2021

WHAT YOU DO OR WHAT YOU SAY? AN EXAMINATION OF ANALYST REACTIONS TO PROTOTYPICAL AND NON-PROTOTYPICAL CEOS LINGUISTIC AND COMPETITIVE BEHAVIORS

Courtney Hart
University of Kentucky, courtney.hart2011@gmail.com
Author ORCID Identifier:
https://orcid.org/0000-0002-3281-8726
Digital Object Identifier: https://doi.org/10.13023/etd.2021.338

STUDENT AGREEMENT:

I represent that my thesis or dissertation and abstract are my original work. Proper attribution has been given to all outside sources. I understand that I am solely responsible for obtaining any needed copyright permissions. I have obtained needed written permission statement(s) from the owner(s) of each third-party copyrighted matter to be included in my work, allowing electronic distribution (if such use is not permitted by the fair use doctrine) which will be submitted to UKnowledge as Additional File.

I hereby grant to The University of Kentucky and its agents the irrevocable, non-exclusive, and royalty-free license to archive and make accessible my work in whole or in part in all forms of media, now or hereafter known. I agree that the document mentioned above may be made available immediately for worldwide access unless an embargo applies.

I retain all other ownership rights to the copyright of my work. I also retain the right to use in future works (such as articles or books) all or part of my work. I understand that I am free to register the copyright to my work.

REVIEW, APPROVAL AND ACCEPTANCE

The document mentioned above has been reviewed and accepted by the student's advisor, on behalf of the advisory committee, and by the Director of Graduate Studies (DGS), on behalf of the program; we verify that this is the final, approved version of the student's thesis including all changes required by the advisory committee. The undersigned agree to abide by the statements above.

Courtney Hart, Student

Dr. Walter J. Ferrier, Major Professor

Dr. Nancy Johnson, Director of Graduate Studies

WHAT YOU DO OR WHAT YOU SAY? AN EXAMINATION OF ANALYST REACTIONS TO PROTOTYPICAL AND NON-PROTOTYPICAL CEOS LINGUISTIC AND COMPETITIVE BEHAVIORS

DISSERTATION

A dissertation submitted in partial fulfillment of the
requirements for the degree of Doctor of Philosophy in the
College of Business and Economics
at the University of Kentucky

By
Courtney Marie Hart
Lexington, Kentucky

Director: Dr. Walter J. Ferrier, Professor of Management
Lexington, Kentucky
2021

https://orcid.org/0000-0002-3281-8726

ABSTRACT OF DISSERTATION

WHAT YOU DO OR WHAT YOU SAY? AN EXAMINATION OF ANALYST REACTIONS TO PROTOTYPICAL AND NON-PROTOTYPICAL CEOS LINGUISTIC AND COMPETITIVE BEHAVIORS

Non-prototypical CEOs are those that process different demographic characteristics from a target reference group. In the US, a non-prototypical CEO is both white and male. While the negative responses to non-prototypical leaders based on race and gender have been well documented, we know less on what these leaders do that may influence biased evaluations. In this dissertation I took an impression management view to examine analysts' evaluative bias (AEB) on prototypical and non-prototypical CEOs hiding linguistic behaviors and competitive aggressiveness. Specifically, I examined hiding linguistic behaviors on quarterly conference calls and two attributes of competitive repertoire will be researched. Drawing from leadership categorization theory, competitive dynamics: competitive volume and competitive complexity.

Using a matched sample of *Fortune 500* CEOs from 2006-2012 of quarterly conference calls and RavenPack action data I found support for difference in who exhibits hiding linguistic behavior and how non-prototypical CEOs are evaluated differently based on their competitive aggressive. This research seeks to take an impression management look at how non-prototypical leaders are evaluated and narrow the gap between how CEOs operate versus what they say to third party evaluators.

KEYWORDS: CEO Non-Prototypicality, Linguistic Hiding Behaviors, Competitive Aggressiveness, Analysts' Evaluative Bias, Impression Management

Courtney Marie Hart

July 9, 2021

WHAT YOU DO OR WHAT YOU SAY? AN EXAMINATION OF ANALYST REACTIONS TO PROTOTYPICAL AND NON-PROTOTYPICAL CEOS LINGUISTIC AND COMPETITIVE BEHAVIORS

By

Courtney Marie Hart

Dr. Walter J. Ferrier, PhD
Director of Dissertation

Dr. Nancy Johnson, PhD
Director of Graduate Studies

July 9, 2021
Date

TO MS. THELMA WHITE & MRS. ANNIE MAE BROOKS BUSH
THANK YOU FOR LOVING CHRIST, LOVING ME, AND SHOWING THE WORLD
JOY IN SPITE OF CIRCUMSTANCES. MAY YOU BOTH REST IN PEACE.

ACKNOWLEDGEMENTS

The following research, while an individual work, benefited from the insights, direction, and support of several people. I first must give honor to Jesus Christ who is the head of my life and directs my path. My career, my life, is dedicated to serving Christ and others through my work.

To my chair, Dr. Walter (Wally) Ferrier, thank you for your guidance and mentorship through this entire process. I smile as I look though the images on my phone. They are rife with photos of diagrams and figures we drew of what would be this very work. Thank you for showing me what scholarship looks like without the pretentiousness and encouraging me in my research.

To Dr. Daniel Halgin, thank you for not only professional help, but your personal help as well. Your support has been invaluable. I appreciate every time I popped my head into your office, and you would offer guidance on my research, my networking opportunities, my job opportunities, and more. More recently, thank you for help in bringing me out of my reclusive state after the death of Breonna Taylor.

To the rest of my committee, Dr. Daniel Brass, Dr. Jame Russell, and Dr. Vanessa Jackson, thank you for your guidance, your feedback, and your example of what impactful research looks like.

In addition to my committee, I would like to thank specific professors in the Management Department at the Gatton College of College and Business. To Dr. Giuseppe (Joe) Labianca, thank you for all your personal and professional guidance. Moreover, thank you for working with the PhD students through our nascent states and

showing us what being a contributing member to the Academy looks like. Dr. Ajay Mehra, thank you for getting me to the half-way point and for introducing me to linguistic analysis. Dr. Kim Rose, thank you for being fervent in your faith and reminding me why I came to the University of Kentucky.

To the rest of the Gatton of College of Business faculty and students, thank you for your scholarship, guidance, and many laughs.

To the PhD Project, thank you for investing in long term change towards a more equitable society through diversifying business professors.

To my friends Drs. Blanka Angyal, Erica Littlejohn, Catrina Johnson, and Robert Shorty. Thank you for your friendship during our doctoral journeys. Thank you for your open ears and honest feedback. Thank you for loving me in my most vulnerable states. I try to emulate you all's kindness and immense talent every day.

To the professors at Howard University, thank you for quietly encouraging me to pursue a PhD even though it was commonplace to develop a career within industry.

To Ms. Thelma White, thank you for showing me the tenacity of living a purpose driven life. Most people who make it to their 90's are sitting back and reaping the fruits of their labors, but I watched you never tire in doing good. Much of Natchez's history of racial reckoning is recorded because of your courage. You would call me every year and inquire about my grades. You provided accountability and the expectation to be excellent. I later learned that you were the first black teacher to integrate your school and was one of the only with a college degree. I may be the first black woman to graduate from my program with a PhD, but I stand on your shoulders.

To Ms. Annie Mae Bush, thank you for your warm hugs and bright smiles. Thank you for the bowls of gumbo and Easter egg hunts. Despite losing my grandmothers at a very early age I did not go without love because of you.

To Dr. Rev. Bishop E. Carter IV, thank you for providing a church home for my parents back in the 90's and thank you for welcoming me back 18 years later without skipping a beat. I did not have family in Lexington, KY, but I was certainly adopted by Bethsaida Baptist Church. Thank you for your love, leadership, and commitment to helping Kentuckians.

Finally, to my mother, Michele Hart, and father, Edward Hart, thank you for supporting me. Most people thought I was crazy when I left the comforts of Silicon Valley, but you both reserved judgment and trusted me. Thank you for loving me, encouraging me, and supporting me through all the ups and downs these years have brought. I love you; I hope I have made you both proud.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1. INTRODUCTION

The Chief Executive Officer (CEO) serves as the face of multiple groups. In a given hour the CEO may represent their industries, their countries, and their salient demographics, and themselves (e.g., Love, Lim, & Bednar, 2017; Lovelace, Bundy, Hambrick, & Pollock, 2018). In the presence of information asymmetries, the amalgamation of these multiple identities are used to evaluate the health and actions of their firm by external audiences. This includes evaluations from the media, investors, analysts, social groups, and governments (e.g., Rindova, Pollock, & Hayward, 2006). Therefore, CEOs uniquely must constantly manage their perceptions while facing judgment from multiple audiences compared to other chief executives (Harrison et al., 2020; Leary & Kowalski, 1990). Managing perceptions are especially challenging when their personal identities are not congruent with their professional identities (Avery et al., 2016; Chung-Herrera & Lankau, 2005; Eagly & Karau, 2002).

The consequences of managing perceptions become more salient when the CEO is non-prototypical. A non-prototypical CEO is a leader who possesses different behavioral, psychological, or demographic features than their reference peer group. Behaviorally, CEOs are seen as influential, trustworthy, judicial, and charismatic (Platow, Haslam, Foody, & Grace, 2003). Psychologically, CEOs vary but tend to be extraverted (e.g., Judge, Piccolo, & Kosalka, 2009). Demographically, Western CEOs are white/anglo and male (Ridgeway & Erickson, 2000; Ridgeway, 2003; Rosette, Leonardelli, & Phillips, 2008; Rudman, 1998). These prototypes are formed from a shared cultural schema reflecting decades of CEOs from the most visible organizations (Hogg 2001; Hogg & Terry, 2000). Anyone outside of this schema is deemed as a part of

the leader out-group, and heavily scrutinized (Hogg, 2001; Rosette & Livingston, 2012; Tajfel, 1978). As a result, researchers have witnessed those outside of the race and gender schema promoted less and their work scrutinized more (Avery et al., 2016; Cook & Glass, 2014; Ryan & Haslam, 2005).

While most existing research on CEOs and other executives has focused on the deep-level, behavioral and psychological differences on competitive actions and organizational performance (e.g., Gamache, McNamara, Mannor, & Johnson, 2015; Hambrick, 2007; Hambrick & Mason, 1984), surface-level, demographic differences continues to be a factor in how leaders are evaluated, and ultimately underrepresented (Livingston & Pearce, 2009; Morrison & Von Glinow, 1990; Ridgeway, 2003; Rosette & Livingston, 2012; Rule & Ambady, 2008;Thomas & Gabarro, 1999).

Cognizant of their stigmatized identities (Pinel, 1999; Steele & Aronson, 1995; Vorauer, Main, & O'Connell, 1998), non-prototypical CEOs may use impression management for protection rather than self-promotion (Hewlin, 2003; Roberts, 2005). Non-prototypical CEOs exercise their agency to influence the perceptions of others (Bolino, Kacmar, Turnley, & Gilstrap; Goffman, 1959). Impression Management research has allowed scholars to look at techniques used by people to manage others' perceptions of them with dyadic and one-to-many audiences. Thus, researchers have seen proactive techniques to reduce negative stigmas before they can begin (Gaertner & Dovidio, 2014; Roberts, 2005). A way non-prototypical CEOs can manage their image is by hiding their stigmatized identity. Hiding behaviors are those actions which decategorizes individuals from their identities (Gaertner & Dovidio, 2010), and refocuses audience attention away from negative stereotypes.

Alternatively, being a non-prototypical CEO can signal change and a broader environmental scope that is better able to enact competitive actions (e.g., Andrevski, Richard, Shaw, & Ferrier, 2014; Ocascio, 1997; Spence, 1973). Often this broadening of scope leads to better organizational outcomes (e.g., Miller & del Carmen Triana, 2009). However, we know very little on how competitive actions and repertoires are judged when non-prototypical CEOs are at the helm. Despite organizational actions made, negative stereotypes of the CEO may cause firms to be disproportionately punished by external evaluators (e.g., Avery, McKay, & Volpone, 2016). As a result, there is a dual model of judgment coming from what non-prototypical CEOs do versus what they say compared to their prototypical counterparts.

This dissertation will address three main questions.

Multiple theories from organizational behavior and strategic management behaviors will be integrated to answer these questions. Organizational behavior literature on impression management (Arkin, Shepperd, Giacalone, & Rosenfeld, 1989) and leadership categorization theory (Hogg & Terry, 2001) will inform communication patterns of CEOs and subsequent reactions, respectively. Strategic management literature on upper echelons theory (Hambrick & Mason, 1984; Hambrick, 2007), and competitive dynamics will inform the cognitive reasoning behind competitive actions (Ferrier, Smith, & Grimm, 1999; Hughes-Morgan & Ferrier, 2014).

This dissertation will give a fine grain look to the motivations behind evaluations of non-prototypical CEOs versus prototypical CEOs. In addition, it addresses mechanisms to avoid negative evaluations based on race or gender.

2. LITERATURE REVIEW

2.1 CEO Prototypicality

CEOs are the personification of their firm (Love et al., 2017). Their role is to produce the best return for their stakeholders by establishing the short- and long-term visions, motivating competitive actions (Wang, Holmes, Oh, & Zhu, 2015), leveraging their network for competitive advantage (e.g., Pfeffer, 1981), and communicating with various stakeholders regarding the health and direction for the firm (e.g., Pan, McNamara, Lee, Haleblian, & Devers, 2018).

Performance of the firm is often over-attributed to the CEO, instead of other situational factors like other competitors, regulations, and the overall environment (Hayward, Rindova, & Pollock, 2004; Meindl, Ehrlich, & Dukerich, 1985). However, CEOs deep-level demographics do impact competitive directions. Deep-level demographics such as tenure, personality, education, and functional background are unseen characteristics which influence information processing and decision making (Carter & Phillips, 2017; Harrison, Price, & Bell, 1998; Harrison, Price, Gavin, Florey, 2002). Deep-level characteristics and its impact on competitive actions have been researched through upper echelon theory (UET). UET's states that competitive actions can be predicted from the demographics of its top leaders, including the CEO, top management team, and board of directors (Cho, Hambrick, & Chen, 1994; Finkelstein & Hambrick, 1996; Hambrick, Cho, & Chen, 1996; Hambrick & Mason, 1984; Hambrick, 2007). Unlike the TMT or BoD, CEOs are constantly in the spotlight and serve as an intangible asset for the firm (e.g., Offstein, Gynawali, & Cobb, 2005). Therefore, while

competitive actions are decided by the TMT and BoD, the *perception* of competitive actions decisions often rests on the shoulders of the CEO.

This perception led Wang and colleagues (2015) to conduct a meta-analysis to find evidence of CEO characteristics predicting strategic actions. Wang's team codified over 300 actions. CEOs with a higher tenure are more focused on preserving their legacy than pursuing risky investments like international acquisitions (Matta & Beamish, 2008). On the other hand, narcissistic CEOs have the opposite proclivities and invest in risky investments to maintain attention (Lovelace et al., 2018). Narcissistic CEOs also engage in more corporate social responsibility (Chin, Hambrick, & Trevino, 2013; Gupta, Nadkarni, & Mariam, 2018), mergers and acquisitions (Chan & Cheng, 2016), and overall aggressive behavior (Chatterjee & Hambrick, 2007; Offstein & Gynwali, 2005; Wieserma & Bantel, 1992) to increase attraction to themselves. Extraverted CEOs can quickly adapt to environmental changes that positively impact firm performance compared to those who are not extraverted (Nadkarni & Herrmann, 2010). CEOs with more education have a higher cognitive ability, which assists with their field of vision, thus engaging in more competitive actions (Finkelstein, Cannella, & Hambrick, 2009; Wally & Baum, 1994).

Surface-level characteristics, like race and gender, also impact competitive actions. Women CEOs were found to engage less risky competitive actions compared to men (Faccio, Marchica, & Mura, 2015). However, women executives have more leverage to enact strategic change when organizations are facing environmental uncertainty (Triana, Miller, & Trzebiatowski, 2014). Consequently, Women CEOs see more success in mitigating biases when they pursue unconventional projects (Owens et al., 2018). The

impact of CEOs' race on competitive actions has even less research, as most CEO studies have focused on single industries with racially homogeneous populations (e.g., Hermann & Nadkarni, 2013; Nadkarni & Hermann 2010). Like firms led by women, those with a higher proportion of racial minority managers can find and execute competitive actions for firms in fast moving environments (Andrevski, Richard, Shaw, & Ferrier, 2014). For both women and racial minority CEOs, they have less access to resources to enact the diverse policies they are often expected to enforce (McDonald & Westphal, 2013). This dissertation will be the first, to my knowledge, that takes a fine-grained approach to view how women and racial minority status impact competitive actions and subsequent reactions.

Stakeholders receive CEO communication over various mediums including, but not limited to press releases, interviews, annual shareholder letters, and quarterly analyst calls. Each communication gives financial analysts, investors, journalists, governments, and more material to base their analysis of the CEO and their firm (e.g., Mayhew, 2008). Thus, evaluations of firms are not only based on the substantial competitive actions and of the firm, but also by the symbolic communications put out by the CEO and other executives. Consequently, their communication performances enable the firm to attract resources to better implement competitive actions (Hayward, Rindova, & Pollock, 2004; Pfarrar, Pollock, & Rindova, 2010). Being a non-prototypical CEO carries an additional burden to attracting resources because their performances are met with more scrutiny (e.g., McDonald & Westphal, 2013; Ridgeway, 2003).

CEO prototypicality is the degree a CEO contains the same behavioral, psychological, and demographic characteristics as CEOs in their reference groups.

Evaluators use mental shortcuts to decipher if a CEO is competent or not based on their past interactions. There are three benefits to using CEO prototypicality lens instead of a race and gender lenses for this study: 1) It allows social psychology literature, leader categorization theory, to inform reactions to CEOs (Hogg & Terry, 2000), 2) It allows plasticity of CEOs beyond the "Think Manager, Think Male" (Schein, 2001) and "Think Manager, Think White" (Gündemir, Homan, de Dreu, & van Vugt, 2014; Rosette et al., 2008) paradigms, and 3) It allows other executive leadership positions, like CDOs and CFOs, to be explored. CEO prototypicality is like, recently published, CEO atypicality (Lovelace et al., 2021); however, CEO prototypicality is built upon leadership categorization theory (Lord et al., 1984). Therefore, CEO prototypicality allows for this dissertation and future researcher the theoretical lens to predict audience responses to what they do and say.

Non-prototypical CEOs have the role of not only managing the perception of themselves, but any negative stereotypes that come along with their social group (Roberts, 2005). For example, Black and Hispanic people must combat the stereotype of being lazy and unintelligent (Chung-Herrera & Lankau, 2005; Devine, 1989; Jeanquart-Barone, 1996; Roberts, 2005; Sinclair & Kunda, 1999; Tomkiewicz, Brener, & Esinhart, 1991), which is the opposite of leader perceptions of disciplined and highly competent (Ridgeway, 2003). While women must balance their level of warmth displayed with their level of competence displayed in order to avoid being perceived as an "ice queen" (Oakley, 2000; Rudman & Glick, 2001). In short, non-prototypical CEOs must deal with the cognitive dissonance and (un)conscious biases from others seeing them in their position. Failure to manage these perceptions comes with undue blame, recourse, and

lower performing stock markets (Carter & Philips, 2017; Cook & Glass, 2009; Hekman et al, 2016). Moreover, many of these audiences will blame something other than race or gender for their harsher evaluations (e.g., Avery et al., 2016).

The difficulties faced by women and minority CEOs can be understood through social categorization theory (Hogg, 2001). Specifically, CEO prototypicality lends from an offshoot of social categorization theory - leadership categorization theory (Hogg 2001; Hogg & Terry, 2000). It contends evaluations of leadership effectiveness is based on sociocognitive inputs and a shared cultural schema (e.g., Hogg & Terry, 2001). Leadership categorization theory has the capabilities to move beyond upper echelon theory that explains *what* competitive actions diverse executives engage in to *how* those competitive actions and communications are perceived. It is the perception of these actions and communications which ultimately determine the resources a firm obtains.

Evaluations of CEOs' legitimacy are based on the perceptions the cognitive schema formed by witnessing other CEOs (e.g., Lord, 1985; Lord, Foti, & DeVader, 1984). Leadership categorization theory states that individuals are evaluated against a leadership prototype in the search for competence (Lord et al., 1984). Moreover, those who do not fit the leader prototype are deemed as part of the outgroup, and often are evaluated worse than prototypical leaders (e.g., Opina & Foody, 2009).

Deep-level characteristics of the prototypical leader possess four traits: influence, trust, justice, and charisma (Platow, Haslam, Foody, & Grace, 2001). While leadership categorization theory was based on internal, dyadic interactions, CEOs also must embody influence, trust, justice, and charisma in their one-to-many interactions. Influence is needed to obtain organizational resources and encourage internal and external parties to

the vision which the CEO and the other executive leaders have (e.g., Grant, Hodge, & Sinha, 2017). Trustworthiness is a byproduct of influence that is needed to exercise competitive actions efficiently (c.f. Zona, Minoja, & Coda, 2013). Moreover, CEOs' pay is constantly judged as a conduit to justice (e.g., Jasso & Milgrom, 2001; Zajac & Westphal, 1995). Last, CEOs perceived as charismatic are often lauded and given more resources based than those seen as uncharismatic (Bass & Avolio, 1995; Fanelli & Misangyi, 2006; Meindl & Thompson, 2005). Each of these four characteristics are based on perceptions, formed over time, and exercised automatically. As a result, those who do not possess the surface-level characteristics have difficulty with how they are perceived.

Surface-level characteristics of the prototypical leader in the US is white (Chung-Herrera & Lankau, 2005; Rosette, Leonardelli, & Phillips, 2008), and male (Rudman & Glick, 2001). The reinforcement of this prototype is seen in local, municipal, state, and federal governments, as well as in corporate America (DiAngelo, 2018). Audiences often infer deep-level leadership prototype characteristics by analyzing surface-level leadership prototype characteristics (Ridgeway, 2003). Therefore, deviation from surface-level prototype characteristics has resulted in disproportionate consequences for the non-prototypical leaders (e.g., Avery et al., 2016; Kanter, 1977; Lee & James, 2007).

Despite claims that surface-level, non-prototypical leaders are based on merit (Carter & Philips, 2017) and not demographics, scholars have found that categorization based off race is automatic and only deterred with conscious efforts (Wheeler & Fiske, 2005).

2.2 Analysts' Evaluative Bias

CEOs and their firms' health are evaluated by many external parties. Financial analysts are one of the most consequential external parties to a CEO's tenure. Financial analysts collect, process, and disseminate valuable information to their clients and the public (Wiersema & Zhang, 2011). Despite information asymmetries between analysts (Mayhew, 2008), their recommendations often provide novel insight into the company they are evaluating. In short, financial analysts are not only predicting where a firm's stock price is headed, they are influencing where their stock price is headed (Clarkson et al, 2015). Analysts' Evaluative Bias (AEB) is the degree of positive or negative stock evaluations in a comparative group. There are two components of AEB that are salient to this research: Target price bias (AEB-TPB) and target price consensus (AEB – TPC).

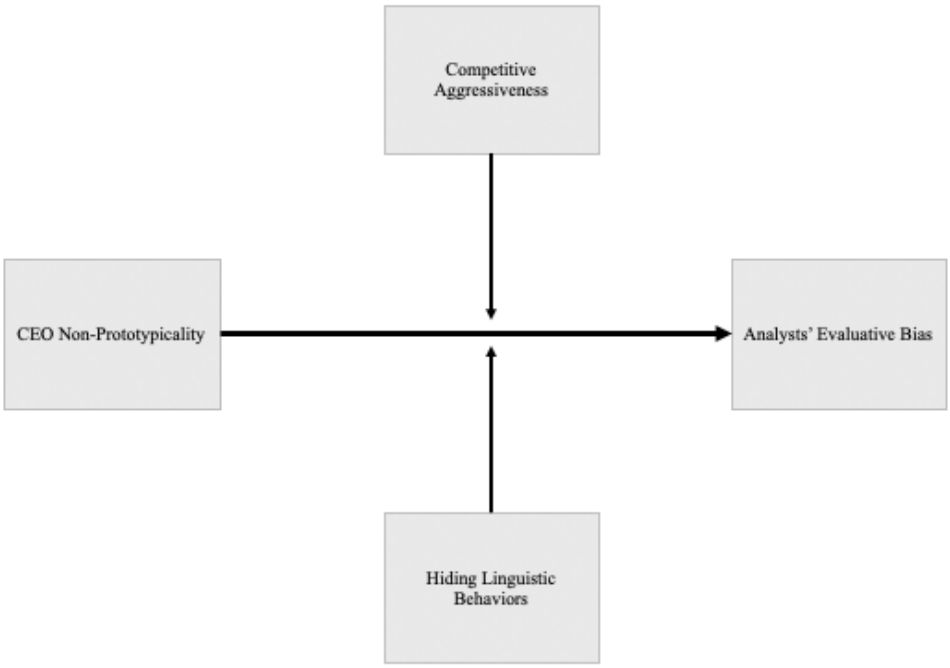
AEB-Target price bias is the percentage a between a predicted stock price and the actual stock price. Typically, TPB is optimistic as to gain favor with the focal firm (Bradshaw, 2013; Mayhew, 2008). In addition, non-financial factors like analyst-CEO similarity have been found to drive forecast errors (Becker et al, 2019). Therefore, optimistic TPB has become expectant (Dechow & You, 2017).

AEB – Target price consensus is the average distance in which all financial analysts agree on a certain stock price. Firms may be evaluated by only two financial analysts and as much as thirty financial analysts. A wide TPC could indicate analysts have varying pieces of information and are evaluating on multiple sources. A narrow degree of consensus could indicate a herd-to-consensus mentality (Tamura, 2002). Therefore, instead of staking their reputation on what information they have and the

analysis they conducted, they would rely on the first analyst stock price towards their evaluation. Non-prototypical CEOs are risky evaluating because their presence is rare in publicly traded companies. Therefore, I predict financial analysts will rely more on what other analysts say, in a herd mentality, instead of relying on their own information. Hypothesis 1 (H1) focuses on analysts' propensity to over critically analyze those possessing non-prototypical characteristics:

> *Hypothesis 1 (H1): Compared to firms led by prototypical CEOs, those led by non-prototypical CEOs will experience a negative bias in analysts' reactions.*
>
> *Hypothesis 1a (H1a): Compared to firms led by prototypical CEOs, those led by non-prototypical CEOs will have a negative AEB – Target Price Bias*
>
> *Hypothesis 1b (H1b): compared to firms led by prototypical CEOs, those led by non-prototypical CEOs will experience a higher amount of AEB - Target Price Consensus.*

FIGURE 1. Relationship of Analysts' Evaluative Bias on CEO Non-prototypicality



2.3 What CEOs Say

2.3.1 Impression Management

Prototypical and non-prototypical CEOs have agency in how they are presented through impression management. Impression management (IM) are the behaviors individuals and firms use to obtain the best outcome from their target (Goffman, 1959; Bolino, Kacmar, Turnley, & Gilstrap, 2008; Highhouse, Brooks, & Gregarus, 2009). Non- and prototypical CEOs use IM to proactively manage the perceptions of outside evaluators. These behaviors are salient due to their highly visible positions (Leary & Kowalski, 1990).

IM was originally described as a self-presentation measure (Goffman, 1959; Ralston & Elsass, 1989), used to obtain jobs (Ferris & Judge, 1991; Fletcher, 1989; Gilmore, Stevens, Harrell-Cook, & Ferris, 1999; Rosenfeld, Giacalone, & Riordan, 1995), receive favorable performance evaluations (Ashford, Rothbard, Piderit, & Dutton,

1998; Ferris & Judge, 1991), and ultimately transition to opportunities outside of the firm (Giacalone & Duhon, 1991; Giacalone & Knouse, 1989). While the genesis of IM revealed novel insights regarding the content of dyadic, intra-firm communications, IM has emerged as a theory used to explain behaviors amongst CEOs, firms, and different demographic groups (Bolino et al., 2008; Rosenfeld, Giacalone, & Riordan, 1994).

CEOs are motivated to engage in impression management for themselves, their firm, and their fellow CEOs (Leary & Kowalski, 1990; Roberts, 2005; Highhouse, Brooks, & Gregarus, 2009; McDonald & Westphal, 2011). There are many ways CEOs use IM. Bolino and colleagues (2008) identified over 30 different types of IM behaviors across the management field. Finance and accounting literatures have also identified different IM behaviors by CEOs (e.g., Mathew & Ramsay, 2007). For example, CEOs use concrete language during their quarterly conference calls to denote confidence in the past performance and future expectations. These CEOs found that they had higher stock returns compared to CEOs who used vague language (Pan et al., 2019). In addition, CEOs who have presentations to investors highlighting future strategies have seen higher stock returns (Mathew & Ramsay, 2007). The method of featuring a firm's progress matters too, as Grant, Hodge, and Sinha (2017) found that addressing financial analysts from Twitter does not have the same impact as a call or presentation. Last, CEOs IM has been extended to CEOs supporting each other in the media when their peers face personal obstacles (Westphal, Park, McDonald, & Hayward, 2012). This is a point of contention between prototypical and non-prototypical CEOs, and prototypical CEOs are less likely to protect their peers in front of the media when confronted with personal issues (Westphal et al., 2012).

Thus, non-prototypical CEOs face additional motivations for engaging in IM. Internally they are not receiving as much help from their white male top managers (McDonald et al., 2018; McDonald & Westphal, 2013). Externally stakeholders are more likely to blame them for low performance (Park & Westphal, 2013). Their IM efforts are not just for self-presentation and presentation of the firm, but they are also looking for the presentation of their ethnic groups (e.g., Hewlin, 2003; Hewlin, 2009; Roberts, 2005).

Non-prototypical CEOs are often depersonalized and have their competence and character judged based on their surface-level characteristics (e.g., Hogg, 2001; Ridgeway, 2003). Moreover, their actions are under a microscope (Foschi, 2000; Kanter, 1977; Ospina & Foldy, 2009); receiving harsher punishments than their prototypical counterparts (e.g., Cook and Glass, 2014). Therefore, although both non- and prototypical CEOs use IM, it does not mean that they use the same types of IM, nor are their behaviors perceived the same by evaluators. On the contrary, white women are punished for exhibiting agentic behaviors (Rudman, 1998), therefore many women leaders lean into their communal side when exhibiting IM behaviors (Guadagno & Cialdini, 2007). Executive women revealed that it was their speech, not their technical competence which led to their positions, even though their male counterparts thought their technical competence was the reason for their ascendance (Ragins, Townsend, & Mattis, 1998). In addition, minorities find themselves having to engage in behaviors to increase organizational identification and reduce intergroup biases (cf. Crisp, Hewstone, & Rubin, 2001; Hewlin, 2003).

Non-prototypical CEOs also must engage in social-identity based impression management (SIM) to address the additional components which their competence and

character are based on. “SIM is the process of strategically influencing others’ perceptions of one’s own social identity in order to form a desired impression. SIM involves shaping perceptions of identity group affiliation, as well as communicating the personal significance and emotional value one associates with such affiliations (Roberts, 2005: 694).”

2.3.2 Hiding Behaviors on Analysts’ Evaluative Bias.

While the existence, persistence, and consequences of prejudice has been researched in organization have been long studied (e.g., Carter & Phillips, 2017; Westphal 2013; 2018), minorities and other non-prototypical people have engaged in behaviors to reduce becoming victims of biases.

Non-prototypical leaders reduce biases to engage in hiding behaviors. Hiding behaviors are those actions which decategorizes individuals from their identities (Gaertner & Dovidio, 2010), and refocuses audience attention away from negative stereotypes. These are proactive, bottom-up behaviors (Roberts, 2005) that people engage to reduce categorization into a negatively stereotyped group and a form of SIM.

A common demonstration of hiding behaviors is with name changes to sound more Anglo. Emily and Greg received more callbacks for job interviews compared to Lakeisha and Jamal during a field experiment between two major cities (Bertrand & Mullainathan, 2004). There are financial rewards for hiding ones' culture in their name (Biavaschi, Giulietti, & Siddique, 2017). Therefore, studies are published on explaining the intricacies and consequences of name Americanization for Greeks (Alatis, 1995), Czechs (Janis, 1925), Chinese (Louie, 2008), and Polish immigrants (Kotlarz, 1963).

This form of decategorizing the individual and recategorizing them as a part of another group has seen positive impacts in the strategic management literature. Zhu, Shen, and Hillman (2014) discovered when existing directors recategorized new, non-prototypical directors by their shared interests the new non-prototypical directors' tenures increased. That is, by focusing on what the board members had in common instead of what made them different allowed the non-prototypical CEO to be seen as a legitimate member of the board.

While Zhu et al. (2014) highlighted the benefit of recategorization from a sponsor, someone speaking on their behalf, recategorization is engaged by the non-prototypal leader. Sometimes people suppress certain social identities - and they are not being consistent with external standards of professional competence and character. Judgments on competence and character happen automatically (Wheeler & Fiske, 2005), and are difficult to change (Darly &Fazio, 1980; Snyder & Stukas, 1999). Therefore, non-prototypical leaders must increase their organizational identification in order to be received as congruent to the firm and its goals (Boivie, Lang, McDonald, & Westphal, 2011).

Hiding allows internal and external firm evaluators to accept the CEO as a legitimate and competent fixture. As hiding takes away the focus from surface-level characteristics and refocuses on the state and status of the company. For example, a quarterly conference call is an opportunity to speak directly to analysts regarding the health and future directions of the firm. If a CEO allows their Chief Financial Officer (CFO), Chief Operating Officer (COO), or Chief Legal Officer (CLO) to speak, then analysts have moved their attention to the other members of the call with increased

identification. Hiding is the process of a focal actor hiding their stigmatized traits to deflect biases. Thus, analysts will have a more positive reaction to non-prototypical CEOs.

Operationally, CEOs can hide by speaking less to outside evaluators (CEO Word Dominance) and increasing identification by using plural first-person pronouns like we, us, or our (CEO First-Person Predominance) (Kacewicz, Pennebaker, Davis, Jeon, & Grawsser, 2009; Tausczik & Pennebaker, 2010).

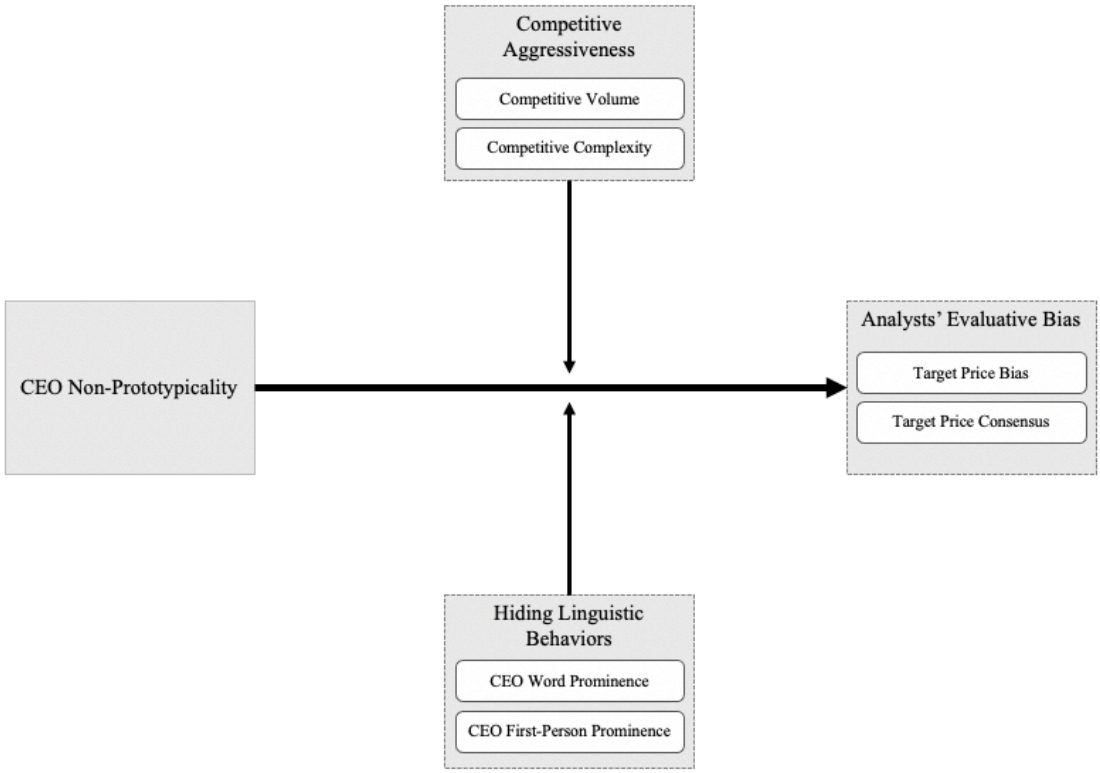
Hypothesis 2 (H2): Compared to firms led by prototypical CEOs, those with non-prototypical CEOs are more likely to engage in hiding linguistic behaviors in corporate communications.

Hypothesis 2a (H2a): Non-prototypical CEOs will have less word prominence compared to prototypical CEOs in corporate communications.

Hypothesis 2b (H2b): Non-prototypical CEOs will have less first-person predominance compared to prototypical CEOs in corporate communications.

FIGURE 2.

FIGURE 2. Relationship of Analysts' Evaluative Bias on CEO Non-prototypicality with Operationalization Constructs



2.3.3 Interaction Between CEO Non-Prototypicality and Hiding Linguistic Behaviors

Non-prototypical CEOs who engage in hiding linguistic behaviors will shield their stigmatized identities, and as a result, lessen the negative association with their salient identities.

Hypothesis 3 (H3): That the greater use of non-prototypical CEOs hiding linguistic behaviors, the lesser the negative association between AEB and non-prototypical CEOs.

Hypothesis 3a (H3a): The lesser use of CEO word prominence, the lesser the negative association between AEB and non-prototypical CEOs.

Hypothesis 3b (H3b): that the lesser use of CEO first-person predominance, the lesser the negative association between AEB and non-prototypical CEOs.

2.4 What CEOs Do

2.4.1 Competitive Aggressiveness on Analysts' Evaluative Bias

Impression management not only comes in the form of what CEOs say, but also what they do (Highhouse et al, 2009). A CEO can hide by relying less on their speech and more on the competitive aggressiveness of their firm. That is, CEOs may have a higher number of competitive actions (Competitive Volume) or a more complex competitive repertoire (Competitive Complexity) to gain the attribution of dedication from observers as seen with exemplification (Bolino & Turley, 1999; Jones & Pittman, 1982).

Each action is made to influence a target's perceptions, be it a customer, a rival, or other audiences. A firm's competitive actions are not made in a vacuum nor without certain motivational inputs. For example, General Motors (GM) decision to enter the market of electric vehicles came with the awareness of what customers wanted in features, what governments wanted in emissions tests, what their competitors' competitive actions, and what financial analysts were expecting GM to respond to. Based on their competitive perceptions, GM will move in a way that is most advantageous to them at a given time. Competitive dynamics is the viewpoint that addresses how, when, and how long competitive actions occur.

Competitive action repertoire takes an Austrian economics view (e.g., D'Aveni, 1994; Young, Smith, & Grimm, 1996) of strategy and views competitive actions as a

dynamic process determined by several different factors (Ferrier, 2001). A firm's competitive repertoire is made up from multiple competitive actions (Miller & Chen, 2012) that is derived from a stream of decisions (Mintzberg, 1978).

Competitive action repertoire has been found to influence stock market returns (Ferrier & Lee, 2002), stock market risk (Hughes-Morgan & Ferrier, 2014), and profitability (Miller and Chen, 2012). Thus, it provides an additional avenue to address the reaction to non-prototypical CEOs (e.g., Cook & Glass, 2009; Glass & Cook, 2017) by their competitive moves instead of solely their demographic characteristics (Ferrier & Lyon, 2004; Marchel, Barr, & Duhaime, 2011). As a result, competitive repertoires give a fuller, more accurate view of competitive actions and subsequent reactions to prototypical and non-prototypical CEOs.

Firms with more accurate perceptions of the market have better overall performance because they can decipher opportunities better (Ferrier et al., 1999; Gary & Wood, 2010; Gnyawali & Madhavan, 2001). The firm's competitive repertoire serves as a reflection of aggressiveness, competence, and skills of the CEOs (Offstein & Gnyawali, 2005). Moreover, competitive aggressiveness has been linked to top management team heterogeneity, as firms with more diversity in terms of tenure, education, and functional background have generally better performance (Hambrick et al., 1996; Hughes-Morgan, 2010). While we know about TMT heterogeneity and competitive aggressiveness, A non-prototypical CEO may also influence the capability to decipher opportunities because their backgrounds & networks enable them to have a more robust scan of their environment (D. Kolev et al., 2021; Hillman, 2002; Post & Byron, 2015) compared to prototypical CEOs. In addition, non-prototypical CEOs may be influenced to engage in

more aggressive actions to refocus evaluators on the firm instead of their negative personal stereotypes and increase identification to the organization (Boivie, Lange, McDonald, & Westphal, 2011; McDonald et al., 2018).

Hypothesis 4 (H4): Compared to firms led by prototypical CEOs, those with non-prototypical CEOs appear to carry out more aggressive competitive action repertoires.

2.4.1.1 Volume

There are four attributes to a competitive action repertoire: competitive volume, competitive complexity, competitive inertia, and competitive non-conformity (Ferrier, 2001; Hughes-Morgan, 2018). Competitive volume and competitive complexity are two of the most studied attributes and are the focus of this study. Competitive volume is the number of competitive actions an organization takes in a given period (Ferrier, 2001; Ferrier et al., 1999; Young, Smith, & Grimm, 1996). Competitively intense companies can respond to increasing market demands in an efficient manner. Non-prototypical CEOs are expected to be more competitively aggressive but may lack the resources to act aggressively (Lord et al., 1984; McDonald, Keeves, & Westphal, 2018). However, non-prototypical CEOs are assumed to be more resilient in their efforts because of their position in a highly coveted position as evidence (Carter & Phillips, 2017). Therefore, I predict firms with non-prototypical CEOs will respond more aggressively in their firm's volume of actions compared to prototypical CEOs.

Hypothesis 4a (H4a): Compared to firms led by prototypical CEOs, those with non-prototypical CEOs will carry out competitive-action repertoires with higher levels of volume.

2.4.1.2 Complexity

Competitive complexity is the extent to which a given uninterrupted series of competitive action carried out by a firm consists of a wide (versus narrow) range of actions of different types (Ferrier & Lee, 2002; Ferrier & Lyon, 2004). Non-prototypical CEOs would be able to identify different environments that have different needs because of their unique viewpoints (cf. O'Reilly & Williams, 1998). Therefore, non-prototypical CEOs are more compelling and thought out in their repertoire. Moreover, their thought processes are more likely to be challenged from their counterparts compared to prototypical CEOs (e.g., Chatman, 2010; Cox, Lobel, & McLeod, 1991). Consequently, the actions driven by non-prototypical CEOs should be thoughtful, intentional, and complex.

Hypothesis 4b (H4b): Compared to firms led by prototypical CEOs, those with non-prototypical CEOs will carry out competitive action repertoires with higher levels of complexity

Interaction Between CEO Non-Prototypicality and Competitive Aggressiveness on AEB

While the impact of competitive aggressiveness on actual performance has been widely studied (see Miller & Chen, 2012 for review), financial performance has also been operationalized through projected financial performance by financial analysts. AEB is especially consequential for CEOs as their removal may hinge on these projected expectations (Park et al, 2021; Wiersema & Zhang,2011).

Non-prototypical CEOs, have an extra burden of being aggressive to be in line with their double standard of competence (Foschi, 2000). They do this by being aggressive and different from their competitors. Taeuscher and colleges (2021) argued

that in certain context, firms gain legitimacy by being different. Recently Parker and colleagues (2018) supported this notion when they found support for women being able to mitigate biases by pursuing unconventional projects. Therefore, I predict non-prototypical CEOs who are aggressive in their volume and complexity will result in a positive AEB compared to their prototypical counterparts.

Hypothesis 5 (H5): The more aggressive the competitive action repertoires of non-prototypical CEOs, the lesser the negative association between AEB and non-prototypical CEOs.

Hypothesis 5a (H5a): The greater the use of competitive volume, the lesser the negative association between AEB and non-prototypical CEOs.

Hypothesis 5b (H5b): The greater the use of competitive complexity, the lesser the negative association between AEB and non-prototypical CEOs.

3. METHOD

3.1 Research Setting

I used data from Fortune 500 companies from 2006 – 2012. Several archival data sources were used to operationalize the constructs. Analyst Evaluative Bias (AEB) data came from Thomas Reuters I/B/E/S, Center for Research in Security Prices (CRSP), and EVENTUS via Wharton Research Data Service (WRDS). Firm name and industry came from WRDS Compustat, Fortune, and CNNMoney (modernly known as CNN Business). CEO non-prototypicality data came from multiple sources. CEOs names, age, and educational backgrounds came from COMPUSTAT via WRDS and S&P Capital IQ. CEO's race and gender data came from DiversityInc., Catalyst, *The New CEOs: Women, African American, Latino, and Asian American Leaders of Fortune 500*

Companies (Zweigenhaft & Domhoff, 2011), and personal online web searches. Finally, supplemental background data came from LinkedIn and Bloomberg Business Profiles. Firm data, including return on equity (ROE) and firm age were from COMPUSTAT. Competitive action data came from RavenPak News Analytics (e.g., Connelly, Tihanyi, Ketchen, Carnes, & Ferrier, 2017; Guo, Sengul, & Yu, 2018). Last, quarterly analyst call transcripts were sourced from Seeking Alpha (n=1368).

The samples are matched firms from the *Fortune* 500 from 2006 - 2012. The period reflects variations in the US economy. Thus, 2006-2012 allows for greater generalizability for CEO linguistic hiding behaviors and competitive action repertoires (Brunnermeier, 2009; Pan et al., 2018). The *Fortune 500* contains the largest and most highly visible companies in the U.S. Their total value accounts for 67% of the revenue of the GDP (fortune.com/fortune500). Therefore, it is an influential sample to gather data from.

The matched sample of racial and gender prototypical CEOs and non-prototypical CEOs are based on their *Fortune 500* rank, industry (four-digit SIC code), firm size, and firm revenues (e.g., Chen, 1996; Ferrier et al., 1999; O'Farrell, Hitchens, & Moffatt, 1993). This was a two-step process. The first step was to identify organizations with non-prototypical CEOs, the second step is to match the closest firm ranked in the *Fortune 500* with the same industry classification that has a prototypical CEO. For example, Merck (Kenneth Frazer, non-prototypical CEO) was matched with Pfizer (Ian Reed, prototypical CEO) and Avon (Sherilyn McCoy, non-prototypical CEO) was matched with Estee Lauder (Fabrizio Freda, prototypical CEO). The matched firms changed year over year based on yearly revenue changes. There was a total of 177 unique companies

from 30 different industries (two-digit SIC) and 77 different sectors (four-digit SIC). There were a total of 529 firm-year observations. Some observations were removed. Twenty-eight observations were removed due to being a private insurance company, thus not having quarterly analyst calls nor analyst target price estimates. Observations were removed due to a CEO change in the given year, as competitive action data could not be directly attributed to the CEO. Therefore, there were a total of 481 firm-year observations.

To explore the IM differences between prototypical and non-prototypical CEOs I used two distinct domains of corporate activity: quarterly earnings calls and firm competitive action repertoires. Quarterly earnings calls are an opportunity for executives to speak directly with analysts on their firms' earnings, goals, and foreseeable hindrances. Although much information about a firm comes from their PR, media reports, and government agencies, earnings calls offer novel information to make judgments on firms' future performance (Chen & Matsumoto, 2006). Earnings calls are an unobtrusive measure that have several benefits that survey responses do not have. They bypass leader's low response rates common with surveys (Chatterjee & Hambrick, 2007; Cycyota & Harrison, 2006), result in less biases, and allow for observation within CEOs' environment. Moreover, they result in less response, interviewer (Duriau, Reger, & Pfarrer, 2007; Woodrum, 1984), and reactance biases (Chatterjee & Hambrick, 2007; Pan et al., 2018). Last, quarterly calls address a common concern with measurement of psychological factors with data that is conducted on an annual basis (McKenny, Aguinis, Short, & Anglin, 2018).

The quarterly earnings call gives a firm the opportunity to discuss the firm's prior performance and future plans. It is also an opportunity to reduce information asymmetries and allow investors to make more informed investment decisions (e.g., Mayew, 2008; Pan et al., 2018; Porac, Wade, & Pollock, 1999). A quarterly investors call can be understood in 3-3-3. There are three portions of the call, three different parties on the call, and three representatives from the company on the call.

The three main company representatives on the call include the SVP of Investor Relations, the Chief Financial Officer, and finally the Chief Executive Officer. Other parties, such as the Chief Operating Officer, Chief Technology Officer, or Chief Legal Officer may be on the call if they are deemed necessary by the firm. There are three different parties on a call: 1) the company representatives, 2) the operator, and 3) the analysts. A neutral telephone operator connects the call and delegates questions from the analysts to the company leaders. Last, there are also bank analysts. They come from various financial institutions and typically ask one question each per call.

The first portion of the call includes the SVP of investor relations starting call. Second there is a prepared opening statement from the CEO or CFO concerning the past performance and future directions. Last, there is a Q & A portion of the call directed by the call's operator. Although organizations can choose analysts who will ask questions before the call begins, there are times that surprising, unsuspecting questions are asked that the Chief Executives did not prepare for (Mahew, 2008). Therefore, most analysts find utility in the latter portion of the call (Chen & Matsumoto, 2006).

There are three main portions of a quarterly earnings call: 1) the ground rules given by the SVP of Investor Relations, 2) the summary of the quarter by the executive

leaders, and 3) the question-and-answer portion with the investment analyst. The Q&A portion has been given greater attention throughout the years in strategy research (Pan et al., 2017), and has been used consistently in finance and accounting research (e.g., Chen & Matsumoto, 2006; Mayew, 2008). The calls reduce informational asymmetries by allowing external audiences to ask questions about the firm, but it is also a large impression management for the firm, as firms determine the queue, who will ask questions (Chen & Matsumoto, 2006). There has been evidence of firms disproportionately allowing those with a bullish view to take place on the call; however, there are still instances where firms are surprised by analyst questions (Kelly, 2003). Therefore, it provides a great place to observe hiding linguistic behaviors.

3.2 Dependent Variables

3.2.1 Analysts' Evaluative Bias

Analysts' Evaluative Bias (AEB) was used to predict analyst reactions to hiding linguistic behaviors and competitive action repertoires. Each firm has a different number of analysts from financial organizations evaluating their performance. Smaller firms may have two analysts, while larger firms may have 15 analysts. Dedicated analysts use firms' competitive actions, communications, environmental factors, and financial cues to judge how they believe a firm will do in a given quarter. Annual judgments are written in the form of estimates, predictions of a firm's target price for the upcoming year. The earnings expectations are housed in I/B/E/S. The consensus estimates are refined up until the quarterly analyst call[1]. Therefore, it is a proximal indicator of reactions to hiding linguistic behaviors and firm competitive actions.

I measured AEB in two ways: target price bias and target price consensus. AEB-target price bias is the percent difference between the average annual target price estimate and the actual target price. AEB-target price bias is represented in Formula 1.

$$TPB_{it} = (\boldsymbol{\mu}TPest_{it} - TPact_{it})/ \boldsymbol{\mu}TPest_{it} \quad (1)$$

TPB_{it} is the AEB-target price bias for firm *i* during time *t*. $\boldsymbol{\mu}TPest_{it}$ is the analysts' mean target price estimates for firm *i* during time *t*. $TPact_{it}$ is the actual price of the stock of *i* during time *t.* A higher number indicates a higher amount of bias. The sign directionality of TPB_{it} indicates whether the bias was positive or negative. Target price consensus estimates from financial analysts are notoriously inaccurate and optimistic (Stotz, 2017). As a result, overly pessimistic consensus dictates a lack of capabilities of the firm and/or CEO.

AEB-target price consensus is the degree of target price estimate difference between financial analysts (e.g., Abarbanell et al., 1995; Cooper et al., 2001; Dreman & Berry, 1995) for a focal firm. I measured this using the coefficient of variation, which is also known as relative standard deviation. It is defined as a...

> "Statistical measure of the dispersion of data points in a data series around the mean. . . .it is a useful statistic for comparing the degree of variation from one data series to another, even if the means are drastically different from one another (Hayes, 2021)."

The benefit of using the coefficient of variation is that it allows for standard deviation comparisons between target price estimates of firms with high average stock prices (e.g., $3000/share) with those of low average stock prices (e.g., $30/share) without

having to account for total market capitalization. Therefore, the spreads between different financial analysts target price estimations can be compared between firms. AEB-target price consensus bias is represented in formula 2.

$$TPC_{it} = -1(\boldsymbol{\sigma}_{it}/m_{it}) \quad (2)$$

TPC_{it} is the AEB-target price consensus. Where $\boldsymbol{\sigma}_{it}$ is the standard deviation of analysts target price estimates for firm *i* during time *t* and m_{it} is the average target price estimation among the financial analysts. This value is expressed in a percentage. A higher number indicates a high level of consensus, and thus a higher level of bias. A lower number indicates a low level of consensus, and thus a lower level of bias. This definition of target price consensus does vary from traditional forms (cf. Du & Budescu, 2018) of target consensus, which defines target price consensus as the mean analyst estimate for a given time period.

3.2.2 What CEOs Say

Transcripts from firms' quarterly earnings conference calls between 2006 – 2012 were used to examine the relationship between linguistic hiding behaviors and AEB (cf. Green, Jame, & Lock, 2014; Mayew, 2009; Pan, McNamara, Lee, Haleblian, & Devers, 2017). During data collection, the quarter included was based on the year starting in January. For example, if a transcript title reflected the fiscal year was held in September 2005 but titled as Q1 2006, then the document was not analyzed. Instead, the call that detailed information happening between January 2006 and March 2006 was analyzed and categorized as Q1 2006. This way the call data of the CEO and the actions of the firm were aligned. Moreover, some quarterly analysts are voluntary, albeit, normative.

Therefore, data from the calls were averaged by year and years without any calls for all four quarters were dropped from the sample.

3.2.2.1 CEO Word Dominance

Linguistic hiding behaviors in discourse are identified by two tendencies: the proportion of first-person pronouns to first-person plural pronouns (*CEO first-person predominance*) and the proportion of words used by the CEO to the total words used during the Q&A portion of the call (*CEO word dominance*).

3.2.2.2. CEO First-Person Predominance

Percentage data of first-person singular pronouns (I, me, mine, my, myself) the CEO used, divided by the percentage of those pronouns plus all first-person plural pronouns (we, us, our, ours, ourselves) was calculated through Linguistic Inquiry and Word Count (LIWC) (Pennebaker & King, 2015). First-person predominance indicates a focus on the company and its constituents instead of the CEO him/herself (e.g., Chatterjee & Hambrick, 2007).

The second measure of linguistic hiding behavior is the total number of words the CEO has spoken during the Q&A portion of the call/total words spoken during the call. Extraverted leaders have been tied to speaking more (e.g., Mairesse et al., 2007). Extraverted CEOs are known to also command more attention from their viewers. However, extraversion, a personality measure, is *derived* from observed boisterous behaviors. That is, extraversion is conceived from highly visible behaviors. Therefore, CEOs trying the hide would not speak much during the entire conversation. This is a measure of behavior, and not any underlying personality.

3.2.3 What CEOs Do

Competitive action repertoires occur in alignment with a firm's strategies, goals, and obstacles. Moreover, they do not exist independently of each other. A focal firm's actions may be dictated by moves from competitors, thus maintaining their market share (e.g., Ferrier et al., 1999; Ferrier, 2001). For example, Silicon Valley was waged in a patent war during the early 2010's. Competitive moves increasingly became narrow, involving two steps; Step 1: Acquire firm for their patents, Step 2: Use patents to file lawsuits against fiercest competitors. The battle was most visible between Apple and Samsung (Nicas, 2018). Competitive repertoire views competitive strategy as a repertoire of micro competitive behaviors (Chen & Miller, 2012; Ferrier, 2001; Ferrier & Lee, 2002; Ferrier & Lyon, 2004; Miller & Chen (1994, 1996, 1996a). Competitive repertoire includes competitive volume and competitive complexity. Competitive volume and competitive complexity are the most studied attributes of a firm's competitive action repertoire (for review see Chen & Miller, 2012).

Competitive actions came from RavenPack news articles. It is a database that sources 22 different newswires like *The Wall Street Journal, Dow Jones Newswires* and codifies competitive actions (Guo, Sengul, & Yu, 2018). There are over 40,000 firms in its database, including the firms that will be used in this study (Guo et al. 2018; Tweldt, 2016). The benefit of using RavenPack is that it is up to date in an increasingly fast paced world and is faster than prior studies (e.g., Chen, Smith, & Grimm, 1994; Chen, 2009). Therefore, more industry actions are observed. RavenPack uses a patented algorithm to classify articles into categories (Connelly et al., 2017; Lin, Mass, & Zhang, 2014). If a company did not have any actions in a given year, then their sample was excluded from

the dataset; therefore, there are a total of 289 yearly observations of competitive action repertoire data. There were eight potential actions to consider for cross-industry analysis: new product actions, capacity related actions, pricing actions, marketing actions, acquisitions, strategic alliances, market expansion, and legal actions (Connelly et al., 2017). Figure 3 describes the eight different actions, and how they are classified in RavenPack.

FIGURE 3. Competitive Action Classification from RavenPack

Action category	RavenPack classification*
Acquisitions	Acquisition - Acquirer
Capacity related actions	Facility Open Facility Close Facility Upgrade
Legal actions	Legal Issue - Plaintiff
Market expansion	Market Entry
Marketing actions	Campaign Ad
New product actions	Product Release
Pricing actions	Product Price Cut Product Price Raise
Strategic alliances	Joint Venture Partnership

* RavenPack Classification reflects Table 1. in Connelly et al., 2017; however, "Facility Open" has been added to capacity related actions

3.2.3.1 Competitive Volume

Describes the gross number of actions a firm takes over a year (Ferrier, 2001; Smith et al., 2001). For example, competitive volume would capture the sheer number of competitive actions Samsung and Apple took during a defined period.

$$CV_{it}=\Sigma TA_{t} \quad (3)$$

CV_{it} is Competitive Volume for firm *i* at time *t*. $\Sigma TA_{t\,is}$ the summation of total competitive actions at year t.

3.2.3.2 Competitive Complexity

Describes the extent to which a repertoire of actions is composed of actions of many different types (Ferrier, 2001; Ferrier and Lee, 2002). Competitive complexity is the opposite of competitive simplicity which is a "tendency of firms to concentrate on just a few central activities" (Miller & Chen, 1996, p. 419). For example, competitive complexity would capture which firm is engaging in different types of actions. For example, is Apple acquiring three firms or is Apple acquiring firms, cutting prices, and introducing new hardware? The firm with the highest number of action types has a higher complexity (Ferrier & Lyon, 2004; Miller & Chen, 1996). research has used a Herfindahl-type index of competitive complexity. The Herfindahl-Hirschman Index (HHI) is a weighted diversity index that commonly describes how many different types of actions are in a year. Recent research by Connelly and colleges (2017), found the Shannon Index to be a more robust measure of diversity.

This study uses the same formula from Connelly et al., 2017:

$$CC_{it} = -\sum pi\ ln\ pi\ i=1 \tag{4}$$

> "Where pi is the proportion of competitive actions belonging to the competitive action category of R total categories. This index ranges from a high of ln(R) when all types of competitive actions are equally common and approaches zero as actions become more concentrated (Connelly et al, 2017, p. 20)."

3.3 Independent Variables

CEO Non-Prototypicality. Non-prototypical CEOs are those that process different demographic characteristics from a target reference group (cf. Ridgeway 2003;

Van Kippenberg & Van Kippenberg, 2003). Therefore, CEOs were coded as non-prototypical (1) if they are not a white male. That is, if they were Black American, Latino, Asian American, and/or a woman then they were categorized as non-prototypical. The demographic data came from COMPUSTAT, Execucomp, Bloomberg Business Profiles, LinkedIn, DiversityInc., Catalyst, and personal web searches.

CEO race and gender was primarily collected from the appendix of *The New CEOs* (Zweigenhaft & Domhoff, 2011). DiversityInc and Catalyst were also used to cross-check women, African American, Latino, and Asian American CEOs. DiversityInc is a news website dedicated to reporting news and compiling lists of best companies for diversity. Their assessments are often touted on corporations' Diversity webpages. Catalyst is a global nonprofit that focuses on building workplaces that empower women. They work with over 800 companies and compile yearly lists of the most powerful women in Corporate America (Catalyst.org). CEO gender data was supplemented with data collected from CNNMoney. CEO race was coded in five different categories: White, Black, Hispanic, Asian, and American Indian (e.g., Andrevski et al., 2014; Zweigenhaft & Domhoff, 2011). CEO gender will be dummy coded as male (0) and female (1). White males are categorized as non-prototypical.

3.4 Control Variables

There are variables on the firm-, and CEO-level which must be accounted for to address possible endogeneity. Firm age, like CEO age, is an indicator of increased likelihood of repeat competitive actions (Wang et al., 2015). As the firm age, they fall

into a routine based on past actions & successes (Lant, Millken, & Batra, 1992; Miller & Chen, 1995; Smith, Ferrier, & Ndofor, 2005).

CEO demographics such as age, education, and insider status may influence competitive actions; therefore, they were controlled for (e.g., Chatterjee & Hambrick, 2007; Connelly et al., 2017; Foschi, 1989; Foschi, 2000; Hambrick, Cho, & Chen, 1996; Krause, Semadeni, & Cannella, 2014).

CEO name, age, education, and insider status came from Execucomp and written backgrounds provided on S&P Capital IQ. Each entry was double checked among LinkedIn, Bloomberg Business Profiles.

CEO elite education background has been shown to influence external perceptions in firm turnarounds (Gomulya & Boeker, 2014). Elite education was first collected on S&P Capital IQ. Then a secondary search on Bloomberg Business Profiles, LinkedIn, and personal web searches were conducted. Bloomberg Business Profiles contain background information on top executives' backgrounds, previous education, and web searches. Elite schools (e.g. Harvard University, University of Texas - Austin, University of Pennsylvania) were coded as (1). The list of elite schools are in Appendix A. Elite education is a space where CEOs may have learned the same linguistic behaviors and scenarios which to perform certain competitive action repertoires. CEOs were coded as elite if their undergraduate or graduate degrees came from top universities. Honorary doctorates and certificate courses were not counted towards education background.

CEO insider is the difference between when a CEO started their tenure as CEO and when they started at the firm. If a CEO started their tenure at the same time they started at the firm, then they were coded as an outsider (Chung, Rogers, Lubatkin, &

Owers, 1987; Connelly, Tihanyi, Certo, & Hitt, 2010). If the CEO was a founder, then they were coded as an insider. Finally, if the CEO came from a firm under a different name due to a merger or acquisition, then they were coded as an insider.

A count of questions asked (*Questions asked*) were used to account for differences in quarterly analyst call length. This number was derived from counting the number of call operator interruptions during the question-and-answer portion, as the operator typically introduced each financial analyst before they asked their questions to the CEO. Last, the number of analysts who submitted a target price estimate (*Analyst count)* was controlled to account for variation in AEB.

3.5 Analysis

My dataset contains different industries with variable outcomes. Therefore, I used a matched pairs design to account for the small sample while still being able to emphasize causality. Pairs will be matched based on firm size, firm revenue, and four digit sic-code. Matched-pair analysis imposes a high standard of rigor and does not impose "causal logic inherent in regression analysis" (Ortiz-de-Mandojana, Natalia, & Pratima Bansal, 2016, p. 1621). Therefore, a matched-pair design allows the independent variables explain differences between firms with greater certainty compared to unmatched sample design (e.g., Ferrier, Smith, and Grimm, 1999; Kassinis and Vafeas, 2002; Mallette, 1991; O'Connor et al., 2006; Schnatterly, 2003; Short and Toffel, 2010).

Consistent with prior match-pairs designs (e.g., Ferrier et al, 1999; Ortiz-de-Mandojana, 2016) surrounding competitive action repertoires, I use two-step ordinal least squares (OLS) regression with robust standard errors to account for heteroscedasticity.

The first stage will account for the industry, firm, and CEO control variables. The second stage will account for CEO non-prototypicality.

4. RESULTS

The means, standard deviations, and correlations are reported in Table 1. All variance inflation factors (VIF) were below 10 (min VIF = 1.07, max VIF = 2.05), below the threshold for multicollinearity of 10 (Cohen, Cohen, West, & Aiken, 2003; Kuntner, Nachtsheim, and Neter, 2004). There was a total of 177 unique companies from 30 different industries (two-digit SIC) and 77 different sectors (four-digit SIC). Each of the OLS regressions were calculated using robust standard errors to account for heteroscedasticity.

The results of the regression analyses are in Tables 2 - 9. Table 2 highlights the differences between prototypical and non-prototypical CEOs in both their hiding linguistic behaviors and competitive action repertoires. Table 3 presents the baseline Analyst Evaluative Bias (AEB) between prototypical and non-prototypical CEOs on the two dimensions: 1) Annual target price bias and 2) Target price consensus bias. Target price consensus bias, measured by coefficient of variation, means there is a high (or low) degree in valuation of the annual stock price for a given firm. High consensus indicates high bias. Low consensus indicates low bias. Tables 4 and 5 presents AEB for hiding linguistic behaviors for annual target price bias and target price consensus bias, respectively. Tables 6 and 7 present AEB for competitive action repertoires. Last, supplementary Table 8 and 9 present AEB direct effects without considering CEO non-prototypicality.

TABLE 1. Descriptive Statistics

Variables	N	Mean	S.D.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1) Non-prototypical (1=Non-Proto)	481	0.511	0.500	1.000													
(2) Annual Target Price Bias	480	0.637	5.182	0.111*	1.000												
(3) Target Price Consensus	481	16.443	17.059	-0.040	0.071	1.000											
(4) CEO Word Dominance	353	0.375	0.202	-0.067	-0.089	-0.070	1.000										
(5) CEO First-Person Predominance	343	0.385	0.201	-0.151*	-0.045	0.110*	0.064	1.000									
(6) Competitive Volume	289	10.564	13.831	0.007	0.041	-0.024	-0.305*	0.080	1.000								
(7) Competitive Complexity	289	0.571	0.434	-0.014	0.116*	0.132*	-0.215*	0.028	0.310*	1.000							
(8) Questions Asked	354	11.613	3.200	0.040	-0.060	-0.091	-0.019	0.044	-0.074	-0.169*	1.000						
(9) Financial Analyst Count	481	39.617	30.552	-0.054	-0.052	0.347*	-0.102	0.157*	0.249*	0.089	0.270*	1.000					
(10) Elite Education (1=No)	481	0.482	0.500	-0.205*	-0.074	-0.012	0.118*	0.009	-0.075	-0.026	-0.047	-0.015	1.000				
(11) CEO Age	481	54.821	6.891	-0.028	0.068	0.132*	-0.125*	0.042	-0.035	0.089	0.033	0.104*	0.168*	1.000			
(12) CEO Insider (1=Yes)	479	0.758	0.429	-0.091*	0.007	0.074	-0.017	-0.059	-0.111	-0.049	-0.008	0.113*	0.102*	0.194*	1.000		
(13) Firm Age	481	77.436	50.474	0.089	0.014	0.113*	-0.041	0.069	-0.037	0.047	-0.070	-0.120*	-0.004	0.101*	0.109*	1.000	
(14) Annual ROE	481	0.350	3.663	0.052	-0.006	0.044	-0.041	0.003	0.098	-0.046	0.082	0.040	-0.066	0.042	0.050	0.014	1.000

Note * $p<0.05$

The models for Tables 4-7 present the control variables for Model 1. Models 2 and 3 present the main effect for the hiding linguistic behaviors or competitive repertoire attributes. Models 4 and 5 present the interaction of the main effect with CEO non-prototypicality status.

Hypothesis 1 predicted that compared to firms led by prototypical CEOs, those led by non-prototypical CEOs will experience a negative bias in analysts' reactions. Hypothesis H1(a) predicted that compared to firms led by prototypical CEOs, those led by non-prototypical CEOs will have a negative AEB – Target Price Bias. The results, illustrated in Table 2, does support a *positive* target price for non-prototypical CEOs ($\beta = 1.05$, $p<.05$). Thus, hypothesis 1(a) is not supported.

Hypothesis 1(b) predicted that compared to firms led by prototypical CEOs, those led by non-prototypical CEOs will experience a higher amount of target price consensus. The target price consensus nonsignificant but did reflect more bias for non-prototypical CEOs. Therefore, hypothesis 1(b) is not supported, but is opposite of what I predicted.

TABLE 2. Analysts' Evaluative Bias Between Prototypical and Non-Prototypical CEOs

Variables	Annual Target Price Bias		Target Price Consensus	
Non-prototypical	1.10 *	(0.48)	1.78	(1.61)
Elite Education	-0.73	(0.51)	1.49	(1.70)
CEO Insider	0.23	(0.49)	-1.49 †	(1.70)
CEO Age	0.08	(0.06)	-0.31 †	(0.15)
Firm Age	0.00	(0.00)	-0.03	(0.01)
Annual ROE	-0.03 †	(0.02)	-0.16	(0.27)
Constant	-4.27	(2.86)	2.60	(7.69)
n	480		481	
R^2	0.02 *		0.03 †	

Note: Robust standard errors are in parentheses, ** p<0.01, * p<0.05, † p<0.10.

In general, hypothesis 2 predicted that compared to firms led by prototypical CEOs, those with non-prototypical CEOs are more likely to engage in hiding linguistic behaviors in corporate communications. Hypothesis 2(a) predicted that non-prototypical CEOs will have less word prominence compared to prototypical CEOs in corporate communications. The results, illustrated in Table 3, does show a non-prototypical CEOs speak less than prototypical CEOs, but the relationship was not significant ($\beta = -1.87$, p=NS). Hypothesis 2(a) was not supported.

TABLE 3. Behavioral Differences Between Prototypical and Non-Prototypical CEOs

Variables	CEO Word Dominance		CEO First-Person Predominance		Competitive Volume		Competitive Complexity	
Non-prototypical Elite	-1.87	(2.24)	-7.10 **	(2.36)	-0.34	(1.84)	-0.02	(0.05)
Education	5.13 *	(2.18)	-1.16	(2.53)	-1.53	(1.94)	-0.04	(0.05)
CEO Insider	-0.68	(2.27)	-3.66	(2.70)	-3.87 †	(2.21)	-0.05	(0.06)
CEO Age	-0.52 *	(0.21)	0.06	(0.21)	-0.60	(0.15)	0.01 †	(0.00)
Firm Age	0.00	(0.03)	0.04 †	(0.02)	-0.01	(0.02)	0.00	(0.00)
Annual ROE	-0.09	(0.07)	0.04	(0.10)	0.30 **	(0.04)	0.00 †	(0.00)
Questions Asked	-0.05	(0.34)	0.34	(0.31)				
Constant	30.00 *	(12.30)	3.78	(13.20)	15.61	(9.69)	-0.27	(0.28)
n	353		343		289		289	
R^2	0.04		0.04		0.03		0.02	

Note: DVs for Table 3 have been mean-centered for easier interpretation. CEO Word Dominance (Model 1) and CEO First-Person Predominance (Model 2) are multiplied by 100 for easier percentage interpretation. Robust standard errors are in parentheses, ** $p<0.01$, * $p<0.05$, † $p<0.10$.

Hypothesis 2(b) predicted that non-prototypical CEOs will have less first-person predominance compared to prototypical CEOs in corporate communications. The results, illustrated in Table 3, does support a difference in the ratio of first person pronouns (I, me) over third person pronouns (we, us) ($\beta = -7.10$, $p<.05$). Compared to firms led by prototypical CEOs, those with non-prototypical CEOs are more likely to engage in hiding linguistic behaviors in corporate communications. Therefore, hypothesis 2(b) is supported.

Hypothesis 3 predicted that the greater use of non-prototypical CEOs hiding linguistic behaviors, the lesser the negative association between CEO non-prototypicality and AEB. Hypothesis 3(a) predicted that the lesser use of CEO word prominence, the lesser the negative associated between AEB and non-prototypical CEOs. As detailed with hypothesis 1, the positive, statistically significant association of non-prototypical CEOs and AEB strengthens ($\beta = 1.40$, $p<.05$) when I account for CEO word prominence and CEO first-person predominance (Table 4, Model 2). However, the interaction between non-prototypical CEOs and hiding linguistic behaviors (Table 4, Models 3 & 5) are not statistically significant.

Hypothesis 3(b) predicted that the lesser use of CEO first-person predominance, the lesser the negative associated between AEB and non-prototypical CEOs. The results, as illustrated in Tables 4 and 5, do not support this prediction. Therefore, hypothesis 3 is not supported.

TABLE 4. Analysts' Evaluative Bias - Target Price Bias - Hiding Linguistic Behaviors

Variables	(1)		(2)		(3)		(4)		(5)	
Non-prototypical			1.40 *	(0.66)	1.46 *	(0.73)	4.68	(3.24)	2.14 **	(0.73)
CEO Word Prominence			-2.19	(1.65)			0.62	(0.85)		
CEO First-Person Predominance					-0.31	(0.73)			0.49	(0.50)
Non-prototypical x CEO Word Prominence							-8.60	(6.89)		
Non-prototypical x CEO First-Person Predominance									-1.79	(1.26)
Control Variables										
Questions Asked	-0.07	(0.06)	-0.08	(0.06)	-0.08	(0.06)	-0.10	(0.08)	-0.08	(0.07)
Financial Analyst Count	-0.02	(0.02)	-0.02	(0.02)	-0.02	(0.02)	-0.03	(0.02)	-0.02	(0.02)
Elite Education	-1.38	(0.94)	-0.94	(0.72)	-1.10	(0.81)	-0.90	(0.68)	-1.09	(0.82)
CEO Insider	-0.14	(0.58)	-0.05	(0.60)	0.00	(0.65)	0.11	(0.69)	-0.02	(0.66)
CEO Age	0.11	(0.09)	0.11	(0.09)	0.12	(0.10)	0.10	(0.08)	0.12	(0.10)
Firm Age	0.00 †	(0.01)	-0.01	(0.01)	0.00	(0.01)	-0.01	(0.01)	0.00	(0.01)
Annual ROE	-0.02	(0.01)	-0.03 †	(0.02)	-0.03 †	(0.02)	-0.05	(0.03)	-0.03 †	(0.02)
Constant	-2.16	(2.57)	-1.99	(2.24)	-3.63	(3.45)	-2.15	(2.32)	-3.75	(3.41)
n	353		352		342		352		342	
R^2	0.03		0.05		0.05		0.07		0.05	
ΔR^2			0.02		0.02		0.02		0.00	

Note: Robust standard errors are in parentheses, ** p<0.01, * p<0.05, † p<0.10.

Hypothesis 4 predicted that compared to firms led by prototypical CEOs, those with non-prototypical CEOs appear to carry out more aggressive competitive action repertoires. Hypothesis 4(a) predicted that compared to firms led by prototypical CEOs, those with non-prototypical CEOs will carry out competitive-action repertoires with higher levels of volume. The results, illustrated in Table 3, shows there is no discernible difference between the volume of actions carried out by firms led by prototypical and non-prototypical CEOs (β = -0.02, p=*NS*). Therefore, hypothesis 4(a) is not supported.

Hypothesis 4(b) predicted that compared to firms led by prototypical CEOs, those with non-prototypical CEOs will carry out competitive action repertoires with higher levels of complexity. The results, illustrated in Table 3, shows that there is no discernable difference between the complexity of actions carried out by firms led by prototypical and non-prototypical CEOs. Hypothesis 4 is not supported.

Hypothesis 5 predicted that the more aggressive the competitive action repertoires of non-prototypical CEOs, the lesser the negative association between AEB and non-prototypical CEOs. Hypothesis 5(a) predicted that the greater the use of competitive volume, the lesser the negative association between AEB and non-prototypical CEOs. The results, illustrated in Table 6, Model 4, supports a positive interaction with non-prototypical CEOs and competitive volume on AEB for annual price target (β = 0.07, p<.05). Such that the evaluation of non-prototypical CEOs strengthens with the more competitive actions they engage in. Therefore, hypothesis 5(a) is supported. A margins plot illustration of the interaction is demonstrated in Figure 4. Positive AEB-target price bias for non-prototypical CEOs is magnified when they engage in higher competitive volume compared to prototypical CEOs. That is, compared to prototypical CEOs, non-

prototypical CEOs positive AEB-target price bias was driven by their actual competitive volume.

Hypothesis 5(b) predicted that the greater the use of competitive complexity, the lesser the negative association between AEB and non-prototypical CEOs. The results, as illustrated in Table 6, Model 5, supports a positive interaction of non-prototypical CEOs and competitive complexity on AEB for annual price target ($\beta = 3.11$, $p<.05$). The increased complexity of non-prototypical CEOs results in a positive annual target price bias compared to prototypical CEOs. Target price consensus on target price estimates does not support an interaction between competitive aggressiveness and non-prototypical CEOs. Nonetheless, hypothesis 5 is supported.

A margins plot illustration of the interaction is demonstrated in Figure 5. It shows, compared to prototypical CEOs, non-prototypical CEOs positive AEB-target price bias is based on increased competitive complexity.

TABLE 5. Analysts' Evaluative Bias - Target Price Consensus – Hiding Linguistic Behaviors

Variables	(1)			(2)			(3)			(4)			(5)		
Non-prototypical				1.76		(1.46)	1.49		(1.45)	-2.12		(3.74)	1.89		(3.18)
CEO Word Prominence				2.26		(3.56)				-1.06		(4.49)			
CEO First-Person Predominance							-3.40		(4.21)				-2.92		(6.05)
Non-prototypical x CEO Word Prominence										10.17		(8.12)			
Non-prototypical x CEO First-Person Predominance													-1.06		(8.13)
Control Variables															
Questions Asked	0.74	**	(0.27)	0.78	*	(0.28)	0.79	*	(0.28)	0.81	*	(0.27)	0.80	*	(0.27)
Financial Analyst Count	-0.16	**	(0.03)	-0.16	**	(0.03)	-0.15	**	(0.03)	-0.15	**	(0.03)	-0.15	**	(0.03)
Elite Education	0.50		(1.42)	0.70		(1.33)	1.10		(1.41)	0.65		(1.33)	1.11		(1.41)
CEO Insider	1.42		(1.95)	1.52		(1.96)	1.10		(1.95)	1.32		(1.92)	1.09		(1.94)
CEO Age	-0.05		(0.12)	-0.03		(0.13)	-0.06		(0.13)	-0.02		(0.13)	-0.06		(0.13)
Firm Age	-0.07	**	(0.01)	-0.07	**	(0.02)	-0.07	**	(0.02)	-0.06	**	(0.02)	-0.07	**	(0.02)
Annual ROE	-0.17		(0.24)	-0.18		(0.24)	-0.17		(0.24)	-0.16		(0.24)	-0.17		(0.24)
Constant	-12.80	*	(6.48)	-16.38	*	(7.44)	-12.92	†	(6.80)	-16.15	*	(7.51)	-13.01	*	(6.79)
n	354			353			343			353			343		
R^2	0.13	**		0.14	**		0.13	**		0.14	**		0.13	**	
ΔR^2				0.01			0.00			0.00			0.00		

Note: Robust standard errors are in parentheses, ** p<0.01, * p<0.05, † p<0.10.

TABLE 6. Analysts' Evaluative Bias - Target Price Bias – Competitive Aggressiveness

Variables	(1)		(2)		(3)		(4)		(5)	
Non-prototypical			1.41 *	(0.70)	1.44 *	(0.71)	0.71	(0.64)	-0.29	(0.35)
Competitive Volume			0.04 *	(0.17)			0.01	(0.01)		
Competitive Complexity					1.80 *	(0.84)			0.18	(0.28)
Non-prototypical x Competitive Volume							0.07 *	(0.33)		
Non-prototypical x Competitive Complexity									3.11 *	(1.36)
Control Variables										
Financial Analyst Count	-0.01	(0.01)	-0.04	(0.03)	-0.04	(0.03)	-0.04	(0.03)	-0.03	(0.02)
Elite Education	-0.95	(0.60)	-1.54	(1.00)	-1.50	(0.09)	-1.61	(0.98)	-1.49	(0.93)
CEO Insider	0.17	(0.52)	0.10	(0.70)	0.06	(0.68)	0.37	(0.68)	0.24	(0.71)
CEO Age	0.08	(0.06)	0.17	(0.12)	0.16	(0.12)	0.18	(0.12)	0.15	(0.11)
Firm Age	0.00	(0.01)	-0.01	(0.10)	-0.01	(0.10)	-0.01	(0.01)	-0.01	(0.01)
Annual ROE	-0.02 †	(0.01)	-0.06 **	(0.28)	-0.04	(0.02)	-0.07 *	(0.03)	-0.03 †	(0.02)
Constant	-3.12	(2.29)	-6.57	(4.80)	-6.32 †	(4.74)	-6.80	(4.85)	-5.48	(4.44)
n	478		289		289	289	289	289	289	289
R^2	0.02		0.06		0.07		0.07		0.08	
ΔR^2			0.05		0.05		0.00		0.01	

Note: Robust standard errors are in parentheses, ** p<0.01, * p<0.05, † p<0.10.

TABLE 7. Analysts' Evaluative Bias - Target Price Consensus - Competitive Aggressiveness

Variables	(1)			(2)			(3)			(4)			(5)		
Non-prototypical				4.07	†	(2.31)	4.05		(2.25)	3.79		(2.70)	-1.31		(2.85)
Competitive Volume				0.11	*	(0.05)							-8.97		(5.88)
Competitive Complexity							-3.96		(3.00)						
Non-prototypical x Competitive Volume										0.03		(0.10)			
Non-prototypical x Competitive Complexity													9.62		(6.65)
Control Variables															
Financial Analyst Count	-0.20	**	(0.02)	-0.15	**	(0.04)	-0.13	**	(0.03)	-0.15	**	(0.04)	-0.12	**	(0.04)
Elite Education	0.61		(1.47)	4.97	*	(2.47)	4.81	*	(2.39)	4.94	*	(2.46)	4.86	*	(2.38)
CEO Insider	-0.09		(1.49)	0.57		(2.60)	-0.07		(2.54)	0.67		(2.80)	-0.49		(2.47)
CEO Age	-0.20	†	(0.11)	-0.30		(0.25)	-0.28		(0.24)	-0.29		(0.25)	-0.29		(0.24)
Firm Age	-0.05	**	(0.01)	-0.06	**	(0.02)	-0.05	**	(0.02)	-0.06	**	(0.02)	-0.06	**	(0.02)
Annual ROE	-0.10		(0.22)	-0.09		(0.22)	-0.08		(0.23)	-0.09		(0.02)	-0.06		(0.02)
Constant	7.77		(7.76)	2.60		(12.80)	4.60		(12.63)	2.51		(12.83)	7.06		(13.50)
n	479			289			289			289			289		
R^2	0.15	**		0.10	**		0.10	**		0.10	**		0.12	**	
ΔR^2				-0.05			-0.05			0.00			0.01		

Note: Robust standard errors are in parentheses, ** p<0.01, * p<0.05, † p<0.10.

FIGURE 4. Marginal Effects of CEO Non-Prototypicality on Analyst Evaluative Bias based on CEO's Competitive Volume (95% Confidence Intervals)

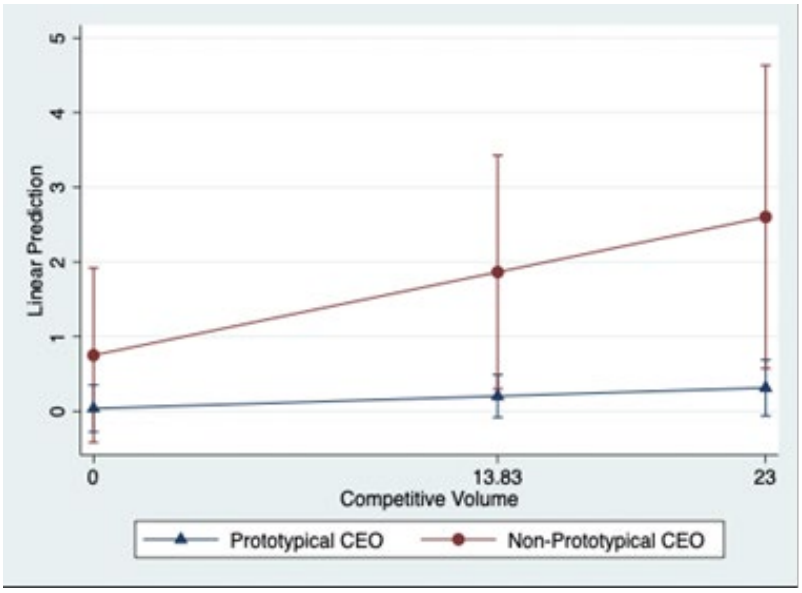
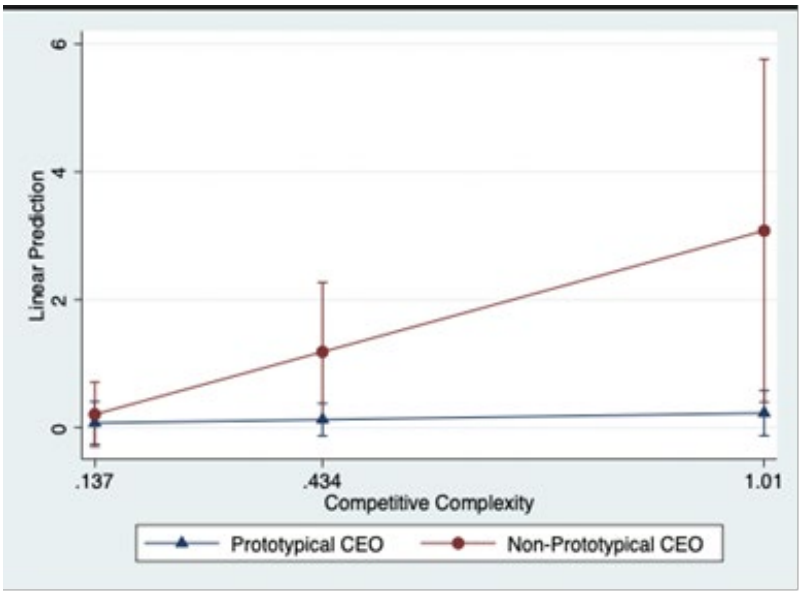


FIGURE 5. Marginal Effects of CEO Non-Prototypicality on Analyst Evaluative Bias based on CEO's Competitive Complexity (95% Confidence Intervals)



4.1 Supplemental Analysis

The focus of this dissertation is non-prototypical CEOs, which is conceptualized and measured as the combination of women, Black, Hispanic/Latino, and Asian CEOs. However, the behaviors and reactions of women CEOs may differ from the behaviors and reactions of racially diverse CEOs. The dataset only includes three intersectional, that is, racially diverse and gender diverse, CEOs. Therefore, the outcomes on AEB on non-prototypical CEOs may likely vary based on examining solely gender or solely race. The following are selected findings based on particularistic prototypicality of race *or* gender.

I predicted that compared to firms led by prototypical CEOs, those led by non-prototypical CEOs will experience a negative bias in analysts' reactions. Whereas the aggregate, race or gender, measure of CEO non-prototypicality was not found to be significant, non-prototypical CEOs based on race alone had a *positive* statistically significant relationship with target price consensus ($\beta = 4.07$, $p<.01$) when accounting for education, insider status, age, firm age, and annual ROE. However, non-prototypical CEOs based on gender had a *negative* non-significant relationship with target price consensus ($\beta = -2.00$, p=NS) when accounting for education, insider status, age, firm age, and annual ROE. Therefore, these findings suggest that analysts evaluative bias critically depends on the specific demographic dimension of non-prototypicality.

I predicted that compared to firms led by prototypical CEOs, those with non-prototypical CEOs are more likely to engage in hiding linguistic behaviors in corporate communications. Both racially diverse CEOs and women CEOs do not have a discernible difference in word prominence. However, racially diverse CEOS *do* use fewer first-person pronouns (have less first-person predominance) compared to third person

pronouns (-0.08, p<.01). This finding appears to be consistent with theory and partially support hypothesis 2. However, the relationship for women CEOs on first-person predominance is less than men CEOs, but the relationship is statistically non-significant (-0.024, p=NS)

I predicted that the greater use of non-prototypical CEOs hiding linguistic behaviors, the lesser the negative association between AEB and non-prototypical CEOs. While the aggregate measure of non-prototypicality did not find support, there is an impact with women CEOs. Women CEOs experience a negative target price bias when they use more first person pronouns compared to third person pronouns (β = -4.91, p<.05). Moreover, AEB is high with target price consensus when women spoke more. That is, the more women speak in quarterly calls, the stronger alignment of estimates for their firm is compared to men (β = 31.79, p<.05).

I predicted that compared to firms led by prototypical CEOs, those with non-prototypical CEOs will carry out more aggressive competitive action repertoires. This hypothesis was not supported. However, when separated by race and gender, Women CEOs engage in *less* competitive volume compared to men CEOs (β = -3.27, p<.1). This relationship was not found with racially diverse CEOs.

I predicted that the more aggressive the competitive action repertoires of non-prototypical CEOs, the lesser the negative association between AEB and non-prototypical CEOs. Women CEOs were found to have more consensus on their target price when they engaged in more competitive volume compared to men CEOs (β = 0.30, p<.05). While certain hypotheses were not supported, separating results based on race and gender provided rich insights.

TABLE 8. Analysts' Evaluative Bias - Target Price Bias – Direct Effects

Variables	**(1)**		**(2)**		**(3)**		**(4)**	
CEO Word Prominence	-2.35	(1.71)						
CEO First-Person Predominance			-0.91	(0.59)				
Competitive Volume					0.04 *	(0.02)		
Competitive Complexity							1.77 *	(0.83)
Analyst Count	-0.02	(0.02)	-0.02	(0.02)	-0.04	(0.03)	-0.04	(0.03)
Questions Asked	-0.07	(0.06)	-0.07	(0.06)				
Elite Education	-1.26	(0.86)	-1.24	(0.83)	-1.92	(1.14)	-1.89 †	(1.12)
CEO Insider	-0.16	(0.57)	-1.42	(0.96)	0.12	(0.68)	0.07	(0.69)
CEO Age	0.10	(0.08)	0.11	(0.09)	0.16	(0.12)	0.15	(0.11)
Firm Age	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)	0.00	(0.01)
Annual ROE	-0.03 †	(0.02)	-0.03 †	(0.01)	-0.05 †	(0.02)	-0.03	(0.02)
Constant	-0.59	(1.74)	-2.11	(2.79)	-5.36	(4.25)	-5.07	(4.19)
n	352		342		289		289	
R^2	0.04		0.03		0.05		0.06	

Note: Robust standard errors are in parentheses, ** p<0.01, * p<0.05, † p<0.10.

TABLE 9. Analysts' Evaluative Bias - Target Price Consensus – Direct Effects

Variables	(1)			(2)			(3)			(4)		
CEO Word Prominence	2.06		(3.55)									
CEO First-Person Predominance				-4.00		(4.24)						
Competitive Volume							0.11	*	(0.05)			
Competitive Complexity										-4.02		(3.04)
Analyst Count	-0.16	**	0.03	-0.15		(0.03)	-0.15	**	(0.04)	-0.13	**	(0.03)
Questions Asked	0.79	**	0.28	0.80		(0.28)						
Elite Education	-0.30		(1.37)	0.78		(1.45)	3.87	†	(2.21)	3.72	†	(2.15)
CEO Insider	1.39		(1.96)	0.97		(1.97)	0.61		(2.50)	-0.04		(2.46)
CEO Age	-0.04		(0.13)	-0.07		(0.13)	-0.32		(0.26)	-0.30		(0.24)
Firm Age	-0.07	**	(0.01)	-0.06	**	(0.02)	-0.05	**	(0.02)	-0.05	**	(0.02)
Annual ROE	-0.17		(0.24)	-0.16		(0.24)	-0.06		(0.21)	-0.05		(0.22)
Constant	-14.67	*	(7.26)	-11.41		(6.64)	6.10		(13.64)	7.97		(13.46)
n	353	**		343	**		289	**		289	**	
R^2	0.13			0.13			0.09			0.09		

Note: Robust standard errors are in parentheses, ** p<0.01, * p<0.05, † p<0.10.

Last, although not theorized, the direct effects of AEB without accounting for non-prototypical CEOs are illustrated in Tables 8 and 9. Higher amounts of competitive volume ($\beta = 0.04$, $p<.05$) and competitive complexity ($\beta = 1.77$, $p<.05$) results in positive, statistically significant AEB (Table 8, Models 3 and 4). Moreover, higher levels of competitive volume resulted in more target price consensus bias ($\beta = 0.11$, $p<.05$) (Table 9, Model 3). The impact of hiding linguistic behaviors on AEB were all statistically non-significant when excluding CEO non-prototypicality.

5. DISCUSSION

This dissertation addressed three main questions. First, relative to firms led by prototypical CEOs, are firms led by non-prototypical CEOs evaluated by stock analysts in biased ways? Second, do non-prototypical CEOs tend to use impression management in corporate communication and competitive behaviors more than their prototypical counterparts? Last, how do CEO non-prototypicality and impression management interact to influence analyst evaluative bias?

The goal of this dissertation was to address how non-prototypical CEOs are evaluated and the role of their agency to influence that evaluation. I matched prototypical and non-prototypical Fortune 500 CEOs from 2006 – 2010 to account for market fluctuations and endogeneity. Theoretically, I drew from leadership categorization theory, competitive dynamics, impression management behaviors to address these questions. In the end I found interesting, and unexpectant results.

Contrary to expectations, non-prototypical CEOs received a positive AEB-TPB compared to their prototypical counterparts. That is, when accounting for education, age, and insider status, non-prototypical CEOs received higher stock price expectations

compared to prototypical CEOs. Prior research contradicts this finding. For example, Cook and Glass (2009a) found that the appointment of black leaders to an executive position (e.g., CEO, CMO, CFO) resulted in negative stock price returns. A further Cook and Glass (2009b) study examining all racial minorities found support for negative stock market reactions unless the firm was intentional in communicating a commitment to diversity. This sentiment was echoed by Westphal and his colleagues (2018) when firmly established the negative relationship between racial minority CEO appointment and stock price (Carter, Simkins, & Simpson, 2003; Chen, Crossland, & Huang, 2015; Dezsö & Ross, 2012; Triana, Miller, & Trzebiatowski, 2014).

However, the articles used cumulative abnormal returns (CAR) as their dependent variable, and not AEB. That is, what we know about third-party reactions to non-prototypical CEOs but this research is limited to the overall stock market reaction and not the analysts' predictions. The reason for the disconnect between AEB and CAR may be due to information asymmetries. In addition, the presence of non-prototypical leaders could signal health and innovation (Glass & Cook, 2009), which is attractive to analysts. Last, analysts may view non-prototypical CEOs who make it into the upper echelons of Fortune 500 companies with a halo and therefore overly competent (cf. Carter & Phillips, 2017; Nisbett & Wilson, 1977), thus not incompetent like many articles have suggested (e.g, Roberts, 2005). These results suggest that the type of external reaction deserves more attention. This is especially salient given the impact of activist investors (c.f. Ignatius, 2021) and social issues on non-prototypical CEO dismissal (Gupta, 2021). Future research should focus on the how other audiences evaluate prototypical versus non-prototypical leaders and subsequent consequences.

Non-prototypical did engage in more hiding behaviors compared to their prototypical counterparts. Specifically, non-prototypical CEOs used a higher proportion of third-person pronouns compared to first person-pronouns. The purpose of hiding is to deflect from negative stereotypes and redirect to a more positive area of the person or firm, as not to trigger biases (Carter & Phillips, 2017). Social identity-based impression management has the goal of not just self-preservation, but preservation of their various identities (Roberts, 2005). I argue hiding behaviors is another form of SIM because the goal of preservation for various identities do not change; however, the method in which this goal is achieved does.

In a recent qualitative study of minority executives, a Latina executive expressed hiding of her accent to reduce anticipatory biases of looking in-competent. In the same study a Black male executive engaged in intentional behaviors to reduce the negative stereotype of aggressive Black men (Cook & Glass, 2019).

Supplemental analysis found support of women CEOs receiving a negative AEV-TPB when they use a greater first-pronoun predominance. Although, women CEOs did not engage in hiding behaviors, they were punished with negative AEB-TPB if they used more first-person pronouns. This supports the long-standing stereotype and expectation of women as communal beings. Rudman (1998) presents this situation as a double-edged sword in that Self-promotion increases perceptions for competence and hireability but decreased social attraction ratings.

Surprisingly, I did not find statistical differences between non-prototypical CEOs & prototypical CEOs use of competitive aggressiveness. In fact, when teased apart, women CEOs did have *less* competitive volume. This may be due to an increased scope

in information to consider with competitive actions (e.g., Chatman, 2010). In effect, CEOs operate the same, no matter the prototypicality status, but they differ in how those actions are evaluated.

Consequently, I found non-prototypical CEOs ratings were driven by high levels of both attributes of competitive aggressiveness: Competitive volume and competitive complexity. Even though non-prototypical CEOs exercised no discernable difference in competitive actions with their prototypical CEOs counterparts, they were evaluated more on their actual actions. Non-prototypical CEOs positive AEB were driven by their competitive aggressiveness, whereas prototypical CEOs benefit from other forms of evaluations.

The objectives of this study were partially met. Theoretically, this dissertation introduced hiding behaviors as a construct that influences how people can be and are evaluated by third party stakeholders. Hiding behaviors are those actions which decategorizes individuals from their identities (Gaertner & Dovidio, 2010), and refocuses audience attention away from negative stereotypes. In addition, I introduced non-prototypicality as a construct worthy of examination in the behavioral strategy research agenda. While my research focused on linguistic and competitive behaviors, future research my also include hiding visual behaviors.

While most existing research on CEOs and other executives have focused on the deep-level, behavioral and psychological differences on competitive actions and organizational performance (e.g., Gamache, McNamara, Mannor, & Johnson, 2015; Hambrick, 2007; Hambrick & Mason, 1984), surface-level, demographic differences continue to be a factor in how leaders are evaluated (e.g., Wu et al., 2019). Prototypical

CEOs enjoy the benefit of not being evaluated so heavily on competitive aggressiveness. Furthermore, this research challenges attributing linguistic difference between CEOs to personality, and instead focuses on managing expectations (e.g., Chatterjee & Hambrick, 2007).

This research contributes to the nascent but growing literature of the impact of CEOs on competitive actions (e.g., Wangrow et al., 2019) and partly answer the call to Chen and Miller's (2012) call to research how CEOs shape competitive behavior. Moreover, this research invites scholars to examine non-prototypical CEO leadership on competitive behaviors and subsequent AEB. CEOs are consequential their firm's evaluation and are necessary to look at independently from the top management team or board of directors. Non-prototypicality based on race and gender is grossly understudied even though their presence has an impact on for their firm is being evaluated.

6. IMPLICATIONS & LIMITATIONS

There are several limitations and implications to this research that should be addressed in future studies. Specifically, adding dimensions to competitive aggressiveness and hiding linguistic & visual behaviors to future studies. Last, the value of missing data should be considered in future research.

Competitive Aggressiveness. This dissertation looked at just two of the four attributes of competitive repertoire: competitive volume and competitive complexity. Competitive inertia refers to the level of activity that a firm exhibits when altering its competitive stance in terms of the number of market-oriented changes it makes in trying to attract customers and outmaneuver competitors (Smith, Ferrier, & Ndofor, 2001; Miller & Chen, 1994). As firms age, they engage in more inertial strategies, as they have

their routines in place (Miller & Chen, 2012). Non-prototypical CEOs are expected to engage in new and changing strategies. For example, the 2008 recession saw the largest increase in non-prototypical CEOs in part to engage in new, growth inducing strategies (Zweigenhaft & Domhoff, 2011). Therefore, the more non-prototypical the CEOs are, the less inertial they should be. The impact of inertia on AEB-TPC & AEB-TPB should be studied in addition to non-conformity.

Competitive non-conformity is the degree to which adopts strategies in their key operations that are new and different from their competitors (Deephouse, 1999; Finkelstein & Hambrick, 1990). Adopting the same strategy is a form of legitimacy as all strategic actions look the same. However, as demonstrated earlier, legitimacy may look different for prototypical and non-prototypical CEOs. This duality of legitimacy will be looked at in future research.

Hiding Linguistic & Visual Behaviors. One of the observed, but not measured hiding behaviors was delegation. During the quarterly calls, CEOs will sometimes delegate responses to other members of their TMT. In addition, the genesis of this study started with visual hiding behaviors. Hiding visual behaviors give non-prototypical CEOs an opportunity to highlight their firm and not themselves via public relation photos and annual shareholder letters.

The Value of Zero. One key limitation of this study was the value of zero and missing data. Competitive action data was obtained from RavenPack and matched by gvkey. Firms that did not have any competitive actions via RavenPack were dropped from the sample, instead of logging their competitive actions as zero for the entire year. More investigation is needed to determine how RavenPack treats firms that are now

defunct and/or acquired before adding zeros to competitive volume and competitive complexity.

The timing of the forecasts. Annual target prices are submitted throughout the year, as the year progresses the more accurate forecasts become (Stickel, 1993). It is possible, yet unobserved for this study, that firms lead by non-prototypical CEOs are evaluated at a later date to ensure accuracy and decrease negative consequences for inaccurate forecasts. This provides an avenue for research surrounding CEO attributes and the timing of firm evaluations.

Personality and hiding behaviors. As mentioned, personality traits like narcissism and extraversion measured from highly visible behaviors in strategy and finance research (e.g., Chatterjee & Hambrick, 2007; Green et al., 2014). Although, the focus of this research is on the observed behaviors, the enactment of hiding behaviors may also be dependent on personality measures. Future research should focus on the Big Five and its relation to hiding linguistic behaviors and competitive aggressiveness.

In addition, the firm quarterly analyst calls were acquired from Seeking Alpha. The sample data starts in 2006, only months before Seeking Alpha started collecting quarterly call transcripts in 2005. The missing calls for firms should be checked against S&P Capital IQ transcripts to ensure they were intentional about hosting or not hosting a quarterly earnings call.

Generalizability. This research looked at Fortune 500 companies. They provided a highly visible context, in which CEOs are motivated to engage in impression management (Leary & Kowalski, 1990). Future research should focus on different contexts and samples with one industry (cf. Nadkarni & Herrmann, 2010) to explore the

nuances and situations in which prototypical and non-prototypical CEOs are more likely to engage in hiding behaviors.

Practical Implications. This research presents several practical implications for CEOs and the financial analysts that evaluate and predict their performances. For non-prototypical CEOs, their evaluations are based upon what they do, in that their legitimacy and positive reactions may be based off of having an aggressive competitive repertoire. Financial analysts should include CEOs non-prototypical characteristics in their forecasts to ensure complex evaluations are not based on the physical characteristics of one actor. For this to happen, common databases within WRDS should include the race and ethnicity of CEOs. In addition, financial analyst should also be cognizant of evaluating women CEOs based on the communal stereotype of women instead of the agentic stereotype of CEOs (Rudman, 1998). While suggestions for behavior modifications are towards financial analysts, non-prototypical CEOs should be aware of the negative consequences they may face when engaging in less hiding behaviors.

7. CONCLUSION

Are non-prototypical CEOs evaluated on what they do or what they say? The answer was a bit of both. Non-prototypical CEOs are evaluated more off what they do in terms of competitive aggressiveness. However, non-prototypical CEOs who are women must use hiding linguistic behaviors to avoid being evaluated negatively. These outcomes suggest more research is needed to fully understand how leaders flourished with their growing representative roles.

APPENDICES

APPENDIX A

Elite Schools from U.S. News (No particular order)

1.	Harvard University	14.	Cornell University
2.	Stanford University	15.	University of California - Los Angeles
3.	University of Chicago	16.	University of North Carolina - Chapel Hill
4.	University of Pennsylvania	17.	University of Texas - Austin
5.	Massachusetts Institute of Technology	18.	Carnegie Mellon University
6.	Northwestern University	19.	Emory University
7.	University of California - Berkeley	20.	New York University
8.	Yale University	21.	Washington University in St. Louis
9.	Dartmouth College	22.	Georgetown University
10.	Columbia University	23.	Indiana University
11.	University of Virginia	24.	Vanderbilt University
12.	Duke University	25.	Rice University
13.	University of Michigan - Ann Arbor	26.	University of Notre Dame

*Georgetown University, Rice University, and Indiana University were the only institutions not listed as elite in Gomulya & Boeker (2014).

REFERENCES

Avery, D. R., McKay, P. F., & Volpone, S. D. (2016). Blaming the building: How venue quality influences consumer bias against stigmatized leaders. *Journal of Applied Psychology*, *101*(8), 1111.

Andrevski, G., Richard, O. C., Shaw, J. D., & Ferrier, W. J. (2014). Racial diversity and firm performance: The mediating role of competitive intensity. *Journal of Management*, *40*(3), 820-844.

Arkin, R. M., Shepperd, J. A., Giacalone, R., & Rosenfeld, P. (1989). Self-presentation styles in organizations. *Impression Management in the Organization*, *1*(1), 125-139.

Ashford, S. J., Rothbard, N. P., Piderit, S. K., & Dutton, J. E. (1998). Out on a limb: The role of context and impression management in selling gender-equity issues. *Administrative Science Quarterly*, *43*, 23-57.

Barker III, V. L., & Mueller, G. C. (2002). CEO characteristics and firm R&D spending. *Management Science*, *48*(6), 782-801.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173-1182.

Bass, B. M., & Avolio, B. J. (Eds.). (1994). *Improving organizational effectiveness through transformational leadership*. Sage.

Biavaschi, C., Giulietti, C., & Siddique, Z. (2013). The economic payoff of name Americanization.

Boivie, S., Lange, D., McDonald, M. L., & Westphal, J. D. (2011). Me or we: The effects of CEO organizational identification on agency costs. *Academy of Management Journal*, *54*(3), 551-576.

Brunnermeier, M. K. (2009). Deciphering the liquidity and credit crunch 2007-2008. *Journal of Economic Perspectives*, *23*(1), 77-100.

Carter, A. B., & Phillips, K. W. (2017). The double-edged sword of diversity: Toward a dual pathway model. *Social and Personality Psychology Compass*, *11*(5), e12313.

Chatman, J. A. (2010). Norms in mixed sex and mixed-race work groups. *Academy of Management Annals*, *4*(1), 447-484.

Chatterjee, A., & Hambrick, D. C. (2007). It's all about me: Narcissistic chief executive officers and their effects on company strategy and performance. *Administrative Science Quarterly*, *52*(3), 351-386.

Chen, M. J., & Miller, D. (1994). Competitive attack, retaliation and performance: an expectancy-valence framework. *Strategic Management Journal*, *15*(2), 85-102.

Chen, M. J., & Miller, D. (2012). Competitive dynamics: Themes, trends, and a prospective research platform. *The Academy of Management Annals*, *6*(1), 135-210.

Chen, G., Crossland, C., & Huang, S. (2016). Female board representation and corporate acquisition intensity. *Strategic Management Journal*, *37*(2), 303-313.

Chen, S., & Matsumoto, D. A. (2006). Favorable versus unfavorable recommendations: The impact on analyst access to management-provided information. Journal of Accounting Research, 44(4), 657-689.

Chin, M. K., Hambrick, D. C., & Treviño, L. K. (2013). Political ideologies of CEOs: The influence of executives' values on corporate social responsibility. *Administrative Science Quarterly*, *58*(2), 197-232.

Cho, T. S., Hambrick, D. C., & Chen, M. J. (1994, August). Effects of Top Management Team Characteristics on Competitive Behaviors of Firms. In *Academy of Management Proceedings* (Vol. 1994, No. 1, pp. 12-16). Briarcliff Manor, NY 10510: Academy of Management.

Chung-Herrera, B. G., & Lankau, M. J. (2005). Are we there yet? An assessment of fit between stereotypes of minority managers and the successful-manager prototype. *Journal of Applied Social Psychology*, *35*(10), 2029-2056.

Clarkson, P., Nekrasov, A., Simon, A., & Tutticci, I. (2015). Target price forecasts: Fundamental and non-fundamental factors. *Available at SSRN*, *2104433*.

Cohen, L., Lou, D., & Malloy, C. (2013). *Playing favorites: How firms prevent the revelation of bad news* (No. w19429). National Bureau of Economic Research.

Cook, A., & Glass, C. M. (2009a). But can s/he lead? Market assessments of black leadership in corporate America.

Cook, A., & Glass, C. (2009b). Between a rock and a hard place: managing diversity in a shareholder society. *Human Resource Management Journal*, *19*(4), 393-412.

Cook, A., & Glass, C. (2014). Above the glass ceiling: When are women and racial/ethnic minorities promoted to CEO?. *Strategic Management Journal*, *35*(7), 1080-1089.

Cook, A., & M. Glass, C. (2014). Analyzing promotions of racial/ethnic minority CEOs. *Journal of Managerial Psychology*, *29*(4), 440-454.

Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2011). Signaling theory: A review and assessment. *Journal of management*, *37*(1), 39-67.

Cox, T. H., Lobel, S. A., & McLeod, P. L. (1991). Effects of ethnic group cultural differences on cooperative and competitive behavior on a group task. *Academy of Management Journal*, *34*(4), 827-847.

Crisp, R. J., Hewstone, M., & Rubin, M. (2001). Does multiple categorization reduce intergroup bias? *Personality and Social Psychology Bulletin*, *27*(1), 76-89.

Cummings, A., Zhou, J., & Oldham, G. R. (1993, August). Demographic differences and employee work outcomes: Effects on multiple comparison groups. In *annual meeting of the Academy of Management, Atlanta, GA*.

Deaux, K., & Major, B. (1990). A social-psychological model of gender. *Theoretical perspectives on sexual difference*, 89-99.

Devine, P. G. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology*, *56*(1), 5.

DiAngelo, R. (2018). White fragility: Why it's so hard for white people to talk about racism. Beacon Press.

Dovidio, J. F., & Gaertner, S. L. (2010). Intergroup bias. *Handbook of social psychology*.

Du, N., & Budescu, D. V. (2018). How (over) confident are financial analysts? *Journal of Behavioral Finance*, 19(3), 308-318.

Duriau, V. J., Reger, R. K., & Pfarrer, M. D. (2007). A content analysis of the content analysis literature in organization studies: Research themes, data sources, and methodological refinements. *Organizational Research Methods*, *10*(1), 5-34.

Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, *109*(3), 573.

Elsbach, K. D., Sutton, R. I., & Principe, K. E. (1998). Averting expected challenges through anticipatory impression management: A study of hospital billing. *Organization Science*, *9*(1), 68-86.

Ellemers, N., Spears, R., & Doosje, B. (2002). Self and social identity. *Annual Review of Psychology*, *53*(1), 161-186.

Finkelstein, S., Hambrick, D., & Cannella, A. A. (1996). Strategic leadership. *St. Paul: West Educational Publishing*.

Gamache, D. L., McNamara, G., Mannor, M. J., & Johnson, R. E. (2015). Motivated to acquire? The impact of CEO regulatory focus on firm acquisitions. *Academy of Management Journal*, *58*(4), 1261-1282.

Glass, C., & Cook, A. (2020). Performative contortions: How White women and people of colour navigate elite leadership roles. *Gender, Work & Organization*, *27*(6), 1232-1252.

Goffman, E. (1959). The presentation of self in everyday life. Garden City, NY: Doubleday Anchor.

Graffin, S. D., Carpenter, M. A., & Boivie, S. (2011). What's all that (strategic) noise? Anticipatory impression management in CEO succession. *Strategic Management Journal*, *32*(7), 748-770.

Grant, S. M., Hodge, F. D., & Sinha, R. K. (2018). How disclosure medium affects investor reactions to CEO bragging, modesty, and humblebragging. *Accounting, Organizations and Society*, *68*, 118-134.

Green, T. C., Jame, R., & Lock, B. (2014). Executive extraversion: Career and firm outcomes. *The Accounting Review*.

Ely, R. J., & Thomas, D. A. (2001). Cultural diversity at work: The effects of diversity perspectives on work group processes and outcomes. *Administrative Science Quarterly*, *46*(2), 229-273.

Fanelli, A., & Misangyi, V. F. (2006). Bringing out charisma: CEO charisma and external stakeholders. *Academy of Management Review*, *31*(4), 1049-1061.

Fanelli, A., Misangyi, V. F., & Tosi, H. L. (2009). In charisma we trust: The effects of CEO charismatic visions on securities analysts. *Organization Science*, *20*(6), 1011-1033.

Ferrier, W. J. (2001). Navigating the competitive landscape: The drivers and consequences of competitive aggressiveness. *Academy of Management Journal*, *44*(4), 858-877.

Ferrier, W. J., Smith, K. G., & Grimm, C. M. (1999). The role of competitive action in market share erosion and industry dethronement: A study of industry leaders and challengers. *Academy of Management Journal*, *42*(4), 372-388.

Finkelstein, S., Cannella, S. F. B., Hambrick, D. C., & Cannella, A. A. (2009). Strategic leadership: Theory and research on executives, top management teams, and boards. Oxford University Press, USA.

Foschi, M. (2000). Double standards for competence: Theory and research. *Annual Review of Sociology*, *26*(1), 21-42.

Gaertner, S. L., & Dovidio, J. F. (2014). Reducing intergroup bias: The common ingroup identity model. Psychology Press.

Gow, I. D., Kaplan, S. N., Larcker, D. F., & Zakolyukina, A. A. (2016). CEO personality and firm policies (No. w22435). *National Bureau of Economic Research.*

Gupta, A. (2021, June 26). CEOs Ignore Social Issues at Their Own Peril. Retrieved July 2, 2021, from https://www.wsj.com/articles/ceo-social-political-issues-11624307505

Gupta, A., Nadkarni, S., & Mariam, M. (2018). Dispositional sources of managerial discretion: CEO ideology, CEO personality, and firm strategies. *Administrative Science Quarterly*, 0001839218793128.

Gündemir, S., Homan, A. C., De Dreu, C. K., & Van Vugt, M. (2014). Think leader, think white? Capturing and weakening an implicit pro-white leadership bias. *PloS one*, *9*(1), e83915.

Hall, R. J., & Lord, R. G. (1995). Multi-level information-processing explanations of followers' leadership perceptions. *The Leadership Quarterly*, *6*(3), 265-287.

Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. Academy of Management Review, 9(2), 193-206.

Hambrick, D. C. (2007). Upper echelons theory: An update. *The Academy of Management Review,* 334-343.

Hambrick, D. C., Cho, T. S., & Chen, M. J. (1996). The influence of top management team heterogeneity on firms' competitive moves. *Administrative Science Quarterly*, 659-684.

Harrison, D. A., Price, K. H., & Bell, M. P. (1998). Beyond relational demography: Time and the effects of surface-and deep-level diversity on work group cohesion. *Academy of Management Journal*, *41*(1), 96-107.

Harrison, J. S., Thurgood, G. R., Boivie, S., & Pfarrer, M. D. (2020). Perception is reality: How CEOs' observed personality influences market perceptions of firm risk and shareholder returns. Academy of Management Journal, 63(4), 1166-1195.

Harrison, D. A., Price, K. H., Gavin, J. H., & Florey, A. T. (2002). Time, teams, and task performance: Changing effects of surface-and deep-level diversity on group functioning. *Academy of Management Journal*, *45*(5), 1029-1045.

Hayes, A. (2021, April 16). Coefficient of Variation (CV) Definition. Retrieved June 11, 2021, from https://www.investopedia.com/terms/c/coefficientofvariation.asp

Hayward, M. L., Rindova, V. P., & Pollock, T. G. (2004). Believing one's own press: The causes and consequences of CEO celebrity. *Strategic Management Journal*, *25*(7), 637-653.

Hekman, D. R., Johnson, S. K., Foo, M. D., & Yang, W. (2017). Does diversity-valuing behavior result in diminished performance ratings for non-white and female leaders?. *Academy of Management Journal*, *60*(2), 771-797.

Herrmann, P., & Nadkarni, S. (2014). Managing strategic change: The duality of CEO personality. *Strategic Management Journal*, *35*(9), 1318-1342.

Hewlin, P. F., Dumas, T. L., & Burnett, M. F. (2017). To thine own self be true? Facades of conformity, values incongruence, and the moderating impact of leader integrity. *Academy of Management Journal*, *60*(1), 178-199.

Highhouse, S., Brooks, M. E., & Gregarus, G. (2009). An organizational impression management perspective on the formation of corporate reputations. *Journal of Management*, *35*(6), 1481-1493.

Hogg, M. A. (2001). A social identity theory of leadership. *Personality and social psychology review*, *5*(3), 184-200.

Hogg, M. A., & Terry, D. I. (2000). Social identity and self-categorization processes in organizational contexts. *Academy of Management Review*, *25*(1), 121-140.

Hofstede, G. J. (2000). Organizational culture: siren or sea cow? A reply to Dianne Lewis. *Strategic Change*, *9*(2), 135-137.

Hughes-Morgan, M., & Ferrier, W. J. (2014). Competitive action repertoires and stock risk. *Journal of Managerial Issues*, 26(1), 55.

Hughes-Morgan, M., Kolev, K., & Mcnamara, G. (2018). A meta-analytic review of competitive aggressiveness research. Journal of Business Research, 85, 73-82.

Ignatius, A. (2021, June 15). "I'm Here Because I'm As Good As You". Retrieved from https://hbr.org/2021/07/im-here-because-im-as-good-as-you

Jasso, G. (2001). Studying status: An integrated framework. *American Sociological Review*, 66(1), 96.

Jeanquart-Barone, S. (1996). Implications of racial diversity in the supervisor-subordinate relationship. *Journal of Applied Social Psychology*, *26*(11), 935-0944.

Jehn, K. A. (1999). Diversity, Conflict, and Team Performances Summary of Program of Research. *Performance Improvement Quarterly*, *12*(1), 6-19.

Jehn, K. A., Northcraft, G. B., & Neale, M. A. (1999). Why differences make a difference: A field study of diversity, conflict and performance in workgroups. *Administrative Science Quarterly*, *44*(4), 741-763.

Judge, T. A., Piccolo, R. F., & Kosalka, T. (2009). The bright and dark sides of leader traits: A review and theoretical extension of the leader trait paradigm. *The Leadership Quarterly*, *20*(6), 855-875.

Kanter, R. M. (1977). *Work and family in the United States: A critical review and agenda for research and policy*. Russell Sage Foundation.

Kelly, K. (2003). One analyst learns candor doesn't pay. *The Wall Street Journal*, C1.

D. Kolev, K., Hughes-Morgan, M., & Rehbein, K. (2021). The role of female directors in the boardroom: Examining their impact on competitive dynamics. Business & Society, 60(4), 811-843.

Krause, R., Semadeni, M., & Cannella Jr, A. A. (2014). CEO duality: A review and research agenda. *Journal of Management*, *40*(1), 256-286.

Krippendorff, K. (2018). Content analysis: An introduction to its methodology. Sage publications.

Lant, T. K., Milliken, F. J., & Batra, B. (1992). The role of managerial learning and interpretation in strategic persistence and reorientation: An empirical exploration. *Strategic Management Journal*, *13*(8), 585-608.

Leary, M. R., & Kowalski, R. M. (1990). Impression Management: A literature review and two-component model. *Psychological Bulletin*, *107*(1), 34.

Lee, M. K., Gupta, A., & Hambrick, D. (2020). The Distinct Effects of Wealth-and CSR-oriented Shareholder Unrest on CEO Career Outcomes: A New Lens on Settling Up and Executive Job Demands. *Academy of Management Journal*, (ja).

Leslie, L. M., Mayer, D. M., & Kravitz, D. A. (2014). The stigma of affirmative action: a stereotyping-based theory and meta-analytic test of the consequences for performance. *Academy of Management Journal*, *57*(4), 964-989.

Lord, R. G., Brown, D. J., Harvey, J. L., & Hall, R. J. (2001). Contextual constraints on prototype generation and their multilevel consequences for leadership perceptions. *The Leadership Quarterly*, *12*(3), 311-338.

Lord, R. G., Foti, R. J., & De Vader, C. L. (1984). A test of leadership categorization theory: Internal structure, information processing, and leadership perceptions. *Organizational Behavior and Human Performance*, *34*(3), 343-378.

Lord, R. G. (1985). An information processing approach to social perceptions, leadership and behavioral measurement in organizations. *Research in Organizational Behavior*.

Love, E. G., Lim, J., & Bednar, M. K. (2017). The face of the firm: The influence of CEOs on corporate reputation. *Academy of Management Journal*, *60*(4), 1462-1481.

Lovelace, J. B., Bundy, J., Hambrick, D. C., & Pollock, T. G. (2018). The shackles of CEO celebrity: Sociocognitive and behavioral role constraints on "star" leaders. *Academy of Management Review*, *43*(3), 419-444.

Lovelace, J. B., Bundy, J. N., Pollock, T., & Hambrick, D. (2021). The Push and Pull of Attaining CEO Celebrity: A Media Routines Perspective. *Academy of Management Journal*, (ja).

Lyon, D. W., & Ferrier, W. J. (2002). Enhancing performance with product-market innovation: the influence of the top management team. *Journal of Managerial Issues*, 452-469.

Mayew, W. J. (2008). Evidence of management discrimination among analysts during earnings conference calls. *Journal of Accounting Research*, *46*(3), 627-659.

Mairesse, F., Walker, M. A., Mehl, M. R., & Moore, R. K. (2007). Using linguistic cues for the automatic recognition of personality in conversation and text. *Journal of Artificial Intelligence Research*, *30*, 457-500.

McKenny, A. F., Aguinis, H., Short, J. C., & Anglin, A. H. (2018). What doesn't get measured does exist: Improving the accuracy of computer-aided text analysis. *Journal of Management*, *44*(7), 2909-2933.

McDonald, M. L., Keeves, G. D., & Westphal, J. D. (2018). One step forward, one step back: White male top manager organizational identification and helping behavior toward other executives following the appointment of a female or racial minority CEO. *Academy of Management Journal*, *61*(2), 405-439.

McDonald, M. L., & Westphal, J. D. (2013). Access denied: Low mentoring of women and minority first-time directors and its negative effects on appointments to additional boards. *Academy of Management Journal*, *56*(4), 1169-1198.

Mehl, M. R., Gosling, S. D., & Pennebaker, J. W. (2006). Personality in its natural habitat: manifestations and implicit folk theories of personality in daily life. *Journal of Personality and Social Psychology*, *90*(5), 862.

Meindl, J. R., Ehrlich, S. B., & Dukerich, J. M. (1985). The romance of leadership. *Administrative Science Quarterly*, 78-102.

Meindl, J. R., & Thompson, K. J. (2005). The celebrated CEO: Notes on the dynamic ecology of charismatic constructions. In J. F. Porac & M. Ventresca (Eds.), *Constructing industries and markets.* Oxford: Elsevier.

Miller, D., & Chen, M. J. (1996). The simplicity of competitive repertoires: An empirical analysis. *Strategic Management Journal*, *17*(6), 419-439.

Miller, T., & del Carmen Triana, M. (2009). Demographic diversity in the boardroom: Mediators of the board diversity–firm performance relationship. Journal of Management studies, 46(5), 755-786.

Mintzberg, H. (1973). Strategy-making in three modes. *California Management Review*, 16(2), 44-53.

Morrison, A. M., & Von Glinow, M. A. (1990). *Women and Minorities in Management* (Vol. 45, No. 2, p. 200). American Psychological Association.

Nadkarni, S., & Chen, J. (2014). Bridging yesterday, today, and tomorrow: CEO temporal focus, environmental dynamism, and rate of new product introduction. *Academy of Management Journal*, *57*(6), 1810-1833.

Nadkarni, S., & Herrmann, P. O. L. (2010). CEO personality, strategic flexibility, and firm performance: The case of the Indian business process outsourcing industry. *Academy of Management Journal*, 53(5), 1050-1073.

Nisbett, R. E., & Wilson, T. D. (1977). The halo effect: Evidence for unconscious alteration of judgments. *Journal of personality and social psychology*, *35*(4), 250.

Oakley, J. G. (2000). Gender-based barriers to senior management positions: Understanding the scarcity of female CEOs. Journal of business ethics, 27(4), 321-334.

Ocasio, W. (1997). Towards an attention-based view of the firm. *Strategic Management Journal*, *18*(S1), 187-206.

Offstein, E. H., Gnyawali, D. R., & Cobb, A. T. (2005). A strategic human resource perspective of firm competitive behavior. *Human Resource Management Review*, *15*(4), 305-318.

Ospina, S., & Foldy, E. (2009). A critical review of race and ethnicity in the leadership literature: Surfacing context, power and the collective dimensions of leadership. *The Leadership Quarterly*, *20*(6), 876-896.

Oster, Erik D. “Parents Have 'the Talk' in the Powerful 'My Black Is Beautiful' Campaign From P&G.” Adweek, Adweek, 25 July 2017, www.adweek.com/brand-marketing/parents-have-the-talk-in-powerful-my-black-is-beautiful-campaign-from-pg/.

Ortiz-de-Mandojana, N., & Bansal, P. (2016). The long-term benefits of organizational resilience through sustainable business practices. *Strategic Management Journal*, *37*(8), 1615-1631.

Pan, L., McNamara, G., Lee, J. J., Haleblian, J., & Devers, C. E. (2018). Give it to us straight (most of the time): Top managers' use of concrete language and its effect on investor reactions. *Strategic Management Journal*, *39*(8), 2204-2225.

Parker, O., Mui, R., & Titus Jr, V. (2020). Unwelcome voices: The gender bias-mitigating potential of unconventionality. *Strategic Management Journal*, *41*(4), 738-757.

Pfarrer, M. D., Pollock, T. G., & Rindova, V. P. (2010). A tale of two assets: The effects of firm reputation and celebrity on earnings surprises and investors' reactions. *Academy of Management Journal*, *53*(5), 1131-1152.

Pfeffer, J. (1981). Management as symbolic action: the creation and maintenance of organizational paradigm. *Research in Organizational Behavior*, *3*, 1-52.

Phillips, K. W., Rothbard, N. P., & Dumas, T. L. (2009). To disclose or not to disclose? Status distance and self-disclosure in diverse environments. *Academy of Management Review*, *34*(4), 710-732.

Pinel, E. C. (1999). Stigma consciousness: the psychological legacy of social stereotypes. *Journal of Personality and Social Psychology*, *76*(1), 114.

Platow, M. J., Haslam, S. A., Foddy, M., & Grace, D. M. (2003). Leadership as the outcome of self-categorization processes. *Leadership and power: Identity processes in groups and organizations*, 34-47.

Park, S. H., Chung, S. H., & Rajagopalan, N. (2021). Be Careful What You Wish For: CEO and Analyst Firm Performance Attributions and CEO Dismissal. Strategic Management Journal.

Ragins, B. R., Townsend, B., & Mattis, M. (1998). Gender gap in the executive suite: CEOs and female executives report on breaking the glass ceiling. *Academy of Management Perspectives*, *12*(1), 28-42.

Ralston, D. A., & Elsass, P. M. (1989). Ingratiation and impression management in the organization. Impression management in the organization, 235, 249.

Ridgeway, C. L. (2003). Status characteristics and leadership. *Leadership and power: Identity processes in groups and organizations*, 65-78.

Ridgeway, C. L., & Erickson, K. G. (2000). Creating and spreading status beliefs. *American Journal of Sociology*, *106*(3), 579-615.

Rindova, V. P., Pollock, T. G., & Hayward, M. L. (2006). Celebrity firms: The social construction of market popularity. *Academy of Management Review*, *31*(1), 50-71.

Roberts, L. M. (2005). Changing faces: Professional image construction in diverse organizational settings. *Academy of Management Review*, *30*(4), 685-711.

Rosette, A. S., Leonardelli, G. J., & Phillips, K. W. (2008). The White standard: racial bias in leader categorization. *Journal of Applied Psychology*, 93(4), 758.

Rosette, A. S., & Livingston, R. W. (2012). Failure is not an option for Black women: Effects of organizational performance on leaders with single versus dual-subordinate identities. *Journal of Experimental Social Psychology*, *48*(5), 1162-1167.

Rudman, L. A., & Glick, P. (2001). Prescriptive gender stereotypes and backlash toward agentic women. *Journal of Social Issues*, *57*(4), 743-762

Rule, N. O., & Ambady, N. (2008). The face of success: Inferences from chief executive officers' appearance predict company profits. Psychological science, 19(2), 109-111.

Ryan, M. K., & Haslam, S. A. (2005). The glass cliff: Evidence that women are over-represented in precarious leadership positions. *British Journal of Management*, *16*(2), 81-90.

Schein, V. E. (2001). A global look at psychological barriers to women's progress in management. *Journal of Social Issues*, *57*(4), 675-688.

Sinclair, L., & Kunda, Z. (1999). Reactions to a black professional: motivated inhibition and activation of conflicting stereotypes. *Journal of Personality and Social Psychology*, *77*(5), 885.

Smith, K. G., Ferrier, W. J., & Ndofor, H. (2001). Competitive dynamics research: Critique and future directions. *Handbook of Strategic Management*, *315* - 361.

Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology*, *69*(5), 797.

Stotz, Andrew. (2017). "How Accurate Are Financial Analyst Earnings Forecasts?" *Equities.com*, 13 Feb. 2017, www.equities.com/news/how-accurate-are-financial-analyst-earnings-forecasts.

Sy, T., Shore, L. M., Strauss, J., Shore, T. H., Tram, S., Whiteley, P., & Ikeda-Muromachi, K. (2010). Leadership perceptions as a function of race–occupation fit: The case of Asian Americans. *Journal of Applied Psychology*, *95*(5), 902.

Tajfel, H. E. (1978). *Differentiation between social groups: Studies in the social psychology of intergroup relations*. Academic Press.

Tausczik, Y. R., & Pennebaker, J. W. (2010). The psychological meaning of words: LIWC and computerized text analysis methods. *Journal of Language and Social Psychology*, *29*(1), 24-54.

Thomas, D. A., & Gabarro, J. J. (1999). Breaking through: The making of minority executives in corporate America.

Tomkiewicz, J., Brenner, O. C., & Esinhart, J. (1991). Hispanic persons in business: Is there cause for optimism?. *Psychological Reports*, *69*(3), 847-852.

Triana, M. D. C., Miller, T. L., & Trzebiatowski, T. M. (2013). The double-edged nature of board gender diversity: Diversity, firm performance, and the power of women directors as predictors of strategic change. *Organization Science*, *25*(2), 609-632.

Vorauer, J. D., Main, K. J., & O'Connell, G. B. (1998). How do individuals expect to be viewed by members of lower status groups? Content and implications of meta-stereotypes. *Journal of Personality and Social Psychology*, *75*(4), 917.

Wally, S., & Baum, J. R. (1994). Personal and structural determinants of the pace of strategic decision making. *Academy of Management Journal*, *37*(4), 932-956.

Wang, G., Holmes Jr, R. M., Oh, I. S., & Zhu, W. (2016). Do CEOs matter to firm strategic actions and firm performance? A meta-analytic investigation based on upper echelons theory. *Personnel Psychology*, *69*(4), 775-862.

Wangrow, D. B., Kolev, K., & Hughes-Morgan, M. (2019). Not all responses are the same: How CEO cognitions impact strategy when performance falls below aspirations. Journal of General Management, 44(2), 73-86.

Wheeler, M. E., & Fiske, S. T. (2005). Controlling racial prejudice: Social-cognitive goals affect amygdala and stereotype activation. *Psychological Science*, *16*(1), 56-63.

Wiersema, M. F., & Bantel, K. A. (1992). Top management team demography and corporate strategic change. *Academy of Management Journal*, *35*(1), 91-121.

Wiersema, M. F., & Zhang, Y. (2011). CEO dismissal: The role of investment analysts. Strategic Management Journal, 32(11), 1161-1182.

Wong, E. M., Ormiston, M. E., & Haselhuhn, M. P. (2011). A face only an investor could love: CEOs' facial structure predicts their firms' financial performance. Psychological Science, 22(12), 1478-1483.

Williams, K. Y., & O'Reilly III, C. A. (1998). Demography and. *Research in Organizational Behavior*, *20*, 77-140.

Wu, J., Richard, O. C., Zhang, X., & Macaulay, C. (2019). Top management team surface-level diversity, strategic change, and long-term firm performance: a mediated model investigation. *Journal of Leadership & Organizational Studies*, *26*(3), 304-318.

Zajac, E. J., & Westphal, J. D. (1995). Accounting for the explanations of CEO compensation: Substance and symbolism. *Administrative Science Quarterly*, 283-308.

Zebrowitz, L. A., & Montepare, J. M. (2005). Appearance DOES matter. Science, 308(5728), 1565-1566.

Zhu, D. H., Shen, W., & Hillman, A. J. (2014). Recategorization into the in-group: The appointment of demographically different new directors and their subsequent positions on corporate boards. *Administrative Science Quarterly*, *59*(2), 240-270.

Zona, F., Minoja, M., & Coda, V. (2013). Antecedents of corporate scandals: CEOs' personal traits, stakeholders' cohesion, managerial fraud, and imbalanced corporate strategy. *Journal of Business Ethics*, *113*(2), 265-283.

Zweigenhaft, R. L., & Domhoff, G. W. (2011). The New CEOs: Women, African American, Latino, and Asian American Leaders of Fortune 500 Companies. Rowman & Littlefield Publishers.

VITA

Courtney M. Hart
PhD Candidate, Business Administration
LINKS Center for Social Network Analysis
Gatton College of Business and Economics
University of Kentucky

EDUCATION

Howard University
Washington, DC
BBA, Finance, May 2011, Magna Cum Laude

RESEARCH AND TEACHING INTERESTS

Research Interests:
Social Network Analysis, Diversity Socialization, Identity Perceptions, Organizational Impression Management, Intergroup Bias

Teaching Interests:
Negotiations and Conflict Resolution, Strategy, Entrepreneurship, Diversity, and Management

WORKS IN PROGRESS

Woehler, M **Hart, C.** Same Behavior, Different Expectations, Different Outcomes: Predicting Intersectional Employees' Networks, Salary, and Performance Ratings. Preparing for resubmission to the *Journal of Applied Psychology*.

Hart, C. Changing lingo: A linguistic analysis of prototypical and atypical leaders' shareholder letters. Preparing for submission to *Strategic Management Journal.*

Hart, C., Taylor, W., Halgin, D., Wang, J., Labianca, J**. Organizations' national affiliation reputation and projected national image. Preparing for submission to *Journal of International Business Studies*.

PRESENTATIONS AND PROFESSIONAL DEVELOPMENT WORKSHOPS

Cotton-Nessler, N., Prosper, P., Ellis, K., Rice, D., Jennings, J., Lawong, D., **Hart, C.**, & Stewart, M. Growing the Seeds of Inclusive Practices – Off-Site Visit. *Academy of Management Conference.* Boston, MA, August 9, 2019.

Labianca, G., **Hart, C.**, Yang, S., Gupta, J., Ross, J., & Quintane, E. Advanced networks PDW: Cutting-Edge Social Network Theoretical Work and ERGM Workshop. *Academy of Management Conference*. Boston, MA, August 10, 2019.

Younge, A., Preston, M., Maxie, J., Beezer, I., Boyd, T., Carter, J., Crawley, R., Crespo, M., Gutierrez, L., **Hart, C.**, Johnson, A., Johnson, S., Massey, M., Norris, K., Okumakpeyi, M., Osborne, M., Palmer, C., Torrez, B., Blancero, D., Nishii, L., Nkomo, S., Williamson, I. Integrate, Initiate, Innovate! Bridging the Gap in Diversity & Inclusion Field Research. Accepted to the *Academy of Management Conference*. Boston, MA, August 10, 2019.

Hart, C. O Sponsor, Where Art Thou? The Role of Brokers on the Development of Diverse Sponsor-Sponsee Relationships. Presented at the *Mid-South Management Research Consortium*. University of Kentucky, February 23, 2019.

Hart, C., Seegers, L. Gutierrez, L., Palmer, C. Carter, J., Domingo, M., Gonzalez, K., & Ubaka, A. Moving beyond the conversation: Building a research agenda to create more inclusive organizations. Presented at the *Academy of Management Conference*. Chicago, IL, August 11, 2018.

Labianca, G., **Hart, C.**, Woehler, M., & Jun, K. Advanced networks PDW: Cutting-edge social network theoretical work and ERGM workshop. Presented at the *Academy of Management Conference*. Chicago, IL, August 11, 2018.

Hart, C. This is not working: How clique status affects tie formation intervention and broker outcomes. Poster session at the *XXXVIII Sunbelt Conference*. Utrecht, NL, June 29, 2018.

Hart, C. Changing Lingo: A linguistic analysis of prototypical and atypical leaders' shareholder letters. Lecture session at the *Mid-South Management Research Consortium*. Mississippi State University, February 25, 2017.

Labianca, J., **Hart, C.**, & Woehler, M. Advanced networks PDW: Cutting-edge social network theoretical work and ERGM workshop. Presented at the *Academy of Management Conference*. Atlanta, GA, August 5, 2017.

Labianca, J., Woehler, M., Taylor, W., & **Hart, C**. Advanced networks PDW: Cutting-edge social network theoretical work and ERGM workshop. Presented at the *Academy of Management Conference*. Anaheim, CA, August 6, 2016.

TEACHING EXPERIENCE

Instructor

- Negotiations and Conflict Management, Fall 2018, 2019, 2020
- Business Management, Fall 2020

Teaching Assistant

- Business Management, Professor John (Jack) Kirn, Spring 2019, 2020
- Organizational Behavior, Dr. Huiwen Lian, Spring 2018
- LINKS Conference for Social Network Analysis, Dr. Daniel Brass and Dr. Daniel Halgin, Summer 2016, 2017, 2018, & 2020
- Negotiations and Conflict Management (MBA & Undergraduate), Dr. Giuseppe (Joe) Labianca, Spring 2016 – Fall 2017

AWARDS AND HONORS

- Olin Business School Workshop for PhD Project Members Award Winner, Spring 2019
- Max Steckler fellowship by Gatton College of Business and Economics, University of Kentucky, Fall 2016, 2017, & 2018
- Gatton Doctoral fellowship by Department of Management, University of Kentucky, Fall 2015, 2016, & 2017
- Beta Gamma Sigma for academic excellence in BBA at Howard University, Spring 2011
- Beta Alpha Phi, Honor Society for Financial Professionals, Spring 2010
- National Society of Collegiate Scholars, Fall 2008
- Legacy Scholarship (for academic achievement), Howard University, Fall 2007

PHD COURSEWORK

Social Network Theory – Dr. Dan Brass

Research Methodology – Dr. Steve Borgatti

Research Design and Analysis in Education – Dr. Michael Toland

Research Design and Analysis (Logistic statistics) – Dr. Janet Stamatel

Organizational and Individual Behavior - Dr. Ajay Mehra

Advanced Social Network Analysis – Dr. Steve Borgatti

Social Psychology – Dr. Richard Smith

Advanced Organizational Theory – Dr. Joe Labianca

Teaching Methods in Business – Dr. Robert Gillette & Dr. Gail Hoyt

Advanced Sociological Methods (Survey Methods) – Dr. James Hougland

Management Theory and Policy (Strategy) – Dr. Walter Ferrier

Doctoral Seminar in Human Resource Management – Dr. Scott Soltis

Advanced Quantitative Methods (SEM Analysis) – Dr. Michael Toland

Advanced Psychometric Methods – Dr. Joseph Waddington

Teaching Curiosity in the 21st Century – Dr. Hanna Ruehl

SERVICE

Professional

- Planning Committee, Management Doctoral Student Association (PhD Project), 2019 - 2020
- Secretary, Management Doctoral Student Association (PhD Project), 2018 – 2019
- Reviewer, Academy of Management Conference, 2017 - Present
- Reviewer, *Negotiation and Conflict Management Research*

Planning Committees

- Committee Member, 2nd Annual Sister Circle Forum, University of Kentucky, February 9, 2018.
- Committee Member, Inaugural Sister Circle Forum, University of Kentucky, February 17, 2017.
- Committee Member, Black Graduate and Professional Student Association University Town Hall surrounding Racial Injustice, University of Kentucky, Spring, 2016.

Search Committees

- Business School Dean Search, University of Kentucky, Spring 2018.
- Associate Provost for Student & Academic Life, University of Kentucky, Spring 2017.

Panel Discussions

- Getting Tenure and Beyond. Panelist: Hart, C. (Moderator), Patrick McKay, Jeff Furman, Donna Blancero, dt oglivie, Boston, MA, August 8, 2019.
- PhD Project: Life of a PhD Student. Panelist: Hart, C., Short, J., Webb, D., Lewis, T., Ruiz, V. Chicago, IL, November 15, 2018.
- LIFT (Lifting and Impacting Futures Today) Conference: Life After High School. Panelist: Hart, C., Ramon, D., Vesely, L. Lexington Urban League, March 24, 2018.
- PhD Project: Life of a PhD Student. Panelist: Hart, C., Webb, J., Nez, C., Manito, S., Fernandez, M. Chicago, IL, November 25, 2017.
- Memorial Hall Mural Open Forum. Panelist: Curwood, A., Goan, M., Taylor-Shim, C., Hart, C. University of Kentucky, March 24, 2017.
- Leading Change and Effective Activism. Panelist: Votruba, J., Hart, C., Vinson, M., Shoenberger, C. University of Kentucky, February 22, 2017.

PROFESSIONAL AFFILIATIONS

- International Network for Social Network Analysis (INSNA) — January 2018 – present
- African Academy of Management (AFAM) — September 2017 - present
- Academy of Management (AOM) — February 2016 - present
- Management Doctoral Student Association (MDSA) — August 2015 – present
- PhD Project — November 2013 - present

WORK EXPERIENCE

Spring Independent School District — April 2014 - August 2015
Long-Term Substitute Teacher

Student Dream — January 2014 - May 2015
Chief Marketing Officer

Google — June 2010 - January 2014
Online AdWords Specialist and Benefits Intern

Teach For America — May 2010 – May 2011
Campus Campaign Coordinator