okay. Democracy is messy. Winston Churchill once said you can always depend on America to do the right thing after exhausting all other possibilities okay. So it is harder but I've never heard of an elected official running saying it is too complex I will not be able to do the job elections coming anyways you elect me I can do it. Okay you should hold them responsible.',Nonhubristic

'I do not know. You know we did not have a dictatorship. There's the City Council there's the courts there's public opinion. Somebody pointed out to me that in New York City if 90 percent of the people loved me that still meant that 840 000 people did not. So you know it is a challenge and I always thought greater the challenge the greater the rewards if you can succeed. If it is easy it is like golf if you can hit the ball into the hole every time nobody will play

the game. It is a fact that it is difficult to do and the more difficult it is the more it attracts people who like challenges. And the marketplace capitalism the voters public takes out those who cannot do the job and those that do the job survive and sometime even those who do the job do not survive. Winston Churchill after leading England through World War II was thrown out in the next election.',Nonhubristic

'I think most Mayors will prefer I can answer the question backwards I think most Mayors will prefer that the state capitals are away from the big cities. And if you look at fifty states in America I think forty eight of them have state capitals far away from the city. The state capital likes that and the cities like that.',Nonhubristic

'You are not going to change that. Well the states have to devolve the power down to the Mayors the public has to demand it and the Mayors have to put up with the fact that the Governor is round the corner and the Governor is going to be on television all the time. If the state capital is far away area the press doesn't go there and it is not on television it is just a Mayor. If They are both next to each other they are going to be on an equal level.',Nonhubristic

'Okay but let me give you another thought. It is up to the public. No government exists without the will of the majority of the public and you see that in elections here and in America and elsewhere. And with the internet social media the public has more power than everybody thought and less excuse for not getting a good government. In the end we get the government that we deserve and the government we ask for. And so I would start by saying in the end it is the public that is responsible. I am not suggesting it is easy I am not suggesting that every government that gets elected does the right thing does the wrong thing but it cannot just say it is somebody else's problem.',Nonhubristic

'Thank you if you say so. I am very optimistic.',Nonhubristic

'There is clearly a lot of job creation. There is clearly a lot of angst among people that we are not addressing the big issues like immigration and tax policy and guns in the streets. There are worrisome things happening all around the world.',Nonhubristic

'But the average person is not doing all that badly. In all fairness to Obama during his administration in the last few years jobs have been created and the jobless rate is way down. Still plenty of people who do not have the kind of jobs they want do not have full time jobs and that sort of thing but there is always going to be problems.',Nonhubristic

'So it is not perfect and I certainly am very worried about the future Iran and all of these different things. But the average small business man seems to be or business person seems to be coming back starting another business and being able to create jobs.',Nonhubristic

'Well I have always run my life assuming the worst is going to happen because that is what you have to prepare for. Dealing with success is easy. You have to learn how to deal with failure. And one of the things I worry about is we are not teaching our kids how to deal with failure.',Nonhubristic

'And Lloyd and I just did an event with this 10 000 Small Business organization that Goldman Sachs has sponsored to help small companies. And one of the things that Lloyd said was that no career goes up in a straight line. You always will have reversals.',Nonhubristic

'And I think we will have reversals. And in my own investment policy I have a lot of cash in terms of the company. I worry about what can go wrong. We have got plenty of people working to make sure that things go right.',Nonhubristic

'But having said all of that it is not doom and gloom. We still have the same problems. We keep kicking the can down the road. But we do seem to be able to live with that. We have not changed our tax policy in a very long time everybody agrees it should be done but we still go on.',Nonhubristic

'We have a fractured Congress that cannot get together and cannot do anything but we are still going on. So the big things you have to worry about are things like the Iran treaty which is very worrisome to me like our relationships

with some of the other countries around the world like our immigration policy. Those are the things that can have long lasting consequences.',Nonhubristic

'And lastly you come back to we are selling our birthright in terms of not having good schools for our kids and not having the same fiscal policies in government where we are not spending money today that our children will have to come up with tomorrow.',Nonhubristic

'You got to differentiate between investigators that buy and sell stocks and people like Lloyd Blankfein that run companies. And they have to have a much longer term.',Nonhubristic

'There is you have to I can tell you how to raise your kids. Mine are little more complex. OK.',Nonhubristic

'But it always seems like the your problems are worse than the other person s. And you cannot have that. You have got to keep going on. you have got to have some confidence. you have got to invest in the future.',Nonhubristic

'And if you take a look at how far China for example has come in a very short time we can talk about how far they have to go but so does America. Every problem that China has we have a comparable one. It may not be the same one here and they approach it with a very different mentality and a very different system. They have brought 150 million people into the middle class. They still have 400 500 million people who live on a dollar a year and really need some help.',Nonhubristic

'But they are making a big different for their people. And so has America made a big difference for our people. The poor in our country need a lot of help but they are better off than the poor in many places themselves. That does not mean we should not stop. We should be thankful for how far we have come but we have got to always realize there is more to do at Goldman Sachs at Bloomberg at America at China.',Nonhubristic

'activists have pretty good records in terms of turning companies around. And Businessweek had a story about that looking at the record of some of these people and it has been very good.',Nonhubristic

'But also you have to stand up. Just because somebody comes in and says you should change the business model like Goldman Sachs it does not mean you have to go do it. That is what leadership is all about. And if his board has confidence in him and his stockholders have confidence in him they will let him go and they ll ride with him through the tough times because he is shown in the past that he can do it. And he is not going to make all the right decisions but long term he can keep going.',Nonhubristic

'Now the life expectancy of CEOs in America is 4 5 years depending on how you measure it something like that. And social media puts an instant referendum on everything. So things are different here. But still great companies like Goldman Sachs and a lot of the other big banks here have they ve gone through good times bad times dealt with regulators that are rational irrational dealt with markets that they could not control dealt with markets that they influenced on some things good bad whatever.',Nonhubristic

'No no but that he can control how he approaches those markets how he puts in place the right people and the right systems and which businesses to go in which businesses he has confidence in his organization has confidence in.',Nonhubristic

'And it is not everything and he has got to make those decisions. And over a long period of time look at the history of Goldman Sachs. On balance they have made the right decisions. Not everyone but on balance this is a company that is still growing. And there are some of the other big banks that have done the same thing.',Nonhubristic

'You can also argue that because Congress is so fragmented and paralyzed we do not have much of a fiscal policy and the Fed has no choice but to do some things that it was not really designed for and I do not think monetary policy is the right way to go about it.',Nonhubristic

'But if nobody else is going to do something they feel an obligation and probably right that they have to do something.',Nonhubristic

'Having said all of that there does seem to be a lot of job creation. But I do not know any business person that will decide to go into a business or build a building because interest rates are at 0.25 percent versus 2.5 percent.',Nonhubristic

'I mean come on. If interest rates and tax policy are the guiding factors in terms of whether an investment makes sense or not you are making the wrong investment.',Nonhubristic

'Well I think there is no question that they have the Fed's low in my mind anyways no question that low interest rates have exacerbated the wealth gap between the poor and the rich because the rich have assets. And that is what is being hiked here because of low interest rates whether they own stocks or real estate or whatever the case may be.',Nonhubristic

'And long term that is a very big problem for this country. And you do not solve the problem as the populists would argue by taking things away from the rich. You solve the problem by giving opportunity to everybody and by creating jobs.',Nonhubristic

'And some of these things I think some of the policies are misguided. I for example am not in favor and have never been in favor of raising the minimum wage. I think you should raise the income tax credit which does the same thing for the same people but it spreads the burden across all the taxpayers rather than just a small number of business people whose inclination would be to cut back employment.',Nonhubristic

'Earned income tax credit does not get anybody to cut back. It gets them to hire more people. Well there are 16 or so .',Nonhubristic

'you have a lot of choice there. We'll see what happens. It is a very long way Stephanie from now until the primaries a year from September. And the election a year from November. And half the people running today are not going to most of them will not be there then. There will be people then that are not there now. There will be issues that we talk about then that we never thought about.',Nonhubristic

'All of the mishegas that you read about every day in the paper will go away and be replaced by something else. The press has to have a crisis has to have a story has to have excitement and failure and scandal and that sort of thing. So there will always ',Nonhubristic

'Yes that is the way it is.',Nonhubristic

'Compromise is not a bad word. Compromise is what democracy is all about. You get most of the people get a good percentage of what they want. A handful of people on the two sigmas out get almost nothing. And then that is the way we come together and move.',Nonhubristic

'But let me just give you a thought Stephanie we keep thinking the wrong thing when we pick the elected leaders particularly the Presidents of the United States governors of the states and mayors of the cities. These are not policy jobs. These are executive jobs. You have to pick somebody that knows how to run the railroad.',Nonhubristic

'Making blocking and tackling making sure when you throw the switch the lights come on and when you turn the faucet the water comes out. At the federal level you have to make sure that we control our borders and we get the right leadership to get the right weapons for our troops and get great people to come and work as secretaries in all the different Cabinet offices.',Nonhubristic

'Policy is terribly important. But no executive no president or governor or mayor can have all the policies themselves. They've got to get people to come and help them formulate them on all the other topics. That is what an executive does.',Nonhubristic

'Goldman Sachs is a great firm not because Lloyd Blankfein makes the decisions but because he gets the right people and he gets them to work together and he knows how to promote them and discipline them and pay them and whatever',Nonhubristic

'that is what we need at the government level.',Nonhubristic

'That is part of the job. That is part of the job. You cannot blame the executive s job is to bring along the legislature. I do not want to use the word manage because they have their own third of the government if you will of power. But it is the executives job to explain to the legislators why his or her policies are the right one and bring them along.',Nonhubristic

'You do not go and do a poll and ask the public what they want and then try to take them there. That is leadership from the back. You are elected to go and to say this is what I am going to do and convince people to come along with you and have the horses to get us all there.',Nonhubristic

'OK. But you know that is the executive s job to get Congress to come together. You trade you bribe you threaten you cajole you do all these sorts of things the same way you run your kids.',Nonhubristic

'You say to your kid clean your room or you do not get your allowance. You say to your kid you do your homework or you cannot play Angry Birds. You say to your kid you are doing a great job and lets just do more of it. I ll help you. I ll work together. People interact on a lot of different ways. And it is the executive s job to do that with Congress as well.',Nonhubristic

'So I am a believer that our Congress has been fractured for the last 239 years. It has always been very extreme left very extreme right. These parties have changed their views and their consistency from one side to the other. We forget history so quickly it changes. But they are still there and that is what an executive should do.',Nonhubristic

'And when you are looking at a presidential candidate what you should do is figure out who will be able to do the blocking and tackling an attract good people. Because that person is not going to make all the decisions and if that person does try to make all the decisions then you really have a problem.',Nonhubristic

'Well we have been throwing the money changers out of the temple since Jesus day so this is not new. Nobody likes the banks. They get terrible PR. I am not sure if there is a way to change that incidentally. I think what they should do is be honest finance our growth be great corporate citizens do the right things and not be too brash about bragging about it. You have got to do it and just assume a lot of people will understand and just understand that they are never going to like this industry.',Nonhubristic

'The pharmaceutical industry has the same kind of PR problem. Right yes. I mean .',Nonhubristic

'Well better living through chemistry. We used to die at age 25. Now we died age 85 they must have been doing something right.',Nonhubristic

'And look at the banks have financed growth. How many people today have an education have food in their stomach and have a roof over their head. A lot of that stuff comes out of this. And you just have to learn to live with the fact that they are not going to love you.',Nonhubristic

'But deep down inside do they really hate you.',Nonhubristic

'A lot of it is creation of the press. You hate bankers do not you Stephanie. That will get you a very ',Nonhubristic

'Before we started the company while the company has been going and long after we are gone there will always be competitors there will always be new companies forming with new ideas and new functionality. And they ll be . the companies that at some point in the future will include the conventional wisdom of how you should run companies and how products should look. We cannot worry about what other people do. For 32 years I ve not worried about it

and we are probably stronger today than we have ever been. But if we sit back we will not survive. I do not think there are very many companies in the media business the technology business the news business however you want to define it that have been around for 32 years and are still at the top of their game.',Nonhubristic

' Do I worry about it. Yes that is my job. But do I change our plans. No We have a strategy of hearing our customers out but building what we think they need down the road. And it is. in government I would call it leading from the front rather than leading from the back. When I was mayor nobody elected me to ask them What do you want. and then try to do it. They asked me to come up with my ideas of what the future required and then convince them to come along. So there are lots of companies out there. Are they threats. Everybody is a threat. Should we change our policies. I do not think so.',Nonhubristic

'There re always going to be new things. We will try to if they are useful for our customers include them in our system either by letting somebody come on board or by building it ourselves or by buying something. Although we do not buy very many things. And if . we always have to be willing to accept things that we do not think will work. You spend all of your time from when you start at a new job every day learning what cannot be done. I spent 20 years in this company learning what couldn t be done. And I thought to myself it is time for a new person to come in.',Nonhubristic

' And I found a great way to transition out I ran for mayor of the city of New York and spent 12 years as mayor . I ve come back basically as a new person. And while I was away the people that ran the company did a spectacular job but they ve spent their lives learning what cannot be done. you have got to always be open to things. Having said that you cannot get trapped into doing what everybody says. If everybody knew the future we wouldn t have a business. If everybody knew the future nobody would have a business everybody would have everything. Twitter is a service that people use there is some information on it that is useful to our customers. We try to bring that to them. There s lots of information on Twitter that is not useful to our customers. And we do not try bring that. So you know we are open to everything. I think Twitter is a great service but it is not the only service. And we go out to try to collect all information around the world that has anything we think to do with our customers.',Nonhubristic

'Well there re three powerhouse countries in Asia at the moment. One is Japan one is China one is India. I think they all represent great markets. China . I would include Hong Kong I would include Singapore just in that whole context of where they are. The markets are significant they are all growing. Japan is much more mature than the other two and we have been there for a lot longer time and have a bigger percentage of the business there. But it is hard to believe that the future isn t a lot more in Asia than it is elsewhere around the world.',Nonhubristic

'It was interesting that the two competing buyers were both news organizations . where their entire business was in one country. One was in Japan one was in Germany. For them they wanted access to news and to build a brand around the world. It never made any sense for Bloomberg to buy the FT. I kept saying it and the reporters never believed me.',Nonhubristic

' I always said I buy the FT every day. But we have a brand around the world. It doesn t add anything for Bloomberg. It does add something for the Nikkei it would have added something for Springer. Whether they paid too much only history will show. It sounds like . a nice way to phrase it would be a full price. But they saw value and it may be that it is valuable to Nikkei and worth that kind of price. And Springer was willing to pay roughly that price so if they wanted it that is what they had to pay. I do not know their business well enough to know whether they ll get great value out of it but we will see.',Nonhubristic

'No interest in going public. I am a believer that this company functions best as a private company where we do not have to report quarterly earnings and have our strategy built for today. As I said before you should build products that you think your customers are going to grow into. That doesn t sell very well to investors because they say How do you know. I want products that people are buying today! So public companies do not have the flexibility. Now some do very well. I am not suggesting they do not but I haven t worked for anybody for 35 years I am not about to start

right now. And I am a believer that we can be much more flexible. And we do not need access to capital. And we do not need to . all of the profits of this company or 85 percent of them go to my foundation. And when I die the foundation will take over ownership of the company and then they will have to sell it because of the tax laws but they will have some time to do that. You can pretty much bet your life that this will never be a public company while I am here. ',Nonhubristic

'Much too early to tell. There s a great group of people who are not satisfied with the way government works. Some on the left that is the Bernie Sanders supporters some on the right that is the Donald Trump supporters. It doesn t mean that they would vote for Bernie Sanders or Trump. And it is third party or these upstart candidates seldom get to the finish line but they may. Nobody thought that Bernie Sanders or Trump would be where they are today. There s some evidence that their appeal has not grown. It is got to a certain level maybe declining maybe static. It has not . the percentage of the people that want either as a candidate. has not gotten greater in the last. few weeks or months. ',Nonhubristic

'We have a system I ve always believed that is a two party system and it is virtually impossible for a third party candidate to win an election. Whoever is the next president will most likely 99 percent likely be either the Republican or the Democratic primary candidate. And I do not know . the Democrats have a race on their side. Hillary Clinton was going to walk away with it and now she s got competition. Maybe Joseph Biden will come in maybe Elizabeth Warren would come in. ',Nonhubristic

'Independent means I ve antagonized both sides. Not that I ve captured both sides. I ve precluded both sides. I am going to wind up running my company looking forward to doing that right here. I am very happy doing it. I had 12 great years where I worked hard for the public and for my kids and grandkids and yeah I am very happy. ',Nonhubristic

'Well parks and resorts and consumer products had great quarters. But actually all of our businesses did. There were some numbers that weren t necessarily comparable. For instance the studio had a great quarter. But last year this quarter we had frozen particularly the video. So that is not a great comparison. And then on the media network side we had extra some costs at espn because of the college football playoffs and the nfl wildcard. So generally speaking all of our businesses had a very strong quarter. But from a percentage increase perspective parks and resorts and consumer products led the way. ',Nonhubristic

'I think we have a great business in that we offer the consumer a great product and a great experience. So i think it starts there. It s great service great use of intellectual property and great price to value relationships. I don t think you can look at gas prices or what is going on with the dollar currency exchange issues. I think you just have to look at what is the product that we are offering what is the experience that we are offering and how much in demand is it. And i think clearly over these years demand for our parks and resorts experience not just in the united states but globally is increasing. ',Nonhubristic

'Well we re not going to make any predictions about merchandise. But we certainly have grand plans for star wars merchandise. You are talking about the number one franchise in the world in terms of merchandise. And there hasn t been a film release since 2005. So we have already seen interest in this film starting to generate increased interest in the merchandise for this film. And the film is seven months away. So i think you can expect that the number one franchise in the world is only going to strengthen in terms of value particularly on the consumer products front. But right now what we are mostly focused on is making a great film. And i can t wait to show it to the world. ',Nonhubristic

'Well we have a great hand on the studio front. And as a company in terms of our intellectual property. Disney was strong to begin with and adding pixar clearly added to the strength particularly on the animation front. And john lasseter and ed catmull who came with pixar turned disney animation around. Marvel obviously a phenomenal brand a great franchise. And the success of marvel in those films since we bought it has been well beyond our expectations when we purchased marvel in 2009. I ve talked about lucas and star wars. The best is yet to come. We have six star wars films in the works. There will be three released between now and may 2017. So i think as a company we have

got a great hand. We don't really need more. We clearly have demonstrated interest in intellectual property and ability to leverage it across our businesses over time over many territories around the world. So I don't want to suggest that we are sated or not. But I don't think there are any specific needs right now. There are no holes to fill.',Nonhubristic

'Well I think first of all with regard to Verizon I think it is very specific. We believe that they have violated our agreement and therefore we have taken legal action. We are certainly willing to work with various distributors to come up with packages that are of value to their consumers and also continue to provide value for us. So I don't think this is the beginning of an era of litigation between the programmers and the distributors. I think there's a lot that needs to be said and considered as it relates to the bundle. I don't want to sound polyanna-ish about this but I don't happen to believe that the bundle as we know it is dead. We don't see any disturbing trends in that regard because we believe the bundle basically provides great value to the consumer in terms of choice and in terms of price. Now we are in a new era of great consumer choice and consumer authority where there has been a shift. And I think consumers are going to demand more flexibility and more customization. And as a company we have been at the forefront of offering that and being willing to offer more. Technology is we believe friend not foe both to the programmer and to the consumer. I think the key in terms of bundles is again how much value is the consumer getting. How much choice do they have and at what price. Is the navigation good. That's really critical. User experience is going to get even more important. The last thing I want to bring up because a lot has not been said or considered about skinny packages is that when you unbundle broadband the broadband costs are going to go up. A lot of consumers who are buying the expanded basic bundle are getting broadband bundled with that at a bargain rate. When you go to a skinny package you are going to have to pay for broadband separately. And that's going to be very expensive. So I haven't seen a skinny package that in my opinion creates great value to the consumer yet. But we will see. And we are open to discussion about it.',Nonhubristic

'Look we have bought some things aggressively. The college football championship is one more recent example of that. And we have also passed on some packages. We feel at ESPN that we have got a great hand in terms of programming. We don't believe anybody comes close. That's enabled us to drive ratings and advertising growth. And also to continue to drive sub fee growth which obviously creates huge value and hits the bottom line in very dramatic fashion. We did say by the way Jim that the cost for ESPN programming would be higher this first half of the year because of a new NFL deal. The NFL wild card the college football playoffs. So you are not going to see costs rise in the second half of the year for ESPN the way they did in the first. ESPN has also extended multiple deals over the next decade. So the next balloon is going to be due to the new NBA deal which kicks I think in 2017-2018. But beyond that you are not going to see the kind of dramatic cost increases that we have seen these last few years. So ESPN's costs are going to flatten out. We are not going to buy everything. We can't. But we're going to buy what we believe the viewer wants and what we believe is going to create value for the company.',Nonhubristic

'You know we are storytellers first. If you look at whether it's ESPN and their coverage of sports you look at our movies you look at television we tell a lot of great stories. And people like stories. They demand stories. They like to be entertained. They like to be informed. I don't think that we are similar to Procter and Gamble except in the collection of great consumer brands that we have. But I think our product is consumed in vastly different ways than people will use Tide or Crest toothpaste as a for instance. So I think there is some similarities because of the brand value but I think there are a lot of things that are not like the big consumer products companies.',Nonhubristic

'We are going to get a little bit more specific about that on the call but we have been buyers of our stock over the last number of years. We have actually looked at returning capital to shareholders in a variety of different ways. Clearly we have had a great run in terms of our stock price. We have also managed to continue to increase the dividend over the years. Another big increase this past year. And we have been buying back our stock. And on top of all that we have been investing in our businesses and acquiring companies. So we think that we have managed to deliver a great blend in terms of how we have returned capital to investors. And I don't know that that's necessarily going to continue in the exact fashion that it has. We talked about acquisitions for instance. But I think this company's free cash flow is

likely to continue to be robust. And decisions in terms of how we return capital will have to be made on an annual basis. And i d guess that dividend increases and share buybacks are going to be part of that.',Nonhubristic

?,Nonhubristic

I think eventually espn becomes a business that is sold directly to the consumer. Where there is an engagement in that espn will know who their consumers are will use that information to customize their product enable personalization to essentially engage in a much more effective way and also to offer advertisers more value as well.',Nonhubristic

Its easy to look at any disruptive force as a complete threat. And technology is definitely the most disruptive force that so called traditional media whether you are in radio whether you are in newspapers magazines television is facing. No question about it. I decided and we decided as a company to view technology as a friend not a foe.',Nonhubristic

Instead of creating one cto at disney because our businesses use technology in so many different ways and i didn t want to bureaucratize it or corporatize it if that is even a word. So i kept the technology ownership in each of the businesses and i use myself as not quite the cto i think that was a little exaggerated but as sort of the traffic cop and where i force people to go through intersections together and not necessarily going at one another. And its worked well.',Nonhubristic

I wouldn t rule it out but i don t think you should take that to mean that we are looking at doing that. Our civ in terms of acquisitions has pretty much been in the direction of our strategic priorities which is let s buy content high quality branded content marvel pixar lucas obviously good examples. Let s buy technology where it gives us an advantage where we can use it to do the things i talked about earlier and let s buy things that give us a better or larger global foot print.',Nonhubristic

We opened up a new disney store in shanghai a few months ago. I was there the week before last still doing extremely well. We haven t opened the theme park yet so we don t fully know but the research that we have done so far suggests that the chinese consumer is not really in terms of its behavior indicating that there is an issue with their markets.',Nonhubristic

Were going all out in china with shanghai disneyland should open in about a year. We believe in that market for a disneyland big time obviously. We think it s probably the most exciting opportunity the company has had in a long time and definitely the most exciting opportunity we have ever had outside the united states.',Nonhubristic

In terms of theft of intellectual property it continues to be a problem. There is a movie that has been released in the chinese marketplace that looks and feels very very much like the movie cars that pixar created a few years ago. That s a problem. But it s not the kind of problem that is going to affect our theme park business or our view about investing in china.',Nonhubristic

Abc is still an important business for us. Its a very healthy content creation business. Whether you are talking about the programming that we own and produce in prime time or abc news it s a profitable business. It s a business that we are proud to be in and it s still in my heart you know.',Nonhubristic

Well if you look at the size of the company because the company has grown particularly given the acquisitions and growth in international markets you know there are a few of our businesses that don t loom as large as they once did but that doesn t mean they are not important.',Nonhubristic

The consumer products business that we have which is truly global has become a very big business for us and it is a big part of star wars. And one of the reasons that we were so interested in it is it had the profile of many other disney businesses and marvel for instance. Consumer products is important but the movie has to be good too. Its probably the most important. It starts with the movie.',Nonhubristic

'it is funny to hear you say quiet period having just come from the hall where we showed the fans that trailer it wasn't exactly quiet. We knew that these most ardent passionate fans were going to go crazy when they saw that teaser trailer but i had no idea what it was going to be like watching it with them. It was incredible the feeling in the room everybody rising from their seats at the beginning and cheering at this moment and that moment and that moment. Of course when hans solo comes out with chuy at the end and said chuy we re home. The crowd just went crazy. It was great.',Nonhubristic

'No predictions on how big this will be. We know that star wars films did incredibly well but there hasn't been a film out since 2005 actually. And star wars 6 episode 6 actually came out in 1983. So this is episode 7 picking up from that 1983 film. That's a long time. But the movie going audience in the world is much larger than it ever was. There are markets today that were nonexistent before in terms of movie going china being a great example of that. So we're fairly confident that this film is going to do quite well. But way too soon to make predictions and probably we will not make any in public.',Nonhubristic

'Yes. Clearly there is. There's work being done now by our imagineering team to develop those properties. I say properties plural because it will be at more than one theme park location but we're not ready to give details on that yet. But expect that they are coming.',Nonhubristic

'I'd prefer not to get into any details.',Nonhubristic

'Well we're walking before we run here although we're doing a fair amount of running. The focus will really be on six films 7 8 and 9 and three stand alone films. We put rebels in the marketplace on disney xd fairly recently i imagine there will be some other television development down the road but nothing absolutely determined yet. Again the focus right now from a creative perspective at lucas is on those films.',Nonhubristic

'I've seen just about everything shot. I probably will see a cut of the film i'm guessing sometime in the next three or four weeks. But without a lot of special effects which are being done at ilmm which is the special effects house that we bought when we bought lucas films. A lot of the post production work finishing work will be done there.',Nonhubristic

'Well star wars as a franchise and the consumer products field is one of the most successful franchises ever. It's still quite popular out there. Just look at what lego has in the market as a for instance around the world. And so this is likely to be one of our most valuable property once the movie comes out and there's huge amount of work being done across multiple segments. Hasbro has done a lot of work lego and then there's the games front too with ea and other games going into the market.',Nonhubristic

'I can't tell you exactly when but we already are fairly confident that it was a good deal for us and it's been a good deal for george lucas as well. He took cash and disney stock and the disney stock has appreciated significantly since less than three years ago when the acquisition was made. I think in the end the shareholders of the walt disney company including george lucas will be quite happy about the investment that was made.',Nonhubristic

'I take one step at a time. I'm feel great about the avengers two. The age of voltron comes out may 1st in the united states. Actually opens up in some international territories before then. I think that will do just fine. The first film was the third highest grossing box office in the history of movie business. I'm not making predictions about this but i think it's just as good if not better than the first film so high hopes.',Nonhubristic

'When I became CEO we had been through about a decade of disappointing performance in the animation business. Except for the relationship we had with Pixar. And if you were to look at the Disney animated films from that decade which I will call the post Lion King decade a very few made any money. And in a number of cases not only did they lose money but they did significant damage to the Disney brand.',Nonhubristic

'You cannot look at your financial folks or your strategic planning folks and tell them to come up with an answer that serves your needs. You need them to be objective. You need them to be honest with you. So I didn't say "Go figure out how you make this pencil out." I just said "Do more homework.",Nonhubristic

'We know how to leverage or mine value from intellectual property probably better than any media company out there. And we have the ecosystem to do it worldwide.',Nonhubristic

'In each case there was a single shareholder that controlled the sale. They were all in their own way very personally relationship driven.',Nonhubristic

'We are living in an era of incredible disruption. The consumer has a lot more power now to decide what they watch when they watch, on what device they watch it on and how much they pay for it.',Nonhubristic

'What I like about the changing technology in sports the most is that it is expanding consumption. Today you can watch it all the time on basically any mobile device or computer.',Nonhubristic

'ESPN in 2014 had 82 billion minutes of consumption on its digital platforms. The ability to do that did not exist five years ago. When you think about ESPN growing, one way to grow is through expanding consumption.',Nonhubristic

'One of the reasons ESPN has been so aggressive and innovative on being on those new platforms and continuing to innovate with new product and new ways of reaching people is because they believe in the expansion capabilities of those platforms. You have broadening of consumption and deepening of engagement. That is another way to grow the business.',Nonhubristic

Appendix 34. The full list of WEKA's attributes specified as the most predictive of hubristic versus non-hubristic speech

#	Information gain score	Attribute
1	0.13637	that's
2	0.03247	can't
3	0.02831	million
4	0.02829	mean
5	0.02774	doesn't
6	0.02656	i
7	0.02561	know
8	0.02539	you've
9	0.02522	had
10	0.02305	i've
11	0.02228	creative
12	0.02071	they've
13	0.02066	watch
14	0.01961	am
15	0.01838	transportation
16	0.01838	don't
17	0.01762	lot
18	0.01759	maybe
19	0.01744	doesn't
20	0.01648	were
21	0.01647	put
22	0.01606	didn't
23	0.01606	bank
24	0.01606	possible
25	0.01606	wont
26	0.01606	what's
27	0.01606	haven't
28	0.01582	money
29	0.01582	sort
30	0.0154	cannot
31	0.01441	if
32	0.01429	do
33	0.01409	pretty
34	0.01404	was
35	0.01375	wasn't
36	0.01375	equity
37	0.01375	dollars
38	0.01335	literally
39	0.01316	stuff
40	0.01316	it
41	0.01304	really
42	0.01263	architectures
43	0.01263	transitions
44	0.01263	athlete
45	0.01245	happen
46	0.0124	thing
47	0.0124	look
48	0.01175	enough
49	0.01144	ultimately
50	0.01144	wouldn't
51	0.01144	weren't
52	0.01144	under

53	0.01144	operating
54	0.01144	vehicles
55	0.01144	trouble
56	0.01144	mass
57	0.0113	spend
58	0.0113	least
59	0.01111	like
60	0.01104	vision
61	0.01104	decade
62	0.01104	both
63	0.01104	athletes
64	0.01104	unique
65	0.01094	actually
66	0.01077	reason
67	0.01054	so
68	0.01035	all
69	0.01025	outcomes
70	0.01005	wanted
71	0.01005	call
72	0.00995	new
73	0.00981	could
74	0.00971	think
75	0.0095	thousands
76	0.00945	everything
77	0.00945	television
78	0.00945	internet
79	0.00945	elected
80	0.00945	turn
81	0.00945	property
82	0.00945	sport
83	0.00936	something
84	0.00935	systems
85	0.00914	responsibility
86	0.00914	push
87	0.00914	journey
88	0.00914	efficiently
89	0.00914	you'll
90	0.00914	conscience
91	0.00914	shouldn't
92	0.00914	positive
93	0.00914	rocket
94	0.00914	insurance
95	0.00914	somewhere
96	0.00914	guys
97	0.00914	they're
98	0.00914	they'll
99	0.00914	bunch
100	0.00914	realized
101	0.00914	fall
102	0.00907	good
103	0.00899	percent
104	0.00898	kind
105	0.0089	collaboration
106	0.0089	his
107	0.0089	data
108	0.00841	system
109	0.00841	its

110	0.00841	went
111	0.00841	bit
112	0.00787	constantly
113	0.00787	portfolio
114	0.00787	knowledge
115	0.00787	pipeline
116	0.00787	food
117	0.00787	chain
118	0.00787	ownership
119	0.00787	involved
120	0.00787	hasn't
121	0.00787	brands
122	0.00787	congress
123	0.00787	organization
124	0.00787	smoking
125	0.00787	star
126	0.00787	films
127	0.00787	advantage
128	0.00787	learning
129	0.00787	intellectual
130	0.00787	implementation
131	0.00758	media
132	0.00758	quarter
133	0.00684	prepared
134	0.00684	pressure
135	0.00684	aren't
136	0.00684	catalyst
137	0.00684	address
138	0.00684	dealers
139	0.00684	interview
140	0.00684	capacity
141	0.00684	degree
142	0.00684	obviously
143	0.00684	failed
144	0.00684	debt
145	0.00684	funding
146	0.00684	producing
147	0.00684	putting
148	0.00684	clients
149	0.00684	franchised
150	0.00684	cheaper
151	0.00684	cellphones
152	0.00684	entity
153	0.00684	why
154	0.00684	fundamentally
155	0.00684	program
156	0.00684	please
157	0.00684	profit
158	0.00684	place
159	0.00684	emissions
160	0.00684	commercial
161	0.00684	more
162	0.00684	district
163	0.00684	bridges
164	0.00684	certainly
165	0.00684	couldn't
166	0.00684	can

167	0.00684	amounts
168	0.00684	electronics
169	0.00684	manufacturers
170	0.00684	managers
171	0.00684	id
172	0.00684	green
173	0.00684	listen
174	0.00684	lifetime
175	0.00684	music
176	0.00684	net
177	0.00684	leave
178	0.00684	phones
179	0.00684	compassion
180	0.00684	comprehensive
181	0.00684	phone
182	0.00684	manager
183	0.00684	facility
184	0.00684	like
185	0.00684	gasoline
186	0.00684	options
187	0.00684	conversation
188	0.00684	conducive
189	0.00684	cup
190	0.00684	roads
191	0.00684	tiny
192	0.00684	velocity
193	0.00684	site
194	0.00684	ton
195	0.00684	wish
196	0.00684	write
197	0.00684	resources
198	0.00684	solution
199	0.00684	solving
200	0.00684	thank
201	0.00684	standpoint
202	0.00684	trust
203	0.00684	you're
204	0.00684	who's
205	0.00684	understood
206	0.00628	average
207	0.00628	city
208	0.00628	switch
209	0.00628	custom
210	0.00628	changing
211	0.00628	decide
212	0.00628	evolving
213	0.00628	word
214	0.00628	creation
215	0.00628	areas
216	0.00628	possibilities
217	0.00628	failure
218	0.00628	relationships
219	0.00628	smoke
220	0.00628	intercloud
221	0.00628	costs
222	0.00628	insight
223	0.00628	worried

224	0.00628	combine
225	0.00628	premium
226	0.00628	sports
227	0.00628	connection
228	0.00628	think
229	0.00628	where
230	0.00628	brought
231	0.00628	percentage
232	0.00628	peers
233	0.00628	total
234	0.00628	delivered
235	0.00628	haven
236	0.00628	backwards
237	0.00628	hand