

Implicit Motives in the Upper Echelons: A Gendered Perspective on the Role of Achievement, Power, and Affiliation Motivation in CEO Leadership

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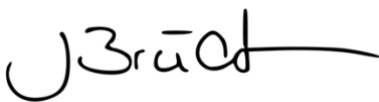
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Declaration

I hereby certify that this material, which I now submit for assessment on the programme of study leading to the award of Doctor of Philosophy is entirely my own work, and that I have exercised reasonable care to ensure that the work is original, and does not to the best of my knowledge breach any law of copyright, and has not been taken from the work of others save and to the extent that such work has been cited and acknowledged within the text of my work.

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For my parents, Elke and Bruno.

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List of Abbreviations and Acronyms

BSRI	Bem Sex-Role Inventory	nAFF	<i>n</i> Affiliation; need for affiliation; affiliation motive; affiliation motivation
CEO	Chief Executive Officer		
DCU	Dublin City University	nPOW	<i>n</i> Power; need for power; power motive; power motivation
DTM	Dynamic Thurstonian Item Response Model		
EVT	Expectancy Violation Theory	OMT	Operant Motive Test
EX	Former S&P Company	PAQ	Personal Attributes Questionnaire
GLOBE	Global Leadership and Organizational Effectiveness	PRF	Personality Research Form
		PSE	Picture Story Exercise
ICC	Intraclass Correlation Coefficient	RCT	Role Congruity Theory
IRT	Item Response Theory	ROA	Return on Assets
KPI	Key Performance Indicator	ROE	Return on Equity
		ROI	Return on Investments
LIWC	Linguistic Inquiry and Word Count	S&P	Standard & Poor
LMP	Leadership Motive Pattern	SEM	Structural Equation Modeling
MCS	Management Continuity Study	SIH	Status Incongruity Hypothesis
MD	S&P MidCap 400	SM	S&P SmallCap 600
MDT	Motive Disposition Theory	SP	S&P 500
MET	Motive Enactment Test	SRT	Social Role Theory
MMG	Multi-Motive Grid	TAT	Thematic Apperception Test
MSC	Motive Self-Categorization Test	TMT	Top Management Team
		U.S.	The United States
nACH	<i>n</i> Achievement; need for achievement; achievement motive; achievement motivation	WEIRD	Western, Educated, Industrialized, Rich, and Democratic

Abstract

Julie Brueckner

Implicit Motives in the Upper Echelons: A Gendered Perspective on the Role of Achievement, Power, and Affiliation Motivation in CEO Leadership

Researchers have long been interested in the relationship between implicit achievement, power, and affiliation motives and leadership success. Due to women's underrepresentation in leadership, little, however, is known about the expression, effects, and evaluations of implicit motives in male versus female CEOs. Thus, scholars call for more research on female business leaders to enhance our understanding of how implicit motives relate to successful leadership. The present research addresses this call and examines the role of implicit motives and gender in the upper echelons. In doing so, my research builds on motive disposition theory and various social psychological theories. I present three original, empirical studies that investigate (1) how male and female leaders differ in their implicit motives; (2) how implicit motives affect the survival of male and female CEOs; and (3) how male and female CEOs with different implicit motives are evaluated by next-generation shareholders. Study 1 and Study 2 are archival studies that analyzed gender-balanced samples of CEOs from publicly-traded companies. These studies used a validated scoring manual to content-code implicit motives from CEO letters. Study 1 showed that CEOs-in-general expressed higher achievement and power than affiliation motivation. Further, female CEOs expressed lower power and higher affiliation motivation than male CEOs. Study 2 found that female and power-motivated CEOs faced an increased turnover risk. Study 3 was an experimental vignette study that examined evaluations of male or female CEOs who displayed power or affiliation motivation in shareholder letters. Analyses showed that affiliation predicted perceived likability, general leader evaluations, and tenure recommendations, while power predicted perceived competence and financial performance ratings. Furthermore, implicit motives and gender interacted to predict perceived likability, general leader evaluations, and tenure recommendations. Together, these studies advance our understanding of how gender and motives relate to successful leadership. Limitations, implications, and future research directions are discussed.

Keywords: Motivation, Achievement, Power, Affiliation, Human Sex Differences, Leadership, Gender Stereotypes

Publications and Conference Proceedings Developed from the Thesis

Manuscripts in press

Brueckner, J., & Bosak J., & Lang, J. W. B. (in press). Connect vs. conquer? CEO gender and implicit motives. In Chrobot-Mason, D., Sawyer, K., & Hays-Thomas, R. (Eds). Women leaders [Special issue]. *Journal of Managerial Psychology*. doi:10.1108/JMP-01-2019-0061

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Brueckner, J., Bosak J., & Lang, J. W. B. (in preparation). Implicit motives in the upper echelons: Do motivational preferences and gender predict survival rates of CEOs?

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- Brueckner, J.,** Lang, J. W. B., & Bosak, J., (2017, May). Symposium: Gender and career-related processes: Examining bio-social constructionist explanations for gender differences in career outcomes. Presentation title: Why assessing implicit motives should be an integral part of management diagnostics at the C-level. Paper presented at the biannual *European Association of Work and Organizational Psychology (EAWOP) Conference*, Dublin, Ireland.
- Brueckner, J.,** Bosak, J., & Lang, J. W. B., (2016, September). Gender differences in CEOs' implicit motives: Can female leaders handle crises more successfully? Poster presented at the *ESRC Leadership and Diversity in Organisations. Interdisciplinary Conference*. Kent, UK.

“A humane society, respectful of individual potential, facilitates the ability of people of both sexes to achieve power and mastery, as well as affiliation and intimacy.”

(Diekman & Eagly, 2008, p. 444)

Chapter 1

Introduction

Summary

In the introduction of this dissertation, I present the topic and relevance of my research, define its aims and objectives, and outline the structure of the thesis. Furthermore, I specify research questions, and introduce the chosen methodology, research context, and data analysis techniques, leading up to my research contributions.

Chapter 1: Introduction

Motivation plays a vital role in life. Building on Murray's (1938) pioneering work on human needs, almost a century of research has evidenced that people's behavior is guided by their motivation to achieve, to influence, and to belong (e.g., McClelland, 1987a; McClelland, Koestner, & Weinberger, 1989). These motives drive the way human beings think, feel, behave, interact, work, and lead (Delbecq, House, de Luque, & Quigley, 2013; Hofer & Chasiotis, 2011). Due to the necessity of leadership for society, understanding the key motivators of behavior within a leadership context is of particular importance (Antonakis & Day, 2017; Eagly & Antonakis, 2015; Gardner, 1965). From political representatives to organizational elites, the motivation of leaders has far-reaching consequences for people, organizations, countries, and the macroeconomic environment more generally (e.g., Schultheiss, 2008; Schultheiss & Brunstein, 2010; Winter, 2010a).

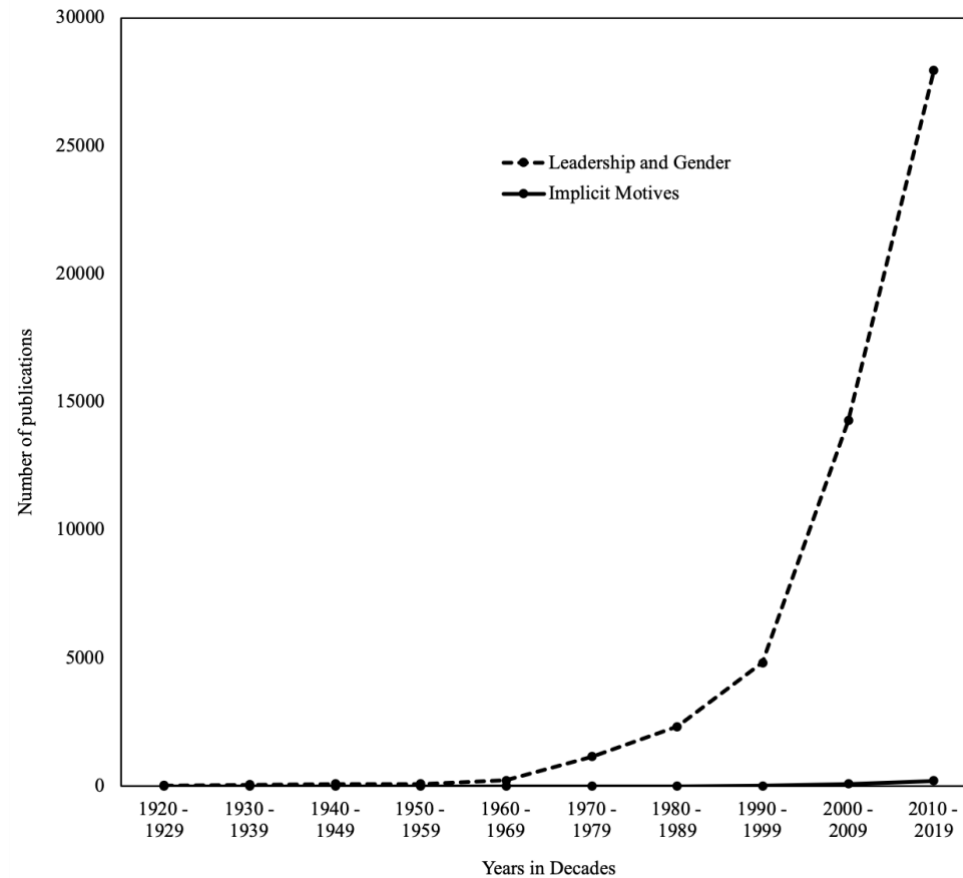
One area of motivation research that has significantly contributed to the leadership literature is the study of *implicit motives* (Kanfer, Frese, & Johnson, 2017). Implicit motives are trait-like individual difference characteristics that energize and direct behavior (Hoffman, Woehr, Maldagen-Youngjohn, & Lyons, 2011). Following the trait-based theory of implicit motives, leaders' long-term behavioral tendencies, and consequently their leadership success, is driven by a combination of their achievement, power, and affiliation motivation, also known as the *Big Three* (Kehr, 2004a). According to this motivation disposition framework, achievement-motivated leaders would wish to reach a standard of excellence and accomplish the extraordinary; power-motivated leaders would seek to fulfill the need to exert dominance or control over others; and affiliation-motivated leaders would strive to form deep connections with their followers (Schultheiss, 2008; Schultheiss & Brunstein, 2010).

Assuming that the actions of leaders substantially shape organizational success (Hambrick & Quigley, 2014), leadership is essential for the effective functioning of organizations and society (Antonakis, Cianciolo, & Sternberg, 2004). In their influential theory on the upper echelons, Hambrick and Mason (1984) propose that "executives' experiences, values, and personalities greatly influence their interpretations of the situations they face and, in turn, affect their choices" (Hambrick, 2007, p. 334). Therefore, research on the implicit motives of executive

leaders is critical. To date, however, not enough is known about the implicit motives of top executives, and even less is understood about the implicit motives of male and female executives. First, despite the demonstrated importance of executive leadership (e.g., Hambrick & Quigley, 2014), merely a fraction of the overall leadership literature has been dedicated to the upper echelons of organizations (Zaccaro, 2001). The reasons for this include, but are not limited to, the restricted number and accessibility of corporate executives. Second, knowledge of what role *gender* plays in the relationship between implicit motives and executive leadership is fragmented (Duncan & Peterson, 2010). The reasons for this include, but are not limited to, women's historic underrepresentation in the workforce and ongoing underrepresentation in leadership. To advance the understanding of this critical topic, the present research, therefore, focuses on the implicit motives of male and female organizational leaders, specifically Chief Executive Officers (CEOs) of publicly-traded companies.

Despite ongoing societal and political efforts to increase the number of female leaders, women remain dramatically underrepresented in executive business functions. More specifically, to date, only 5.8% of the CEOs in the 500 largest publicly listed organizations in the U.S.-based Standard & Poor (S&P) Index are female (Catalyst, 2020a). Even though meta-analytic research indicates that, in general, there is no gender difference in leaders' effectiveness (Eagly, Karau, & Makhijani, 1995; Paustian-Underdahl, Walker, & Woehr, 2014), the ratio of male to female CEOs remains nearly stagnant, moving back and forth at a glacier pace (World Economic Forum, 2016). To be more precise, women's occupation of CEO positions in the S&P 500 Index rose by a mere 1.2% between 2015 and 2020 (Catalyst, 2015; 2020a).

Scholars have therefore increasingly devoted their scientific inquiry to exploring and explaining the causes and consequences of the continued gender gap in the upper echelons for aspiring leaders, current leaders, organizations, and society (Joshi, Neely, Emrich, Griffiths, & George, 2015). For example, a PsycInfo and Business Source Complete literature search on the abstract terms “(*lead* OR manag* OR ceo OR executiv* OR “upper echelon*” OR president OR director*) AND (*gender OR sex OR m*n wom*n OR male female*)” resulted in a total of 51,032 peer-reviewed, English-language journal articles published in the past 100 years. In fact, from 1950 until 2020, the frequency with which abstracts, including these keywords,

Number of Publications per Decade in the Last 100 Years

Decade	Leadership and Gender	Implicit Motives
1920 - 1929	32	0
1930 - 1939	55	0
1940 - 1949	86	0
1950 - 1959	92	0
1960 - 1969	229	0
1970 - 1979	1158	4
1980 - 1989	2322	7
1990 - 1999	4827	18
2000 - 2009	14272	98
2010 - 2019	27959	219

Figure 1.1. Line plot of the number of publications within each decade of the last 100 years based on a PsycInfo and Business Source Complete search of abstracts (AB). The leadership and gender literature search included the terms “(lead* OR manag* OR ceo OR executiv* OR “upper echelon*” OR president OR director) AND (gender OR sex OR m*n wom*n OR male female)” of peer-reviewed, English-language journal articles. The implicit motives literature search included the terms “motiv* AND implicit AND (achievement OR power OR affiliation OR intimacy).” Since the search date was August 27, 2019, the decade of 2010 - 2019 is incomplete.

were published in peer-reviewed journals has increased exponentially (Figure 1.1).

As a result, extant theory and empirical research on female business leaders have surged. Yet, as the prevalence of women in executive positions has increased only marginally, calls continue for scholarly attention to be afforded to women's struggles in navigating their way through "the labyrinth." Coined by Eagly and Carli (2007a, 2007b), the labyrinth represents a metaphor for the numerous hurdles and biases women encounter on their path to successful and equitable leadership. As shall be elucidated in later chapters, implicit motives seem to be sensitive to the social context in which they occur. Thus, it stands to reason that socio-cultural factors, such as prevailing norms and stereotypes, might influence the relationship between implicit motives and gender in such a way that men and women in the upper echelons might express their implicit motives differently (Duncan & Peterson, 2010; Pang & Baumann, in press). In other words, social and cultural norms about leadership and gender likely shape the expression, effects, and evaluations of implicit motives in male and female CEOs. The lack of women in top executive leadership positions might also suggest that with its masculine characterization (e.g., "think manager—think male"; Schein, 1973, 1975), CEO leadership represents a unique context in which gender similarities and differences in motivation manifest differently in comparison to the general population of men and women, as a result of both leader role requirements and gender role expectations. At the same time, however, the lack of women in executive positions poses a methodological issue when wanting to examine gender differences in implicit motives in the upper echelons.

Despite significant advancements in the implicit motives and gendered leadership literature independently, few studies have brought these research streams together. For example, of the 346 English-language, peer-reviewed journal articles found in a PsycInfo and Business Source Complete search that included the terms "*motiv* AND implicit AND (achievement OR power OR affiliation OR intimacy)*" in their abstracts, 42 abstracts also included the keywords "*lead* OR manag* OR ceo OR executiv* OR "upper echelon*" OR president OR director.*" Of these 42 publications, however, only two abstracts further included the terms "*gender OR sex OR m*n wom*n OR male female.*" Furthermore, both of these peer-reviewed journal publications focus on education and are, therefore, not directly relevant to the study of male and female leaders in the upper echelons of large publicly-traded

corporations [11]. From this literature search, it can be derived that the relationship between gender and implicit motives in the leadership context is understudied, and knowledge of which implicit motives manifest in and affect female CEOs in comparison to male CEOs is fragmented. Consequently, the extent to which the masculine construal of leadership influences the relationship between implicit motives and gender is neither understood sufficiently (Duncan & Peterson, 2010) nor investigated systematically (Pang & Baumann, in press)—which is surprising given that implicit motives are considered to be important antecedents of successful leadership (e.g., Delbecq et al., 2013). Thus, scholars call for more research on female business leaders in order to understand better what role gender plays in the motivation of leaders (Duncan & Peterson, 2010).

To address this significant gap in the existing literature, the present research investigates male and female CEOs of stock market companies listed in the S&P 1500 Composite Index (S&P 1500 Index), both theoretically and empirically. By examining executives of publicly-traded companies from a gendered perspective, I strive to expand knowledge on the similarities and differences in the implicit achievement, power, and affiliation motivation of male versus female leaders and their link to leader outcomes. In doing so, my dissertation integrates key theories and research from the field of psychology and reviews empirical evidence pertaining to the impact of internal factors, such as internalized gender beliefs, as well as external, socio-cultural factors such as stereotyping on the expression, effects, and evaluations of CEOs' implicit motives. To inform my research, I build on knowledge from different subfields of psychology (i.e., personality psychology, social psychology, and organizational psychology). To supplement these insights, I further draw on additional research areas such as investor relations, business ethics, corporate governance, and strategy.

Aims and Objectives

This research aims to advance the theoretical and practical knowledge on the role of implicit motives and gender in the context of executive leadership, utilizing socio-cultural explanations. Given that it is critical to understand better (1) how male and female leaders differ in their implicit motives; (2) how implicit motives affect successful leadership role occupancy of male and female CEOs; and (3) how male and female CEOs' expression of the same implicit motives is evaluated by others, my dissertation aims to provide quantitative insights in the form of three original

empirical studies.

To facilitate the achievement of these aims, I draw on both archival and experimental data and specify three concrete research objectives: My first objective is to compare and contrast the motivational expressions of CEOs listed in the S&P 1500 Index through analyzing an equal number of male and female CEOs from comparable samples. My second objective is to relate the motivational expressions of an equal number of male and female CEOs from comparable samples listed in the S&P 1500 Index to their survival rates as CEOs, which represents an important measure of successful leadership. My third objective is to investigate whether the expression of gender-congruent (male CEOs expressing power motivation and female CEOs expressing affiliation motivation) versus gender-incongruent implicit motives (male CEOs expressing affiliation motivation and female CEOs expressing power motivation) is evaluated more or less favorably by others, that are, students who function as proxy-shareholders.

Thesis Outline

My dissertation consists of six chapters, which, together, review, test, and discuss the role of implicit motives and gender in the leadership context of corporate executives. In *Chapter 2*, I introduce the theoretical background of my research, review literature on the key theoretical concepts, synthesize empirical findings, and identify knowledge gaps. In *Chapter 3*, I examine what implicit motives male and female CEOs of publicly-traded companies express in their letters to shareholders. In *Chapter 4*, I analyze the association of implicit motives and gender with successful leadership, as measured by CEOs' turnover hazards. In *Chapter 5*, I investigate the association of implicit motives and gender with other-evaluations of leadership. Specifically, I examine how gender-congruent versus gender-incongruent CEOs are perceived by next-generation shareholders. In doing so, this chapter compares and contrasts predictions following from different theories pertaining either to a male or female advantage in CEO leadership. In *Chapter 6*, I integrate my results; discuss the limitations of the research; specify theoretical, empirical, methodological, and practical contributions; elaborate on the implications of my research; and finally formulate recommendations for the relevance of implicit motives research in finding and developing better leaders of both genders.

Methodology Overview

The three research questions guiding this work are as follows: (1) What are the implicit motives that male and female CEOs express?; (2) How are implicit motives and CEO gender related to successful leadership role occupancy?; and (3) How are male and female CEOs with different implicit motives evaluated by others? In addressing these questions, a total of three quantitative studies (referred to as *Study 1*, *Study 2*, and *Study 3* hereafter) were developed (Figure 1.2).

Conceptual Model

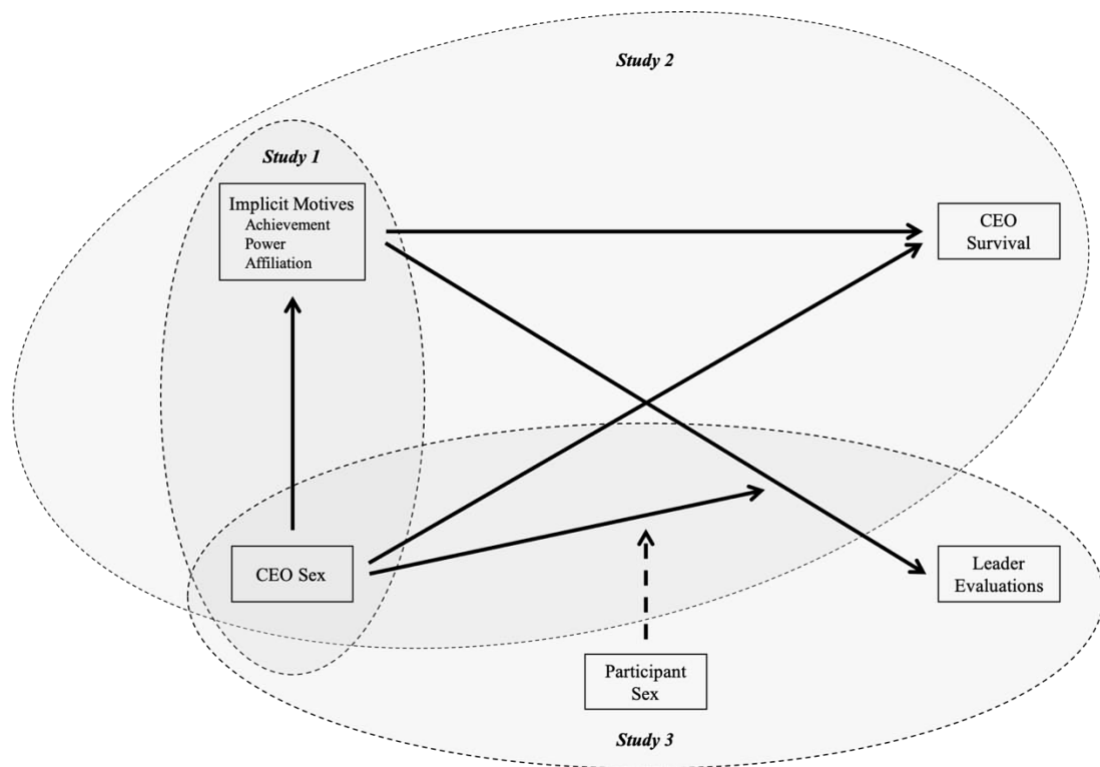


Figure 1.2. Proposed model of hypothesized relationships in the three presented studies. *Study 1* examines what motives male and female CEOs express. *Study 2* investigates how implicit motives and gender relate to the time to CEO turnover. *Study 3* tests the effects of implicit motives and gender on other people's evaluations of CEO leadership.

Archival Studies

Study 1 and *Study 2* are archival studies designed in a non-randomized fashion, using propensity score matching to generate a gender-balanced sample of male and female CEOs in for-profit companies from a U.S.-based stock market index, the S&P 1500 Composite. Utilizing a non-randomized design, by which a sample of female CEOs is matched with a sample of male CEOs on several

predefined background characteristics allows *Study 1* and *Study 2* to be controlled for possible confounding variables, such as, for example, prior leadership experience as measured by the age of the CEO.

Implicit motives measurement. As *Chapter 2* will illustrate in detail, implicit motives operate outside people's conscious awareness. As a result, they cannot be assessed using self-report measures such as questionnaires. Instead, implicit motives are studied indirectly; traditionally by means of projective techniques that require the content-coding of qualitative materials in the form of imaginative stories collected from primary sources, that is, from the participants themselves. Studying CEOs of publicly-traded corporations, however, brings the challenge of limited data availability and accessibility (Zaccaro, 2001). Therefore, this dissertation applies Winter's (1994) integrative and psychometrically validated scoring methodology, which can be used to content-code implicit motives at a distance (Schultheiss & Pang, 2005). Thus, I utilize an appropriate technique for quantitatively analyzing qualitative materials in the form of CEO letters retrieved from annual company reports. In a quantization process, the method transforms raw qualitative displays of implicit motives within CEO letters into count data (see *Chapter 2's* section on implicit motives measurement for a detailed explanation). Thereby, the application of the Winter manual allows researchers to engage in descriptive and inferential statistical analyses that support attempts to formulate generalizable conclusions about CEOs of publicly-traded companies in the U.S. context. To further minimize bias resulting from subjective forces, such as researchers' own experiences and values, multiple coders were trained and calibrated in the application of the scoring manual as specified by Winter (1994).

Experimental Vignette Study

To isolate the effects of CEO gender and the implicit power or affiliation motive on leader evaluations, *Study 3* is constructed as a gender-balanced experimental vignette study followed by a questionnaire. While the focal point of interest in *Study 1* and *Study 2* are the CEOs and (the consequences of) their motivational displays within their shareholder letters, the primary source of investigation in *Study 3* are the recipients of these letters and their perceptions of CEOs' motivational displays. More specifically, *Study 3* addresses how participants evaluate CEOs on several leadership outcomes. As there are essentially no formal restrictions as to who can become a common shareholder, this study samples students

of an Irish University who are knowledgeable in Business and Finance. These students are asked to assume the role of a company shareholder and thereby function as proxy-investors.

Evaluations of implicit motives. The motivational displays coded with the Winter (1994) manual in *Study 1* and *Study 2* informed the development of the experimental manipulation in *Study 3*. Since the expression of implicit motives as perceived by others is being assessed, self-report measures are an appropriate means of investigation in this study (Schultheiss & Brunstein, 2010). In a quasi ‘back-translational process,’ coded fragments from real CEO letters were adapted to create two experimental conditions of a power- versus affiliation-motivated letter while keeping achievement imagery constant. These letters were then scored by experienced coders based on scientific definitions of the Winter methodology, and subsequently refined until a clear power- and affiliation-motivated letter had been crafted. These letters form the basis for other-evaluations of CEOs’ implicit motives that are measured using mostly Likert-type scales.

Data Analysis

All three studies use inferential statistical analyses and hypotheses testing with an alpha level of $< .05$ as a cut-off score for rejecting the Null hypothesis. Furthermore, all three studies utilize the following statistical software: (1) IBM SPSS Statistics (version 24 and 25; IBM Corp., 2016, 2017); and (2) R open-source software for statistical analysis (version 3.4.1; R Core Team, 2013).

Table 1.1 presents an overview of the research methodology of my dissertation project and summarizes the chosen sampling, data collection, and analysis techniques (Saunders, Lewis, & Thornhill, 2016).

Research Contributions

Given that women are still dramatically underrepresented in executive leadership, it is critical to examine practitioners’ and scholars’ proposition that men and women might hold different motivational needs, whereby the former may seek to “lead out front” and the latter seek to “nurture” (O’Connor, 2001; Siegel, 2013, para. 9). Thus, an investigation of how potential motivational differences affect the success and evaluation of male and female leaders—and what part roles and stereotypes play in this process—is pertinent to understanding better women’s struggles in achieving parity in leadership. As, to date, no research has systematically analyzed CEOs’ implicit motives from a gendered perspective, together, the three studies of the

current research make several important contributions (see *Chapter 6* for a detailed discussion) that advance the knowledge of this topic and add to closing gaps in the literature:

First, this dissertation makes ***theoretical*** contributions by (a) advancing the theoretical understanding of the role of gender and implicit motives in the context of executive leadership through integrating the implicit motives literature with the literature on gender and leadership; (b) adopting a social role perspective to explain motivational similarities and differences in the implicit motives of male and female leaders; and (c) comparing and contrasting theoretical perspectives pertaining to a male versus female leadership advantage resulting from the display of gender-incongruent motives in CEO letters.

Second, this research makes critical ***methodological*** contributions by (a) conducting a statistical matching procedure to enable a gender-balanced sampling of CEOs; (b) studying implicit motives in a dimensional instead of a dichotomized approach of high versus low values; (c) extending the application of the Winter (1994) manual to content-code implicit motives at a distance from CEO letters, which represent a critical communication channel in the CEO-shareholder relationship; and (d) isolating the effects of implicit motives and gender in a large gender-balanced experimental vignette study by utilizing experimental manipulations developed from the Winter scoring system.

Third, this dissertation makes valuable ***empirical*** contributions by (a) addressing inconsistent findings in the literature as to what motives are most fruitful for successful leadership; (b) providing new evidence to the understudied topic of gender similarities and differences in the implicit motives of leaders; (c) building on the role congruity account of men, women, and motivation (Diekmann & Eagly, 2008) and thus providing empirical support that suggests the importance of social roles and gender roles as a critical motivational force; and (d) contrasting inconsistent predictions in the literature pertaining to a male versus female leadership advantage potentially resulting from the display of gender-incongruent motives in CEO letters.

Fourth, this dissertation makes important ***practical*** contributions by (a) showcasing the ongoing relevance of gender roles and leader roles and related role-expectations for men and women in executive leadership positions; (b) extending the study of implicit motives to the CEO-shareholder relationship, an understudied area in leader-follower research; and (c) discussing the application of implicit motives

research to the area of investor relations, which is concerned with improving the relationship and communication between management and company shareholders.

Conclusion

In the current chapter, I introduced the topic and relevance of my research, defined its aims and objectives, and outlined the structure of this dissertation. Furthermore, I presented an overview of the present research methodology, analysis techniques, and research context. Specifically, this dissertation aims to advance the understanding of the role of implicit motives and gender in the upper echelons of organizations utilizing socio-cultural explanations. By investigating CEOs of publicly-traded companies from a gendered perspective, I strive to expand knowledge on the similarities and differences in the implicit achievement, power, and affiliation motivation of male versus female leaders and their link to leader outcomes. To facilitate the achievement of this aim, this dissertation conducts three original, empirical studies that investigate (1) how male and female leaders differ in their implicit motives; (2) how implicit motives affect the survival (turnover hazards) of male and female CEOs; and (3) how male and female CEOs with different implicit motives are evaluated by next-generation shareholders. The next chapter will introduce the reader to the relevant theories and empirical findings on leadership, implicit motives, and gender, which informed my hypotheses development.

CHAPTER 1

Table 1.1

Study Design and Research Methods Overview

<i>Study</i>	<i>Research question</i>	<i>Sampling procedure</i>	<i>Data collection</i>	<i>Data analysis</i>	<i>Research design</i>
1	Q1: What implicit motives (achievement, power, affiliation) do CEOs express? Q2: How do male and female CEOs differ in the implicit motives (achievement, power, affiliation) they express?	1) Sampling of all female CEOs in the S&P Execucomp database in the year 2014 retrieved from Wharton Research Data Services. 2) Setting exclusion criteria and removing all female CEOs who do not meet criteria. 3) Creating a subsample of randomly chosen male CEOs from S&P Execucomp database who meet inclusion criteria. 4) Conducting propensity score matching: Matching of female CEOs with male CEOs on predefined background characteristics. 5) Creating and analyzing a gender-balanced sample of 45 male and 45 female CEOs in a blind coding process.	Data collection of qualitative material: Collection of annual company reports, which include a CEO letter. Annual reports are sourced from company websites and AnnualReports.com. Quantitative data collection: Collection of financial performance information (Return on assets, return on investments, return on equity, Tobin's Q) is retrieved from the S&P Compustat database.	Qualitative data analysis: Content-coding of qualitative materials (CEO letters) by means of Winter's (1994) second-generation scoring manual for running text. Quantitative data analysis: Statistical analysis using t-tests conducted with SPSS version 24/25: Paired samples <i>t</i>-tests and Welch <i>t</i>-tests (Welch, 1947).	Descriptive: Archival study. Multi-source design with non-randomized samples. The study gains information about the implicit motives (achievement, power, affiliation) of male and female CEOs. Descriptive studies are usually a precursor to explanations. The study explores performance differences between male and female achievement-, power-, and affiliation-motivated CEOs.

<i>Study</i>	<i>Research question</i>	<i>Sampling procedure</i>	<i>Data collection</i>	<i>Data analysis</i>	<i>Research design</i>
2	Q3: How do implicit motives (achievement, power, affiliation) affect the survival of CEOs? Q4: How does CEO gender (male, female) affect the survival of CEOs?	1) Sampling of all female CEOs in the S&P Execucomp database in the years 1999 – 2015 retrieved from Wharton Research Data Services. 2) Setting exclusion criteria and removing all female CEOs who do not meet criteria. 3) Creating a subsample of randomly chosen male CEOs from S&P Execucomp database who meet inclusion criteria. 4) Conducting propensity score matching: Matching of female CEOs with male CEOs on predefined background characteristics. 5) Creating and analyzing a gender-balanced sample of 82 male and 82 female CEOs in a blind coding process.	Data collection of qualitative material: Collection of annual company reports, which include a CEO letter. Annual reports are sourced from company websites and AnnualReports.com. Quantitative data collection: Collection of tenure and turnover measures from the S&P Execucomp database. Tenure is calculated using the dates a person became CEO, and the date a person left as CEO. Collection of financial performance information (Return on assets, return on investments, return on equity, Tobin's Q) is retrieved from the S&P Compustat database.	Qualitative data analysis: Content-coding of qualitative materials (CEO letters) by means of Winter's (1994) second-generation scoring manual for running text. Quantitative data analysis: Statistical analysis using survival analysis conducted with open-source software R (version 3.4.1): Cox proportional hazards survival analysis.	Descripto-explanatory: Archival study. Multi-source design with nonrandomized samples. The study gains information about the association between the independent variables, CEO sex (male, female) and implicit motives (achievement, power, affiliation), and the dependent variable CEO turnover risk. The study explores performance differences between male and female achievement-, power-, and affiliation-motivated CEOs.

CHAPTER 1

<i>Study</i>	<i>Research question</i>	<i>Sampling procedure</i>	<i>Data collection</i>	<i>Data analysis</i>	<i>Research design</i>
3	Q5: How do implicit motives (power, affiliation) influence other-perceptions of leadership (i.e., likability, competence, general leader evaluations, tenure recommendations, and financial performance ratings)? Q6: Are CEOs who display gender-congruent implicit motives (female CEOs with high affiliation and male CEOs with high power) perceived as more or less favorably in terms of their likability, competence, general leader evaluations, tenure recommendations, and financial performance ratings than CEOs who display gender-incongruent implicit motives (female CEOs with high power and male CEOs with high affiliation)?	1) Sampling 922 undergraduate and postgraduate Business School students from 15 classes of an Irish University. 2) Randomly assigning participants to one of four experimental conditions in which the two independent variables of Target Sex (male, female) and Implicit Motives (power, affiliation) were manipulated.	Quantitative data collection: In-class, paper and pencil experimental vignette study with a survey. The study is administered between April and December 2018.	Quantitative data analysis: Statistical analysis using a 2×2 and $2 \times 2 \times 2$ factorial ANOVA conducted with SPSS version 24/25.	Explanatory: Experimental vignette study. Experimental research design that establishes a relationship between the independent variables Implicit Motives (power, affiliation) and Target Sex (male, female) the and dependent variables (i.e., likability, competence, general leader evaluations, tenure recommendations, and financial performance ratings).

Note. Table 1.1 depicts an overview of the study design and research methods used in the present dissertation and was generated with the help of “Research Methods for Business Students (7th ed),” 2016, M. Saunders, P. Lewis, & A. Thornhill, Pearson Education Limited.

Footnotes

[1.1] A similar literature review has been conducted using Web of Science, a publisher-independent global citation database (Clarivate Analytics, 2019). More specifically, of the 289 English-language, journal articles found in a Web of Science search that included the terms “*implicit motiv**” in their topic, as defined by title, abstract, author keywords, and keywords plus (a Web of Science specific algorithm), 43 publications also included the topic “*lead* OR manag* OR ceo OR executiv* OR “upper echelon*” OR president OR director.*” Of these 43 journal articles, however, only eight publications further included the terms “*gender OR sex OR m*n wom*n OR male female*” (search date September 05, 2019).

Chapter 2

Theoretical Background and Literature Review

Summary

The present chapter introduces the three major themes of the current dissertation; executive leadership, implicit motives, and gender. In doing so, I highlight the importance of understanding the motivation of leaders. Furthermore, I show that, to date, the role of gender in the relationship between implicit motives and leadership has not been investigated systematically. This means that knowledge on this topic is fragmented. I present methodological innovations in the field of implicit motives research and introduce how these advances enable studying the implicit motives of leaders at a distance and in a gender-balanced fashion. Next, I highlight the importance of studying leadership and gender. I provide an overview of women's underrepresentation in executive leadership and summarize the key theoretical concepts that explain how gender stereotypes might influence the self-construal, (perceived) effectiveness, and evaluation of leaders. I conclude this chapter by integrating the different theoretical concepts that inform my research.

Chapter 2: Theoretical Background and Literature Review

My dissertation draws on theories from different literature streams within psychology. In this section, I introduce the three major topics in my research framework; executive leadership, implicit motives, and gender. I establish the importance of studying implicit motives of male and female leaders, identify knowledge gaps, and, lastly, integrate the theoretical perspectives that inform my research.

CEO Leadership

“If we want to understand why organizations do the things they do, or why they perform the way they do, we must consider the [...] dispositions of their most powerful actors—their top executives.”

(Hambrick, 2007, p. 334)

Researchers have long been interested in the study of leadership [2.1] (Zaccaro, 2001, p. 8). Previous research has demonstrated that executive leadership is a crucial predictor of organizational change (e.g., Miller, 1993), performance (e.g., Dalton & Kesner, 1985; Haleblan & Finklestein, 1993; Hambrick & Quigley, 2014), and shareholder behavior (e.g., Lubatkin, Chung, Rogers, & Owers, 1989). However, there is a debate surrounding how much of this relationship can be attributed to individual leaders, that is, high-level executives—a phenomenon commonly referred to in the literature as the *CEO effect*. Some researchers have hypothesized that managers [2.2] are largely subject to external circumstances such as the macroeconomic environment and firm-specific factors (e.g., DiMaggio & Powell, 1983; Hannan & Freeman, 1977; Haveman, 1993). Others have argued that “executives’ experiences, values, and personalities greatly influence their interpretations of the situations they face and, in turn, affect their choices” (Hambrick, 2007, p. 334) and thereby impact the fortune or misfortune of organizations (Child, 1972; Hambrick & Mason, 1984; Hambrick & Quigley, 2014; Rumelt, 2011). In their influential research on executive leadership, Hambrick and Mason (1984) and Hambrick and Quigley (2014) provided empirical evidence for the latter, supporting the idea that CEOs matter [2.3].

Despite the importance of strategic leadership, merely a fraction of the overall leadership literature has been dedicated to the upper echelons of organizations (Zaccaro, 2001). Reasons for this under-investigation include, but are

not limited to, the small number of and restricted access to corporate executives. Therefore, executive leadership research has largely built on archival and historical studies (Day & Lord, 1988), often using demographic variables such as industry, age, tenure, or education as proxies for CEOs' cognitive frames (Hambrick, 2007). Although these demographic proxies have been regarded as valid and reliable for use in research, they do not fully explain the real psychological and social mechanisms that motivate executive behavior—commonly referred to in the literature as the “black box problem” (Hambrick, 2007, p. 335). To explore this black box, researchers point to the importance of incorporating micro perspectives into macro-level research (e.g., Felin, Foss, & Ployhart, 2015). Adopting a micro-level perspective can thus help researchers to understand better what are the psychological characteristics that differentiate successful executive leaders from unsuccessful ones.

Individual Difference Characteristics as Antecedents of Leadership

“The theme of individual differences that contribute to leadership is the longest-standing research topic in the science of leadership.”

(Zaccaro, Green, Dubrow, & Kolze, 2018, p. 2)

Over the last decades, research on individual difference characteristics has found its way into different models of executive leadership (Zaccaro, 2001). For example, research has investigated the link between individual differences and charismatic or transformational leadership styles (e.g., Crant & Bateman, 2000; House, 1977; House & Howell, 1992; Reichard et al., 2011), or explored the relationship between the *Big Five* personality traits and leadership (De Hoogh, Den Hartog, & Koopman, 2005; Judge & Bono, 2000; Ployhart, Lim, & Chan, 2001). To synthesize research findings, several literature reviews and meta-analyses on personality and motives have been published over the years, demonstrating the importance of leaders' individual difference characteristics as antecedents for successful leadership (e.g., Bono & Judge, 2004; Derue, Nahrgang, Wellman, & Humphrey, 2011; Hogan & Kaiser, 2005; House & Howell, 1992; Judge, Bono, Ilies, & Gerhardt, 2002; Judge, Piccolo, & Kosalka, 2009; Kirkpatrick & Locke, 1991; Lord, De Vader, & Alliger, 1986; Stewart & Roth, 2001; Zaccaro et al., 2004).

Studying executives' individual difference characteristics from a psychological perspective, however, can prove difficult given the limitations of archival studies, which represent a “go-to” method in strategic leadership research (see Zaccaro, 2001). More specifically, most psychological constructs (such as

personality, cognitive abilities, or motivation) require the use of primary data, which is directly collected from leaders or other stakeholders such as subordinates or colleagues. Especially in the C-Suite of publicly-traded companies, such opportunities for data collection are difficult to access (Zaccaro, 2001). At the same time, *implicit motives*, as one of the few individual difference characteristics that can be validly assessed at a distance, remain comparatively understudied as they have long been greeted with reservation (Schultheiss & Brunstein, 2010) due to (1) criticisms of reliability and validity in early measurements; as well as (2) resource-intensive and complex assessment procedures. However, methodological refinements in the assessment of implicit motives have improved the potential of archival research for studying variables beyond the organizational level (Winter, 1991b; Zaccaro, 2001). The following section introduces the reader to the construct of implicit motives and summarizes major themes in their history and assessment.

Implicit Motives

“Understanding human motivation ought to be a good thing. It should help us to find out what we really want so that we can avoid chasing rainbows that are not for us. It should open up opportunities for self-development if we apply motivational principles to pursuing our goals in life.”

(McClelland, 1978, p. 201)

Implicit motives [2,4] are commonly described as relatively stable individual difference characteristics or enduring preferences for broadly defined classes of affectively charged incentives (Brunstein, Schultheiss, & Grässmann, 1998; Hoffman, Woehr, et al., 2011; McClelland, 1987a). They can be characterized as wishes and desires that are not directly consciously accessible (McClelland et al., 1989; Winter, Stewart, John, Klohnen, & Duncan, 1998) as they are related to people’s basic, organismic, and unconscious needs (Kehr, 2004b; Maslow, 1943). For example, while some individuals experience exerting control as satisfying, others may derive satisfaction from mastering a task or forming close relationships. According to Kanfer et al. (2017), “needs operate cyclically (i.e., they are not permanently satisfied), the strength of unmet needs corresponds to the tension they elicit, and satisfying unmet needs is posited to be rewarding” (p. 340). Through the process of need fulfillment, implicit motives energize and direct behavior in specific directions (Kanfer et al., 2017; McClelland et al., 1989). Research generally distinguishes three implicit motives: 1) The achievement motive; 2) the power

motive; and 3) the affiliation motive (Heyns, Veroff, & Atkinson, 1958; McClelland, 1975, 1987a), also called the *Big Three* [2.5] (Kehr, 2004a).

The achievement motive is concerned with people's wish to attain a standard of excellence or the mastery of a skill or task. This need can be expressed verbally by describing one's unique accomplishments, evaluating positive performance and successes, or expressing negative emotions regarding a lack of achievement (Duncan & Peterson, 2010; Winter, 1991a). For example, "I am disappointed about not having excelled in my role as a leader." The power motive relates to people's need to control or exert influence over others. This need can be expressed by describing forceful or impactful actions, instrumental helping, status and recognition, as well as rules and regulations (Duncan & Peterson, 2010; Winter, 1991a). For example, "We have to beat our competitors to control the market." The affiliation motive refers to people's need for deep, meaningful relationships, intimacy, interpersonal friendliness, and warmth. This need can be verbally manifested through the expression of warm, caring, or appreciative feelings towards other individuals or negative feelings towards the violations or absence of such. It may further be expressed in nurturing activities or friendly interactions (Duncan & Peterson, 2010; Winter, 1991a). For example, "I deeply care for establishing trusting relationships with our shareholders."

The extent to which individuals are motivated by a need for achievement, power, and affiliation differs from one individual to the next. Moreover, implicit motives respond differently to incentives; for example, highly achievement-motivated individuals are likely to respond positively to opportunities that allow them to be their best (Schultheiss & Pang, 2007). If these same individuals are not particularly motivated by power or affiliation, they are likely to respond less to opportunities that allow them to control others or to form close relationships (Schultheiss & Pang, 2007). Need fulfillment is in and of itself perceived as rewarding. Therefore, the *Big Three* represent desired states that may guide individuals' behaviors toward attaining specific goals while avoiding others (Delbecq et al., 2013). However, implicit motives are not necessarily considered as opposite ends of a spectrum whereby individuals with a high achievement motive cannot hold a high power or affiliation motive. Instead, individuals can hold any combination of motives, or in other words, may be dispositionally high or low on all three needs. Nevertheless, implicit motives compete with each other for need fulfillment (Atkinson & Birch, 1970; Schultheiss & Pang, 2007). Once a particular need is

satisfied, it declines in strength and allows other needs to develop, be activated, and fulfilled, depending on their motive strength. Yet, the higher a motive's disposition, the faster it will cycle back to high motive strength, and thus the more likely it is to influence behavior strongly (Schultheiss & Pang, 2007).

In general, the achievement motive is largely considered as a self-focused motive fueled by an internal desire to attain a standard of excellence, while the power and affiliation motives would more accurately be considered as social motives whose fulfillment is dependent on the influence over or warm interaction with other individuals (Kanfer et al., 2017).

Implicit Motive Research Through the Years

Emergence. Approximately 70 years ago, McClelland and Atkinson began their inquiry of human's implicit motivation: Their interest followed the tradition of Murray's (1938) research on basic human needs. By experimentally manipulating and measuring people's hunger motivation with the help of the Thematic Apperception Test (TAT; Morgan & Murray, 1935; Murray, 1943), the pioneers obtained promising results (Atkinson & McClelland, 1948) which they developed further in their ground-breaking work on the achievement motive (McClelland, Atkinson, Clark, & Lowell, 1953). This motive is also termed as "the need for achievement" and is sometimes referred to as *n*Achievement or *n*Ach. The achievement motive seemed to have more relevance for societal challenges than previously studied motives such as hunger (Schultheiss & Brunstein, 2010). Since then, scholars have dedicated their work to exploring the significance of the achievement motive for individuals' life and career success (see *The Achievement Motive*; McClelland et al., 1953).

Rise. McClelland and Atkinson's work quickly disseminated, and other implicit motives such as the power motive (abbreviated as *n*Power or *n*Pow), and the affiliation motive (abbreviated as *n*Affiliation or *n*Aff) were assessed and validated by means of TAT-based measures (Atkinson, 1958). Already early in their application, implicit motives found use in domains beyond psychological science (Schultheiss & Brunstein, 2010). For example, McClelland (1961) was interested in the relevance of the achievement motive in explaining economic phenomena. His work, *The Achieving Society*, synthesized his scientific viewpoint and established a case for the explanatory power and validity of content-coding techniques for measuring implicit motives (Schultheiss & Brunstein, 2010). McClelland's increased

efforts in investigating real-world phenomena related to corporate settings (McClelland & Winter, 1969; Schultheiss & Brunstein, 2010) attracted researchers from various fields to build on his theoretical frameworks. Also, Atkinson's (1957) seminal theory of achievement motivation further triggered the rise in interest in implicit motives research (Schultheiss & Brunstein, 2010). The subsequent years provided an amplitude of findings regarding the emergence of implicit motives, their stability and changes over time, their relationship with certain psychophysiological reactions, and their effects on health and well-being, amongst others (e.g., Brunstein, 2010; Denzinger & Brandstätter, 2018; McClelland, 1989).

Fall. Due to increasing criticism in the study of implicit motives (e.g., Entwistle, 1972; Fineman, 1977; Klinger, 1971) unrealistic claims about the validity and reliability of their measures (Schultheiss & Brunstein, 2010), as well as a general crisis in the field of personality and organizational psychology (Kanfer et al., 2017; Mischel, 1968; Mitchell, 1979), implicit motives research began to stagnate. Similarly, key authors' slow responses to peer critique contributed to a reduction in scholarly interest in the topic. Especially the misconceptualization of implicit motives as explicitly measurable characteristics contributed to the decline in academic attention (Schultheiss & Brunstein, 2010). Scholars increasingly attempted to steer away from indirect assessment methods towards self-report measures, which are more time-efficient, as well as easier to obtain and analyze. A core concept of implicit motives research, however, revolves around what has later been coined the *dual systems* argument, which proclaims functional and statistical independence of implicit and explicit motives. As non-significant correlations between projective and self-report measures [2.6] indicate (e.g., Köllner & Schultheiss, 2014), implicit measures and explicit measures tap into two fundamentally different motivational systems and capture distinct motivational constructs (Schultheiss & Brunstein, 2010). As a result of a lack of clear direction and cohesion in concept definitions, operationalizations, and measurements between the 1960 and 1990s, scholars faced challenges in terms of misleading literature-remains.

As a consequence, different theoretical streams emerged using the same names for different constructs that are implicit versus explicit motives, exacerbating one's navigation through the literature (Schultheiss & Brunstein, 2010). Further, according to Schultheiss and Brunstein (2010), a clear contributor to the decline in implicit motives research was the lack of carefully developed theory. While Atkinson

(1957) himself introduced self-report measures in his influential risk-taking theory of achievement motivation, McClelland challenged the usefulness of theories altogether: “My primary loyalty is to the phenomenon, to the empirical fact—and if it messes up somebody’s theory, so much the worse for the theory” (McClelland, 1984, p. 28). A model was needed that differentiated which outcomes were predicted by either the implicit or explicit measure. Research by De Charms, Morrison, Reitman, and McClelland (1955) tapped into this question when investigating people’s implicit and explicit achievement motive and found that behavioral performance is predicted by people’s implicit motivational needs whereas attitudes and verbal choices are explained by explicit, or self-attributed motives. Yet, according to Schultheiss and Brunstein (2010), implicit motives research remained a doubted area in the eyes of personality psychology—a field that heavily relies on self-report measures—for many years.

Revival and refinement. McClelland’s (1980, 1987a) attempt to incorporate non-conscious and conscious forms of motivated behavior into an overarching framework paid off. According to Schultheiss and Brunstein (2010), after some time of stagnation, many sub-disciplines of psychology (i.e., cognitive, social, and neuropsychology) started to explore constructs and processes that occur outside of people’s conscious awareness. The idea that the human mind functions on different levels became more accepted (Kihlstrom, 1990). Subsequently, McClelland et al. (1989) published their seminal paper on a comprehensive framework (i.e., dual systems theory of human motivation, also known as motive disposition theory). This framework differentiated between the variables that implicit and explicit motives respond to and thereby addressed the concerns that contributed to the decline in implicit motive research.

In this new model, McClelland et al. (1989) finally adjusted the terminology and adopted the terms *implicit* and *explicit motives* (which, for reasons of readability, have already been used throughout this text) to underline their conceptual differences. McClelland’s seminal work postulates that implicit motives respond to task-intrinsic incentives (meaning that the task in and of itself is perceived as need-fulfilling) and affect operant behaviors; these are behaviors in unstructured situations. Hereby, *operant* describes spontaneously generated, freely emitted behaviors that do not occur in response to specific stimuli (Spangler, 1992). Examples of operant outcomes are income, career advancement, and leadership role

occupancy or trajectories. Explicit, or self-attributed motives, however, respond to social incentives and affect respondent behaviors, these are behaviors that are displayed in response to social demands or expectations (Schultheiss & Brunstein, 2010, p. 9). Hereby, *respondent* means that behavior is elicited, and thus more constrained, by specific stimuli in individuals' environments (Spangler, 1992). Examples of respondent outcomes are personality questionnaires, test performance, or opinion polls. The functional independence of implicit versus explicit motives was supported in Spangler's (1992) meta-analysis, and McClelland et al.'s (1989) theory was subsequently integrated into general personality psychology and major textbooks (e.g., Carver & Scheier, 2007; Larsen & Buss, 2008; McAdams, 2009; Winter, 1996) and handbooks (John, Robins, & Pervin, 2008; Robbins, Fraley, & Krueger, 2007; Smith, 1992).

New developments and applications. Since its development, supporting evidence for the dual systems theory of human motivation has accumulated (Kanfer et al., 2017). Today, the existence of an implicit motivational system is generally accepted, and a growing body of research investigates the interplay between implicit and explicit motives (e.g., Brunstein & Maier, 2005). For example, even though implicit motives and explicit motives are generally independent, researchers found that explicit motives channel the way implicit motives are expressed in behavior (Bing, LeBreton, Davison, Migetz, & James, 2007; Bing, Stewart, et al., 2007; Lang, Zettler, Ewen, & Hülshager, 2012; Winter et al., 1998). For instance, introverted affiliation-motivated individuals possibly show their need for affiliation differently than extroverted affiliation-motivated people.

This rationale is in line with research findings implying that the personality trait of extraversion accelerates the expression of the need for power and affiliation, whereas introversion inhibits it (Winter et al., 1998). Similarly, scholars observed that employees with both high implicit and explicit achievement motives assume challenging tasks, while employees with high explicit but low implicit achievement motives take on tasks that allow them to avoid responsibility in case of failure (Bing, LeBreton, et al., 2007). Furthermore, Lang et al. (2012) observed that high levels of extraversion channeled the effect of implicit affiliation motivation into a better task and contextual performance. Conversely, low levels of extraversion channeled the effect of implicit affiliation motivation into a worse task and contextual performance (Lang et al., 2012). Moreover, high levels of explicit achievement motivation

channeled the effect of implicit achievement motivation into a better task and contextual performance (Lang et al., 2012). Lang et al. (2012) have significantly contributed to the advancement of implicit motives research in the context of performance assessment by integrating these two research streams of implicit motives and traits. Their research has shown that the interactive effects between implicit motives and traits improve the prediction of important work outcomes.

Moreover, research on congruency effects suggests that a congruence between implicit and explicit motives related to increased well-being (Langens & McClelland, 1997) as well as decreased volitional depletion in managers (Kehr, 2004a, 2004b), whereas incongruence related to increased stress and decreased well-being (Baumann, Kaschel, & Kuhl, 2005). Other research areas include, but are not limited to, the relationship between implicit motives and health-related work outcomes such as burnout (e.g., Brandstätter, Job, & Schulze, 2016), finance-related work outcomes such as income growth trajectories (Apers, Lang, & Derous, 2019), performance-related work outcomes (Lang et al., 2012), and counterproductive work behavior (Runge, 2019).

Amongst other diverse research areas, scholars have investigated the importance of implicit motives for presidential success (e.g., House et al., 1991; Winter, 1987b, 2010a), the malleability of implicit motives across situations and over time (e.g., Denzinger, 2017), and the relationship between implicit motives and culture (e.g., Hofer & Chasiotis, 2011; Hofer, Chasiotis, Friedlmeier, Busch, & Campos, 2005). While an extensive review about the diverse and new avenues of implicit motives research is beyond the scope of the current dissertation, this section aims to highlight the variety of scientific inquiry as well as the increased importance attributed to their study with regards to diverse life- and work-related outcomes of implicit motives. One aspect that has especially fueled the development of these new areas of investigation relates to the advances in implicit motives measurement.

Building on Atkinson and Birch's (1970) dynamics of action theory, researchers have recently addressed the criticisms of measurement properties in the assessment of implicit motives (e.g., Entwistle, 1972) that had contributed to a decline in implicit motives research. By developing a dynamic Thurstonian item response model (DTM), Lang (2014) showed that, due to the internally competing and dynamic nature of implicit motives, the internal consistency estimate Cronbach's alpha (Cronbach, 1951) is not an appropriate measure of reliability for implicit

motives since Cronbach's alpha assumes that the underlying motive disposition is unidimensional. Instead, Lang (2014) demonstrated that accounting for the complex response process of implicit motives using Thurstonian models (e.g., Böckenholt, 2004, 2006; Brown & Maydeu-Olivares, 2011, 2013)—that is taking their dynamic nature and declining strength after motive expression, as well as individual differences in motivational preferences, into consideration—significantly improves reliability estimates for Picture Story Exercise (PSE) stories (see next section on implicit motives measurement). More specifically, in a multilevel analysis, DTM statistically account for the rank order of preferences for a particular motive category (e.g., is the preference for achievement motivation stronger than power and affiliation motivation in a given picture?), individual differences in this rank order (e.g., how much does the variability in motivational preferences is attributable to a specific person?), picture effects (e.g., how much does a picture “pull” for a particular motive?), and dynamic effects (e.g., has motive strength decreased since a particular need had just been met? Does this effect sustain over the course of the entire motive assessment?) (see Runge et al., 2016).

Researchers have recently applied the dynamic Thurstonian Item Response Theory (IRT) approach to the Operant Motive Test (OMT; see next section on implicit motive measurement) and replicated Lang's (2014) findings of a (sustained) dynamic implicit motive system. This means that, over the course of a PSE or OMT assessment, motive strength of a recently enacted motive does not fully recover. Lang and colleagues have demonstrated that if the underlying response processes of implicit motives are properly accounted for, they can indeed be measured reliably. In doing so, they have significantly advanced this field of research. Lang's IRT approach has since been applied to the study of differential item functioning in cross-cultural implicit motives research (Runge, Lang, Chasiotis, & Hofer, 2019). This has also contributed towards the development of a promising new test for measuring implicit motives using a self-categorization format (Runge & Lang, 2019; see next section on implicit motive measurement).

Implicit Motive Measurement

“Recent advances in measurement make the exploration of implicit content and processes far more tractable than in the past.”

(Kanfer et al., 2017, p. 347)

According to Schultheiss and Pang (2007), implicit motives research is guided by certain principles: First, implicit motives are thought to operate outside of individuals' conscious awareness which led to the assumption that they are inaccessible to introspection (Kagan, 2002; McClelland et al., 1953; Nisbett & Wilson, 1977; Schultheiss & Pang, 2007). This means that people should not be able to recognize to what extent they are motivated by their needs for achievement, power, and affiliation. Second, implicit motives are aroused through non-verbal, experiential, imaginative rather than verbal stimuli (Schultheiss & Pang, 2007). Third, according to Schultheiss and Pang (2007), the situational arousal of implicit motives is related to non-declarative rather than declarative changes in behavior (e.g., actual performance in a scrambled-word test versus attributions of achievement motivation to the self or others; De Charms et al., 1955).

In order to assess implicit motives in a reliable and valid way, measures need to reflect these aforementioned properties. Thus, researchers established *experimentally* derived and validated thematic-content measures of motivation. Opposed to measures such as the Personality Research Form (PRF; Jackson, 1984), the Motive Enactment Test (MET; Kuhl, 1999), or the Goal measure (Job et al., 2009; Schnelle, Brandstätter, & Knöpfel, 2010) which, for example, explicitly ask individuals to what extent they would describe themselves as achievement-motivated, thematic-content measures tasked participants to write imaginative stories in response to ambiguous picture cues. To develop scoring definitions for the imaginative stories, researchers compared and codified the written content of experimentally aroused motives versus neutral motive conditions. Consequently, in a between-subjects research design using the same picture cues, individuals with higher achievement scores, would—according to these scoring definitions—be considered as more achievement-motivated (Schultheiss & Brunstein, 2010).

With the formal development of implicit motives theory, researchers also formalized the application of the Picture Story Exercise (PSE) to highlight the adaptations made to the TAT (McClelland et al., 1989; Winter, 1999). According to the dynamics of actions theory (Atkinson, 1981; Atkinson & Birch, 1970), the cyclical operation of need fulfillment gives rise to a certain variability in implicit motives expression and oftentimes low associated internal consistency in the form of Cronbach's alpha (Schultheiss & Pang, 2007). However, stronger motives are easier to arouse, and therefore “individuals with a strong underlying motive disposition

cycle more quickly back and forth between motive expression and satiation than individuals with a weak motive” (Schultheiss & Pang, 2007, p. 7), leading to higher overall PSE scores for stronger motives.

The functional independence of self-report measures and projective measures to capture different systems of motivation and predict different outcomes was demonstrated in numerous studies (e.g., Köllner & Schultheiss, 2014; McClelland et al., 1989; Schultheiss, 2001; Spangler, 1992). For comprehensive information about coding methods suitable for implicit motives research and best practices in implicit motive measurement, please refer to, for example, Chasiotis (2015), Pang (2010), Schultheiss and Pang (2007), or Smith (1992).

While a multitude of scoring systems have been developed throughout the years, one approach that had a significant impact on implicit motives research is Winter’s (1991b; 1991c; 1994) integrated scoring manual, which assesses implicit motives in running text. Based on earlier coding methods (i.e., Heyns et al., 1958; McAdams, 1980; McClelland et al., 1953; Winter, 1973), Winter (1991c) formulated simplified scoring rules which are regarded as highly efficient and comprehensive. As a result, the Winter manual has become a content-coding method frequently applied by implicit motive researchers. In this manual, Winter integrated the affiliation and intimacy constructs into one overall motive of affiliation-intimacy. Furthermore, as an integrative scoring system, Winter’s manual gives three overall implicit motives scores without differentiating into the hope and fear facets of achievement, power, and affiliation-intimacy (Pang, 2010).

According to Pang and Schultheiss (2005, p. 283), the Winter (1994) scoring system has been psychometrically validated and shows extensive predictive validity across different applications ranging from studies of political leadership (e.g., Donley & Winter, 1970; Winter, 1980, 1987b, 2010a; Winter & Carlson, 1988; Winter & Stewart, 1977), the role of implicit motives in conflict escalation (e.g., Winter, 1987a), terrorism (e.g., Smith, 2008), and war (e.g., Winter, 1993), to the effects of motive-goal congruence on emotional well-being and life satisfaction (e.g., Brunstein et al., 1998; Hofer & Chasiotis, 2003). It can be applied to content-code implicit motives from a wide variety of written materials above and beyond the PSE (Schultheiss & Pang 2007, p. 14). By allowing the assessment of implicit motives at a distance, Winter (1991b) has opened up new avenues for research, such as executive leadership. Consequently, this methodological advancement has

contributed to a resurgence in implicit motive research that, in comparison to other individual difference characteristics, had still received relatively little attention (Delbecq et al., 2013).

Other significant developments in implicit motives measurement include the Multi-Motive Grid (MMG; Sokolowski, Schmalt, Langens, & Puca, 2000), the Operant Motive Test (OMT; Kuhl & Scheffer, 1999), the Motive Self-Categorization (MSC; Runge & Lang, 2019), and computerized coding. First, as a semi-projective measure, the MMG asks participants to rate motive-related statements about the picture themes (Pang, 2010) and thus employs a restricted response format. Nevertheless, the MMG was shown to be a valid measure (Gable, Reis, & Elliot, 2003; Kehr, 2004a; Langens & Schmalt, 2002, 2009; Puca, 2005; Puca, Rinkenauer, & Breidenstein, 2006; Schüler, Job, Fröhlich, & Brandstätter, 2008). It differentiates between hope and fear facets providing six overall motive scores for (1) hope of success; (2) fear of failure; (3) hope of affiliation; (4) fear of rejection; (5) hope of power; and (6) fear of power. However, due to its incorporation of self-report measures, the MMG sometimes showed convergent validity with measures of explicit motives (Schüler, Brandstätter, Wegner, & Baumann, 2015). Furthermore, MMG's use of self-report measures implies that it would be difficult to utilize in the CEO context, given top leaders' general inaccessibility for research.

Second, as an adaptation of the PSE, the OMT asks three to four questions about the main protagonist, thereby allowing researchers to test more picture cues in a more time-efficient and less resource-intensive manner (Chasiotis, 2015). This makes the OMT a widely used tool in modern implicit motives research (e.g., Baumann et al., 2005; Baumann & Scheffer, 2010; Hofer, Busch, Chasiotis, Kärtner, & Campos, 2008; Kazén & Kuhl, 2005; Lang et al., 2012; Schüler et al., 2008). Picture cues are presented in a vague rather than detailed outline, which reduces the potential confounding impact of the protagonists' characteristics such as their age or gender. Furthermore, within the OMT, implicit motives are distinguished into approach and avoidance components. Further, Kuhl's (2000, 2001) Personality Systems Interactions theory postulates that the fulfillment of needs can be valenced with either positive or negative affect, and directed either towards the self (intrinsic) or towards external incentives (extrinsic) (Deci & Ryan, 2000; Chasiotis, 2015; Kuhl, 2000). In contrast to Winter's scoring manual (1994), however, validation of the OMT scoring manual is pending (Chasiotis, 2015). While the OMT shows predictive

validity across various contexts (Pang, 2010), the application of the OMT scoring manual to different written materials above and beyond the OMT, and thus its ability to predict implicit motives at a distance, needs to be explored in future research.

Third, as Runge (2019) indicated, recent research has questioned the idea that individuals cannot recognize their own implicit motives, arguing that an absence of a correlation between implicit and explicit measures does not automatically imply that individuals are incapable of evaluating their responses to picture cues (e.g., Engeser, 2005; Sherwood, 1966; Thrash, Cassidy, Maruskin, & Elliot, 2010). Building on recent psychometric advances for modeling implicit motives (Lang, 2014), as well as on earlier research on semi-projective measures (Engeser, 2005; Schmalt, 1999; Sokolowski et al., 2000), Runge and Lang (2019) developed the motive self-categorization (MSC) procedure. The MSC combines the advantages of projective, picture-based measures with resource efficiency by substituting expert raters with a self-rating method.

In a two-stage process, the MSC first asks participants to compose stories in response to picture cues and subsequently to self-categorize their stories using a forced-choice format. Forced-choice items represent picture-specific statements and have been empirically derived from responses to a pilot study using the picture cues of stage one. They are grounded in theory by utilizing expert raters to content-code responses for achievement, power, and affiliation based on scientific definitions. This way, the MSC (1) allows responses not to be confounded by participants' lay theories of implicit motives; (2) uses an operant response behavior format as traditional projective measures and thereby measures implicit rather than explicit motives; and (3) simplifies self-categorization by using context-specific items. Runge and Lang's (2019) results showed that participants are able to reliably self-categorize their motives (Lang, 2014).

Also, participants' self-categorization showed sufficient convergent validity with expert codings and discriminant validity from self-report measures (Runge & Lang, 2019). The new MSC measurement procedure has great potential to contribute to the advancement of implicit motive research by, for example, reducing the time and resources currently associated with content-coding with expert raters. This is a practical reason that has held scholars back from engaging in the study of implicit motives. However, similarly to the MMG, the inclusion of respondents in the

categorization process exacerbates its application to assessing implicit motives of largely inaccessible leaders at a distance (Winter, 1991b).

Other methodological advancements worth noting are the Linguistic Inquiry and Word Count method (LIWC; Pennebaker, Booth, & Francis, 2007; Pennebaker, Francis, & Booth, 2001) and machine learning approaches (e.g., Pang & Ring, 2020). LIWC is a computer-based method for content-coding implicit motives. While the LIWC has great potential to study larger samples and assess implicit motives at a distance, it is critiqued for its insufficient detection of nuances and insensitivity to context (Schultheiss, 2013a). Thus, future research and refinements are needed before the LIWC can be considered as equal or superior to expert coding. This limitation may potentially be overcome by more fine-grained machine learning approaches (Pang & Ring, 2020).

In conclusion, a review of the most prominent motive measures shows that, within the scope of the current dissertation, the Winter (1994) scoring method is both suitable and appropriate as (1) it is a widely used and accepted standard procedure for content-coding implicit motives; (2) it can be applied to both men and women; (3) it does not require the use of primary data but can be applied to content-code motives from any kind of written materials; (4) it can be used to study all three motives in one go; (5) it has been validated by prior research; and (6) it has been used across various contexts by prior research (De Hoogh, Den Hartog, Koopman, et al., 2005). In the present research, I, therefore, chose to apply Winter's (1994) scoring manual in order to assess the implicit motives of CEOs.

Implicit Motives and Leadership

“Of all the hazy and confounding areas in [...] psychology, leadership [...] undoubtedly contends for top nomination. And, ironically, probably more has been written and less is known about leadership than about any other topic in the behavioral sciences.”

(Bennis, 1959, pp. 259-301)

Researchers have long been interested in studying implicit motives in the context of economic development, (e.g., McClelland, 1961; McClelland & Winter, 1969); entrepreneurship (e.g., Rauch & Frese, 2007; McClelland, 1965); as well as political leadership (House, Spangler, & Woycke, 1991; Spangler & House, 1991; Winter, 1987b); and organizational leadership (e.g., Kets De Vries & Engellau, 2010; McClelland & Boyatzis, 1982; Watson & Barone, 1976). Also, the practitioners'

interest in leaders' implicit motives has been rising (Kehr, Thrash, & Wright, 2011; McClelland & Burnham, 1976, 2003; Spreier, Fontaine, & Malloy, 2006). Despite this diverse interest, relatively few studies have investigated implicit motives and leadership empirically: This is in part due to their lengthy assessment and in part due to the long-lasting methodological discussions regarding their (a) superiority or inferiority to; (b) differentiation from; and (c) interaction with explicit motives (Carter, Daniels, & Zickar, 2013; De Hoogh, Den Hartog, Koopman, et al., 2005; Entwisle, 1972; Latham, Stajkovic, & Locke, 2010; McClelland et al., 1989). Nevertheless, empirical evidence that suggests a relationship between implicit motives and successful organizational leadership is solidifying (e.g., Delbecq et al., 2013; Kirkpatrick et al., 2002; McClelland & Boyatzis, 1982).

However, existing empirical research regarding the direction of these relationships is mixed (Wolff & Keith, 2019). On the one hand, research on the *achievement* motive, for example, has suggested that due to an increased immersion into goal-directed tasks, achievement-motivated individuals may be more likely to emerge as leaders (Delbecq et al., 2013). Likewise, Sorrentino (1973) has observed a positive relationship between achievement motivation and leader emergence. Furthermore, researchers have associated achievement motivation with executive success (Cummin, 1967), career success (Spangler, 1992), entrepreneurial performance (Winter, 2010b), networking (Wolff, Weikamp, & Batinic, 2018), and occupational reputation (Dietl, Meurs, & Blickle, 2017). On the other hand, De Hoogh, Den Hartog, Koopman, et al. (2005) found achievement motivation to be unrelated to effective charismatic leadership performance in senior non-technical positions. Similarly, Delbecq et al. (2013) found achievement motivation to be unrelated to charismatic leadership, which was found to be an antecedent of follower motivation and teamwork. Yet, in other studies on political leadership, achievement motivation has shown a marginally negative relationship with presidents' perceived "greatness" and their performance in social, or international relations (House et al., 1991; Spangler & House, 1991). Spangler et al. (2014) have argued that achievement-motivated leaders are likely to be more focused on attaining goals utilizing their own efforts rather than utilizing the efforts of others. This focus on the self is likely to make achievement-motivated leaders more hesitant to delegate tasks (House & Aditya, 1997) and to maintain a high level of control over their responsibilities (McClelland & Burnham, 1976). Thereby, achievement-motivated

leaders might evade decision-making and authority-inflicting behaviors (Spangler et al., 2014).

Research on the *power* motive has also provided mixed results. On the one hand, scholars have suggested that power positively relates to leader success (Winter, 1973), charisma (House, 1977; House et al., 1991), career progression, and advancement into upper management positions (McClelland, 1975, 1987b). However, on the other hand, research has associated the power motive with self-aggrandizement and exploitation of others (House & Howell, 1992). Similarly, studies have observed a negative or non-existent association between power motivation and successful leadership (Delbecq et al., 2013; House et al., 1991). Correspondingly, De Hoogh, Den Hartog, Koopman, et al. (2005) have argued that the help or hindrance of power motivation might depend on the organizational context (e.g., for-profit versus non-profit organizations).

There have also been inconsistent findings in relation to the *affiliation* motive. On the one hand, research has observed a negative relationship between affiliation motivation and successful leadership (e.g., House et al., 1991; Jacobs & McClelland, 1994; Spangler & House, 1991). More specifically, scholars have argued that affiliation-motivated leaders are likely to be conflict-avoiding and might fail to provide critical feedback to their subordinates (McClelland, 1987a; McClelland & Boyatzis, 1982; Spangler & House, 1991). On the other hand, some studies have observed a positive association between affiliation motivation and managerial performance (Cornelius & Lane, 1984) as well as team-unit performance (Kirkpatrick et al., 2002). Here, it is argued that leaders' concerns about maintaining positive relationships improve performance and ensure organizational success.

To delve deeper into the relationship amongst the *Big Three* implicit motives and leadership, existing research has indicated that successful leaders might hold a specific motivational profile [2.7], or syndrome (McClelland & Boyatzis, 1982). Building on early research on high-level U.S. naval officers in non-technical positions (Winter, 1978, as cited in Winter, 1991a), previous research has suggested that leaders with a high power motive, low affiliation motive, and high activity inhibition are most effective (McClelland & Boyatzis, 1982). Activity inhibition is commonly referred to as people's inclination to restrain motivational and emotional impulses (Schultheiss & Brunstein, 2010)—or, in other terms, their “self-control”—and has been suggested to moderate the effect that implicit motives have on

expressed behavior. This combination of high and low implicit motives plus activity inhibition is also called the *Leadership Motive Pattern* (LMP; McClelland, 1975). Specifically, in a typological approach, McClelland and Boyatzis (1982) have sampled 237 male entry-level managers between 1956 and 1960 and followed their career progression within a company. In this longitudinal study, McClelland and Boyatzis (1982) have found that non-technical managers who held the LMP showed significantly better career advancements 8 years and 16 years after the initial start of the study than non-technical managers who did not hold the LMP. In contrast, the achievement motive has been linked to promotions of lower-level non-technical managers, indicating that achievement motivation plays a more critical role in the early stages of leader emergence.

While Cummin (1967) has found that successful managers showed significantly higher achievement and power motivation than less successful managers, McClelland and Boyatzis (1982) have noted that in high-level, non-technical management, career advancement is less dependent on individual contributions than in lower-level management. Instead, in high-level, non-technical management, career advancement would more heavily depend on leaders' ability to influence others than to strive for excellence. This argument highlights the greater role of achievement motivation in the process of leader emergence than in leader effectiveness. In their influential practitioner article in the *Harvard Business Review*, McClelland and Burnham (1976, 2003) proclaimed the power motive to be the great motivator for leadership and have reasoned that the LMP creates high morale in followers (McClelland, 1975).

Other scholars share similar views on the importance of the power motive. For example, Winter (1987b) has found that U.S.-presidents with a high power motive received higher greatness ratings from history experts than U.S.-presidents with a low power motive. Utilizing the same data, House et al. (1991) have shown that the power motive significantly related to U.S.-presidents' perceived charisma and performance. Since, to date, all of the former U.S.-presidents are male, there is no information available about female political leadership in the highest office.

Corresponding to research on the LMP, Winter (1991a) has suggested that:

“Power must be controlled or tempered; like fire, power has a dual nature: “It can do useful things; it can be fun to play with and to watch; but it must be constantly guarded and trimmed back, lest it burn and destroy” Winter, 1973, p. xviii).” (Winter, 1991a, p. 70)

In fact, considered independently, power can relate to leadership in both positive (i.e., responsible and moral) and negative (i.e., profligate and impulsive) ways. For example, in a study on international conflict escalation, Winter (2007) has found that a high power motive in diplomatic exchanges is related to a greater likelihood of armed escalation while a high achievement or affiliation motive is related to a greater likelihood of peaceful resolution.

If leaders are *not* concerned with the moral exercise of power (or do not have the ability to constrain themselves), a high power motive in and by itself is likely to lead to the enactment of personalized leadership (Delbecq et al., 2013; McClelland, 1980). Personalized leadership, in turn, is characterized by self-serving, dominant, and authoritarian actions that take advantage of others (House & Howell, 1992; Schultheiss & Brunstein, 2002). However, if leaders *are* concerned with the moral exercise of power, a high power motive is likely to lead to the enactment of socialized leadership, which is characterized by socially intelligent actions. Furthermore, Delbecq et al. (2013) have pointed out that personalized leadership motivates self-aggrandizing goal pursuit, while socialized leadership motivates influencing others to achieve organizational goals (see McClelland & Boyatzis, 1982).

Similar to findings regarding the LMP-superiority for executive or managerial success, Winter (1991a) has found that a positive relationship between power and promotion only emerged if leaders were also *responsibility-oriented*. In his re-analysis of McClelland and Boyatzis’ (1982) male-only dataset, Winter (1991a) acknowledged the predictive validity of the activity inhibition construct, yet noted a lack of theoretical grounds and independent empirical construct validity. Subsequently, he proposed a related but theoretically distinct modulator of power—that is, responsibility. Using a validated TAT-based measure of responsibility (Winter & Barenbaum, 1985), Winter (1991a) found that responsibility moderated the relationship between power motivation and successful leadership in non-technical roles in the same manner as the LMP. At the same time, however, the responsibility construct avoids some of the theoretical and epistemological issues associated with

the LMP. For example, the measurement of the activity inhibition construct with counting the number of times the word “not” is used in the written material is deemed controversial (Winter, 1991a). Interestingly, Winter’s (1991a) TAT scoring categories for responsibility partly overlap with his scoring categories of affiliation (see Winter, 1994). More specifically, the responsibility category of “Concern for others: character helps another or shows sympathetic concern” (Winter, 1991a, p. 73) closely resembles the affiliation category of “Friendly nurturant acts such as helping, consoling, sympathetic concern” (Winter, 1994, p. 14). Albeit not conclusive, this slight conceptual overlap could indicate that not all aspects of the affiliation motive may be detrimental for leadership.

The strong concerns for personal relationships and reluctance to discipline subordinates caused McClelland and Boyatzis (1982) to interpret a need for affiliation as being disruptive to managers’ goal pursuit. However, it has to be noted that their theoretical rationale was only developed after findings had accumulated (see Winter, 1991a). While acknowledging conceptual distinctions, Winter (1991a) further highlighted the significant parallels between the affiliation motive and Stogdill’s leadership dimension of *consideration*. This considers behaviors such as helping and being friendly as key determinants of successful leadership (see Bass, 1990). This line of thought was further supported by Cummin (1967), who observed a positive, yet not significant relationship between affiliation motivation and executive success in a study on 50 businessmen and two businesswomen, as well as Cornelius and Lane (1984) who observed a positive relationship between affiliation motivation and managerial performance in a study of 39 managers (23 male, 16 female). Taken together, Winter (1991a) argues that “there are both theoretical and empirical grounds for questioning whether affiliation motive scores should enter the leadership motive pattern as a negative component” (p. 70).

However, one problematic issue pertaining to the study of motivational profiles, in general, is that research on this subject has been mostly restricted to limited comparisons of dichotomous implicit motives configurations (Steinmann, Dörr, Schultheiss, & Maier, 2015). In using a typological approach, McClelland and others have dichotomized continuous variables into low and high levels. This practice is problematic for a number of reasons. First, dichotomization imposes an arbitrary cut-off score that is largely not grounded in theoretical reasoning. As a result, if a variable was dichotomized at, for example, the median, individuals who

score slightly below or above the median would be considered as different from each other rather than similar (Altman & Royston, 2006). Second, the simplification process of dichotomization comes with a significant loss of information, which decreases the statistical power to detect a potential relationship between implicit motives and leader outcomes (Altman & Royston, 2006; Cohen, 1983; MacCallum, Zhang, Preacher, & Rucker, 2002). Third, using a typological approach with dichotomized variables inflates the risk of obtaining false-positive results, meaning that a relationship is indicated while it is, in fact, not there (Altman & Royston, 2006; Austin & Brunner, 2004). Fourth, dichotomization hides any non-linear associations, with the result that the true nature of the relationship between implicit motives and outcome variables potentially would not be sufficiently understood (Altman & Royston, 2006). Lastly, the practice of choosing different cut-off scores in different studies (e.g., T-scores, Means, or Medians) renders individual studies difficult to compare. Taken together, subgroup analyses of dichotomized variables are not considered an optimal statistical solution (Dawson & Richter, 2006).

More recent research has taken up this topic and investigated the relationship between implicit motives and leadership performance in a dimensional approach. Specifically, in a study of 70 managers (16 female) from diverse non-profit and profit organizations, Steinmann et al. (2015) found a significant positive three-way interaction among high power motivation, high affiliation motivation, and high activity inhibition to be most predictive of managers' self-rated team goal attainment and salary development. This combination was coined as the *Compassionate Leadership Profile*. The authors have proposed that affiliation motivation would foster leaders' concern, as well as respectful, appreciative, and supportive behaviors towards their followers. These types of behaviors all closely resemble *considerate* leader behaviors (Bass, 1990), which have been found to positively predict leader effectiveness (Judge, Piccolo, & Ilies, 2004). Dulebohn, Bommer, Liden, Brouer, and Ferris (2012) have further highlighted a potentially facilitating role of affiliation motivation in high-quality exchanges between leaders and followers.

Furthermore, the changing trends in management from classic organizations with steep hierarchies towards modern organizations with flatter hierarchies potentially afford the expression of affiliation motivation more than in the past (Steinmann et al., 2015). As noted by Burnham (1997), this trend was associated with changes in the effectiveness of the LMP. Specifically, in the 1990s, he observed

the emergence of a “new paradigm of successful leadership” (Burnham, 1997, p. 3), which is less concerned with having power over others than with deriving power from the interaction with others. To succeed in the increasingly complex, modern organization, Boyatzis, Smith, and Blaize (2006) have argued that successful leaders function as empathic and caring coaches who take the feelings and needs of their subordinates into consideration.

In response to equivocal results in relation to the affiliation motive, Boyatzis (1973) has suggested that similar to the power motive, the direction of the relationship of affiliation motivation with leadership might depend upon the type of affiliation. Specifically, the author has argued that affiliation motivation might manifest itself in either seeking for *affiliative assurance* or pursuing *affiliative interest*. Hereby, affiliative assurance relates to leaders’ wish to be approved by others and fear of isolation and rejection (Boyatzis, 1973; 1979) while affiliative interest relates to leaders’ strivings to empower their followers, fulfill their needs, and to ensure their development (Steinmann, Otting, & Maier, 2016). In contrast to affiliative assurance, leaders with high affiliative interest are likely to develop a trusting and open atmosphere in which they strive to attain organizational goals together with their followers (Boyatzis, 1973; 1979).

However, a dimensional approach to studying the interactive effects of implicit motives is not without its limitations either. For example, with a total of 70 managers and 70 manager-follower dyads, Steinmann et al.’s (2015, 2016) studies have rather small sample sizes. As a general rule of thumb, a larger sample size would be recommended to improve the predictive power of the regression analysis (Green, 1991). Therefore, Steinmann et al.’s (2015, 2016) three-way interaction effects should be replicated with larger samples in future research so as to test their robustness (De Hoogh, Den Hartog, Koopman, et al., 2005). Also, Steinmann et al. (2015) have utilized single-item self-report measures for both leader performance variables. However, leaders may not be objective in evaluating their own goal-attainment and salary developments as they may be subject to social-desirability bias or a potential lack of insight into their own performance. Taking the aforementioned issues into consideration, Dawson and Richter (2006) caution that the power of a three-way interaction test is restricted when samples are small, the scales are unreliable, and effect sizes are small. Given that three-way interactions are generally difficult to model, interpret, and replicate, results should be interpreted cautiously.

Taken together, existing studies on implicit motives and leadership suggest that the field will benefit from more empirical research to fully understand the contexts and circumstances under which motivational preferences are either fruitful or detrimental. More specifically, recent research has reviewed 26 samples from 19 studies with a total of 2,495 participants on the power and affiliation motive and concluded that the evidence is inconclusive as to which motives are most beneficial for leadership (Wolff & Keith, 2019). Consequently, Wolff and Keith (2019) argue that “more research is needed that clarifies the roles of affiliation and power motives [...] for different criteria of effective leadership” (p. 7). Wolff and Keith (2019) have further observed that the studies included in their review, (a) encompassed numerous variations of power motivation; (b) often studied power motivation in combination with other motives; and (c) operationalized power differently, complicating the interpretation and integration of individual studies. Moreover, few of the existing studies on implicit motives and leadership specifically focus on CEOs of for-profit organizations. Thus, the following section introduces the reader to a collection of studies on the achievement, power, and affiliation motive, and CEO leadership.

Implicit motives and CEO leadership. While much of the research on implicit motives and leadership has focused on political leaders (e.g., House et al., 1991; Spangler & House, 1991; Winter, 1987b), or managers-in-general (e.g., Kehr, 2004a; McClelland & Boyatzis, 1982; Winter, 1991a), some studies have investigated the CEO context more specifically. For example, Chusmir and Azevedo (1992) analyzed the relationship between the motivational needs of Fortune 500 CEOs and organizational outcomes in a male-only sample of CEOs of the 50 largest industrial companies in the U.S. In an analysis of descriptive statistics, Chusmir and Azevedo (1992) observed that CEOs displayed higher achievement and power than affiliation motives, albeit no significance tests were conducted. Furthermore, the study found that achievement motivation significantly correlated with relative sales growth, relative return on equity, and return on sales, while power motivation significantly correlated with relative profit. Affiliation motivation was excluded from correlational analyses due to its skewness.

Kirkpatrick et al. (2002) have analyzed the relationship between CEOs’ implicit motives as expressed in companies’ vision statements and individual performance, unit performance, and organizational performance in entrepreneurial versus government organizations. Specifically, Kirkpatrick et al. (2002) have found

that CEOs' power but not achievement or affiliation motivation predicted organizational performance in U.S.-based entrepreneurial firms. The authors have not reported the distribution of CEOs' gender. Further, Kirkpatrick et al. (2002) have found that supervisors' affiliation but not achievement or power motivation predicted unit performance in a government organization. Of the 96 supervisors sampled, 18 were female. These findings indicate that power may be more important at the executive level, where leadership is characterized by less supervisory and more strategic and visionary elements (Zaccaro, 2001).

De Hoogh, Den Hartog, Koopman, et al. (2005) investigated the relationship of CEOs' implicit motives, their charismatic leader behavior, and followers' work attitude in small and medium-sized organizations in the profit and voluntary sector. Results revealed that charismatic leadership was positively associated with followers' work attitudes. Further, De Hoogh, Den Hartog, Koopman, et al. (2005) found that CEOs' power motivation positively predicted charismatic leadership, while CEOs' achievement and affiliation motivation were unrelated to charismatic leadership on an $\alpha = .05$ level. CEOs who were both power-motivated and responsibility-oriented were considered as more charismatic in voluntary rather than for-profit organizations, while CEOs who were power-motivated but not responsibility-oriented were considered as more charismatic in for-profit rather than voluntary organizations. However, power motivation did not directly relate to followers' work attitudes. Instead, when charisma ratings were held constant, higher levels of power motivation were linked to lower levels of positive work attitudes. According to De Hoogh, Den Hartog, Koopman, et al. (2005), "this may be in line with the idea that a high power motivation in itself does not differentiate between leaders using their power in a pro-social way and leaders using their power to the detriment of others" (p. 33). Of the 73 CEOs sampled, 13 were female. De Hoogh, Den Hartog, Koopman, et al.'s (2005) findings have multiple implications for the current research: (a) The authors demonstrate the importance of the power motive in an organizational context; (b) the results suggests that power without considerations for responsibility relate to charisma ratings in for-profit organizations; and (c) they suggest the importance of context in the impact of achievement and affiliation motivation for leadership.

Delbecq et al. (2013) analyzed the indirect influence of CEOs' implicit motives on their followers, that is, top-management-team members, through different

leadership styles. Results revealed that in comparison with participative and instrumental leadership, charismatic leadership was the leadership style that was most positively associated with follower outcomes such as motivation, performance, and teamwork. However, also, participative leadership predicted exceptional performance. Further, Delbecq et al. (2013) found that both CEOs' power and affiliation motivation negatively predicted charismatic leadership, while achievement motivation was unrelated. Achievement motivation, however, did predict participative leadership. However, Delbecq et al.'s (2013) results should be interpreted with a certain degree of caution, given that the study utilized structural equation modeling (SEM) with a small sample size. Even though partial least squares SEM is relatively robust to small sample sizes, according to recommendations in the literature, the sample should be at least 59 for a medium effect size and a significance level of .05 to reach a statistical power of 80% (Cohen, 1992; Hair, Hult, Ringle, & Sarstedt, 2016). Furthermore, given that Delbecq et al. (2013) have adopted a cross-sectional design, path analyses cannot provide any insights into the cause-effect-chain of the relationships, and the possibility of reverse-causality needs to be kept in mind. Delbecq et al. (2013) did not report the gender of the 29 CEOs.

Finally, within the scope of accounting research, Veenstra (2013) analyzed the relationship between CEOs' implicit motives and financial performance. Results revealed that a high power motive predicts increases in firm-financial performance when firm and personal demographic characteristics were held constant, while a high achievement motive predicts decreases in firm-financial performance. With 6,160 annual reports, Veenstra's (2013) study has a very large sample size. However, in measuring implicit motives, Veenstra (2013) applied the Linguistic Inquiry and Word Count (LIWC) method (Pennebaker et al., 2001, 2007), which is a computer-based method to content-coding implicit motives. While the LIWC method is thought to have merit, leading researchers in the implicit motives field do not regard it as superior to traditional content-coding methods (Schultheiss, 2013a). Whilst Schultheiss (2013a) has noted that LIWC may be used as a substitution in case traditional content-coding methods are not feasible, it is not considered the better alternative. In fact, Schultheiss (2013a) cautioned that LIWC is insensitive to subtle nuances in context and semantic contingencies that differentiate what imagery is to be scored and what is not. Furthermore, the LIWC diverges from the rules of Winter's (1994) scoring method, which is often regarded as a best practice approach

to content-coding implicit motives (Schultheiss, 2013a). Therefore, Schultheiss (2013a) concludes that “more research is needed to test the validity of the marker-word approach to motive assessment in a sufficiently stringent manner” (p. 17). In order to determine better the agreement with established scoring methods, it is further recommended to hand-code a certain percentage of written materials with experienced and calibrated raters, and to conduct Intraclass Correlation Coefficients (ICCs) between the automatically and the hand-coded materials. Veenstra (2013) reports that most of the CEOs in his sample were male. Therefore, no conclusion regarding potential gender effects can be drawn.

In their theoretical analysis of leader motive profiles, Spangler et al. (2014) stretch the importance of affiliation motivation for the modern organizations that are characterized by new leadership demands such as empathy (Burnham, 1997).

Table 2.1

Leader Motive Profiles in Eight Types of Organizations

<i>Organization type</i>	<i>Achievement</i>	<i>Power</i>	<i>Affiliation</i>
Classic bureaucracy	Low, inhibited	High, inhibited	Low, inhibited
New bureaucracy	Low, inhibited	High, inhibited	High, inhibited
Classic entrepreneurial firm	High, inhibited	None	None
New entrepreneurial firm	High, inhibited	Medium, inhibited	Medium, inhibited
Classic voluntary organization	None	None	High, inhibited
New voluntary organization	None	High, inhibited	Medium, inhibited
Classic professional service firm	Medium, inhibited	Low, inhibited	Low, inhibited
New professional service firm	Medium, inhibited	High, inhibited	High, inhibited

Note. Spangler et al. (2014) signal the importance of activity inhibition for channeling implicit motives into organizationally beneficial paths. From: “Leader Motive Profiles in Eight Types of Organizations,” by W. D. Spangler, A. Tikhomirov, K. L. Sotak, & R. Palrecha, 2014, *The Leadership Quarterly*, 25(6), p. 1090. Permission to reprint the table was obtained from the publishers.

In an integration of Miner’s role motivation theories (1978, 1993, 2005) and McClelland’s theory of motivation, Spangler et al. (2014) created suiting leader motive profiles for the role requirements of CEOs in eight types of organizations. In essence, their analysis suggests that different organizations come with different role requirements, which, in turn, provide distinct incentives for the achievement, power, or affiliation motive. In summary, their taxonomy suggests that classic bureaucratic

organizations provide strong incentives for highly power-motivated CEOs, while classic entrepreneurial forms provide strong incentives for highly achievement-motivated CEOs, and classic voluntary organizations provide strong incentives for highly affiliation-motivated CEOs (Table 2.1). Newer types of organizations seem to require and incentivize a combination of inhibited achievement, power, and affiliation motivation. Spangler et al.'s (2014) taxonomy should be empirically tested in future research.

Concluding thoughts. Taken together, research on CEOs' implicit motives does not yet provide a clear picture as to what motives are most predictive of leadership success and leader evaluations (e.g., Wolff & Keith, 2019). While some studies suggest a positive relationship between the power motive and effective leadership styles (De Hoogh, Den Hartog, Koopman, et al., 2005) or firm-financial performance (Veenstra, 2013), other studies report a negative relationship between the power motive and leader outcomes (Cornelius & Lane, 1984; Delbecq et al., 2013). In addition, findings regarding the achievement and affiliation motive are not conclusive either. With regards to achievement motivation, some studies consider it as an asset for managers (Cummin, 1967; Spangler, 1992), whereas others consider it a liability (De Hoogh, Den Hartog, Koopman, et al., 2005; House et al., 1991; Veenstra, 2013). With regards to affiliation motivation, some studies consider it a hindrance to making important decisions or to disciplining subordinates (e.g., McClelland, 1987a; McClelland & Burnham, 1976, 2003). Others see it as an important facilitator for, for instance, motivating stakeholders and increasing their performance (e.g., Cornelius & Lane, 1984; Kirkpatrick et al., 2002). Also, noteworthy, some studies that report a negative relationship of affiliation motivation with leadership outcomes fail to reach statistical significance (e.g., De Hoogh, Den Hartog, Koopman, et al., 2005; House et al., 1991).

By bringing attention to the differential requirements of strategic versus supervisory leadership (Zaccaro, 2001), this dissertation argues that conclusions drawn based on past research on lower-level managers are not directly transferrable to the context of CEO leadership. Therefore, an empirical investigation of the latter is paramount. Lastly, as illustrated by the small sample sizes of female leaders used in the aforementioned studies, it has not yet been systematically investigated to what extent CEOs' gender relates to the implicit motives they express in the context of

leadership. Also, it has not been established to what extent CEOs' gender influences how favorably they are perceived as leaders.

In this dissertation, I argue that a lack of attention to CEOs' gender, could, in part, explain the contradictory findings in the literature. For example, studies that found a positive relationship between leaders' power motives and desirable leader outcomes were largely based on predominantly male samples, while other studies with different findings used mixed samples or did not report CEO gender. Due to the incongruence of the strongly masculine characterization of the leadership role and the female gender role, it is, however, possible that power would not have the same beneficial effects for female leaders. Likewise, it is possible that affiliation motivation was negatively related to successful leadership since warmth and care are more in line with the female gender role. It is plausible that expressions of such traits by male CEOs could result in perceptions of weakness towards male leaders, thereby eliciting unfavorable evaluations. The following sections will introduce the reader to previous research on implicit motives and gender as well as leadership and gender to elaborate on the aforementioned arguments.

Implicit Motives and Gender

"We see the future of gender research on motives as very promising, and because social motives are so sensitive to changing social mores, we see such research as critical to understanding how social expectations are translated into the very personal experiences of individuals."

(Duncan & Peterson, 2010, p. 58)

According to recent reviews, the relationship between implicit motives and gender has not been investigated systematically (Duncan & Peterson, 2010; O'Connor, 2001; Pang & Baumann, in press). Therefore, the role of gender in the expression and effects of implicit motives is not sufficiently understood. In fact, to the best of my knowledge, only three reviews in the form of book chapters (Duncan & Peterson, 2010; Pang & Baumann, in press; Stewart & Chester, 1982) and one meta-analysis (Drescher & Schultheiss, 2016) have addressed this topic in-depth. Stewart and Chester's (1982) first review of implicit motives and gender included studies from the early implicit motives' days until the year 1982 and inferred that gender differences are inconclusive, although women could potentially be higher in affiliation motivation than men (see McAdams, Lester, Brand, McNamara, & Lensky, 1988). In conclusion, however, Stewart and Chester (1982) synthesized that

men and women neither differ in their implicit motives nor in their sensitivity to motivational arousal.

From reviewing literature between the early 1980s and 2010, Duncan and Peterson (2010) reached a slightly different conclusion. In particular, their qualitative analysis of the existing literature on gender differences and similarities in implicit motives suggests that women are likely more affiliation-motivated than men, but do not differ from men in their achievement and power motivation. Furthermore, Duncan and Peterson (2010) reasoned that men and women do not seem to differ in the behavioral correlates of their affiliation motive. Drescher and Schultheiss' (2016) meta-analysis of 28 empirical studies supported their conclusion and provided quantitative estimates for women's higher affiliation motivation and the absence of gender differences in achievement and power motivation.

In the context of their synthesis of implicit motives and gender research, however, Duncan and Peterson (2010) point out several methodological concerns that led them to caution researchers about the interpretation of early findings. These methodological concerns pertain to, for example, the use of gender-congruent picture cues, the lack of a standardized scoring system, and an overrepresentation of male participants in research.

Pang and Baumann (in press) note that early research on implicit motives which observed gender differences in implicit motives utilized different stimulus cues in order to assess implicit motives in men and women (e.g., Veroff, Depner, Kulka, & Douvan, 1980; Veroff, Reuman, & Feld, 1984). Moreover, some studies used gender-consistent pictures as stimuli in their test administration, as it was believed that it is difficult to arouse implicit motives when using stimuli depicting the opposite gender—an idea that has later been rejected (Duncan & Peterson, 2010; Stewart & Chester, 1982).

In some early studies, not only the sex of the protagonist was made gender-consistent, but also their environment was manipulated to reflect traditional, prevailing norms about men and women. Case in point, research by Veroff et al. (1980, 1984) showed a picture of men at a conference table to their male participants and a picture of women in the kitchen to their female participants (Duncan & Peterson, 2010; Pang & Baumann, in press). While Veroff's (1980, 1984) studies still offer valuable insights with respect to changes in motives over the years, the chosen picture cues render between-group analyses of men and women more difficult

due to the fact that certain scenes within picture cues may arouse different implicit motives (i.e., “pull” effect). For example, providing food for the family in a kitchen may be interpreted as a more nurturing act, and evokes more affiliation motivation, than men discussing at a table.

Furthermore, unlike newer research that utilizes standardized picture cues in PSE measures (Pang & Schultheiss, 2005; Schultheiss & Brunstein, 2001), early studies oftentimes used different picture cues and scoring definitions within different laboratories that led to difficulties of comparing findings across institutions. Lastly, early implicit motives research oftentimes used samples predominantly or exclusively consisting of men. Thus, Duncan and Peterson (2010) conclude that “given the evidence of unbalanced gender ratios in [previous] studies, researchers interested in the meaning of gender for the expression of [implicit] motives have much work ahead of them” (p. 43).

In general, three main perspectives are offered with regard to explaining potential gender differences in implicit motives. These perspectives are related to (1) psychoendocrinological differences; (2) interactions between implicit motives and traits; and (3) the intersectionality of implicit motives and socio-cultural factors.

First, research on the psychoendocrinological perspective proposes that gender differences in implicit motives may be rooted in hormonal differences between men and women. Supporting this perspective, scholars found that higher levels of the female sex hormone progesterone were associated with a higher need for affiliation. Specifically, scholars observed a positive relationship between progesterone levels and affiliation motivation among women who have natural menstrual cycles (Schultheiss, Dargel, & Rohde, 2003) and in a gender-mixed sample (Wirth & Schultheiss, 2006). Furthermore, scholars found that women who used progesterone-containing oral contraceptives showed higher affiliation levels than women who do not use hormonal birth-control (Schultheiss et al., 2003; Schultheiss & Zimni, 2015). Also, there is evidence indicating that individual differences in testosterone levels (i.e., the male sex hormone) predict people’s implicit power motivation (Schultheiss, 2013b; Schultheiss et al., 2003).

Second, research on the interactionist perspective proposes that gender differences may be rooted in different kinds of interactions between traits and motives in men and women (Bing, LeBreton, et al., 2007; Bing, Stewart, et al., 2007). This is also known as the *channeling hypothesis*. This perspective entails that

explicit motives and traits serve as behavioral channels through which implicit motives are expressed (Lang et al., 2012). For example, Winter et al. (1998) found an interactive relationship between extraversion and implicit power and affiliation motives. Extraversion accelerated positive effects of implicit motives on important work and life outcomes and thus facilitated goal attainment, while introversion inhibited the effects of implicit motives and thus exacerbated goal attainment (see Pang & Baumann, in press). Correspondingly, Winter et al. (1998) observed that extroverted power-motivated women were more likely to enter fields to pursue careers that allowed them to have an impact than introverted power-motivated women.

Third, research on the intersectionality perspective, for example, proposes that differences in men and women's motivational expressions are likely rooted in prevailing gender norms that are characteristic of specific time periods and specific social classes (Pang & Baumann, in press). Supporting this perspective, Drescher and Schultheiss (2016) have suggested that, adopting a social-psychological and feminist perspective, women's higher affiliation motive could represent the influence of traditional gender role norms and stereotypes. According to these stereotypes, women are expected to be more communal, that is, more caring and show more attention to the needs of others, than their male counterparts (e.g., North & Fiske, 2014; Ridgeway & Correll, 2004).

Although social-psychological perspectives for a gender difference in affiliation motivation have been critiqued in the literature, (see Colby & Damon, 1983; McAdams et al., 1988), gender roles were found to have pervasive effects on behavior (e.g., Eagly, 1987; Eagly & Karau, 2002; Fiske, 1998; North & Fiske, 2014). This occurs through both internal (e.g., internalization of traditional gender role beliefs) and external mechanisms (e.g., interactions with people who have internalized traditional gender role beliefs). Therefore, it is plausible that women might be better socialized to express affiliation motivation than men (Drescher & Schultheiss, 2016). Similarly, in a study of 72 college students (43 female), Langens and McClelland (1997) related the display of gender-congruent implicit motives (but not explicit motives) to increased wellbeing in both genders. This indicates that successful gender role socialization might be important to both men and women. In Langens and McClelland's study, participants were categorized as having an agentic motive orientation when achievement and power motivation were higher than

affiliation motivation (congruent with the traditional male gender role). Similarly, participants were categorized as having a communal motive orientation when affiliation motivation was higher than achievement and power motivation (congruent with the traditional female gender role). However, the general lack of research on the development of gendered socialization of motivation makes this explanation speculative (Pang & Baumann, in press).

The present research acknowledges the scholarly works on these different perspectives and generally does not interpret them as contradictory but rather complementary approaches to explain gender differences in implicit motives. However, within the scope of this dissertation, I will examine implicit motives and gender from an *intersectionality perspective* (Pang & Baumann, in press), arguing that cultural and societal norms about leadership and gender influence men and women's socialization, their self-construal and gendered identity, and ultimately the expression, effects, and evaluations of their implicit motives. The following section introduces the reader to specific studies and considerations regarding gender and achievement, power, and affiliation motivation, as highlighted by Duncan and Peterson (2010) and others.

The achievement motive and gender. Research on the need for achievement was historically influenced by predominating views on gender roles (Duncan & Peterson, 2010). In early research, achievement motivation was long seen as uniquely masculine, and many scholars advocated the view that the achievement motive cannot (or only hardly) be evoked in women (see Duncan & Peterson, 2010). Later research by Stewart and Chester (1982), however, challenged the wide-held belief that the achievement motive cannot be aroused in women. They argued that results might be biased as the scoring definitions used for the assessment of the achievement motive in early studies were developed with male participants only. Furthermore, research on the achievement motive was very often carried out in the work- or business-context, with most samples comprising of men. These studies missed out on an opportunity to capture the possible main effects for women. Moreover, researchers found that, in men, the achievement motive was almost exclusively observed in the context of work and leadership, which was inherently connected to the traditional masculine gender role (Duncan & Peterson, 2010). In women, on the other hand, the achievement motive could be activated in an array of

situations (e.g., child-raising, charity, or cooking) as historically, they had limited access to the traditional work domain.

In an analysis of PSE scores in a dyadic sample of 736 adults, Denzinger, Backes, Job, and Brandstätter (2016) observed that men hold higher achievement motivation than women. Conversely, Chusmir's (1985) analysis of a gender-balanced sample of managers observed that female managers hold higher achievement motivation than male managers. Most researchers, however, found that men and women generally do not differ in their need for achievement or in related behavioral correlates such as accurate performance and career success (e.g., Drescher & Schultheiss, 2016; McClelland & Franz, 1992; McClelland & Koestner, 1992; Mednick & Thomas, 1993; Pang & Baumann, *in press*; Pang & Schultheiss, 2005; Schultheiss & Brunstein, 2001; Stewart & Chester, 1982). Nevertheless, some studies indicate that the expression of the achievement motive appears to be sensitive to the social context and prevalent norms about gender roles. In particular, Veroff (1982) observed that women's achievement motivation increased over time, in line with the Women's Movement and liberalization, reflecting changes in norms and gender role expectations (Duncan & Peterson, 2010). This increase over time was not observed in men. The author further supported his rationale by showing that women's need for achievement correlated more with achieving excellence at home, whereas men's need for achievement was concerned more with achieving excellence at work. Veroff (1982) thereby concluded that the achievement motive might be related to successful traditional gender role socialization.

Jenkins (1987) observed that women's need for achievement increased over time if they worked in achievement-compatible roles but not so if they worked in achievement-incompatible positions. This further supports the argument that people's expression of the achievement motive is sensitive to the social context. Women who were achievement-motivated but worked in achievement-incompatible roles found other channels to express their need for achievement, for instance, through charity work or raising kids (Duncan & Peterson, 2010; Jenkins, 1987). Jenkins (1987), therefore, reasoned that both the social context and life structure shape the effect that achievement motivation has on satisfaction and life outcomes.

Albeit past research generally expected that people's need for achievement would be channeled into traditionally gendered domains, studies found that women did reach out to non-traditional outlets if opportunities for achieving excellence arose

outside them (Duncan & Peterson, 2010; Peterson & Stewart, 1993). A study on MBA students from the 1980s, for example, found that women showed a higher need for achievement and power compared to their fellow male students (Chusmir, 1985). A possible explanation for this finding relates to the “self-selection effect,” meaning that it likely required a higher achievement and power motivation for women than for men to pursue a non-traditional career path leading to managerial positions (Chusmir, 1985). Thus, mainly women who actively strived for opportunities to express their achievement and power motivation would have chosen to enroll in an MBA program (Duncan & Peterson, 2010). To put it in a nutshell, it is likely not the achievement motivation of women that changed or increased over time, but rather the target, focus, and expression of that need for achievement.

The power motive and gender. Even though the relationship between implicit power motivation and gender is comparatively better researched than the relationship of achievement and affiliation motivation with gender (Duncan & Peterson, 2010), empirical evidence is still mixed. While Denzinger et al. (2016) observed that, in an analysis of PSE scores in a dyadic sample of 736 adults, men showed higher power motivation than women, Chusmir’s (1985) analysis of a gender-balanced sample of managers observed that female managers showed higher power motivation than male managers. However, most studies that investigated how gender relates to the power motive concluded that women and men do not significantly differ (e.g., Drescher & Schultheiss, 2016; Hofer et al., 2010; Jacobs & McClelland, 1994; Pang & Schultheiss, 2005; Schultheiss & Brunstein, 2001). Specifically, in their reviews, Stewart and Chester (1982), as well as Duncan and Peterson (2010), concluded that there was no gender difference in how the power motive was elicited and expressed in the PSE. Also, men and women were rather similar in their behavioral power correlates—that is, for both men and women, high power motivation related to career plans and career advancement (e.g., Jenkins, 1994; Winter, 1988).

However, Jacobs and McClelland (1994) found that male and female managers seem to use different styles of power. More specifically, successful female managers were more likely to exert resourceful power, whereas successful male managers were more likely to exert reactive power. Resourceful power was characterized by displays of “[acting] on behalf of another person either by protecting, helping, supporting, inspiring, teaching or otherwise promoting the

welfare of another” (Jacobs & McClelland, 1994, p. 35) and thus shows overlap with today’s conceptualization of affiliation motivation. Reactive power was characterized by displays of assertive or aggressive actions towards another person.

Also, Chusmir and Parker (1984) found that, in a sample of 124 managers (62 women), women were more likely to display socialized power, as characterized by high inhibited power, while men were more likely to display personalized power, as characterized by high uninhibited power. Furthermore, moderated by people’s individual differences in responsibility levels (Winter & Barenbaum, 1985), one area in which significant gender differences in power were obtained relates to profligate and impulsive behaviors (Duncan & Peterson, 2010; Winter, 1988). Studies on formal responsibility training showed that educating girls and boys in exerting influence in pro-social ways reduced the likelihood of profligate behaviors. These findings indicate that gender differences in the expression of power may reflect differences in socialization rather than actual gender differences (Winter, 1988, p. 581).

Furthermore, Duncan and Peterson (2010) have argued that the close link between power motivation and the concept of privilege suggests that potential gender differences in the expression of power may reflect differences in social status and sense of entitlement. Duncan and Peterson’s (2010) review on implicit motives and gender proposes that the exposure to power may channel the way the implicit power motivation is expressed in behavior and thus lead to facilitation or inhibition of individuals’ need for power in the future. In agreement with this, Jenkins (1994) observed that women’s need for power showed the highest increases over time if they experienced satisfaction from power-related job roles. Furthermore, Jenkins (1994) found that relational power careers aroused women’s power motivation to a greater extent than directive power careers. While the present research is primarily interested in a comparison of men and women, Duncan and Peterson (2010) argue that “researchers would benefit from understanding within-gender variability as a way to understand between-gender variability” (p. 58). Taken together, the research presented above suggests that social identity, socialization, and social expectations may play a role in the expression of the power motivation in men and women.

The affiliation motive and gender. Comparable to the need for achievement and power, the affiliation motive shows similar correlates in men and women and can be elicited using identical stimuli (Duncan & Peterson, 2010; Stewart & Chester,

1982). Overall, however, research on gender differences in the absolute levels of affiliation motivation yielded inconsistent results: Whereas some studies did not observe any significant differences between the genders, other studies concluded that women scored higher in their need for affiliation than men.

However, some of the early findings have faced critique about the picture cues used for motive assessment. According to Stewart and Chester (1982), the results may be biased since the scoring definitions used for the assessment of the affiliation motive in early studies were developed with male participants only. Moreover, early studies mainly applied gender-congruent picture cues. This way, female participants were presented with a different set of pictures than men. Specifically, PSE items mostly featured female protagonists for female participants, invalidating a direct comparison. Duncan and Peterson (2010) argue that “due to social stereotypes about women’s communal interests, the presence of female characters may have led any test taker, man or woman, to express more affiliation imagery” (p. 49).

Addressing criticisms from Stewart and Chester (1982), subsequent research found small but consistent gender differences in intimacy motivation, in the direction that college women tended to score higher on the intimacy construct (which overlaps with the affiliation construct) than college men (McAdams et al., 1988). Furthermore, Schultheiss and Brunstein (2001) assessed implicit motives in 428 college students (188 female) and found that women, on average, showed higher levels of affiliation motivation than men but did not differ in their achievement and power motivation. Likewise, Pang and Schultheiss’ (2005) study on 323 college students (170 female) showed that, when presented with PSE picture cues, women expressed a higher need for affiliation than men. This potentially indicates women’s greater socialization to express affection and nurture meaningful relationships, or the different hormonal profiles of men and women (Duncan & Peterson, 2010).

Further support for women’s greater affiliation motivation was provided by Denzinger et al. (2016). In addition, Veroff et al. (1980) found that women’s affiliation motivation did not change between the years 1957 to 1976, while men’s affiliation motivation decreased. Gilligan (1982) argued that men’s fear of intimacy might contribute to lower scores in their affiliation motivation. This finding, however, was not replicated by McAdams et al. (1988). Finally, Duncan and

Peterson (2010) note that despite reliable gender differences in absolute levels of the affiliation/intimacy motive, behavioral correlates appear to be similar.

Concluding thoughts. Taken together, existing research does not provide a definite answer as to how men and women, and more specifically male and female leaders, differ in their implicit motives (e.g., Wolff & Keith, 2019). On the one hand, some studies have suggested that women hold a higher affiliation motivation than men but do not differ in their achievement and power motivation (e.g., Drescher & Schultheiss, 2016). On the other hand, studies have suggested that women hold a higher affiliation motivation but a lower achievement and power motivation than men (e.g., Denzinger et al., 2016).

One explanation for potential gender differences is of psychoendocrinological nature and concerns the relationship between power motivation and the male sex hormone testosterone and affiliation motivation and the female sex hormone progesterone. Another explanation is of social-psychological nature and relates to the intersectionality of implicit motives and socio-cultural factors such as prevailing gender norms, or gender stereotypes. The following section presents the reader with current trends and statistics on women leaders, introduces key theoretical perspectives in the gender and leadership literature, and reviews how gender norms and stereotypes might influence the self-construal, perception, and evaluation of male and female leaders.

Gender and Leadership

“Gender equality cannot be attained until women and men share leadership equally.”

(Kark & Eagly, 2010, p. 443)

In 1972, Katherine Graham broke through the “glass ceiling”—a metaphor for the invisible barriers preventing women from climbing to the upper echelons of organizations (Morrison, White, & Van Velsor, 1987), coined by Wall Street Journal journalists Hymowitz and Schellhardt (1986). She became the first female CEO of Washington Post Company, and thus the first female CEO of a Fortune 500 organization (Catalyst, 2019). Since then, much has changed for women in the workplace and in leadership. In both countries that were studied in the current research, that are, the U.S. and Ireland, women are now more likely than men to attain a third-level education degree (OECD, 2018; Okahana & Zhou, 2018). Also, in both countries, the gender gap in labor force participation has decreased considerably

over the past decades (Central Statistics Office, 2016; U.S. Bureau of Labor Statistics, 2017, 2018). In the U.S., women furthermore occupy 26.5% of all senior management positions (Catalyst, 2020a). Additionally, diversity in the boardroom in the U.S. has been increasing, and women currently hold 21.2% of seats on company boards in S&P 500 companies (Catalyst, 2020a). In comparison, the latest statistics from Ireland indicate women occupy 28% of all senior management positions and 20% of board seats in large companies (Central Statistics Office, 2019).

Despite these improvements, the United Nation's 5th sustainable development goal of gender equality has not yet been reached and thus remains as urgent as ever (UN, 2019). Evidently, today, women have gained access to all levels of the organizational hierarchy. Thus, the glass ceiling metaphor no longer accurately reflects women's challenges within leadership (Eagly & Carli, 2007b; Powell & Butterfield, 1994). Nevertheless, female occupancy of higher-status roles, such as executive leadership positions, is far from reaching parity (Catalyst, 2020a, 2020b). Instead, progress towards gender equality in leadership is slow, and female representation declines with increasing hierarchy and status of the positions on the organizational ladder. Thus, women merely make up 11% of top earners and 5.8% of all CEOs in the S&P 500 Index in the U.S. (Catalyst, 2020a). In comparison, 12% of all CEOs in large companies in Ireland are female (Central Statistics Office, 2019). Furthermore, women are particularly scarce in roles that serve as steppingstones to the CEO role (Mishra, 2018).

In in a recent pop press piece regarding women's underrepresentation in CEO positions, Siegel (2013) has observed that:

“in the last three months I have had several of my female students or recent female graduates from the Stanford Graduate School of Business tell me that their long-term career aspiration is to be a COO. What's odd is that I never hear that from young male students. Ever. The men almost always want to be a CEO.” (Siegel, 2013, para. 4)

In dissecting his anecdotal observation, Siegel (2013) has formulated intriguing follow-up questions that—as will be discussed in later empirical chapters—have also been asked and partly answered by researchers. In particular, Siegel has wondered about the importance of a lack of female role models in CEO positions, the negative social and economic penalties women face when assuming a leadership role with high public visibility, and—most intriguingly in the present

research—the possibility that men and women have different leadership desires, whereby “the former want to lead out in front, and the latter want to nurture?” (Siegel, 2013, para. 9).

In summary, women are rare in leadership positions, and especially in executive management. This scarcity in leadership role occupancy might be due to internal mechanisms related to women’s self-selection, external mechanisms related to gender bias and discrimination, or a combination of both. Given that implicit motives are important antecedents of leadership emergence and effectiveness (Delbecq et al., 2013), the question arises of what role motivational preferences play in the executive leadership of men and women.

The different needs hypothesis. O’Connor (2001) has termed the idea that men want to lead out in front, and women want to nurture the *different needs hypothesis*. She proposes that female underrepresentation in top leadership positions can be partly explained by differences in how men and women fulfill their needs for achievement, power, and affiliation. More specifically, the author argues that it appears that “the need to actually strive and reach the top for the sake of being at the top, the prestige, respect, awe, power it gives may be more important for men than women” (O’Connor, 2001, p. 401). Undermining the importance of O’Connor’s (2001) questions, a recent study from the Korn Ferry Institute (2017) interviewing 57 former and current female CEOs of Fortune 1000 companies and comparable institutions found that about 65% of interviewees did not want to be a CEO until somebody else “tapped [them] on the shoulder” (Morad, 2018, para. 6). This finding encourages further questions such as whether male and female leaders are truly driven by different motivations or whether different internal and external mechanisms related to gender-normative beliefs and expectations influence men’s and women’s motivational displays in leadership.

When looking at the origin of gender differences in human traits and behavior, scholars have offered different explanations, and the extent to which potential gender differences are rooted in (1) biological factors such as hormonal and/or physical differences between men and women; (2) men and women’s evolutionary adaptations as hunters and caretakers; and (3) men and women’s occupation of different social roles is debated by scholars in the field (e.g., Appelbaum, Audet, & Miller, 2003; Buss & Schmitt, 1993; Eagly & Wood, 2011; O’Connor, 2001). While there is indeed evidence for differences in men’s and

women's tendencies to show different personality traits, within-group variance is large, and between-group variance is small (Eagly & Carli, 2007b). Thus, gender differences in men's and women's behavioral tendencies and motivations may be best understood in terms of overlapping distributions (Eagly, 2007; Hyde, 2005).

While acknowledging biological and evolutionary bases, the present research builds on the third account of explaining potential gender differences. In particular, this research adopts a social-cultural perspective in the investigation of the role of gender in leaders' implicit motives. Thus, in the next section, I introduce the *social role perspective* as an explanation for gender differences in human behavior.

Building on social role theory (Eagly, 1987), I then compare and contrast cultural beliefs and stereotypes about men, women, and leaders, and discuss the leadership context as an area in which gender stereotypes manifest themselves. Following this, I compare and contrast different theoretical perspectives that explain why women may face an advantage or a disadvantage in leadership. In doing so, I describe barriers that women face in leadership (e.g., restrictions on women's agency, or stricter evaluative standards) as well as potential bonuses that women might benefit from if they have successfully overcome those barriers. I conclude the section by discussing how stereotypes towards men, women, and leaders have changed and how this change potentially affects the behavior and motivational expressions of male and female leaders.

Social Role Perspective of Sex Differences and Similarities

To answer the question of what causes men and women to behave similarly or differently, Eagly (1987) developed the influential *social role theory* (SRT). This theory postulates that "sex differences and similarities in behavior reflect gender role beliefs that in turn represent people's perceptions of men's and women's social roles in the society in which they live" (Eagly & Wood, 2011, p. 459). Rooted in their physical differences, men and women historically occupied different social roles. Social roles are hereby commonly described as a set of collective expectations and realities related to specific social positions in society (Diekmann & Steinberg, 2013, p. 488).

From hunter-gathering societies, over agricultural societies, to industrialized societies, men were more likely than women to engage in "breadwinning" activities while women were more likely than men to engage in "homemaking" activities. Even in postindustrial societies, men more than women occupy positions of high

status and authority, while women more than men occupy positions with caretaking responsibility (Eagly & Wood, 2011). From observing the behavior of men and women in their specific social roles, people make inferences about their underlying traits, motives, or dispositional attributes (Eagly, 1987; Eagly, Wood, & Diekmann, 2000). As cited in Eagly and Wood (2011), this cognitive process is also known as the *correspondent inference* or *correspondence bias* (Gilbert & Malone, 1995; Ross, 1977). Since, traditionally, men and women have been observed in different social roles, people have developed distinct *beliefs* about men and women.

Cultural beliefs and stereotypes about men and women. A core element of social role theory is that the content of gender role beliefs primarily relates to the two fundamental dimensions of social perception that are communion and agency (Abele, Uchrowski, Suitner, & Wojciszke, 2008; Bakan, 1966; Eagly, 1987). Communal attributes typically describe people's tendency to be concerned for warmth and morality through, for instance, displays of affection, concern for others, helpfulness, kindness, sympathy, sensitivity, nurturance, and gentleness. Agentic characteristics typically describe people's tendency to be concerned for competence and assertiveness through, for example, displays of (self-) confidence, ambition, independence, self-reliance, control, aggression, dominance, and forcefulness (Abele et al., 2016; Eagly & Wood, 2011). Past research indicates that communal characteristics are more likely to be attributed to and approved of in women than men whereas agentic characteristics are more likely to be attributed to and approved of in men than women (e.g., Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz, 1972; Diekmann & Eagly, 2000; Wood, Christensen, Hebl, & Rothgerber, 1997).

According to Eagly and Wood (2011), these beliefs lead to the construction of *gender roles*. Hereby, gender roles are “one example of social roles that include consensual beliefs about what men and women *are* like and *should be* like” (Diekmann & Steinberg, 2013, p. 488). This definition implies that gender stereotypes—societies' shared and generalized beliefs about the attributes that are linked with members of a particular social group (Bodenhausen, Todd, & Becker, 2007)—include both *descriptive* and *prescriptive* elements about men and women's characteristics. Depending on the literature stream, descriptive and prescriptive stereotypes are also referred to as *descriptive* and *injunctive norms* (Eagly, 1987; Eagly & Karau, 2002). As the terminology suggests, descriptive stereotypes describe

beliefs about what men and women actually are like, whereas prescriptive stereotypes have an evaluative element and incorporate rules of what men and women should be like (e.g., Eagly & Karau, 2002; Rudman, Moss-Racusin, Phelan, & Nauts, 2012).

Even though descriptive and prescriptive stereotypes overlap to a great extent, they are not necessarily the same. For instance, Eagly and Sczesny (2009) note that although men are sometimes described as aggressive, and women are described as emotional, they are not prescribed to be so. Sometimes, expectations about gender roles are further separated into prescriptive and proscriptive elements whereby *proscriptive* gender stereotypes incorporate rules about what men and women should *not* be like (Prentice & Carranza, 2002; Rudman, Moss-Racusin, Phelan, et al., 2012). However, what is prescribed for one gender is not necessarily proscribed for the other gender. More specifically, communal characteristics, such as being cooperative, are prescribed (considered desirable) for women but are not proscribed (considered undesirable) for men. Likewise, agentic characteristics, such as being ambitious, are prescribed (considered desirable) for men but are not proscribed (considered undesirable) for women (Eagly & Sczesny, 2009). At the same time, some traits, such as weakness or clinginess, that are generally accepted (yet not desired) in women are not tolerated in men, while certain traits, such as dominance and control, that are generally accepted (yet not desired) in men are not tolerated in women (Eagly & Sczesny, 2009; Prentice & Carranza, 2002).

Through societal socialization processes, the personality traits that facilitate successful role performance are encouraged, whereas the personality traits that exacerbate successful role performance are discouraged (Eagly & Wood, 2011). As a consequence of cyclical nature, these socialization processes feed back into a role-congruent division of labor. This, in turn, promotes traditional gender role beliefs (see Figure 2.1), and internalization of gender stereotypes as personal ideals that guide behavior (e.g., Wood et al., 1997). As a broad theory aimed at explaining “the ultimate origins of sex differences in behavior,” Eagly and Wood (2011, p. 459) argue that a triad of hormonal, social, and self-regulatory influences further shape sex differences in peoples’ affect, cognition, and behavior. Given the feedback loop among labor division, gender role beliefs, and socialization, the question arises of *how* gender roles change?

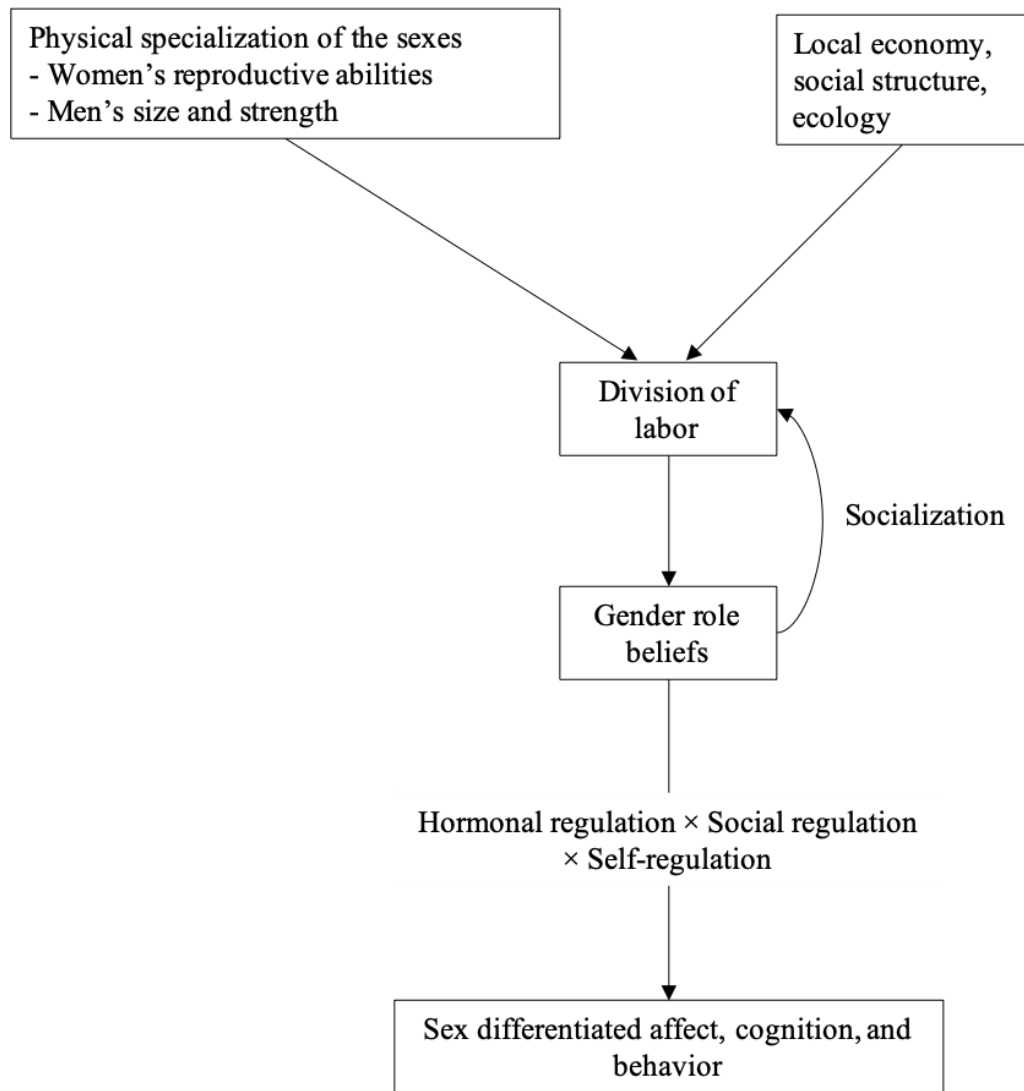


Figure 2.1. Social role theory. From: “Social Role Theory,” by A. H. Eagly & W. Wood, 2011, In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of Theories of Social Psychology* (p. 465). Sage Publications Ltd., p. 465.

As Figure 2.1 further indicates, SRT incorporates the “exigencies of the economy, technology, and broader social structure in which these roles are embedded” (Eagly & Wood, 2011, p. 461). More specifically, to the extent that the demands of the environment change, the gendered division of labor and roles change. For example, during World War II, women’s role in the workplace changed dramatically due to an acute shortage of skilled labor. In response to these immediate environmental demands, women increasingly took on responsibilities outside the domestic terrain, such as factory work. This influx of women in the workforce inspired a gradual change in perceptions about women’s work and rights (e.g., Wilde

& Diekman, 2005) which ultimately climaxed in the Women's Movement of the 1960s-1970s. While the issue of whether stereotypes change may be considered as “slow” or “fast” is still open for discussion [2.8], it is evident that gender stereotypes are *dynamic* (Bosak, Eagly, Diekman, & Sczesny, 2018) and respond to *societal changes*. This view is supported by experiments of projected change (Diekman & Eagly, 2000) and a meta-analysis of actual change (Eagly, Nater, Miller, Kaufmann, & Sczesny, 2019).

Cultural beliefs and stereotypes about leaders. One area in which gender stereotypes manifest themselves is leadership. In particular, traditionally, the leadership role is predominantly construed as encompassing agentic rather than communal qualities. Given that most leadership roles have traditionally been occupied by men, an emphasis on culturally masculine traits comes as no surprise (Eagly & Sczesny, 2009). As Miner (1993) has shown, the leadership role encompasses both descriptive and prescriptive stereotypes that are more closely related to the masculine gender role than the feminine gender role. In particular, Miner (1993) lists six key behaviors that are expected of leaders: (1) Competing against members of the same hierarchy for work-related tasks; (2) instructing and guiding others on their work-related tasks and enforcing penalties to impact the behavior of others; (3) displaying proactivity and assertiveness; (4) occupying a position characterized by recognition and status; (5) engaging in operational work-related tasks; and (6) developing positive relationships with people of higher status and hierarchy (Eagly & Sczesny, 2009).

As this list of expected behaviors illustrates, agentic qualities in terms of competition and hierarchy (i.e., achievement and power) are key, while communal qualities in terms of helping and caring (i.e., affiliation) are less emphasized. As a result, individuals generally perceive leaders to be more similar to men than women (Eagly & Sczesny, 2009). In her “think manager—think male” paradigm, Schein (1973, 1975) investigated the perceived similarity between successful managers and the male or female gender role (Eagly & Sczesny, 2009). In this empirical analysis, it was demonstrated that men are more closely associated with the leadership role than women (Eagly & Sczesny, 2009). Furthermore, researchers have demonstrated that the content of leader stereotypes is more agentic than communal (e.g., Powell, Butterfield, & Parent, 2002; Sczesny, 2005).

In summary, as this section has demonstrated, leaders are believed and expected to be more agentic than they are communal. The notion that the leadership role is predominantly construed as masculine has been empirically supported by numerous studies, including Heilman, Block, Martell, and Simon (1989), Powell and Butterfield (1989), and Schein (1973, 1975), to name a few. At the same time, men are believed and expected to be more agentic than women, while women are believed and expected to be more communal than men. Correspondingly, Heilman and colleagues have observed that female leaders were perceived as less similar to successful leaders than male leaders (Heilman, Block, & Martell, 1995; Heilman et al., 1989). Furthermore, female leaders were evaluated as being more agentic and less communal than women-in-general, indicating that gender and leader stereotypes blend when perceptions about female leaders are being formed.

Consequences of Stereotype Incongruity: Are Female Leaders at a Disadvantage?

Researchers have argued that men's advantage / women's disadvantage in leadership can be explained by their relative similarity or dissimilarity of the stereotypes concerning their respective gender roles to the stereotypes concerning the leadership role (Eagly & Sczesny, 2009). Also, research has established that stereotypes may lead to the formation of certain attitudes to particular social groups and can thereby cause discrimination towards members of a particular group, such as women (Eagly & Sczesny, 2009; Glick & Fiske, 2007; Fiske, 1998). Thus, when women are evaluated against both traditional female gender stereotypes *and* culturally masculine leader stereotypes, it is likely that negative consequences result from a perceived incongruence. More specifically, since gender stereotypes are (a) *diffuse*, in that they permeate into all aspects of life including the work-context (Diekmann & Eagly, 2008); *pervasive*, in that they are easily activated and unconsciously shape behavior and perceptions (Eagly & Sczesny, 2009; Sczesny & Kühnen, 2004); and *powerful*, in that they provide the strongest basis for classifying individuals (Fiske, Haslam, & Fiske, 1991), they influence women's evaluations in leadership.

In the 1980s, Heilman (1983) developed the *lack of fit* model in order to explain bias and prejudice towards people who hold gender-incongruent occupations. Specifically, the model postulates that the perceived fit between people's characteristics and the knowledge, skills, and abilities (KSAOs) required by an

occupational role predict expectations about performance. These performance expectations, in turn, are thought to predict hireability, promotability, and hence career advancement (Heilman, 1983; Heilman et al., 1995). Under conditions of fit, success is more likely to be expected while under conditions of misfit failure is more likely to be expected.

In her highly-cited article, Heilman (2001) has applied the lack of fit theory to explain women's underrepresentation in leadership positions. In contrast to "pipeline-problems" (e.g., Forbes, Piercy, & Hayes, 1988) and "female-deficiency" arguments (e.g., Feuer, 1988, as cited in Heilman, 2001), this review argues that biased evaluations following from gender stereotypes play a major role in the discrimination of women in the workplace. Also, Heilman (2001) postulates that gender stereotypes are oppositional in the sense that women are more likely than men to be perceived to lack agency while men are more likely than women to be perceived to lack communion. Due to a lack of perceived fit of the female gender role and the male sex-typed leadership role, leadership success is more likely to be expected from men than from women. Heilman's (2001) work further argues that on the one hand, conforming to descriptive gender stereotypes (e.g., by being friendly and nice) may facilitate gender bias in the form of reduced perceived competence, which can result in performance devaluations. On the other hand, violating prescriptive gender stereotypes may facilitate gender bias in the form of reduced likability, which can result in social devaluations.

Closely related to the lack of fit model, Eagly and Karau's (2002) *role congruity theory of prejudice against female leaders* was developed from SRT. In its essence, this theory postulates that the perceived incongruity between the characteristics of women and the required characteristics of a leader promotes prejudice toward female leaders (Eagly & Karau, 2002). Consistent with the think manager—think male paradigm (Schein 1973, 1975), Eagly and Karau (2002) propose that people believe the attributes of men and leaders to be similar and the attributes of women and leaders to be dissimilar.

In response to gender role violations, role congruity theory assumes that female leaders are perceived less favorably, are evaluated more negatively, and consequently face more prejudice than male leaders. More specifically, similar to Heilman (2001), Eagly and Karau (2002) reason that through violating descriptive stereotypes (i.e., leaders are agentic, but women are communal), women's leadership

ability is perceived to be lower than men's. Furthermore, Eagly and Karau (2002) reason that through violating prescriptive stereotypes (i.e., women should be communal), women who successfully fulfill the leader role face prejudice since women's agentic displays would be interpreted as inconsistent with general expectations about desirable female behavior. These negative evaluative consequences make it "more difficult for women to become leaders and to achieve success in leadership roles" (Eagly & Karau, 2002, p. 573).

To the extent that leadership roles are defined as more stereotypically masculine, negative consequences of female incongruence would increase. Conversely, to the extent that leadership roles are defined as more stereotypically feminine, negative consequences of female incongruence would decrease (Eagly, Karau, & Makhijani, 1995; Paustian-Underdahl et al., 2014). According to Eagly and Karau (2002), executive roles are one example of roles that are particularly masculine-stereotyped. Supporting a lack of fit and role congruity perspective, meta-analyses have found that, on average, women are less likely to emerge as leaders (Eagly & Karau, 1991) and are evaluated slightly more negatively than their male counterparts (Eagly, Makhijani, & Klonsky, 1992).

Furthermore, Eagly et al. (1992) found that the devaluation of female leaders was stronger when women adopted a stereotypically masculine leadership style (e.g., autocratic or directive leadership) or when they held leadership roles in male-dominated environments. Moreover, bias was found to be stronger when evaluators were men (who are often the gatekeepers to leadership; Vial & Napier, 2018), but slightly (yet non-significantly) weaker in newer research. This raises the question of potential changes in the definition of good leadership and attitudes toward the female gender role (Paustian-Underdahl et al., 2014).

Unlike the broader lack of fit model, role congruity theory was originally developed to explain perceptions of incongruence affecting female leaders. However, researchers have recently extended its application to explain bias and discrimination towards *male* leaders (e.g., Paustian-Underdahl et al., 2014; Rudman, Moss-Racusin, Phelan, et al., 2012). According to their argument, male leaders who occupy more stereotypically feminine leadership roles, or display stereotypically feminine leader behaviors may encounter a similar risk of bias and are consequently prone to receive negative evaluations.

Correspondingly, Bosak, Kulich, Rudman, & Kinahan (2018), found that displays of other-advocacy, reflective of communion, elicited positive evaluations for women but negative evaluations for men. However, given their culturally ascribed agency, men are probably exposed to a smaller range of potential role violations in leadership than women. In particular, for men, either an absence of masculine gender-stereotypic traits or a presence of feminine gender-stereotypic traits could result in perceptions of incongruity in leadership. For women, however, both the absence and the presence of masculine gender-stereotypic traits and both the absence and presence of feminine gender-stereotypic traits could result in perceptions of incongruity in leadership.

More specifically, following SRT, being a woman seems to be innately incongruent with being a leader. Thus, female leaders face a *double bind* in which they are disliked for displaying agency and discredited for displaying communion. Catalyst (2018) describes this phenomenon with “Damned if you do, doomed if you don’t. Too soft. Too tough. Never just right” (para. 1). Women find themselves facing a *Catch-22* in which they have to display agency in order to be viewed as encompassing important leader characteristics but are disliked and less likely to be hired and promoted if they do (e.g., Heilman & Okimoto, 2007; Heilman, Wallen, Fuchs, & Tamkins, 2004; Parks-Stamm, Heilman, & Hearn, 2008; Rudman, 1998; Rudman & Glick, 1999, 2001; Rudman, Moss-Racusin, Phelan, et al., 2012). In her research on backlash, that is, social and economic penalties, Rudman (1998), for example, provided empirical evidence for the *Catch-22* argument.

However, not all theoretical accounts and empirical studies support the idea of an unconditional double-bind against female leaders resulting from perceived role or status violations. For example, meta-analyses have shown that across all leadership contexts, women do not differ from men in their perceived leadership effectiveness (Eagly et al., 1995). These analyses have sometimes even pointed in the direction of an evaluative *bonus* towards female leaders (Paustian-Underdahl et al., 2014).

In particular, Paustian-Underdahl et al.’s (2014) meta-analysis found that, in terms of other-evaluations, female leaders were perceived as significantly more effective than male leaders. This finding can be explained by the *double standards for competence model* (Foschi, 1996, 2000), which predicts that role or status violations can elicit positive evaluations for women in executive leadership, leading

to a *female leader advantage*. More specifically, the double standards for competence model, proposes that stricter evaluative standards follow from low-status characteristics (e.g., gender), which in turn facilitates the attribution of competence to high-status groups (Foschi, 2000). Consequently, women would need to perform better than men in order to be perceived as equally competent (Eagly & Karau, 2002). However, women's disadvantage of being evaluated against a stricter standard can revert into an advantage once women have reached high-status leadership positions.

Correspondingly, Paustian-Underdahl et al. (2014) reason that these double standards can prove advantageous for women in the upper echelons of organizations. Specifically, they point towards Foschi (1996, 2000) in arguing that women's occupancy of executive leadership roles can mute the double standard and reverse it into an overvaluation of their competence. To be more precise, women who occupy top-level leadership roles may be interpreted as exceptionally competent to have risen to a position of such high status despite stricter evaluative standards towards their lower-status group membership. Paustian-Underdahl et al. (2014) write that "when positive evaluations regarding a leader's skills or abilities can be viewed as occurring in spite of some shortcoming, the individual is likely to be perceived as possessing a particularly high level of competence (Crocker & Major, 1989; Rosette & Tost, 2010)" (p. 4) and should consequently receive higher performance evaluations.

Rosette and Tost (2010) have provided empirical support for the double standards for competence model and showed that high-level female leaders were evaluated more favorably than high-level male leaders and male and mid-level female leaders. They have reasoned that this evaluative bonus arises from the perception that high-level female leaders have faced and successfully overcome stricter standards and must, therefore, be more competent than their male or mid-level female counterparts.

Another theoretical account that, under certain conditions, predicts a female leadership advantage is *expectancy violation theory* (Jussim, Coleman, & Lerch, 1987). Similar to previously explained theoretical perspectives, expectancy violation theory assumes that stereotypes give information about people's perceived personal attributes. However, in contrast to the aforementioned accounts, expectancy violation theory postulates that "when an individual's characteristics violate stereotype-based

expectations, evaluations should become more extreme in the direction of the expectancy violation” (Jussim et al., 1987, p. 537). In other words, the valence of the evaluation depends on the direction of the violation (Prentice & Carranza, 2004; Schaumberg & Flynn, 2017).

On the one hand, if an individual positively violates gender-stereotypical expectations, he or she would be evaluated more favorably than individuals of whom this behavior would be expected in the first place (Hentschel, Braun, Peus, & Frey, 2018). On the other hand, if an individual negatively violates gender-stereotypical expectations, he or she would be evaluated less favorably than individuals of whom this behavior would be expected in the first place. Thus, positively unexpected violations may result in social or economic bonuses, while negatively unexpected violations may result in social or economic penalties (e.g., Bettencourt, Dill, Greathouse, Charlton, & Mulholland, 1997; Hentschel et al., 2018). Since counter-stereotypical behaviors are unexpected, they tend to be more apparent to the evaluator.

Schaumberg and Flynn (2017) provided empirical support for the expectancy violation theory and showed that female leaders who display the agentic trait of self-reliance receive more favorable leader evaluations than self-reliant male leaders. Furthermore, Hentschel et al. (2018) found that the relationship of perceived communality with perceived leader effectiveness and promotability was stronger for male transformational leaders than female transformational leaders. However, expectancy violation theory itself does not clearly specify which counter-stereotypical behaviors would be perceived as positive violations and which would be perceived as negative violations by the self and others. Therefore, it is critical to identify which characteristics violate expectations for male and female leaders and in what ways so as to better understand the underlying mechanisms and reasons that cause prejudice (Jussim et al., 1987).

In explaining what motivates prejudice towards male or female leaders, Rudman, Moss-Racusin, Phelan, et al. (2012) developed the *status incongruity hypothesis*, which postulates that counter-stereotypical men and women are penalized for status violations since doing so protects the gender hierarchy. With their status incongruity hypothesis Rudman, Moss-Racusin, Phelan, et al. (2012) have extended the scope of the role congruity theory in various ways.

First, they have offered an explanation of backlash against agentic women that extends above and beyond the leadership context (e.g., Rudman, 1998; Rudman & Fairchild, 2004). Second, they have extended the application of role congruity theory towards explaining bias against atypical men (e.g., Moss-Racusin, Phelan, & Rudman, 2010; Rudman & Fairchild, 2004). Third, they have differentiated gender stereotypes into prescriptive and proscriptive elements and argue that depending on the stereotype content, stereotypes function differently as means to evoke backlash (Rudman, Moss-Racusin, Phelan, et al., 2012). Finally, they have tapped into the underlying motives as to why evaluators engage in backlash. Rudman and Fairchild (2004) have argued that a critical component for the occurrence of backlash is evaluators' beliefs that penalties towards deviant role-violators are justified.

The status incongruity hypothesis further reasons that the motivation to maintain the gender hierarchy is critical for backlash to arise. Specific pre- and proscriptions are thought to function as the means towards maintaining the hierarchical status quo between men and women. Specifically, Rudman, Moss-Racusin, Phelan, et al. (2012) suggest that women are proscribed from displaying dominance because it is high in status while men are proscribed from displaying weakness because it is low in status. Similarly, men are prescribed to display agency because it is high in status. Women's communion, however, is argued to be of neutral status (e.g., Conway, Pizzamiglio, & Mount, 1996). Status is attributed to individuals based on their accomplishments as well as their personal characteristics such as sex, race, or age (e.g., Berger, Webster, Ridgeway, & Rosenholtz, 1986; Ridgeway, 2001; Ridgeway & Bourg, 2004). According to Rudman and Kilianski (2000), women are automatically associated with low status due to their gender. In fact, research has shown that if women's occupancy of certain positions increases considerably, their low status can lead to a devaluation of entire professions (Nieva & Gutek, 1981; Touhey, 1974), such as teaching.

A core element of the status incongruity hypothesis is that due to status violations, agentic female leaders are perceived as more dominant (a negatively-valenced trait) than similarly agentic male leaders, which results in reduced likability—a phenomenon known as the *dominance penalty*. Indeed, previous research has indicated that certain behaviors and traits may elicit particularly unfavorable evaluations in women. For example, Rudman and Phelan (2008) have found that displays of self-promotion elicited positive evaluations for men but

negative evaluations for women. Likewise, a meta-analysis by Williams and Tiedens (2016) has shown that when displaying explicit dominance, women faced more negative outcomes in terms of reduced likability and hireability than men.

Furthermore, Moss-Racusin et al. (2010) have found evidence for backlash against men who deviated from stereotypical expectations by displaying modesty. More specifically, modest men experienced backlash in terms of reduced likability and hireability that could be attributed to status violations that threatened the gender hierarchy. Moss-Racusin et al. (2010) have shown that backlash against modest men resulted from both a perceived absence of agency (prescriptive violation) and a perceived presence of weakness (proscriptive violation).

Enriching expectancy violation theory with research on prescriptive and proscriptive gender and leader stereotypes, communality would be less expected of male leaders, and agency would be less expected of female leaders (Prentice & Carranza, 2004). Assuming that agency and communion are both positively-valenced stereotypes (as opposed to weakness and dominance, which are negatively-valenced), agentic female leaders should be perceived more favorably than agentic male leaders. Similarly, male communal leaders should be evaluated more favorably than female communal leaders.

To address inconsistent findings in the literature regarding a male versus female leader advantage, it is therefore important to take a more fine-grained perspective towards role congruity theory. This can be done by integrating theoretical assumptions of the double standards for competence model, expectancy violation theory, and the status incongruity hypothesis. This will offer a better understanding of what traits and motivational displays might trigger a perceived presence of descriptive, prescriptive, and proscriptive violations, which could consequently elicit prejudice against male and female leaders. Thus, for the purpose of the present dissertation, multiple theoretical angles are considered.

Changes in Self-Perception and Stereotypes of Women, Men, and Leaders

Eagly and Wood (1991) have argued that the beliefs about gender differences in agentic and communal traits correspond to observed behavioral differences in men and women. Reflective of changes in the traditional division of labor, (a) men and women's self-construals of leader and gender identities; (b) beliefs and expectations about men and women; (c) beliefs and expectations about leaders; and (d) perceptions about the effectiveness of men and women as leaders have also changed:

First, in a meta-analysis of men and women's *self-construals*, Twenge (1997) found that sex differences in the endorsement of stereotypically masculine traits decreased over time while sex differences in the endorsement of stereotypically feminine traits did not significantly change. The author suggested that "cultural change and environment may affect individual personalities" (Twenge, 1997, p. 305). Specifically, in describing their true selves, women's self-reported scores on typical and desirable masculine attributes as measured by the Bem Sex-Role Inventory (BSRI; Bem, 1974) and the Personal Attributes Questionnaire (PAQ; Spence & Helmreich, 1978) increased over the years, while their self-reported scores on typical and desirable feminine attributes remained unchanged. Likewise, men's self-reported scores on typical and desirable masculine attributes increased somewhat over the years while their self-reported scores on typical and desirable feminine attributes increased only slightly. These results indicate that women generally embrace a more communal identity than men, but that both men and women became increasingly similar in their self-characterization of agentic identities.

Consistent with the previous Twenge (1997) meta-analysis, Badura, Grijalva, Newman, Yan, and Jeon (2018) examined the relationship between agency and communion (as measured by BSRI and PAQ) and leader emergence. Their recent meta-analysis found that men, on average, scored higher on agentic traits but lower on communal traits than women. However, their analyses also showed that effect sizes for the discrepancy in communion were larger than those for agency. Badura and colleagues (2018) further related greater agency to higher levels of leader emergence and greater communion to lower levels of leader emergence.

Furthermore, Powell and Butterfield (2003) found that in comparison to 1977, when a gender identity consisting of high masculinity and low femininity was related to higher leadership aspirations, data from 1999 suggests that high masculinity but not low femininity was related to higher leader aspirations. While women, on average, still showed lower aspirations to become a top leader than men, both men and women with a high masculine gender identity were more likely to aspire to executive leadership positions (Powell & Butterfield, 2003).

However, in contrast, newer research suggests that men and women generally do not differ in their aspirations to attain leadership (Kinahan, 2014). Yet, in comparison to men, women showed a preference for hierarchy-attenuating versus hierarchy-enhancing leadership roles. Perceived importance of communal goals was

found to mediate the relationship between gender and a preference for hierarchy-attenuating leadership positions. Furthermore, Kinahan (2014) has found that hierarchy-attenuating leadership positions were viewed to afford communal goals to a greater extent than hierarchy-enhancing leadership positions. Hierarchy-enhancing leadership positions were viewed to afford agentic goals to a greater extent than hierarchy-attenuating leadership positions (Kinahan, 2014). These results were further supported in an experimental study that found that participants in the communal goal condition preferred hierarchy-attenuating leadership positions to a greater extent than participants in the control condition (Kinahan, 2014). Taken together, recent research from Kinahan (2014) suggests that while men and women generally do not differ in their leadership aspirations, women, in comparison to men, prefer leadership positions that afford their communal life goals.

Second, researchers have also investigated how *gender stereotypes* about men and women's agentic and communal traits have changed over time. Specifically, a recent meta-analysis on over 30,000 adults by Eagly and colleagues (2019) found that from 1946 to 2018, women's perceived greater communion increased, while men's perceived greater agency remained unchanged. Furthermore, their analyses revealed that women are now perceived as equally competent (e.g., intelligent, creative) as men. However, according to Heilman (2001), "being competent provides no assurance that a woman will advance to the same organizational levels as an equivalently performing man" (p. 657).

In differentiating prescriptive and proscriptive gender stereotypes, a recent study by Koenig (2018) has shown that even though women are believed to be more agentic than in the past, they are still proscribed from showing assertiveness. Specifically, replicating prior findings on the topic, Koenig (2018) observed that women's display of communal traits is perceived as desirable, while their display of dominant traits is perceived as undesirable. Further, men's display of agentic traits is perceived as desirable, while their display of weak traits is perceived as undesirable. A meta-analysis by Williams and Tiedens (2016) examined women's proscriptive gender stereotypes more closely and found that when displaying explicit dominance, women faced more negative outcomes in terms of reduced likability and hireability than men. For more subtle expressions of agency, however, no social and economic penalties were observed.

Third, *leader stereotypes* have also changed during the last decades. While the 20th century construed leadership as primarily masculine, the 21st century endorses a “more” feminine construal of leadership (e.g., Eagly & Carli, 2003). More specifically, research increasingly suggests that people perceive successful leadership as less agentic and more communal than in the past (Duehr & Bono, 2006; Koenig, Eagly, Mitchell, & Ristikari, 2011; Powell et al., 2002). “In sum, with the increasing prevalence of women in leadership positions, the ascendance of agentic traits in modern women’s gender roles, as well as increasing communal and decreasing agentic content in leadership prototypes” (Badura et al., 2018, p. 337), the gender gap in leader emergence should diminish.

Indeed, Badura et al. (2018) observed that the gender gap in leader emergence has decreased over the years. Nevertheless, their meta-analysis indicates that men are still more likely to emerge as leaders than women. Despite more recent ideas about culturally feminine considerate and supportive qualities (Duehr & Bono, 2006; Eagly, 2007; Powell et al., 2002), “leader concepts are strongly infused with cultural masculinity” (Eagly & Antonakis, 2015, p. 574). In particular, elite managerial roles are still predominantly construed as masculine, that is, as requiring more agentic than communal qualities (Badura et al., 2018; Eagly & Carli, 2003; Koenig et al., 2011).

For example, in their meta-analysis, Koenig et al. (2011) found that three major research paradigms, that are, Schein’s (1973) “think manager—think male” paradigm, Powell and Butterfield’s (1979) “agency and communion” paradigm, and Shinar’s (1975) “masculinity—femininity” paradigm, provide evidence for a culturally masculine leader stereotype. Yet, in a re-analysis of the think manager—think male paradigm, Schein (2001) found that in comparison to data from the 1970s, data from the 1990s suggests that in contrast to U.S. men, U.S. women no longer perceive men to be more similar to successful managers but instead perceive men and women as equally well equipped for leadership. However, given that mostly men are the gatekeepers of leadership roles, men’s ongoing endorsement of traditional leader stereotypes and resulting undervaluation of women’s leader qualities (Schein, 2007) can prove problematic for advances in female leadership. Furthermore, research has found that when asked to classify managerial behaviors, business students categorized more leader behaviors as masculine (e.g., delegating, disciplining, strategic decision making, problem-solving, and punishing) and fewer

as feminine (e.g., recognizing, rewarding, communicating, informing, and supporting; Atwater, Brett, Waldman, DiMare, & Hayden, 2004).

Noteworthy, the masculine construal of leadership reduced over the years (e.g., Kunkel, Dennis, & Waters, 2003). Also, management experts continue to emphasize the importance of feminine sex-typed communal qualities as an integral part of the definition of good leadership (Eagly & Sczesny, 2009; Fondas, 1997). This is likely reflective of changes in organizational environments where there is increased diversity in the workforce, technological and digital advancements, as well as flatter hierarchies and globalization (Eagly & Sczesny, 2009). Nevertheless, recent research by Vial and Napier (2018) revealed that even though leader stereotypes have converged towards stereotypically female characteristics, stereotypically male traits are still (seen as) critically advantageous. More specifically, they found that “both men and women viewed agentic traits as more important than communal traits to be a successful leader” (Vial & Napier, 2018, p. 1). Similar to Spangler et al.’s (2014) suggestion that affiliation motivation can be best described as a motivational add-on, which is beneficial but not sufficient in and of itself for successful leadership, Vial and Napier (2018) view communality as a nice but expendable trait in leaders.

Fourth, people’s *perception of the effectiveness* of men and women as leaders also seems to have changed. While both meta-analyses that addressed leader effectiveness and gender found that, across all contexts, men and women are perceived as equally effective, their findings differed in important nuances. First, Eagly et al. (1995) found that women were perceived as less effective than men when they occupied leader roles that had more male subordinates, while Paustian-Underdahl et al. (2014) found that gender differences in perceived effectiveness approached zero when the proportion of male subordinates increased. Second, Paustian-Underdahl et al. (2014) found that female leaders were perceived as more effective when they were evaluated by others and perceived as less effective when they evaluated themselves. However, in line with Eagly et al. (1995), they also found that in male-dominated environments, female leaders were perceived as less effective than male leaders. Yet, the size of this effect has decreased in comparison to the 1995 meta-analysis. Lastly, Paustian-Underdahl and colleagues (2014) observed that even in senior-leadership positions, female leaders were perceived as more effective by others than male leaders.

Despite this female leadership advantage in perceived effectiveness ratings of others, women still experience an objective disadvantage in leadership, which is evidenced by the prevalence of male versus female executives. Thus, notions of a female leadership advantage may be best understood as an advantage within a larger disadvantage (Eagly, 2007). Furthermore, research on the “glass cliff,” a metaphor for women’s increased likelihood to be appointed to precarious leadership positions, suggests that women experience additional challenges in leadership which leaves them more prone to failure than their male counterparts (e.g., Elsaid & Ursel, 2018; Haslam & Ryan, 2008; Haslam, Ryan, Kulich, Trojanowski, & Atkins, 2010; Ryan & Haslam, 2005, 2007). Likewise, other existing research observed that female leaders still experience a greater risk of dismissal than male leaders (Gupta, Mortal, Silveri, Sun, & Turban, 2018) and increased interference by their shareholders (Gupta, Han, Mortal, Silveri, & Turban, 2018).

Concluding thoughts. Critics of the aforementioned theoretical accounts on the effects of gender stereotypes have argued that small effect sizes of prejudicial treatment towards women signal that discrimination cannot be the cause of women’s underrepresentation in leadership (e.g., Arvey & Murphy, 1998; Latham, 1986). However, Eagly and Karau (2002) disagree and argue that minor biases accumulate over time and situations, and can produce large negative repercussions towards individuals in their aggregated form. In accordance, Antal and Izraeli (1993) emphasize that “probably the single most important hurdle for women in management in all industrialized countries is the persistent stereotype that associates management with being male” (p. 63).

Considering the sheer number of publications devoted to the topic of leadership and gender (see Figure 1.1, *Chapter 1*), it stands to reason that the relationship is both complex and important. As a result, numerous meta-analyses and reviews have examined the role of gender as an antecedent of leadership (e.g., Appelbaum et al., 2003; Eagly, Johannesen-Schmidt, & Van Engen, 2003; Eagly et al., 1992; Eagly et al., 1995; Eagly & Johnson, 1990; Eagly & Karau, 1991; Joshi et al., 2015; Paustian-Underdahl et al., 2014; Vecchio, 2002).

In critically reviewing the inconsistent findings in the literature pertaining to a male or female leader advantage, the present section has shown that women are still (a) significantly underrepresented in executive leadership positions; (b) less likely than men to emerge as leaders; (c) have a stronger preference for hierarchy-

attenuating leadership positions than men; (d) generally have a more communal and slightly less agentic self-construal; (e) face more communal and less agentic stereotypes than men; and (f) are still perceived by male evaluators, who often function as gatekeepers to leadership, as less qualified to lead than their male counterparts. Furthermore, past research has shown that executive leadership is still predominantly construed as masculine, requiring more agentic than communal characteristics.

In terms of the motivational expressions of male and female leaders, SRT suggests that women who hold executive leadership positions should be more similar to their male counterparts in terms of higher agency in the enactment of their social role. Nevertheless, due to their pervasive effects, omnipresent and diffuse gender roles are thought to spill over to men and women's leadership. Since stereotypes, much like implicit motives, are automatically activated and influence behavior even if individuals are unaware of their presence (Eagly & Sczesny, 2009; Sczesny & Kühnen, 2004), gender and leader stereotypes can affect men and women's expression and evaluations of implicit motives.

In terms of (perceived) leadership effectiveness and other evaluations of leadership, the lack of fit model and role congruity theory suggest that female leaders would face more prejudice and discrimination in terms of negative leader evaluations than men. This proposal is due to the perceived incongruity of the female gender role with the masculine sex-typed leadership role. Research on these theoretical accounts argues that women leaders face a double bind in which women's communality is likely to produce a perceived absence of agency and should thereby result in reduced competence ratings. Similarly, women's agency is likely to produce a perceived absence of communality and should thereby result in reduced likability ratings. Moreover, an extension of role congruity theory proposes that male leaders who violate their traditional gender role by showing communality would also suffer from perceived role incongruity. The status incongruity hypothesis further refines this prediction by arguing the motivation behind negative evaluations pertains to the desire to maintain the status quo of the gender hierarchy. Thus, only status-challenging behaviors, traits, or motivational displays (i.e., weakness for men and dominance for women) would result in social and economic penalties.

In contrast, research on the double standards for competence model suggests that female leaders would be evaluated as more competent than their male

counterparts due to the assumption that they must be exceptionally talented to have survived the harsher evaluative standards they face in comparison to male leaders. Furthermore, expectancy violation theory proposes that unexpected positive role violations (e.g., self-reliant women or collaborative men) would result in more favorable evaluations while unexpected negative role violations (e.g., dominant women or weak men) would result in more negative violations than role confirmations.

The present research aims to integrate and reconcile these different theoretical predictions and argues that both the expression and the evaluation of leaders' implicit motives depends on a complex interplay of different internal and external mechanisms. For doing so, the following section first introduces the reader to a collection of empirical studies that focus on gender differences in leaders' implicit motives. I then present Diekmann and Eagly's (2008) role congruity account to motivation—a key theory to inform the current research—and third, extend its predictions with key insights from the aforementioned theoretical accounts.

Theoretical and Empirical Integration

As the prior literature review indicates, both theory and empirical evidence on the role of gender and leaders' implicit motives is scarce (Drescher & Schultheiss, 2016; Duncan & Peterson, 2010; Pang & Baumann, in press) and rarely examines CEOs in a gender-balanced manner (e.g., Chusmir & Azevedo, 1992; De Hoogh, Den Hartog, Koopman, et al., 2005; Delbecq et al., 2013; Kirkpatrick et al., 2002; Veenstra, 2013). Of the many studies presented in this current chapter, only a few studies have examined how implicit motives are expressed and evaluated in male and female managers. To name a few of these exceptions:

In one of the first longitudinal assessments of male *and* female managers—coined the Management Continuity Study (MCS)—Howard and Bray (1988) have generalized findings on the LMP to women. Utilizing participants from Howard and Bray's (1988) MCS study, Jacobs and McClelland (1994) have investigated the relationship between implicit motives as measured with the TAT, and management success in 391 entry-level managers (180 female). They found no gender differences in absolute motive strength. Furthermore, Jacobs and McClelland (1994) provided support for the idea that “the same motivational and personality characteristics that have, in the past, predicted managerial success in men also predict managerial success in women” (p. 38). More specifically, their study has found that successful

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female managers, like successful male managers, are highly motivated by power, and were motivated by power to a greater extent than affiliation. While Jacobs and McClelland (1994) used a relatively balanced sample, their study did not specifically focus on CEOs. Furthermore, their results are organization-specific. It thus remains to be seen how their findings translate to different for-profit companies in a contemporary context.

Moreover, Cornelius and Lane (1984) have examined leaders' implicit motives in a mixed sample of 39 managers (16 females) in a professional services organization. In comparison to other studies of this time, having 41% of female managers in a sample was unusually high. At the same time, this study was one of the first to observe a more positive rather than negative effect of affiliation motivation on managerial success. While the authors neither tested for gender differences in motivational expressions, nor for gender effects in the relationship of motives and outcomes, it is possible that affiliation motivation has more beneficial effects for female than male managers. However, even though Cornelius and Lane (1984) use a relatively balanced ratio of male to female managers, the size of the sample is very small, and the study does not directly relate to leaders in the upper echelons of organizations.

Also, Chusmir (1985) has investigated gender similarities and differences of 124 (62 female) middle managers' implicit motives, as measured by the TAT. His analysis showed that female managers hold higher achievement and power motivation than male managers but do not significantly differ in their affiliation motivation. In interpreting his findings, Chusmir (1985) suggests that:

“changing social values as well as the obstacles women face in first getting managerial jobs and then having to overcome sex-role conflicts—all possibly channel a specific type of woman into these managerial positions, as other factors act to select men.” (Chusmir, 1985, p. 135)

While Chusmir (1985) utilizes a gender-balanced sample of managers, his participants were middle managers or supervisory managers rather than executives. As prior research by Zaccaro (2001) illustrates, the criteria for what characteristics make a leader effective are likely to be qualitatively different on the executive level compared to lower levels of hierarchies.

Furthermore, Kazén and Kuhl (2011) have studied the relationship between explicit motives and implicit motives as measured with the OMT (Kuhl & Scheffer, 1999) and the well-being of male and female managers. While female managers showed higher explicit affiliation motivation and lower explicit power motivation than male managers, this pattern did not translate to their implicit motives. Instead, their study found that female managers showed higher scores than male managers in all three implicit motives. Women's tendency to produce longer written materials was accounted for by standardizing implicit motives scores, which eliminated the gender difference. Further, Kazén and Kuhl's (2011) study did not specifically focus on CEOs and included a significantly larger number of male than female managers.

As this selection of studies illustrates, empirical evidence on gender differences in the expression and evaluation of CEOs' implicit motives is lacking. Similarly, the evidence on gender differences in the expression and evaluation of managers' implicit motives, more generally, is inconclusive. Moreover, of those empirical studies that investigated gender differences in implicit motives in the general population, which also mention the potential importance of socio-cultural factors, few theorize about gender effects using an a-priori scientific method, yielding in hypothesis testing. Instead, a general trend within the implicit motives' literature is for gender: to not be accounted for; to be viewed as a byproduct or a control variable; or to (mostly) be taken up in the discussion sections of academic papers, should an unexpected effect occur (Pang & Baumann, in press).

The few studies that have empirically investigated gender differences in implicit motives have largely based their hypotheses development on previous empirical findings rather than a-priori theorizing. For example, Denzinger et al. (2016), summarized prior research on the relationship between implicit motives and endocrinological responses, but they have not elaborated on possible additional explanations for potential gender differences, such as gender role beliefs and stereotypes. Also, Drescher and Schultheiss' (2016) meta-analysis misses substantive psychological interpretations that were developed a-priori. Correspondingly, Duncan and Peterson (2010) have emphasized that "delving into the reasons for [...] gender differences will allow us to theorize more completely about the effects of social contextual variables on motives" (p. 58). Likewise, Pang and Baumann (in press) have recommended future research to "go beyond reporting merely absolute differences between genders, but rather, provide at least some discussion of whatever

socio-cultural influences might contribute to a different [...] motivational expression for men versus women” (p. 28). To account for this lack of theorizing of previous research, the current work applies Diekmann and Eagly’s (2008) role congruity account of men, women, and motivation, to the study of male and female leaders’ implicit motives.

Role Congruity Account of Sex Differences and Similarities in Motivation

To explain the similarities and differences in the motivations for men and women, Diekmann and Eagly (2008) developed the *role congruity account to motivation*. Originating from SRT and role congruity theory, the role congruity account of motivation postulates that achieving role congruity is an important motivational force. To reap the rewards and avoid punishments, men and women are, therefore, inclined to express motivations that are compatible with their diverse roles. Following from an evolutionary sex-based division of labor (Eagly, 1987; Eagly & Wood, 2011), the different social roles that men and women typically occupy, afford distinct opportunities to pursue goals and, therefore, likely foster differences in motivation between men and women.

In fact, the role congruity account to motivation proposes a bidirectional relationship between motives and roles, whereby individuals with certain motives are more likely to occupy certain social roles, which in turn foster the strength of certain motives (Diekmann & Eagly, 2008). The role congruity account to motivation further suggests that individuals seek to fulfill their motivational needs by gender-normative means. This implies that men and women in the same social role potentially differ in their motivational expressions. Essentially, gender roles are assumed to spill over to specific social roles due to their pervasive effects, omnipresence, as well as easy and automatic activation (Banaji & Hardin, 1996; Banaji, Hardin, & Rothman, 1993; Blair & Banaji, 1996; Fiske, Haslam, & Fiske, 1991; Stangor, Lynch, Duan, & Glass, 1992; Van Knippenberg, Van Twuyver, & Pepels, 1994). This likely promotes differences in motivations through diverse internal and external mechanisms that can occur both consciously and unconsciously (Diekmann & Eagly, 2008).

The aim of the present dissertation is to advance the understanding of the role of gender in executive leaders’ implicit motives. Therefore, the current research integrates motive disposition theory (McClelland et al., 1989) and the role congruity account to motivation (Diekmann & Eagly, 2008) to predict gender similarities and differences in CEOs’ motivational expressions. Furthermore, this research extends

the role congruity account to motivation by incorporating propositions from expectancy violation theory (Jussim et al., 1987) and status incongruity hypothesis (Rudman, Moss-Racusin, Phelan, et al., 2012).

Specifically, this dissertation argues that both male and female leaders aim to achieve the best possible role congruence. In circumstances under which perfect congruence is not achievable (e.g., the perceived agentic demands of the leader role do not match the perceived and expected characteristics of the female gender role), I argue that men and women are likely to attempt to maximize rewards and minimize punishments. This may be achieved by (a) avoiding negatively-valenced, counter-stereotypical motivational displays that directly threaten the status-quo of the gender hierarchy as prejudice and negative evaluations are presumed to be stronger for proscriptive, status-challenging violations; and (b) allowing positively-valenced counter-stereotypical motivational displays that depict a more complete behavioral repertoire without risking backlash. Based on previous research on gender identity, I further argue that leaders' communal or agentic gender identities reflect an internal mechanism that directs the motivational expressions of male and female leaders towards achieving congruence with their gender roles.

In this dissertation, I also explore how the evaluation of different motivational displays is affected by common leader and gender stereotypes. Contrasting role congruity theory and expectancy violation theory, I examine if role violations will result in less favorable evaluations regardless of the valence of the violation or if the direction of the evaluation depends on the valence of the violation. More specifically, according to the role congruity theory and its recent extension, gender role violations would result in negative perceptions of male and female leaders. According to expectation violation theory, unexpected negative gender role violations will result in more unfavorable evaluations of leaders than role confirmation, while unexpected positive gender role violations will result in more favorable evaluations than role confirmation.

Conclusion

The present chapter introduced and integrated the three major themes of the present dissertation that are executive leadership, implicit motives, and gender. As this chapter illustrates, research on the *Big Three* implicit motives has a long history and, following methodological advances, it has received a renewed boost of attention addressing a variety of research questions. The investigation of the relationship

between *implicit motives* and *executive leadership* particularly benefits from Winter's (1994) refined content-coding methodology, which allows researchers to study implicit motives at a distance. Through content-coding implicit motives from written materials such as presidential speeches, visionary statements, or, in this case, CEO letters, personality researchers interested in the motivational needs of largely unavailable and inaccessible leaders may now tap into the potential of archival studies. On the flipside, strategy researchers, who largely utilize archival studies of publicly available CEO characteristics and performance indicators, benefit from a validated method of assessing CEOs' psychological characteristics. Thus, this dissertation also enriches the executive leadership literature—which to a large extent, focuses on variables accessible from large-scale databases (e.g., pay, tenure, or organizational performance)—by analyzing the psychological construct of implicit motives at a distance.

Despite recent advancements in measurement, knowledge on how leaders' *gender* relates to the expression, effects, and evaluation of their implicit motives is still fragmented. As the current chapter showcases, “there is little systematic research on whether and how women and men differ in their implicit motivational needs” (Drescher & Schultheiss, 2016, p. 3). Rooted in a combination of reasons ranging from a historical lack of female participation in the workforce; a current lack of female representation in leadership positions; methodological shortcomings of early implicit motives research; and (possibly) a certain academic bias against gender-related research (e.g., Cislak, Formanowicz, & Saguy, 2018), systematic and gender-balanced empirical examination of implicit motives in the leadership context is scarce.

While the number of journal articles related to leadership and gender increased at an exponential rate over the past decades, indicating a great academic and societal awareness about the importance of increasing the number of female CEOs, few studies examine implicit motives as antecedents of successful leadership from a gendered perspective. The present dissertation will address these knowledge gaps by conducting three original, gender-balanced, empirical studies which investigate (1) how male and female leaders differ in their implicit motives; (2) how implicit motives affect the survival of male and female CEOs; and (3) how male and female CEOs with different implicit motives are evaluated by next-generation shareholders.

In doing so, the dissertation applies different social psychological theories for predicting and explaining gender similarities and differences in leaders' implicit motives and their relation to a male or female leadership (dis)advantage as measured through CEOs' turnover hazards and other-evaluations. For example, in adopting a social role perspective, I argue that roles are important determinants of motivational displays. Furthermore, in adopting a role congruity perspective to motivation, I argue that a variety of internal and external mechanisms direct the motivational expressions of male and female CEOs towards achieving congruence with their common social role as a leader and their distinct yet diffuse gender roles as men and women. In predicting gender differences in leader evaluations, I compare and contrast the role congruity and expectancy violation theory, supplemented with research on the status incongruity hypothesis and double standards for competence model. Specifically, I argue that the valence of the evaluation of male and female CEOs with different implicit motives depends on the direction and nature of the stereotypical violation. Empirical evidence is presented in the next three chapters.

Footnotes

[2.1] Despite the importance of leadership, a universal definition of leadership is non-existent due to the many diverse accounts for studying the phenomenon or process of leading. Nevertheless, Antonakis and Day (2017) offer a definition that would be accepted by most scholars in the field. Specifically, Antonakis and Day (2017) define leadership as “a formal or informal contextually rooted and goal-influencing process that occurs between a leader and a follower, groups of followers, or institutions” (p. 5). The authors further describe the science of leadership as “the systematic study of this process and its outcomes, as well as how this process depends on the leader’s *traits* and behaviors, *observer inferences about the leader’s characteristics*, and *observer attributions made regarding the outcomes* of the entity led” (Antonakis & Day, 2017, p. 5).

[2.2] While conceptual distinctions between leadership and management are acknowledged (see Antonakis & Day, 2017), for the purpose of the current dissertation, I use both terms interchangeably.

[2.3] For example, after refining their methodology to capture the CEO effect more accurately, Hambrick and Quigley (2014) observed that 38.5% of the variance in companies’ return on assets (ROA) is attributable to their CEOs. For a comprehensive explanation of the methods used to determine a higher-level CEO effect, please refer to Hambrick and Quigley (2014).

[2.4] The present research uses the terms implicit motives, motivational needs, and motivational preferences interchangeably.

[2.5] The present research uses the terms need for achievement, achievement motivation, and achievement motives interchangeably to describe CEOs’ wish for attaining a standard of excellence. Similar linguistic choices apply to CEOs’ need for power and affiliation.

[2.6] Implicit measures include projective tests such as the Thematic Apperception Test (TAT; Morgan & Murray, 1935; Murray, 1943), the Picture Story Exercise (PSE; Schultheiss & Pang, 2007), and the Operant Motive Test; (OMT; Kuhl & Scheffer, 1999), while explicit measures include self-ratings such as the Personality Research Form (PRF; Jackson, 1984) the Motive Enactment Test (MET; Kuhl 1999), and the Goal questionnaire (Goal; Job, Langens, & Brandstätter, 2009).

[2.7] Motivational profiles refer to a combined manifestation of the three different implicit motives within an individual.

[2.8] Please refer to Dodge, Gilroy, and Fenzel (1995) and Leuptow, Garovich, and Leuptow (1995) for a discussion on the stability of gender stereotypes. Please see Falkenberg (1990) for a discussion on the slow change of stereotypes.

Chapter 3

Gender Differences in the Expression of CEOs' Implicit Motives

Summary

This study examined gender differences in CEOs' expression of implicit achievement, power, and affiliation motivation. Building on the role congruity account of sex differences and similarities in motivation and existing literature on implicit motives, the study tested whether female CEOs would express higher affiliation motivation than male CEOs and similar levels of achievement motivation. In addition, gender differences in power motivation were explored. The study used propensity score matching to generate a comparable sample of male and female CEOs from publicly-traded companies. Subsequently, we content-coded CEO letters from annual reports using Winter's (1994) manual for scoring motive imagery in running text. Overall, CEOs expressed more achievement and power motivation than affiliation motivation. Comparisons between male and female CEOs showed that female CEOs expressed lower power and higher affiliation motivation than male CEOs. By integrating implicit motive theory with social role theory and the role congruity account of motivation, this study provides a theoretical framework and novel demonstration that understanding social roles and gender roles can lend insights into motive expression by CEOs. The study uses established theory and a validated scoring method in a novel way by analyzing implicit motives from CEO letters, a critical communication channel in the CEO-shareholder relationship. In doing so, this study adopts a socio-cultural perspective. Informed by the role congruity account of motivation, the study demonstrates the importance of social roles and gender roles for motivational displays.

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Chapter 3: Gender Differences in the Expression of CEOs' Implicit Motives

Organizational researchers typically argue that Chief Executive Officers (CEOs) significantly influence the fate of organizations: As organizations' ultimate decision-makers, they can potentially affect business processes, strategy, and shape organizational performance (Hambrick & Quigley, 2014)—for better or for worse. Researchers have, therefore, long been interested in the motivation of leaders and in its influence on CEO behavior and decisions (Kanfer et al., 2017; Runge & Lang, 2019). One prominent line of research has focused on studying implicit achievement, power, and affiliation motives as antecedents of political (e.g., House et al., 1991; Spangler & House, 1991; Winter, 1987) and organizational leadership (e.g., Jacobs & McClelland, 1994; McClelland & Boyatzis, 1982; Winter, 1991a). Typically described as individuals' relatively enduring preferences for specific classes of affectively charged incentives, implicit motives form long-term behavioral tendencies (Brunstein et al., 1998; Schultheiss & Brunstein, 2010). Research has found some evidence that implicit motives relate to career and leadership outcomes (Apers et al., 2019; Delbecq et al., 2013; Lang et al., 2012). Although most leadership scholars believe that motivation is an important element in leadership, research has not yet systematically investigated the role of gender in the implicit motives of CEOs.

To date, none of the studies that we [3.1] are aware of and that researched implicit motives in the context of CEO-leadership (e.g., Chusmir & Azevedo, 1992; De Hoogh, Den Hartog, Koopman, et al., 2005; Delbecq et al., 2013; Kirkpatrick et al., 2002; Veenstra, 2013) has explicitly examined gender. Although recent meta-analytic findings suggest a positive relationship between women's leadership and firm-performance (Hoobler, Masterson, Nkomo, & Michel, 2018), women are still underrepresented in top management, especially as CEOs (Catalyst, 2020a). This imbalance in leadership role occupancy and the resulting use of predominantly male samples in research are contributing factors as to why knowledge about gender and leaders' implicit motives has been described as fragmented (Duncan & Peterson, 2010; Pang & Baumann, in press). In addition, research investigating the relationship between motives and gender in the leadership context has largely focused on explicit rather than implicit motivational constructs Bark, Escartín, Schuh, & van Dick, 2016; Elprana, Felfe, Stiehl, & Gatzka, 2015; Schuh et al., 2014). Moreover, those

few studies that have examined the role of gender in implicit motives (e.g., Denzinger et al., 2016; Pang & Schultheiss, 2005; Schultheiss & Brunstein, 2001) have neither investigated leaders nor shown consistent results. A recent meta-analysis found that women-in-general scored higher on affiliation motivation than men-in-general but similarly on achievement and power motivation (Drescher & Schultheiss, 2016). In contrast, other research found that men score higher on achievement and power motivation than women (e.g., Denzinger et al., 2016). Thus, to date, knowledge is limited as to whether gender effects will appear in executive leadership roles in which women are scarce and in which female CEOs might adapt their motivational expressions to fit the masculine requirements of the leader role and/or their female gender role. This gap aligns with Duncan and Peterson's (2010) call for more systematic "research on women business leaders [...] to enhance our understanding of how [implicit] motives relate to [...] contemporary leaders" (p. 43). To respond to this call and to address the existing gap in the literature, this study investigates gender differences in the implicit motives of executive leaders. In doing so, this study integrates research on implicit motives and the role congruity perspective of men, women, and motivation (Diekmann & Eagly, 2008), in addition to other theories. The present study also addresses some limitations of prior research by systematically examining the prevalence of implicit motives among men and women using a propensity-matched, gender-balanced sample of stock market company CEOs.

Implicit Motives

In studying motivation through a personality lens, McClelland et al. (1989) theorized that people's behavior is guided and shaped by individual differences in people's implicit motivational needs. These implicit motives are thought to develop in early, pre-verbal childhood through affective experiences and socialization processes (McClelland & Pilon, 1983). Implicit motives are typically described as "relatively stable individual characteristic[s] that energize and direct behavior" (Hoffman et al., 2011, p. 351). The literature generally differentiates the achievement, power, and affiliation motives (McClelland et al., 1989), also called the *Big Three* (Kehr, 2004). The achievement motive concerns people's desire to attain a standard of excellence, the power motive relates to people's wish to exert influence over others and receive recognition, and the affiliation motive refers to people's need

for deep, meaningful relationships and interpersonal friendliness (Lang et al., 2012; McClelland et al., 1989).

Motivation is conceptualized as encompassing both conscious (explicit) and unconscious (implicit) elements. These elements are thought to be reflective of two different motivational systems that predict different behavioral outcomes (McClelland et al., 1989). Explicit motives are argued to predict respondent behaviors regarding people's conscious self-image, whereas implicit motives are argued to predict operant behaviors and long-term behavioral tendencies. Operant behaviors, in turn, are described to be particularly important in unstructured situations and were shown to be relevant for leadership and managerial success (Schultheiss & Brunstein, 2010). Explicit motives are typically assessed using self-report measures. Thereby, explicit motives are sensitive to biases, such as social desirability, and, hence, do not reflect individuals' underlying motivational preferences. Implicit motives, however, are typically assessed using time-consuming content-coding methods (Schultheiss & Pang, 2007). By researching implicit motives rather than explicit motives, this study, thus, captures potential gender differences in what have been argued to be important antecedents to leadership (Delbecq et al., 2013). Given that implicit motives are predictive of long-term leadership tendencies, understanding their manifestation is critical (Schultheiss & Brunstein, 2010).

Past research has studied the impact of implicit motives on successful leadership (De Hoogh, Den Hartog, Koopman, et al., 2005; Winter, 1991a). Studies showed that achievement motivation was linked to business success and leader emergence (e.g., Sorrentino, 1973; Winter, 2010b). Power motivation was associated with charisma, effectiveness, and advancement into upper managerial positions (e.g., House et al., 1991; McClelland & Boyatzis, 1982; Spangler & House, 1991) and is largely considered to be the great motivator of leadership (McClelland & Burnham, 2003). Affiliation motivation was related to managerial/team performance (e.g., Cornelius & Lane, 1984; Kirkpatrick et al., 2002) and is believed to be increasingly important in the context of changing leadership demands, such as the growing need for more collaboration, networking, and cooperation (Spangler et al., 2014; Steinmann et al., 2015).

Implicit Motives, Gender, and Leadership

In theorizing about gender differences and similarities [3.2] in implicit power, achievement, and affiliation motives, this research adopts a social role perspective.

According to social role theory (Eagly et al., 2000), the gendered division of labor in society fosters gender-differentiated attributes as well as gender stereotypes. The content of gender roles is argued to reflect the two fundamental dimensions of agency and communion (Bakan, 1966). Agency is typically described as striving for achievement and influence, and communion as comprising a concern for the interests of others (Locke, 2015; Wojciszke et al., 2009). Men, more than women, are believed to be agentic (e.g., assertive, dominant), and women, more than men, are believed to be communal (e.g., caring, warm; Eagly & Karau, 2002).

Traditional beliefs about leaders are predominantly masculine in their emphasis on agentic qualities (Powell et al., 2002). This emphasis on masculinity is unsurprising since the majority of leaders throughout history have been male. However, over the years, the masculine construal of leadership has decreased (e.g., Kunkel et al., 2003), with contemporary managerial ideals increasingly accentuating feminine leadership qualities (see Duehr & Bono, 2006; Eagly, 2007; Powell et al., 2002). This is partly due to a growing number of women in leadership and a shift towards more feminine leadership styles. Nevertheless, leadership concepts continue to be “strongly infused with cultural masculinity” (Eagly & Antonakis, 2015, p. 574) and thus emphasize more agentic qualities than communal ones (Badura et al., 2018; Koenig et al., 2011). For instance, recent research by Vial and Napier (2018) demonstrated that stereotypically masculine, agentic traits are still seen as critically advantageous. They found that “both men and women viewed agentic traits as more important than communal traits to be a successful leader” (Vial & Napier, 2018, p. 1). In line with this predominately agentic view of leaders found in prior research, De Hoogh, Den Hartog, Koopman, et al. (2005) observed that CEOs scored lowest for their expressions of affiliation motivation and highest for achievement and power motivation. Other implicit motives studies in a managerial context demonstrate similar differences in the mean scores for these three motives (e.g., Kirkpatrick et al., 2002).

In general, congruence with social roles is argued to be a critical motivational force as “specific roles afford particular opportunities to pursue goals, and individuals are more likely to seek and attain the goals that are afforded by their roles” (Diekmann & Eagly, 2008, p. 443). This implies that specific social roles facilitate different motivations by creating distinct possibilities for individuals to express motivations. Given that research has found that agentic traits are perceived as

important determinants of leadership effectiveness (e.g., Koenig et al., 2011), this study proposes that the leadership role affords the display of agentic motives (i.e., achievement, power) rather than communal motives (i.e., affiliation).

H1a: CEOs more frequently express achievement motivation in their letters than affiliation motivation.

H1b: CEOs more frequently express power motivation in their letters than affiliation motivation.

Social role theory postulates that gender role beliefs induce role-consistent motives and behavior (Eagly, 2000). Scholars have argued that the display of role-congruent motives likely fosters rewards, whereas the display of role-incongruent motives likely yields penalties. To gain rewards and avoid costs, a combination of external and internal mechanisms might direct men's and women's motivations towards achieving congruence with their social roles (e.g., the leadership role) *and* their respective gender roles (Diekmann & Eagly, 2008). External mechanisms include, for example, a reaction to environmental affordances or interactions with people who have internalized gender-stereotypic beliefs (Diekmann & Eagly, 2008; Geis, 1993). Internal mechanisms, for example, relate to leaders' self-concepts or self-efficacy beliefs. According to Diekmann and Eagly (2008), these mechanisms can unravel either consciously (e.g., through impression management) or unconsciously.

Concerning external mechanisms, researchers have argued that gender roles affect behaviors through the beliefs, subjective norms, and hence endorsement or rejection provided by their social environment (e.g., Ridgeway & Correll, 2004). Thus, individuals may “generally tend to seek to fulfill basic human needs by gender-normative means” (Diekmann & Eagly, 2008, p. 437) as a result of differential expectations directed towards male and female CEOs—a phenomenon known as gender role spillover (Eagly et al., 1992; Gutek & Morasch, 1982). Differences in expectations may result in variations between men's and women's behaviors or motivational expressions. This implies that although men and women in the same occupational role may engage in similar behavior, and thus be perceived as less gender stereotypic (e.g., Bosak et al., 2012; Eagly et al., 1992), they might still differ in their expression and approaches to meet their motivational needs in a way that is congruent with traditional gender role stereotypes. Specifically, Eagly et al. (1992) argue that “gender roles may continue to have some importance in organizational

settings, with the consequence that women are regarded not as generic managers, but as female managers and men are regarded as male managers” (p. 5).

Although research shows that, in general, women and men are seen as equally effective leaders (e.g., Paustian-Underdahl et al., 2014), under certain conditions, biased perceptions in favor of one gender persist (e.g., Bosak et al., 2018). For instance, senior women leaders might be seen as particularly competent, given their success in a highly masculine sex-typed role (e.g., Rosette & Tost, 2010). However, women in higher-level leadership roles can also “encounter more prejudice because of the greater stereotypical mismatch between women and leadership” (Koenig et al., 2011, p. 635), especially for displaying dominance and control (e.g., Rudman, Moss-Racusin, Phelan, et al., 2012; Williams & Tiedens, 2016). One strategy that women may utilize to enhance their success in leadership roles is, thus, to complement their agentic repertoire with communal behaviors (e.g., Shackelford et al., 1996; Watson, 1988). Yet, regardless of the external mechanisms that might direct individuals to consciously or unconsciously blend agentic and communal behavior, gender continues to influence how individuals *enact* their social identities in a given context (Holmes, 2008) as a result of internal mechanisms.

Concerning internal mechanisms, scholars have argued that individuals internalize gender-stereotypical beliefs and goals into their self-concept (Bussey & Bandura, 1999). Regarding communion, women are thought to have a more relational self-construal than men (Gardner & Gabriel, 2004). As having close connections with others represents a stronger motivating force for women than for men, women’s attention to the relational opportunities afforded by roles is likely amplified (Diekmann & Eagly, 2008). In support of this rationale, a meta-analysis found that female doctors expressed more communal behaviors than their male colleagues (Roter et al., 2002). Moreover, a meta-analysis by Twenge (1997) found that women continue to report communal, feminine-stereotyped traits to a greater degree than men as they likely embrace a more communal identity than their male counterparts. Regarding agency, the same meta-analysis by Twenge (1997) found that, over time, men and women became more similar in their self-report measures of agentic, masculine-stereotyped traits. Indeed, women increasingly reported these traits as part of their self-concept. These findings suggest that internalized gender norms about the display of agentic and communal implicit motives might extend to specific social roles, such as the leadership role.

Implicit motives scholars also proposed that gender role socialization plays a crucial part in the way men and women express implicit motives (Drescher & Schultheiss, 2016; Pang & Baumann, in press; Pang & Schultheiss, 2005). The display of implicit motives is likely sensitive to the social context in which they occur and has been described to be susceptible to prevalent norms about gender roles (Duncan & Peterson, 2010). Longitudinal research by Veroff et al. (1980) found that, for achievement motivation, men remained stable, and women increased over time. Researchers attributed this increase in women's achievement motivation to greater female participation in the workforce and a corresponding change in both women's internalized gender beliefs and gender norms for working women (Duncan & Peterson, 2010). For power and affiliation motivation, Veroff et al. (1980) found that women remained relatively stable over time. In contrast, men increased in power but decreased in affiliation motivation. Veroff et al. (1980) attributed this difference to men seeking more power at work rather than in the domestic domain. These findings suggest that men's and women's achievement motivations have converged, whereas their power and affiliation motivations likely have not. Other research by Schultheiss and Brunstein (2001) found that affiliation and power motivation were negatively correlated for women but not men. This indicates that "for women, the need for positive, harmonious relationships and the need to have impact may conflict with each other and thus be mutually exclusive to some extent" (Schultheiss & Brunstein, 2001, p. 82). In addition, psychoendocrinological studies have associated power with the male sex hormone, testosterone, and affiliation with the female sex hormone, progesterone (Schultheiss, 2013b). Achievement has not been clearly associated with sex hormones.

In summary, both men and women might (consciously or not) be inclined to express their motives in congruence with their social role *and* their gender role to achieve intra- and interpersonal rewards and avoid punishment. For affiliation motivation, given the evidence of greater affiliation motivation in women than men (Drescher & Schultheiss, 2016) and of greater communion displayed and reported by women than men (Roter et al., 2002; Twenge, 1997), this study hypothesizes that female CEOs will express more affiliation motivation than male CEOs. For achievement motivation, given the evidence of similar levels of achievement motivation in women and men (Drescher & Schultheiss, 2016) and an observed convergence in self-ascribed agentic traits for the sexes (Twenge, 1997), this

research expects male and female CEOs to express similar levels of achievement motivation. For power motivation, the theoretical assumptions and evidence are rather mixed. Psychoendocrinological studies suggest that men could score higher than women, whereas the role congruity framework suggests either a null effect (due to the constraints of the social role) or that men will score higher than women (due to the anticipated backlash against women who violate the female gender norm via power expression). In addition, the argument that female CEOs are particularly agentic would suggest that women may score higher in power motivation than men. This study, therefore, does not state an explicit hypothesis for power motivation but rather explores gender differences for this motive. Hence:

H2: Female CEOs more frequently express affiliation motivation in their letters than male CEOs.

Method

Sampling and Procedure

CEOs were sourced from Standard & Poor's (S&P) Execucomp (2019) database. This database provides executive information on organizations belonging to the S&P Composite 1500 Index [3,3]. We collected annual reports of female CEOs corresponding to the first available year of their CEO tenure. Then, we specified certain inclusion criteria: (1) the annual report must include a CEO letter; and (2) the letter must be attributable to and signed by one single person, i.e., the CEO. Of all listed female CEOs in 2014, 45 met the inclusion criteria. Due to the imbalanced ratio of female to male CEOs, we created a subsample of 400 male CEOs who met the inclusion criteria and then applied a propensity score method to generate a gender-balanced sample of comparable CEOs.

A propensity score is commonly defined as “the probability of receiving a treatment based on measured covariates” (Thoemmes, 2012, p. 3). This tool for improving internal validity allows the study of an equal number of male and female CEOs (Connelly et al., 2013). By estimating the likelihood of a person falling within the “treatment” condition (i.e., female CEOs) based on certain background characteristics, the study can match these participants to individuals from the “control” condition (i.e., male CEOs) who have similar values (Connelly et al., 2013). Consequently, a total of 45 female CEOs were matched with 45 male CEOs on the following predefined background characteristics: (1) industry; (2) CEO age; and (3) CEO tenure.

Motive Assessment

As implicit motives are not consciously accessible, they cannot be investigated with self-report questionnaires (Schultheiss & Pang, 2007). Instead, implicit motives need to be measured indirectly, for example, with the help of reliable content-coding techniques (Lang, 2014). Therefore, this study utilizes Winter's second-generation scoring manual for text analysis (1994) to code CEOs' motives. As summarized by Duncan and Peterson (2010), the manual represents a validated and reliable tool (Schultheiss & Pang, 2007) that (1) enables raters to score all motives in one go; (2) can be used for any kind of non-technical, written material including archival data (e.g., speeches and letters); (3) can be equally applied to male and female participants as it uses the same scoring definitions for both sexes; and (4) allows measuring implicit motives at a distance (Winter, 1991b). Thereby, the manual has opened up new possible areas for research. Since its development, it has been applied to a variety of settings and materials (Schultheiss & Brunstein, 2010), such as CEO vision statements (Kirkpatrick et al., 2002) or presidential speeches (Winter, 1987). Due to its extensive predictive validity, the Winter manual has become a standard content-coding approach in the field of motivation research (Duncan & Peterson, 2010; Pang & Schultheiss, 2005; Schultheiss & Pang, 2007). The present study extends its application to examine *CEO letters*. By studying archival data of U.S.-based stock market companies, this research benefits from data that is highly consistent and uniform. The CEO letter is an integral, motive-laden part of many annual reports. It has been described as being among the most important communication channels in the CEO-shareholder relationship as it represents one of the few opportunities for CEOs to directly address all company owners (Amernic & Craig, 2007).

Leaders' implicit motives were analyzed in a blind triple-coding process by four different raters. Raters underwent extensive training in the application of the manual. Prior to the scoring process, raters completed expert calibration sets with a category agreement of above .85, according to Winter's (1994) category agreement formula (Kirkpatrick et al., 2002). The identity of the CEO was masked to rater B, rater C, and rater D, who had no prior information regarding CEOs' gender, ethnicity, age, or physical appearance. Rater A and rater B coded all CEO letters, whereas rater C and rater D each coded half of the CEO letters. Discrepancies between the first and second coders were resolved through the standard procedure of

discussion and reaching consensus (e.g., Kirkpatrick et al., 2002; Schultheiss & Pang, 2007). If no agreement was reached, the average of both coders' total score for achievement, power, or affiliation was used for further analysis. Rater B independently coded all letters discussed by rater A and C. Rater D independently coded all letters discussed by rater A and B. This way, each letter was independently coded by two raters blind to the hypotheses and CEO characteristics. To estimate inter-rater reliability, the study followed examples in the literature (Apers et al., 2019; Koo & Li, 2016) and assessed intraclass correlations (ICC (2,k); see Shrout & Fleiss, 1979). Coders demonstrated sufficient inter-rater reliabilities (Koo & Li, 2016) of .921 for achievement and .779 for power, and .651 for affiliation between the average of the 42 letters discussed with Rater C and the 42 independently coded letters of Rater B as well as .836 for achievement, .960 for power, and .761 for affiliation between the average of the 48 letters discussed with Rater B and the 48 independently coded letters of Rater D. As ICCs were sufficiently high, codings of the first, second, and third rater were averaged to obtain the final implicit motives scores.

Measures

Implicit motives. Achievement, power, and affiliation motives were scored according to the guidelines presented in Winter's (1994) manual for text analysis. For example, a motive category may only be scored once per scoring unit (i.e., sentence), unless it is interrupted by the expression of a different motive category. If participants display more than one motive category at the same time, the stronger motive is coded. Moreover, a particular motive may not be scored in two consecutive sentences, unless it is interrupted by a different motive. Instead, an intermission of one sentence needs to be maintained in case of two reoccurring motives of the same kind. A coding of 1 is assigned to each time achievement, power, or affiliation imagery is scored as present versus absent. Final motive scores for each CEO letter represent the total sum scores for each motive category. Final scores were determined by adding the number of times a motive category was marked as present. To provide examples of the Winter (1994) coding methodology, a sentence like "We strive to be the best." was coded as achievement, "We want to conquer the market." was coded as power, and "We deeply care about our customer's happiness." was coded as affiliation. For replication purposes, please refer to Winter (1994). Typically, raw implicit motives counts co-vary with the length of written material,

with women often producing longer written materials than men (Schultheiss & Brunstein, 2001). The study followed standard procedure of reducing covariation by presenting implicit motives as frequencies of motives per 1,000 words, using the formula recommended by Winter (1994; $(\text{score} \mid \text{word count}) \times 1,000$).

Sex. Information regarding CEOs' sex (male, female) was derived from S&P's Execucomp database and double-checked by screening CEOs' first names.

Word count. The length of CEO letters ($M = 1,230.70$, $SD = 593.02$ words) was determined by counting the number of words in its main body. Salutation phrases, additional boxes, and descriptions of figures or tables were neither included in the coding nor in determining the length of the document.

Control variables. A propensity score matching was used to derive comparable matched samples and to control for predefined background characteristics. By matching participants according to their (1) industry; (2) CEO age; and (3) CEO tenure, these characteristics were kept constant. This procedure reduces the likelihood that an effect is attributable to differences in, for example, prior leadership experience (Connelly et al., 2013).

Industry membership is a crucial characteristic for identifying comparable organizations (Bhojraj & Lee, 2002) in the S&P Index. Fama and French (1997) developed an algorithm to group Standardized Industry Classification (SIC) codes presented in the S&P Execucomp database into 12 different industries as follows: 1 = Consumer Nondurables; 2 = Consumer Durables; 3 = Manufacturing; 4 = Oil, Gas, and Coal Extraction and Products; 5 = Chemicals and Allied Products; 6 = Business Equipment; 7 = Telephone and Television Transmission; 8 = Utilities; 9 = Wholesale, Retail, and Some Services (Laundries, Repair Shops); 10 = Healthcare, Medical Equipment, and Drugs; 11 = Finance; and 12 = Other (French, 2019).

CEO age was accessed through the 2014 S&P Execucomp database ($M = 55.52$, $SD = 5.68$ years). Age is an important determinant of prior management experience and, therefore, a possible confounding variable.

CEO tenure ($M = 3.74$, $SD = 4.06$ years) represents the number of years a CEO is or was appointed in a respective company. For CEOs who were still in office in 2014, the study calculated tenure by subtracting the year in which the CEO was appointed from the year 2014.

Preliminary Analyses

Preliminary analyses of 90 CEOs (45 female) found that implicit motives counts positively correlated with the length of the CEO letters. Specifically, all three motives correlated above $|0.15|$ with the word count, which marks the cut-off score for transformations as specified by Schultheiss and Pang (2007). Raw implicit motives scores were, therefore, transformed into motive images per 1,000 words (Schultheiss & Pang, 2007; Winter, 1994). The propensity-matched samples of men and women are similar in terms of CEOs' age ($M_f = 55.82$, $SD_f = 6.02$ years; $M_m = 55.22$, $SD_m = 5.36$ years; $d = 0.11$), CEOs' length of tenure ($M_f = 3.82$, $SD_f = 4.24$ years; $M_m = 3.67$, $SD_m = 3.91$ years; $d = 0.04$), and distribution of industries. Of the organizations led by female CEOs, 13.33% are in Consumer Nondurables; 4.44% in Consumer Durables; 15.56% in Manufacturing; 0% in Oil, Gas, and Coal Extraction and Products; 2.22% in Chemicals and Allied Products; 8.89% in Business Equipment; 2.22% in Telephone and Television Transmission; 11.11% in Utilities; 11.11% in Wholesale, Retail, and Some Services (Laundries, Repair Shops); 2.22% in Healthcare, Medical Equipment, and Drugs; 20% in Finance; and 8.89% in other industries. Of the organizations led by male CEOs, 13.33% are in Consumer Nondurables; 0% in Consumer Durables; 22.22% in Manufacturing; 0% in Oil, Gas, and Coal Extraction and Products; 2.22% in Chemicals and Allied Products; 13.33% in Business Equipment; 4.44% in Telephone and Television Transmission; 8.89% in Utilities; 6.67% in Wholesale, Retail, and Some Services (Laundries, Repair Shops); 0% in Healthcare, Medical Equipment, and Drugs; 17.78% in Finance; and 11.11% in other industries.

Results

Hypotheses Testing

Consistent with Hypothesis 1a, paired-samples *t*-tests found that CEOs were more achievement-motivated than they were affiliation-motivated, $t(89) = 22.78$, $p < .001$. Consistent with Hypothesis 1b, analyses found that CEOs were more power-motivated than affiliation-motivated, $t(89) = 21.61$, $p < .001$. CEOs were similarly achievement- and power-motivated, $t(89) = -1.38$, $p = .170$ (Figure 3.1). Consistent with Hypothesis 2, Welch *t*-tests found that, compared with male CEOs, female CEOs were more affiliation-motivated, $t(65.78) = -2.74$, $p < .01$, $d = -0.58$, and less power-motivated, $t(86.55) = 4.84$, $p < .001$, $d = 1.02$; male and female CEOs were similarly achievement-motivated, $t(77.09) = 0.64$, $p = .524$, $d = .14$ (Table 3.1).

CHAPTER 3

Table 3.1

Gender Differences in CEOs' Implicit Motives and Financial Performance Measures

	<i>M (SD)</i>		Cohen's <i>d</i>	<i>t</i> -test			MANOVA	
Variable	Female	Male		<i>t</i>	<i>df</i>	<i>p</i>	<i>F</i> (1,85)	<i>p</i>
Implicit motives								
Achievement	10.83 (3.69)	11.26 (2.48)	0.14	0.64	77.09	.524	1.41	.239
Power	10.14 (2.82)	13.23 (3.22)	1.02	4.84	86.55	.000	23.58**	.000
Affiliation	3.16 (2.41)	2.05 (1.24)	-0.58	-2.74	65.78	.008	8.09*	.006
Financial performance measures								
Return on assets	0.06 (0.06)	0.05 (0.05)	-0.18	-0.99	85.17	.327	0.9	.344
Return on equity	0.13 (0.52)	0.05 (0.06)	-0.22	-1.13	44.31	.265	1.25	.268
Return on investment	0.11 (0.11)	0.08 (0.08)	-0.31	-1.54	80.27	.128	2.23	.139
Tobin's Q	1.75 (1.01)	1.78 (0.85)	0.03	0.17	83.59	.869	0.07	.796

Note. *N* = 87-90 CEOs (43-45 male). All outcome variables were computed using the S&P Compustat (2019) database at years' end two years after the CEO appointment. Return on assets, equity, and investment are presented in million dollars. Return on assets, return on equity, return on investment, and Tobin's Q were estimated using the formulas provided in Yuan (2017) and Ramalingegowda and Yu (2012).

* $p < .01$ ** $p < .001$.

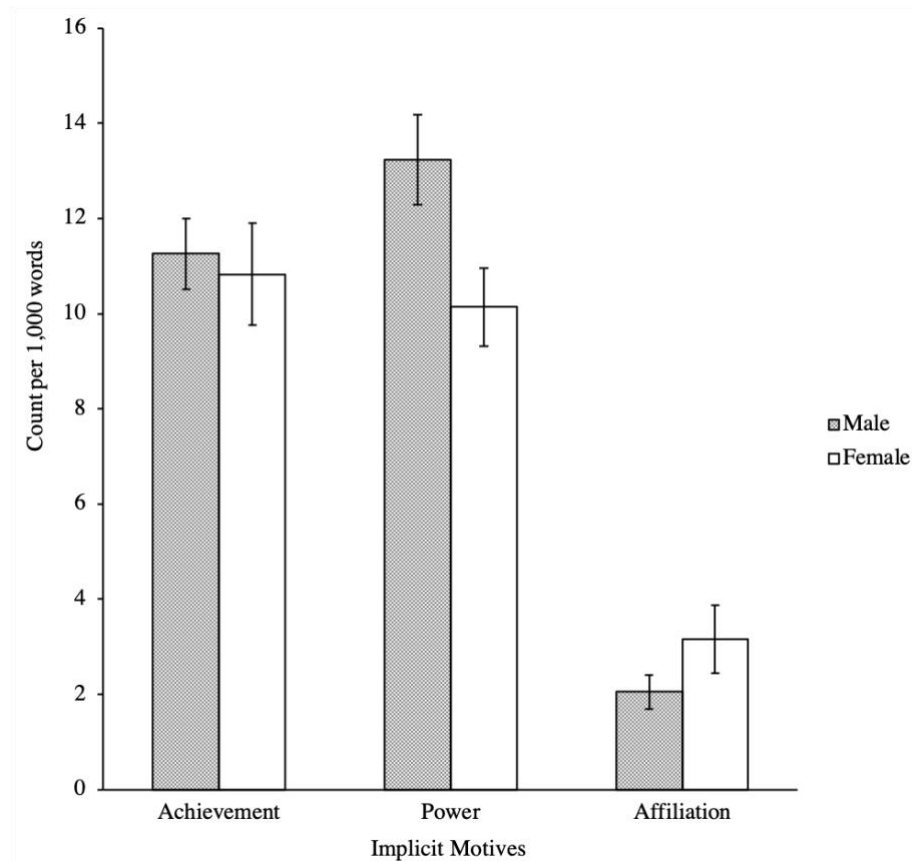


Figure 3.1. Gender differences in CEOs' implicit motives. Means and 95% confidence intervals of the implicit achievement, power, and affiliation motive of 45 male and 45 female CEOs per 1,000 words.

Further Analyses

In exploratory analyses, the study compared mean differences in “objective,” accountancy-based (i.e., return on assets, return on equity, and return on investment) and “subjective,” stock-based financial performance indicators (i.e., Tobin's Q) amongst male and female CEOs (Haslam et al., 2010; Marinova et al., 2016) [3.4]. There were no clear performance differences between male and female CEOs. However, in interpreting these results, it is important to remember that the present study focused on incumbent CEOs with comparable tenures.

Discussion

The present study examined what implicit motives CEOs display in their shareholder letters and whether female and male CEOs differ in their expression of implicit motives. The results showed that, as expected, executives were more likely to display agentic rather than communal motives. This finding suggests that CEOs, regardless of their gender, express motives that are afforded by their social role as a

leader. As successful leadership is traditionally expected to require predominantly agentic rather than communal characteristics (Koenig et al., 2011; Vial & Napier, 2018), leaders seem to seek role-congruency by expressing more achievement and power motivation than affiliation motivation.

Results further showed that female CEOs expressed lower power and higher affiliation motivation than male CEOs. This finding suggests that female leaders display motives congruent with their female gender roles. In addition, male and female CEOs did not differ in their achievement motivation, which is consistent with past implicit motives research by Veroff et al. (1980). Their longitudinal study found that women expressed lower levels of achievement motivation prior to the Women's Movement in the 1960s. This was likely due to societal disapproval of women's achievement motivation in the workplace. However, women's expression of achievement motivation increased, potentially as a result of women's growing participation in the workforce and society's greater approval of women's need for achievement (Veroff et al., 1980).

Women's power motivation, however, may still be proscribed, and their expressions of dominance or self-advocacy tend to be penalized with negative evaluations (e.g., Rudman, Moss-Racusin, Phelan, et al., 2012). Such proscriptions might have contributed to a lower expression of power motivation among female versus male CEOs. Interestingly, most studies from the implicit motives tradition observed that men and women, in general, do not differ in their power motives (Drescher & Schultheiss, 2016). Now, the question arises as to why the current findings differ from prior implicit motives studies that examined gender differences in power motivation (e.g., Pang & Schultheiss, 2005; Schultheiss & Brunstein, 2001; Winter, 1988). The predominant focus of earlier research was on analyzing motives in the general population or within student samples. The present study, however, focused on the context of executive leadership. We argue that this context may not represent a neutral arousal condition but instead evokes, or "pulls," for the activation of achievement and power motives, which are then increasingly expressed in CEO letters (De Hoogh, Den Hartog, Koopman, et al., 2005). It is likely a combination of both higher baseline scores and high arousal conditions that lead to high levels of achievement and power in both sexes, as suggested by Diekmann's and Eagly's (2008) notion of a bidirectional relationship between roles and motives. However, due to prevailing gender norms that discourage women from being assertive, the

current study suggests that the leadership context may activate the power motive in men more than in women. We reason that female CEOs might (consciously or not) balance the demands of their “incompatible” roles by expressing high levels of achievement but also somewhat higher levels of affiliation while inhibiting their power motivation. These findings suggest that both social and gender role norms might influence leaders' motivational displays.

Limitations and Future Research

Due to the underrepresentation of female CEOs, the present study is limited in its sample size. Future research can address this challenge by extending the data collection to small and medium-sized enterprises, private organizations, or family-led firms. Another option is to focus the analysis on a lower level in the organizational hierarchy and examine female leaders in executive positions more generally. Also, future studies could combine female CEOs from different stock market indices. A second limitation relates to studying implicit motives of CEOs at a distance. The application of the Winter (1994) manual to written materials resulting from archival study designs cannot rule out the possibility that CEOs' explicit motives might influence the expression of their implicit motives in the letters. Consequently, it might be argued that impression management tactics on the part of the CEOs could represent an alternative interpretation of the observed differences (Amanatullah & Morris, 2010). However, we argue that (i) the manual's extensive predictive validity and reliability in content-coding implicit motives at a distance (Pang & Schultheiss, 2005; Winter, 1991b) and (ii) its development from experimentally-derived content analysis systems (Winter, 2010a) justifies its consideration as a best practice approach for coding implicit motives from CEO letters. Nevertheless, future research should aim to replicate current findings using primary CEO data. Moreover, we recommend further investigating the relationship between male and female CEOs' implicit motives and leader outcomes. Combining traditional content-coding with new techniques, such as the computerized Linguistic Inquiry and Word Count system (LIWC; Pennebaker et al., 2001) or machine learning approaches, may prove fruitful for studying implicit motives in larger samples in the future.

Implications

This research provides insights into the manifestation of implicit motives in male and female CEOs. Simultaneously, this study highlights the relevance of gender roles in the workplace, especially in the leadership context. Interestingly, both male

and female CEOs displayed relatively high levels of achievement and power motivation, compared to lower levels of affiliation motivation. Nevertheless, findings indicate that gender roles spill over, leaving their mark on the expression of motivational needs. As long as leadership roles are largely construed as masculine (e.g., Vial & Napier, 2018), and women are believed and expected to be less agentic than men, women continue to face a *double bind*. This double bind prevents them from achieving perfect congruence with both roles. However, as Paustian-Underdahl et al. (2014) emphasize, leadership requirements are already changing in line with the demand for more relational qualities, such as collaboration and cooperation (Hogue, 2016; Koenig et al., 2011). We believe that this development favors women's continued advancement into leadership roles. This, in turn, might bring about changes in (fe)male leaders' self-construal as well as societal expectations concerning what implicit motives (fe)male leaders should or should not express. We, therefore, assume that, as with the achievement motive, gender differences in CEOs' affiliation and power motives will likely regress. More specifically, motivational profiles may converge towards more androgynous motive patterns (Koenig et al., 2011) consisting of high achievement, high power, and high affiliation motivation, which, according to Spangler and colleagues' (2014) analysis, are the leadership motive patterns of the future.

We also argue that the propensity-matched samples of male and female CEOs can generally be considered as similarly successful, as indicated by non-significant mean differences in the financial performance of male- versus female-led firms. Thus, the finding that successful female CEOs display comparatively lower power and higher affiliation motivation than their male counterparts hints at the possibility that expressions of agency in the form of achievement motivation rather than power motivation might benefit female leaders more. Nevertheless, we are hesitant to recommend that female leaders try to "manage" the content of CEO letters because it is not clear that such active self-intervention is effective with implicit motives. However, the motivational literature has demonstrated that motive training can be beneficial and has developed several approaches that can help leaders to increase their motivational competence by promoting the congruence of their implicit motives and their motivational self-concepts (see Rheinberg & Engeser, 2010). The present study and extant research in the motivational literature on motive training thus provide hints on new ways to improve CEO functioning in future coaching and

training interventions. At the same time, we caution that different motivational expressions may be beneficial in the context of leader emergence versus (strategic) leader effectiveness (McClelland & Boyatzis, 1982).

Lastly, the present research, like many other studies in the leadership and gender tradition (see Eagly, 2007; Vecchio, 2002), mainly observed small to medium-sized sex differences in CEOs' motives that can be best understood in terms of overlapping distributions. Therefore, by and large, male and female CEOs may be interpreted as more similar than dissimilar in the implicit motives they express.

Conclusion

The present study revives and contributes to the debate about what implicit motives manifest in men and women. Current findings challenge the general assumption in the literature that men and women only differ in their affiliation but not in their power motivation. The study provides empirical evidence in line with arguments from the role congruity account of motivation, suggesting that roles are an important motivational force (Diekmann & Eagly, 2008). Specifically, results indicate that CEOs' motivational displays are influenced by both their social role *and* their gender role in ways that maximize perceived congruence to increase intrapersonal, interpersonal, and economic rewards.

Footnotes

[3.1] To fit the linguistic flow of this dissertation, “the authors” are changed to “we” and “our” throughout this text.

[3.2] While this research is aware of the conceptual distinction between sex as a biologically determined characteristic versus gender as a socially constructed, culturally sensitive, and relatively fluid characteristic of women, men, divers, and neutral (WHO, 2020a, 2020b), the present study uses the terms sex and gender interchangeably. This research sampled men and women on the basis of their sex but adopts a socio-cultural perspective in explaining sex differences pertaining to the socially constructed and commonly shared beliefs and expectations associated with being male or female in a given society.

[3.3] The S&P 1500 Index consists of three major U.S. indices that are the S&P 500, the S&P MidCap 400, and the S&P SmallCap 600 (S&P Dow Jones Indices, 2019) in decreasing order of market capitalization, and was sourced from the S&P Execucomp (2019) database. Together, the companies listed in the S&P 1500 Index make up about 90% of the market capitalization in the U.S. (S&P Dow Jones Indices, 2019).

[3.4] Tobin’s Q “is an estimate of how efficient investors perceive a company’s use of its assets to be” (Haslam et al., 2010, p. 489). Tobin’s Q presents a ratio score, whereby a value higher than 1 indicates that a company is valued more than its net worth. Thereby, Tobin’s Q is a proxy for subjective shareholder perceptions. Return on assets measures the profitability of a company in relation to its total assets; return on equity measures how profitable a company is relative to shareholders’ equity; and return on investment measures the profitability of a company relative to the investment costs. Thus, return on assets, equity, and investment reflect accountancy-based measures of past performance (Haslam et al., 2010).

Chapter 4

Implicit Motives and Gender as Antecedents of CEO Survival

Summary

Researchers have long been interested in the effects of implicit achievement, power, and affiliation motives on leadership success. While earlier research mostly observed that high power and low affiliation motivation are critical antecedents for leadership effectiveness, more recent studies have also found some evidence that affiliation motivation positively relates to successful leadership. Yet, to date, little is known about how implicit motives uniquely affect leadership outcomes of Chief Executive Officers (CEOs). Additionally, due to women's continued underrepresentation in executive leadership positions, knowledge is lacking about how gender affects the success of leaders. Despite ongoing public and scientific efforts to achieve gender equality in the workplace, women continue to face barriers in executive leadership. Among others, these barriers relate to traditional gender role stereotypes, which, when violated, are proposed to yield negative consequences, such as shorter tenure and higher turnover. Building on (1) motive disposition theory, and (2) role congruity theory, the present study, thus, investigates how implicit motives and gender relate to survival rates of CEOs. We applied propensity score matching to generate a gender-balanced sample of CEOs and subsequently content-coded 164 CEO letters with Winter's (1994) scoring manual, in a blind, triple-coding process. Analyses revealed that power-motivated CEOs faced an increased risk of turnover. Moreover, female CEOs were significantly more likely to face turnover than male CEOs. Furthermore, analyses showed no interaction between power motivation and CEOs' gender. A potentially mediating role of implicit motives in the relationship between CEO gender and turnover hazards is discussed.

This chapter is based on: Brueckner, J., Bosak J., & Lang, J. W. B. (in preparation).
Implicit motives in the upper echelons: Do motivational preferences and gender predict survival rates of CEOs?

Chapter 4: Implicit Motives and Gender as Antecedents of CEO Survival

The question of how individual difference characteristics relate to leadership success has captured scholars' interest for many years (Chan & Drasgow, 2001; Day & Zaccaro, 2007; Hoffman, Bynum, Piccolo, & Sutton, 2011; Hoffman, Woehr, et al., 2011; Judge et al., 2002; Zaccaro, 2007). Herein, past research has paid considerable attention to the relationship of explicit personality constructs (e.g., explicit motives) and leadership (De Hoogh, Den Hartog, & Koopman, 2005; Judge & Bono, 2000; Ployhart et al., 2001), whereby "explicit" refers to individuals' self-reported traits related to their conscious self-image (McClelland et al., 1989).

The nature of personality, however, is not merely explicit but also implicit (Apers et al., 2019; Brunstein & Maier, 2005; Winter et al., 1998), with *implicit motives* being increasingly recognized as critical predictors of successful leadership (McClelland & Boyatzis, 1982; Schultheiss & Brunstein, 2010). Hereby "implicit" refers to individuals' unconscious dispositions towards certain affectively charged incentives (Schultheiss et al., 2003). Specifically, in viewing motivation through a personality lens, scholars consider leaders' implicit motives as stable individual difference characteristics that guide and shape behavior (Hoffman, Woehr, et al., 2011). In general, research distinguishes three different fundamental motivational needs, namely the need for achievement, power, and affiliation (McClelland et al., 1989). According to Denzinger et al. (2016), "differences in [these] implicit motives have far-reaching consequences on behavioral outcomes" (p. 53), and extant theory and empirical research have indicated that certain motivational profiles relate to career success and advancement into senior executive leadership roles (McClelland & Boyatzis, 1982; Schultheiss & Brunstein, 2010) more than others. Despite their long research history and suggested relevance for leader behaviors and effectiveness (Delbecq et al., 2013; McClelland et al., 1989), implicit motives have received relatively little attention in the literature (Antonakis & House, 2002; Winter, 2002a) in comparison to explicit personality constructs. As a result, it is not yet clear if and how implicit motives of male and female CEOs relate to their turnover risk.

As female CEOs are still dramatically underrepresented in the upper echelons (Catalyst, 2020a, 2020b), research also paints an incomplete picture as to how *gender* relates to organizational survival in the C-suite (Duncan & Peterson, 2010). While past research has provided support for the impact of gender stereotypes —societies'

shared and generalized beliefs about the attributes of men and women (Bodenhausen et al., 2007; Eagly & Mladinic, 1989)—for women’s advancements into executive leadership positions (e.g., Heilmann, 2001), less is known of whether women face unequal treatment once they have attained CEO positions (Gupta, Mortal, et al., 2018). However, Gupta, Mortal, and colleagues (2018) argue that “what happens to women in leadership positions is at least as critical as the conditions under which they made it to these positions (Zhang & Qu, 2016)” (p. 4).

The present research contributes to addressing this knowledge gap and investigates the influence of implicit motives and gender on CEO survival in a propensity-matched, gender-balanced sample of CEOs from the S&P 1500 Composite Index. By assessing the turnover hazards of male and female CEOs with different motivational needs, this study responds to calls for (a) more research on potential consequences of implicit motives for work-related outcomes (Apers et al., 2019; Duncan & Peterson, 2010) and (b) more research on female business leaders to better understand challenges women face in CEO positions of contemporary organizations (Duncan & Peterson, 2010; Gupta, Mortal, et al., 2018).

Implicit Motives

Implicit motives develop from preverbal affective experiences and early socialization (McClelland & Pilon, 1983) and “are defined as enduring preferences for specific classes of affective incentives” (Bernecker & Job, 2011, p. 251). Derived from Murray’s (1938) motivation taxonomy, research typically distinguishes among the achievement, power, and affiliation motives—also called the *Big Three*.

Achievement motivation is defined as people’s striving for excellence, desire to be the best, and need to attain mastery (McClelland et al., 1989). In contrast, power motivation relates to individuals’ desire to exert influence over others, be in control, and dominate (Lang et al., 2012). Lastly, affiliation motivation refers to the need for deep, meaningful relationships, intimacy, and warmth (Heyns et al., 1958). The effect that these motives have on behavior is moderated by the concept of activity inhibition—people’s inclination to restrain motivational and emotional impulses (Schultheiss & Brunstein, 2010), or in other terms, their self-control. Activity inhibition is thought to play an important role as a moderator as it regulates whether people exert the behaviors that are afforded by particular motives in ways directed at the attainment of organizational rather than personal goals (Denzinger et al., 2016). Thus, together, CEOs’ manifestation of implicit motives and levels of

activity inhibition influence their behavior and hence are thought to affect how successful they are as leaders.

The dual systems theory of human motivation postulates that implicit motives are to be distinguished from explicit motives, also known as self-attributed motives (McClelland et al., 1989). A multitude of studies, including a recent meta-analysis, demonstrated that implicit motives and explicit motives are independent of each other and do not correlate (Kanfer, 2009; Koellner & Schultheiss, 2014). These findings support McClelland et al.'s (1989) argument that implicit and self-attributed motives tap into different motivational systems and predict different behavioral outcomes; whereas explicit motives predict respondent behaviors regarding people's conscious self-image, implicit motives predict operant behaviors and long-term behavioral tendencies (Duncan & Peterson, 2010). Operant behaviors, which are described to be elicited by incentives of the task itself, in turn, are particularly important in unstructured situations and are shown to be relevant for leadership and managerial success (Schultheiss & Brunstein, 2010).

Accordingly, since implicit motives are not consciously accessible, they cannot be investigated with the same instruments as explicit motives (i.e., self-report questionnaires) but need to be measured indirectly, for example by means of "projective measurement technique[s] that rely on imagination processes embracing affective reactions to pictorial cues" (Denzinger et al., 2016, p. 53). Stories derived from these projective measures would then be analyzed with the help of content-coding techniques. In the past, these content-coding approaches were time-consuming in that they required several coding rounds and considerable training, which, in turn, contributed to a slowdown in implicit motives research (Duncan & Peterson, 2010).

With the development of a validated, reliable, and comprehensive scoring manual for text analysis (see Engeser & Baumann, 2014), however, Winter (1991b; 1991c; 1994) considerably advanced the field of implicit motives studies. Winter's scoring manual provides specific coding rules for all three motives and thus enables researchers to content-code achievement, power, and affiliation motivation simultaneously. As Winter's methodology can be utilized to assess different kinds of written materials above and beyond the PSE, such as letters or speeches, the manual has allowed researchers to study motivation at a distance and therefore has paved the way for designs other than classic laboratory studies as well as populations that were

previously inaccessible to most scholars. According to De Hoogh, Den Hartog, Koopman, et al. (2005), since its development, the scoring methodology has been applied within a variety of different settings such as international conflict escalations, political campaigning, and corporate leadership (Kirkpatrick et al., 2002; Schultheiss & Brunstein, 2010; Winter, 2010a, 2010b) and has been used to analyze various written materials such as presidential speeches (Spangler & House, 1991) and CEO vision statements (Kirkpatrick et al., 2002).

Implicit motives and leadership success. Research on the relationship between implicit motives and work-related outcomes has a long history.

Past studies on the *achievement motive*, for example, observed a positive relationship with business success and entrepreneurial performance (Winter, 2010b), leader emergence (Delbecq et al., 2013; Sorrentino, 1973), networking (Wolff et al., 2018), and occupational reputation (Dietl et al., 2017). However, having a high achievement motivation may be a double-edged sword for leaders; while the need to achieve by setting high standards and striving for excellence may pave the way to a successful career, it may also stand in the way of leaders' ability to delegate responsibility as they seek to personally "own" their goal-attainments (Delbecq et al., 2013; Rauch & Frese, 2007). As Winter (2002a, p. 130 as cited in Delbecq et al., 2013, p. 11) compared, "achievement motivation involves skill at moving the pieces. Most leadership roles, however, require the skills of influence: this is getting the pieces to move by themselves." Furthermore, achievement-oriented CEOs may immerse themselves in management tasks but can lack the visionary qualities distinctive of successful leaders (Delbecq et al., 2013).

Studies on *power motivation* more frequently observed a positive relationship with leadership success (e.g., Winter, 1973). More specifically, power motivation was linked to charismatic leader behaviors (e.g., De Hoogh, Den Hartog, Koopman, et al., 2005), career progression (McClelland, 1975, 1987b), promotions into upper managerial roles (McClelland & Boyatzis, 1982), positive evaluations from followers (Hoffman, Woehr, et al., 2011), and leadership effectiveness (e.g., Kirkpatrick et al., 2002; McClelland & Burnham, 1976, 2003; Spangler & House, 1991). In their study on long-term success in management, McClelland and Boyatzis (1982) found that an implicit power motive can be modulated in positive and negative ways when paired with high or low levels of activity inhibition.

On the one hand, if both managers' implicit power motivation and their activity inhibition are high, they tend to utilize their power in prosocial ways (Chusmir & Parker, 1984; McClelland & Boyatzis, 1982). In this way, McClelland and Boyatzis (1982) argue that managers exert socialized power by influencing their subordinates or team members to attain organizational goals. On the other hand, if a high need for power is paired with low levels of activity inhibition, power may be used for self-aggrandizement, also called personalized power (Chusmir & Parker, 1984; McClelland & Boyatzis, 1982). According to past research, it is first and foremost socialized power that is associated with managerial and leadership success (e.g., Jacobs & McClelland, 1994; McClelland, 1975).

However, occasionally researchers found negative or no associations between the power motive and successful leadership (e.g., Delbecq et al., 2013; De Hoogh, Den Hartog, Koopman, et al., 2005; House et al., 1991). As Wolff and Heigh (2019) suggest, power motivation has rarely been studied as an individual construct but oftentimes in interaction with, for example, activity inhibition, responsibility disposition, or other implicit motives. In fact, Wolff and Heigh (2019) caution that researchers used numerous different operationalizations of the power motive in their research, which renders the interpretation and integration of prior findings difficult.

Past research on the *affiliation motive* mainly observed negative or non-existent relationships with leadership outcomes (McClelland, 1975; McClelland & Boyatzis, 1982). Scholars claim that high affiliation motivation hinders leaders' readiness to deliver critical feedback to employees as they worry about not being liked (McClelland, 1987a; McClelland & Burnham, 1976, 2003). Also, researchers argue that affiliation-motivated leaders are more likely to take into account subordinates' individual circumstances, which would result in perceptions of favoritism on the part of the employees and thereby might impede their work morale (McClelland & Burnham, 1976, 2003). Thus, affiliation-motivated leaders were feared to "place friendships with others before the welfare of the organization" (Delbecq et al., 2013, p. 10).

However, increasing evidence suggests that affiliation motivation contributes more positively to successful leadership than previously believed. For instance, affiliation motivation was found to be positively related to performance in organizations where networking and relationships are crucial, such as professional services organizations (Cornelius & Lane, 1984). Furthermore, affiliation motivation

was found to be positively associated with work attitudes and team performance among first-line managers (Kirkpatrick et al., 2002). The change of the affiliation-leadership link may be traced back to a change in management more generally (Burnham, 1997), including the movement away from strongly hierarchical organizational forms (Winter, 1991a) with traditional role requirements (Spangler et al., 2014). To be more precise, a societal demand for greater attention to sustainability, the transformation of the HR function from a cost-center to a business partner, an increased interest in the physical and emotional wellbeing of employees, combined with the liberalization and modernization of society, are contributing to a shift away from traditionally authoritarian, directive leadership styles towards more participative, empowering leadership. Thus, organizations embracing cultural values of collaboration and cooperation may benefit from affiliation-motivated leaders more than organizations that value competition.

Lastly, “the attraction–selection–attrition (ASA) framework predicts that individuals are likely to be attracted to, selected for, and maintained within organizations that fit their values and identities” (De Hoogh, Den Hartog, Koopman, et al. 2005, p. 23). Thus, De Hoogh, Den Hartog, Koopman, et al. (2005) predicted and found that CEOs of for-profit organizations are more motivated by being better than their competition (i.e., need for achievement) and influencing their stakeholders (i.e., need for power) than CEOs of non-profit organizations, who, instead, are motivated by doing the morally right thing and caring for philanthropic causes. As the present study investigates CEOs of publicly listed for-profit companies, we argue that CEOs’ power motivation, in particular, is predictive of their success as leaders. Affiliation motivation, on the other hand, might be a beneficial add-on in the for-profit sector but is unlikely to predict successful leadership without being combined with a need for power.

Taken together, McClelland (1977) has argued that even though a need for achievement predicts entrepreneurial success in small- and medium-sized businesses or in situations that are characterized by individuals’ own contribution to attaining goals, “this motivation should not be associated with managerial success in larger businesses” (McClelland & Boyatzis, 1982, p. 738). Thus, given the contradictory perspectives as to whether implicit achievement motivation is beneficial, unrelated, or detrimental for successful leadership, its relationship with CEOs’ turnover hazards is explored.

Furthermore, evidence for the positive motivational effects of affiliation motivation for work-related outcomes is increasing. In line with Boyatzis' (1972) notion of affiliative interest, Lang et al. (2012) observed that affiliation motivation CEOs positively related to task- and contextual performance in extraverted versus introverted individuals. Yet, other studies such as Apers et al. (2019) observed that affiliation motivation negatively related to individuals' income growth trajectories. Thus, given the contradictory perspectives as to whether affiliation motivation is beneficial, unrelated, or detrimental for work-related outcomes, its relationship with CEOs' turnover hazards is explored.

However, power motivation seems to be an integral ingredient for leading with influence. While high power motivation does not automatically imply that goals are attained in ethically and morally correct ways that benefit the greater good, it is, nonetheless, the one most clearly connected to leader effectiveness out of all three motives. Thus, we hypothesize the following:

- H1: Power motivation is negatively related to the risk of CEO turnover.

CEO Gender

Even though women have made significant advancements in the workplace over the last decades and now make up 45% of all employees in S&P 500 companies, they are still greatly underrepresented in executive management (Catalyst, 2020a, 2020b). Within the 500 largest publicly-traded organizations in the US, women comprise a mere 21% of all board members and still reside at the 5% mark at the CEO level. This percentage has been surprisingly stagnant in recent years, given the increased social, governmental, and organizational efforts to achieve gender parity in executive management (World Economic Forum, 2016).

Furthermore, the few women who rose into executive leadership functions continue to face additional hazards once they occupy leadership roles (Ryan & Haslam, 2005). One such threat relates to women's increased risk of dismissal (Gupta, Mortal, et al., 2018). While some studies found that male CEOs are significantly more likely to face turnover than female CEOs (Elsaid & Ursel, 2018) or that male and female CEOs do not differ in their tenures (Cook & Glass, 2014a, 2014b), other studies paint a different picture. A report by S&P Global Market Intelligence (2016a, 2016b) found that women CEOs of the S&P 350 and S&P 500

Index typically have a 2-year shorter tenure than men. Similarly, data from Fortune 500 CEOs, for example, showed that women leaders had significantly shorter tenures than their male counterparts (Glass & Cook, 2016). Furthermore, Gupta, Mortal, et al. (2018) investigated large public firms in the U.S. and found female CEOs to have a higher risk of dismissal than male CEOs. Indicative of gender bias, Gupta, Mortal, et al. (2018) showed that women are generally more likely to be let go than men. Moreover, their turnover is less likely to be dependent on the financial performance of the company; that is, while men's hazards of dismissal decreased when firm performance increased, women's dismissal rates were equally high irrespective of whether firm-financial performance had improved under their leadership. Researchers have offered extant theoretical explanations as to why women would face shorter tenures and an increased turnover (Eagly & Karau, 2002; Heilman, 1983; Rudman, 1998; Rudman, Moss-Racusin, Phelan, et al., 2012).

From a role congruity perspective (Eagly & Karau, 2002), there is a perceived incongruity between the female gender role and masculine sex-typed leadership role, stemming from a combination of beliefs that leadership predominantly requires masculine, agentic qualities (e.g., assertive and dominant), and that men are more likely than women to possess those qualities (Schaumburg & Flynn, 2017). Women, on the other hand, are perceived and expected to be communal (e.g., caring and warm), a characteristic that is widely considered atypical for effective leaders (Prentice & Carranza, 2002). According to role congruity theory, this perceived incongruence can foster prejudice and less favorable evaluations towards female leaders in the upper echelons of organizations. More specifically, women's perceived higher communion and perceived lack of agency defies prescriptive and proscriptive norms of what leaders should or should not be (Eagly & Karau, 2002). As a result, women are likely to experience backlash in terms of social and economic penalties (Rudman & Glick, 2001). Under certain conditions, a perceived incongruence can potentially lead to poorer assessments of women's perceived competence (Kark & Eagly, 2010), lower perceived effectiveness as leaders (Eagly et al., 1995; Paustian-Underdahl et al., 2014), decreased likability and hireability (Rudman, Moss-Racusin, Phelan, et al., 2012), more unfavorable shareholder reactions to female CEO appointments (Lee & James, 2007), increased anticipation of failure paired with lower investments (Bigelow, Lundmark, McLean

Parks, & Wuebker, 2014), increased scrutiny from activist investors [4.1] (Gupta, Han, et al., 2018), and increased dismissal (Gupta, Mortal et al., 2018).

Thus, Gupta, Mortal, and colleagues (2018) argue that “gender stereotypes may also result in women being pushed out of their leadership roles even after they reach the highest position in the firm” (p. 17). Taken together, there is increasing evidence suggesting that women in leadership roles face additional barriers, which together might culminate in a male leadership advantage (Schaumberg & Flynn, 2017). Therefore, we hypothesize that:

H2: Female CEOs have a higher risk of turnover than male CEOs.

Contributions

The present study advances knowledge about the role of implicit motives and gender in the upper echelons of publicly-traded multinational companies. We further develop the research conducted in *Study 1 (Chapter 3)*, which found that male and female CEOs differed in their motivational preferences, by extending the present research on implicit motives and gender to an investigation of their impact on leadership outcomes, i.e., leader survival. In doing so, this study makes three contributions. Specifically, this study (1) applies a validated scoring method in a novel way by content-coding implicit motives within CEO letters using the Winter (1994) manual; (2) offers new empirical evidence about the effects of implicit motives and gender on the risk of turnover for leaders through the investigation of a propensity-matched, gender-balanced sample of CEOs; and (3) discusses a potential mediating role of implicit motives in women’s increased risk of turnover.

Method

The present research was conducted in a non-randomized archival study design using a propensity score matching to generate a gender-balanced sample of company CEOs. Further, this study applied a content-coding technique to quantify motivational statements extracted from CEO letters.

Participants and Procedure

Data sources. The Standard & Poor’s (S&P) Execucomp (2019) database was used to source participants for the present study. The Execucomp database includes compensation and turnover information of all executives leading organizations in the S&P Composite 1500 Index. The S&P Compustat (2019) database was used to source financial performance metrics.

Sampling. To begin, we identified all female CEOs listed in the S&P 1500 Index between the fiscal years of 1999 and 2015. Then we gathered annual company reports corresponding to the first available year of the CEOs' appointment. We retrieved annual reports from corporate websites or the online archive, AnnualReports (2019). In order for participants to be considered suitable, the following inclusion criteria were set: First, the annual report must entail a CEO letter, and second, the CEO letter must be signed off by only one individual, that is, the CEO. CEO letters are motive-laden documents addressed to company shareholders that typically review past performance and communicate companies' strategic vision. As CEO letters represent one of the few annual opportunities of CEOs to communicate with their investors, this study considers CEO letters to be one of the most important communication channels that CEOs can utilize to influence investment decisions (Amernic & Craig, 2007). Due to the above-mentioned specifications, the sample size of female CEOs suitable for the current research is $N = 82$.

Propensity score matching. Due to the disproportionately larger population of male CEOs in the S&P 1500 Index, simple random sampling is likely to produce confounding relationships in the present study. Thus, we applied a propensity score matching to generate a comparable gender-balanced sample of CEOs. "Propensity scoring statistically models how individuals in a quasi-experiment have been assigned to conditions in order to estimate treatment effects among individuals with approximately equal probabilities of receiving the treatment" (Connelly et al., 2013, p. 407). More specifically, propensity score matching decreases bias caused by confounding relationships that could occur in simple random sampling (Thoemmes, 2012) and can thus improve internal validity and enable the creation of a gender-balanced sample of male and female CEOs (Connelly et al., 2013).

In this study, female CEOs and male CEOs are compared along specific background characteristics, i.e., covariates, with the goal to create subsamples with similar covariate distributions (Connelly et al., 2013). By controlling for these background characteristics, propensity score matching decreases the likelihood that an effect of sex on CEO turnover (Connelly et al., 2013) results from a confounding variable. Before conducting the propensity score matching, a subsample of 327 male CEOs who met the above-defined sampling requirements was generated, reducing

CHAPTER 4

Table 4.1

Comparison of Standardized Mean Differences, Standard Deviations, and Percentage Distributions of Covariates Across Unmatched and Matched Samples

	<i>Total female group</i>		<i>Selected female group</i>		<i>Total male group</i>			<i>Preselected male group</i>			<i>Propensity-matched male group</i>		
	<i>N = 179</i>		<i>N = 82</i>		<i>N = 5,871</i>			<i>N = 327</i>			<i>N = 82</i>		
Variable	<i>M (SD)</i>	<i>%</i>	<i>M (SD)</i>	<i>%</i>	<i>M (SD)</i>	<i>%</i>	<i>d</i>	<i>M (SD)</i>	<i>%</i>	<i>d</i>	<i>M (SD)</i>	<i>%</i>	<i>d</i>
Age	51.67 (5.71)		51.63 (5.94)		53.42 (7.52)			50.64 (6.06)			50.94 (5.98)		
Appointment year	2005.31 (7.65)		2007.71 (5.17)		2001.38 (9.05)		.26	2008.49 (4.59)		.16	2007.41 (5.14)		.12
Market capitalization													
SP		19.55		28.05		19.01			29.05			32.93	
MD		12.85		17.07		13.69			22.63			17.07	
SM		17.32		25.61		18.97			33.03			18.29	
EX		50.28		29.27		48.39			15.29			31.71	
Industry													
1		9.50		9.76		5.40			8.87			9.76	
2		2.23		3.66		3.00			5.81			3.66	
3		8.38		8.54		11.22			19.27			9.76	
4		0.56		1.22		4.12			0			0	
5		1.68		3.66		2.91			3.06			4.88	

Table 4.1 (Continued)

Comparison of Standardized Mean Differences, Standard Deviations, and Percentage Distributions of Covariates Across Unmatched and Matched Samples

	<i>Total female group</i>		<i>Selected female group</i>		<i>Total male group</i>			<i>Preselected male group</i>			<i>Propensity-matched male group</i>		
	<i>N = 179</i>		<i>N = 82</i>		<i>N = 5,871</i>			<i>N = 327</i>			<i>N = 82</i>		
Variable	<i>M (SD)</i>	%	<i>M (SD)</i>	%	<i>M (SD)</i>	%	<i>d</i>	<i>M (SD)</i>	%	<i>d</i>	<i>M (SD)</i>	%	<i>d</i>
Industry													
6		13.41		15.85		18.75			10.09			15.85	
7		3.35		2.44		2.52			1.53			1.22	
8		5.59		6.10		4.19			5.50			8.54	
9		22.35		15.85		11.85			14.37			14.63	
10		6.70		4.88		8.36			3.67			2.44	
11		15.64		19.51		15.98			17.74			19.51	
12		10.61		8.54		11.68			10.09			9.76	

Note. *N* = sample size of CEOs. Tabled values reflect standardized mean differences between female CEOs and male CEOs in the form of Cohen's *d*. SP = S&P 500, MD = S&P Midcap 400 Index, SM = S&P Smallcap 600 Index, and EX former members of the S&P 1500 Index. Industry groups are derived from French's (2019) industry classifications. 1 = Consumer Non-durables; 2 = Consumer Durables; 3 = Manufacturing; 4 = Oil, Gas, and Coal Extraction and Products; 5 = Chemicals and Allied Products; 6 = Business Equipment; 7 = Telephone and Television Transmission; 8 = Utilities; 9 = Wholesale, Retail, and Some Services (Laundries, Repair Shops); 10 = Healthcare, Medical Equipment, and Drugs; 11 = Finance; and 12 = Other.

the ratio of male to female CEOs to 4/1. The propensity score matching, conducted with the R open-source software for statistical analysis (version 3.4.1), chose the best-fitting overall sample from all preselected male CEOs on the predefined background characteristics: (1) industry; (2) market capitalization; (3) CEO age; and (4) year of CEO appointment (Table 4.1). Consequently, 164 CEOs (82 female, 82 male) serve as the participants of the study.

Implicit motives assessment. CEOs' implicit motives were analyzed in a blind coding process by independent raters trained in the application of Winter's (1994) scoring manual for text analysis. In total, four calibrated (category agreement of above .85) users of the Winter methodology engaged in coding the CEO letters (Kirkpatrick et al., 2002). Rater A coded 100% of the data as a primary rater, rater B coded 25% of the data as a secondary rater, rater C coded 75% of the data as a secondary rater and 25% as a tertiary rater, and rater D coded 50% of the data as a tertiary rater. This way, every letter was independently coded by at least two raters. CEO letters were anonymized so that rater B, rater C, and rater D were blind to the CEO's sex, ethnicity, age, and appearance. The primary and secondary raters resolved coding discrepancies (rater A & B and rater A & C) through discussion and consensus. If no agreement was reached, the average of both raters' total score for achievement, power, or affiliation motivation was used for further analysis. A tertiary rater (rater C or D) additionally coded 75% of all data that were previously double-coded and discussed by the primary and secondary raters.

To estimate interrater reliability, the study followed examples in the literature (Apers et al., 2019; Koo & Li, 2016) and assessed intraclass correlations (ICC (2,k) using the absolute agreement definition and a two-way random effects model (see Shrout & Fleiss, 1979). Coders demonstrated sufficient interrater reliabilities (Koo & Li, 2016) of .924 for achievement, .784 for power, and .657 for affiliation based on the average scores for the 42 letters discussed with Rater C and the 42 independently coded letters of Rater B as well as .837 for achievement, .939 for power, and .849 for affiliation based on the average scores for the 81 letters discussed with Rater B and the 81 independently coded letters of Rater D. As a result of the sufficiently high ICCs, final implicit motives scores were averaged by dividing cumulative raw implicit motives scores by the number of raters.

Independent Variables

Implicit motives. Implicit achievement, power, and affiliation motives were retrieved from the first available CEO letter of the CEOs' appointment in a respective organization. Based on prior research (Schultheiss & Brunstein, 2010; Schultheiss & Pang, 2007), we assume that CEOs' motives are relatively stable over time. In other words, we think that CEOs show moderate to high consistency in the motives they display. Therefore, we consider it reasonable to assume that leaders' implicit motivation in their first year of employment in the CEO role is similar to their motives in the following years of their tenure, making the first available year of CEO employment an adequate measurement point.

We used Winter's (1994) second-generation scoring manual for text analysis to code CEOs' motives. This well-established scoring methodology sets specific ground rules for how implicit motives are to be coded and specifies the circumstances under which the raters have to indicate a particular motive. For instance, only one motive may be coded per sentence. If the CEO applied more than one motive at a time, the stronger motive was scored. Moreover, one motive cannot be coded in two consecutive sentences. Instead, an intermission of one sentence had to be adhered to in case of two reoccurring motives of the same kind (see *Chapter 3*). For replication purposes, we recommend consulting the original manual for text analysis. Next, all cases of coded imagery were added up to construct a single score per motive for each participant (Drescher & Schultheiss, 2016). As demonstrated by prior research, raw motive scores tend to covary with the materials' word count (Schultheiss & Brunstein, 2001). Also, women were found to write longer TAT or PSE stories than men (Pang & Schultheiss, 2005; Schultheiss & Brunstein, 2001). Therefore, we reduced covariation by residualizing implicit motives scores for word count (Schultheiss, 2013a). Transformed motive scores refer to the implicit motives count per 1,000 words.

Word count. The length of CEO letters ($M = 1,246$; $SD = 635$ words) was determined by counting the number of words in its main body. When determining the word count, neither welcome phrases, captions, nor figures and tables are coded or counted. The variable word count is used to calculate motivation scores per 1,000 words. The length of men's and women's CEO letters does not significantly differ in the current sample ($t(162) = .03$, $p = .977$).

Sex. We gathered information on the dichotomous variable CEO sex (1 = *female*, 0 = *male*) from the Execucomp database and verified it by inspecting CEOs' first names.

Dependent Variables

Tenure. CEO tenure was calculated from two different variables in the Execucomp database, namely the date of CEO appointment and the date of CEO turnover, which were used to determine the duration of a CEO's current or past appointment in their respective company ($M = 96.15$; $SD = 55.27$ months). To obtain results of higher accuracy, tenure was measured in months instead of years. April 01, 2019, was selected as an end date for the study, and thus refers to the last possible measurement point of CEO tenure. Therefore, CEO tenure includes information on both active and former CEOs.

Turnover. CEO turnover refers to a dichotomous variable that takes the value of 1 in the case of CEO change and the value of 0 if the CEO was still in office at the endpoint of the study. In total, 105 turnover events occurred. Given the high ambiguity in CEOs' turnover reasons (i.e., officially communicated reasons for CEO change may not reflect true reasons; see Gupta, Mortal, et al., 2018), the present study does not differentiate between resignation, dismissal, or retirement.

Control Variables

We matched participants in a propensity score matching according to their (1) industry membership; (2) market capitalization; (3) CEO age; and (4) year of CEO appointment.

Industry. According to Bhojraj and Lee (2002), industry membership is key for categorizing comparable companies. To optimize this categorization, Fama and French (1997) developed an algorithm in which they grouped Standardized Industry Classification (SIC) codes into 12 different industries. Table 4.1 depicts participant distribution across industries.

Market capitalization. SP index is a nominal variable with four different categories whereby *SP* refers to S&P 500 Index, *MD* refers to S&P Midcap Index, *SM* refers to S&P Smallcap Index, and *EX* refers to being a former member of a major S&P Index. Controlling for market capitalization reduces bias arising from the financial scope of a company. Table 4.1 depicts participant distribution across indices.

Age. CEO age was accessed through the Execucomp database ($M = 51.29$; $SD = 5.96$ years). As a critical determinant of past leadership experience, CEO age represents a possible confounding variable. In the present sample, men and women do not differ from each other in terms of age ($t(162) = .75, p = .46$).

Year of appointment. Year of CEO appointment ($M = 2007$; $SD = 5.16$ years) was derived from the Execucomp database. By matching the macroeconomic environment in which the CEOs operated, we reduced a potentially confounding relationship with the economic climate. In the present sample, men and women do not differ from each other in terms of the year in which they commenced their office ($t(162) = .27, p = .72$).

Data Analysis

We conducted survival analyses with the *survival* package (Therneau, 2015) in R version 3.4.1 to investigate the effects of CEO sex and implicit motives on CEOs' turnover risk. According to Vittinghoff, Glidden, Shiboski, and McCulloch (2012), studying tenure with logit or probit analyses "imposes unnecessary restrictions which may cause bias and inefficiency" (Elsaid & Ursel, 2018, p. 159), even when attempts are made to model violations of statistical independence. The present study utilizes a semiparametric survival technique to analyze CEOs' conditional risk of turnover (Elsaid & Ursel, 2018). Survival analysis has two main advantages over logit and probit techniques: 1) it allows time-to-event data to be non-normally distributed; and 2) it considers censored observations, specifically CEOs who are still in office at the endpoint of the study. Thus, studying CEOs' hazard rates using survival analysis represents a better alternative to linear or logistic regression (Elsaid & Ursel, 2018). Since this study investigates several continuous independent variables, a Cox proportional hazards rather than a Kaplan-Meier analysis was conducted (Cox & Oakes, 2018; Singer & Willett, 2003). Specifically, the study fitted a Cox model:

$$h(t|x_j) = h_0(t) \exp(x_j\beta x)$$

In the above equation, $h(t|x_j)$ refers to the hazard rate for a CEO j at a time point t . According to Elsaid and Ursel (2018), $h_0(t)$ refers to a baseline hazard rate, and βx refers to the regression coefficients that are assumed from x_j . Further, x_j refers to the independent variables, that are, CEO sex, achievement, power, and affiliation

motivation, entered to the model. According to Elsaid and Ursel (2018), a Cox model represents a “multiplicative model in which the first term, $h_0(t)$, is an unspecified baseline hazard incorporating any effects not captured in the second term. [The] second term, $\exp(\mathbf{x}_i\beta\mathbf{x})$, incorporate[s] expected determinants of CEO turnover as a linear combination in the exponent” (p. 159). The semiparametric proportional hazards survival method assumes that the ratio of the hazards for any two CEOs is constant over time, which was established using a χ^2 test of the Schoenfeld residuals (Cox & Oakes, 2018).

Results

Preliminary Analysis

The dataset of 164 CEOs was composed of an equal number of male and female CEOs. Before any significance tests were conducted, we examined raw implicit motives scores and transformed variables. Preliminary analysis revealed that implicit motives counts positively correlated with the length of the CEO letter. To be more precise, all three motives correlated above $|0.15|$ with the word count, which marks the cut-off score for transformations as specified by Schultheiss and Pang (2007). Raw implicit motives scores were, therefore, transformed into motive images per 1,000 words by multiplying the total raw motive score with 1,000 and dividing the result by the total word count in each CEO letter (Schultheiss & Pang, 2007) using the formula recommended by Winter (1994), that is, $(\text{score} \div \text{word count}) \times 1,000$. No participants were excluded from the main analysis.

Descriptive Analysis

Table 4.2 presents descriptive statistics and correlations of the transformed study variables. The year of CEO appointment strongly correlated with the tenure of CEOs. This could indicate that the likelihood of CEOs to turnover naturally increases if they have been in office for a longer time or that the macroeconomic environment (e.g., financial crises) influenced how long a CEO stays in office. However, male and female CEOs were matched on the year in which they were elected as CEOs and did not significantly differ from each other in their year of appointment. Therefore, the variable was not controlled for in the main analysis. Analyses of the correlation matrix further showed that CEO age negatively correlated with expressions of power motivation and CEO tenure. Moreover, CEO sex (1 = *female*, 0 = *male*) positively correlated with achievement and affiliation motivation and negatively correlated with power motivation. We conducted Welch *t*-tests to investigate if group differences

were statistically significant. Replicating findings from *Study 1 (Chapter 3)*, male CEOs expressed a higher need for power ($M = 12.71$; $SD = 3.00$) in their letters than female CEOs ($M = 11.29$; $SD = 3.10$), $t(161.85) = 2.98$, $p = .003$, $d = .47$, whereas female CEOs expressed a higher need for affiliation ($M = 3.26$; $SD = 2.38$) than male CEOs ($M = 2.56$; $SD = 1.88$) in the context of writing a CEO letter to their shareholders, $t(153.86) = -2.10$, $p = .037$, $d = -.33$. Additionally, we observed that female CEOs expressed a higher need for achievement ($M = 11.91$; $SD = 4.05$) in their letters than male CEOs ($M = 10.54$; $SD = 3.00$), $t(149.32) = -2.45$, $p = .015$, $d = -.38$.

Hypotheses Testing

Hypotheses 1 and 2 were analyzed using the Cox proportional hazards survival technique (Cox & Oakes, 2018) and are illustrated in Figure 4.1 and Figure 4.2. Before testing the Cox models, we confirmed the assumption that hazards were proportional, meaning that the ratio of the hazards for any two CEOs was constant over time (Cox & Oakes, 2018). As a first step in the survival analyses, we built a Cox model that tested the turnover hazards of male and female CEOs (Model 1), achievement-motivated CEOs (Model 2), affiliation-motivated CEOs (Model 3), and power-motivated CEOs (Model 4) individually. Next, we added the variables of achievement, power, and affiliation motivation to a Cox model including CEO sex (Model 1), in order to investigate the incremental effects of each implicit motive at a time (Cohen, West, & Aiken, 2014). In doing so, we adopted a stepwise selection in which we retained variables in the model, which significantly predicted CEOs' survival hazards on an $\alpha = .05$ level and removed variables that did not significantly contribute to the model, as outlined in Table 4.3.

In Model 1, we analyzed the individual effect of CEO sex. In line with hypothesis 2, CEO sex (1 = *female*, 0 = *male*), significantly predicted the hazard rates of CEO turnover, $z = 2.16$, $SE = .20$, $CI [1.041, 2.25]$, $p = .031$. More specifically, female CEOs were more likely to face turnover than male CEOs at any point in the timeframe of our study (Elsaid & Ursel, 2018). Furthermore, CEO sex explained about 2.8% of variance in CEO turnover ($R^2 = .028$). Therefore, CEO sex was retained as a predictor in our model.

In Model 2, we analyzed the individual effect of achievement motivation. Results showed that achievement motivation did not significantly predict the hazard rates of CEO turnover, $z = 1.31$, $SE = .03$, $CI [0.984, 1.087]$, $p = .19$.

CHAPTER 4

Table 4.2

Descriptive Statistics and Correlations for Study Variables

Variable	<i>M (SD)</i>			<i>Correlations</i>							
	Total	Male	Female	1	2	3	4	5	6	7	8
1. Sex				—							
2. Age	51.29 (5.96)	50.94 (5.98)	51.63 (5.94)	.059	—						
3. Appointment year	2007.56 (5.14)	2007.41 (5.14)	2007.71 (5.17)	.029	.287***	—					
4. Achievement	11.23 (3.61)	10.54 (3.00)	11.91 (4.05)	.189*	-.110	-.105	—				
5. Power	12.00 (3.12)	12.71 (3.00)	11.29 (3.10)	-.228**	-.178*	-.011	.125	—			
6. Affiliation	2.91 (2.17)	2.56 (1.88)	3.26 (2.38)	.163*	.068	-.036	.211**	.071	—		
7. Tenure (months)	96.15 (55.19)	105.23 (57.53)	87.06 (51.51)	-.165*	-.197*	-.668***	-.092	-.105	-.022	—	
8. Turnover	1.64 (0.48)	0.60 (0.49)	0.68 (0.47)	.089	.019	-.287***	.085	.160	.060	-.204**	—

Note. $N = 164$ CEOs ($n = 82$ female, $n = 82$ male). Standard deviations appear in parentheses below means. Achievement, power, and affiliation statistics are calculated by using the count per 1,000 words.

* $p < .05$ ** $p < .01$ *** $p < .001$.

Table 4.3

Estimated Survival Analysis Cox Hazard Rates

Model	Covariates	HR	SE	95% CI	z	p	R ²	Model comparison	Δ R ²
1	Sex (female)	1.53	0.20	[1.041, 2.250]	2.16	.031*	.028		
2	Achievement	0.97	0.03	[0.984, 1.087]	1.31	.190	.010		
3	Affiliation	0.96	0.04	[0.961, 1.132]	1.02	.310	.006		
4	Power	0.94	0.03	[1.001, 1.129]	1.99	.047*	.024		
5a	Sex (female)	1.49	0.20	[1.011, 2.206]	2.02	.044*	.034	M5a - M1	.006
	Achievement	1.03	0.02	[0.977, 1.077]	1.03	.305			
5b	Sex (Female)	1.51	0.20	[1.026, 2.226]	2.09	.037*	.032	M5b - M1	.004
	Affiliation	1.0	0.04	[0.954, 1.124]	0.84	.399			
5c	Sex (female)	1.75	0.20	[1.178, 2.612]	2.77	.006**	.068	M5c - M1	.040
	Power	1.09	0.03	[1.022, 1.154]	2.65	.008**		M5c - M4	.044
6	Achievement	1.02	0.03	[0.966, 1.076]	0.71	.476	0.03	M6 - M5c	.038
	Affiliation	1.03	0.04	[0.944, 1.120]	0.65	.515			
	Power	1.06	0.03	[0.994, 1.124]	1.77	.076†			

CHAPTER 4

Table 4.3 (Continued)

Estimated Survival Analysis Cox Hazard Rates

Model	Covariates	HR	SE	95% CI	z	p	R ²	Model comparison	Δ R ²
7	Sex (female)	1.72	0.21	[1.136, 2.599]	2.56	.010*	.069	M7 - M5c	.001
	Achievement	1.00	0.03	[0.951, 1.058]	0.12	.906			
	Power	1.08	0.03	[1.015, 1.154]	2.42	.015*			
	Affiliation	1.02	0.04	[0.934, 1.110]	0.41	.685			
8	Sex (female)	0.69	0.79	[0.147, 3.269]	-0.46	.642	.076	M7 - M5c	.008
	Power	1.04	0.05	[0.946, 1.141]	0.79	.428			
	Sex × Power	1.08	0.06	[0.955, 1.215]	1.21	.227			
9	Tobin's Q	1.00	0.00	[0.990, 1.000]	-2.02	.044*	.025		
10	Sex (female)	1.67	0.20	[1.119, 2.485]	2.51	.012*	.082	M10 - M5c	.014
	Power	1.08	0.03	[1.015, 1.145]	2.42	.015*			
	Tobin's Q	1.00	0.00	[0.991, 1.001]	-1.56	.119			

Note. N = 164 CEOs (n = 82 female, n = 82 male). Survival analysis including 105 events (turnover). Comparison of hazard ratios in the semiparametric Cox proportional hazards model. HR = hazard rates. The accepted model has been emboldened.

† p < .1 * p < .05 ** p < .01.

Also, achievement motivation only explained about 1% of the variance in CEO turnover ($R^2 = .01$).

In Model 3, we analyzed the individual effect of affiliation motivation. Results showed that affiliation motivation did not significantly predict the hazard rates of CEO turnover, $z = 1.02$, $SE = .04$, $CI [0.961, 1.132]$, $p = .310$. Also, affiliation motivation explained less than 1% of the variance in CEO turnover ($R^2 = .006$).

In Model 4, we analyzed the individual effect of power motivation. In line with Hypothesis 1, power motivation significantly predicted the hazard rates of CEO turnover, $z = 1.99$, $SE = .03$, $CI [1.001, 1.129]$, $p = .047$. Furthermore, power motivation explained about 2.4% of the variance in CEO turnover ($R^2 = .024$). Therefore, power motivation was retained as a predictor in our model.

In Model 5a, we added CEOs' achievement motivation to Model 1 including CEO sex. We found no support for achievement motivation influencing turnover hazards for CEOs, $z = 1.03$, $SE = .02$, $CI [.977, 1.077]$, $p = .305$. Furthermore, the proportion of explained variance merely increased by $\Delta R^2 = .006$ when achievement motivation was added to the model. This finding indicates that, in a model that includes CEO sex, CEOs with higher levels of achievement motivation were not any more or less likely to face turnover than CEOs with lower levels of achievement motivation. Lastly, a Chi-squared test of the two models revealed that Model 5a did not explain our data significantly better than Model 1, $\chi^2(1) = 1.03$, $p = .400$. Therefore, CEOs' achievement motivation was removed as a predictor in our model.

In Model 5b, we added CEOs' affiliation motivation to Model 1 including CEO sex. We found no support for affiliation motivation influencing the turnover hazards for CEOs, $z = .84$, $SE = .04$, $CI [.954, 1.124]$, $p = .399$. Furthermore, the proportion of explained variance merely increased by $\Delta R^2 = .004$ when affiliation motivation was added to the model. This finding indicates that, in a model that includes CEO sex, CEOs with higher levels of affiliation motivation were not any more or less likely to face turnover than CEOs with lower levels of affiliation motivation. Lastly, a Chi-squared test of the two models revealed that Model 5b did not explain our data significantly better than Model 1, $\chi^2(1) = .69$, $p = .405$. Therefore, CEOs' affiliation motivation was removed as a predictor in our model.

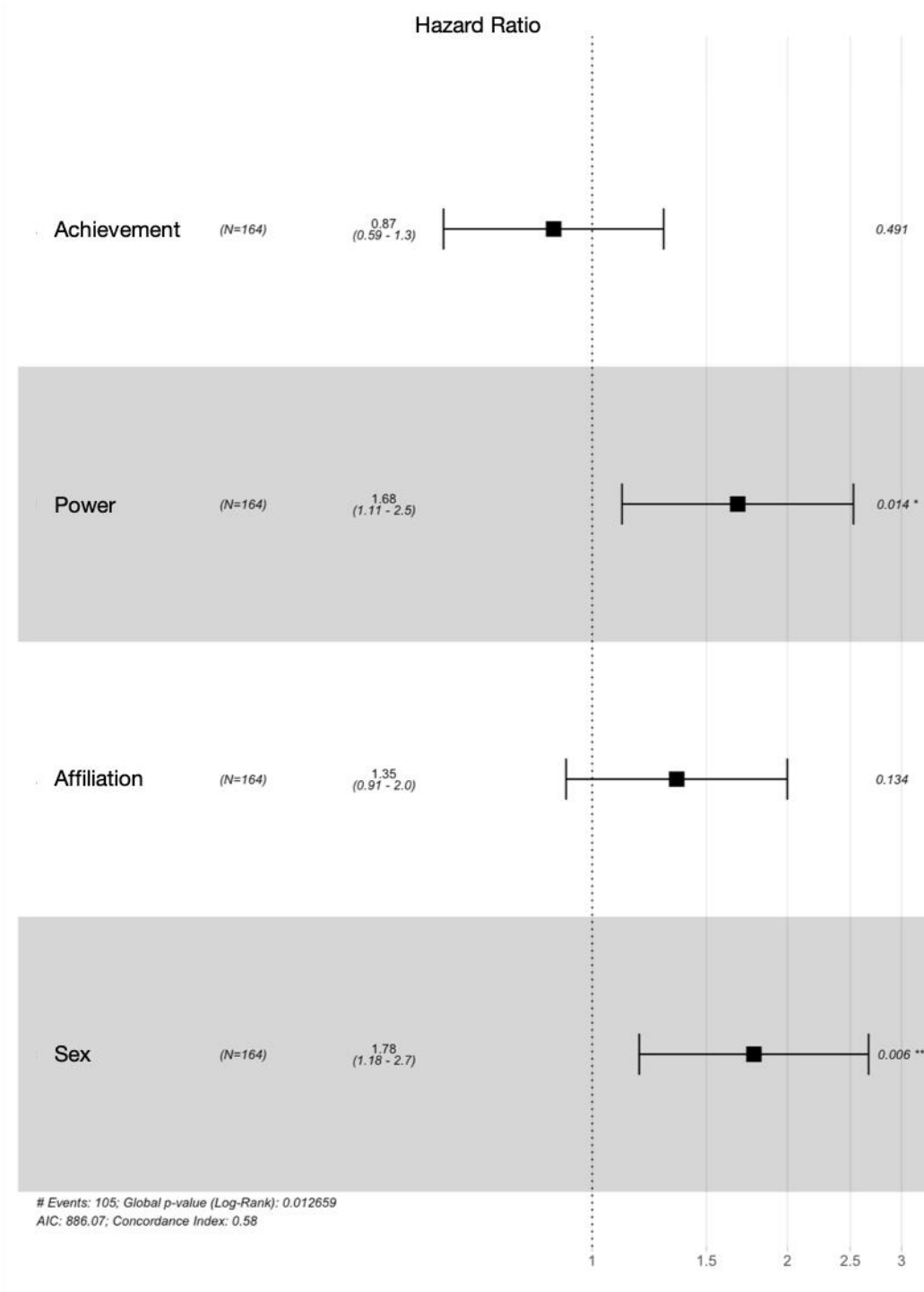


Figure 4.1. $N = 164$ CEOs. Forest plot of the Cox proportional hazard models. For visualization requirements, implicit achievement, power, and affiliation motives were dichotomized into low $\leq M$ and high $> M$.

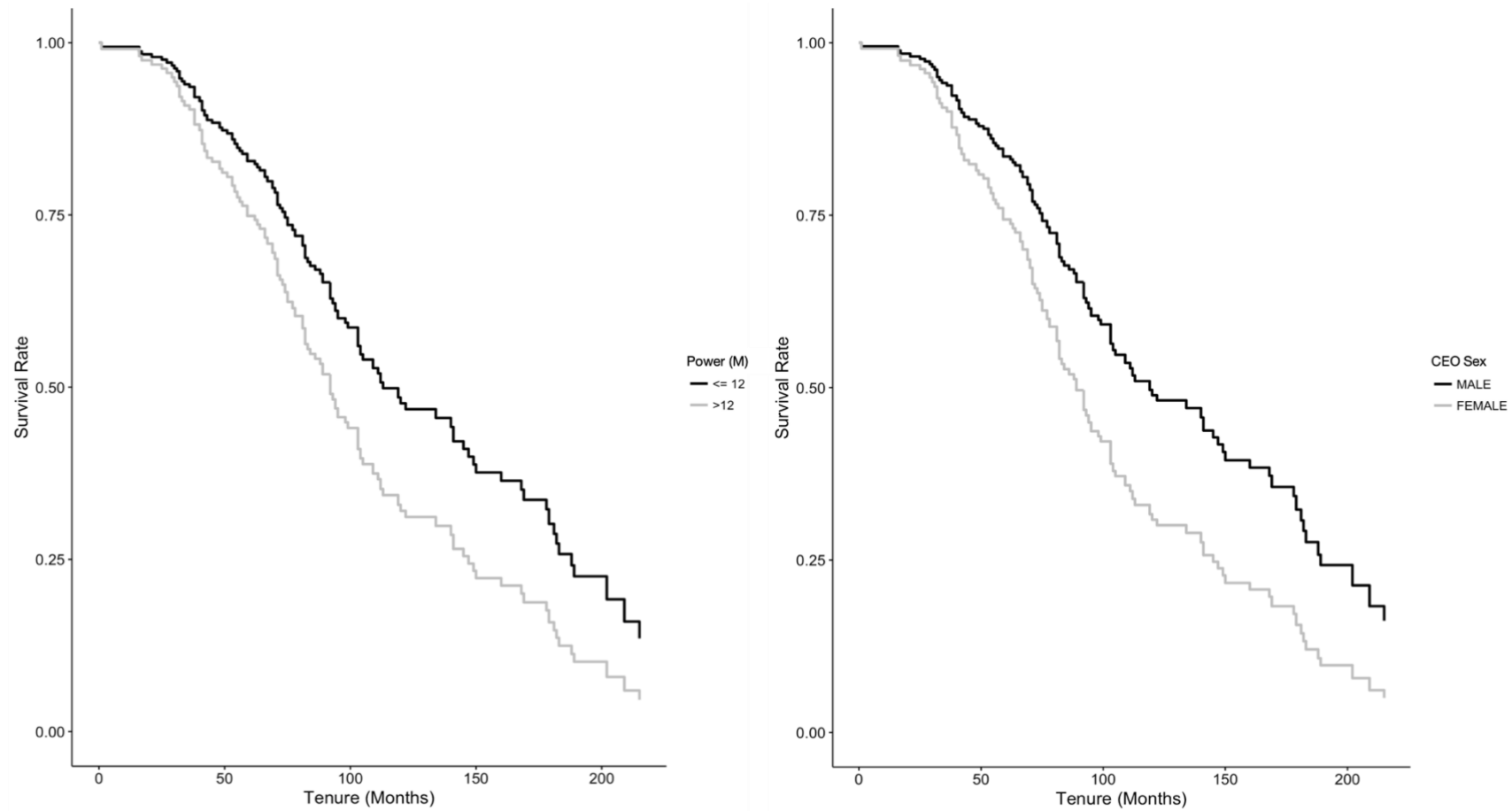


Figure 4.2. $N = 164$ CEOs. Adjusted survival curves depict how the factors power (left graph) and sex (right graph) influence the estimated survival from the overall Cox model. For visualization requirements, power was dichotomized with low power $\leq M$ and high power $> M$.

In Model 5c, we added CEOs' power motivation to Model 1 including CEO sex. In line with Hypothesis 1, we found that power motivation significantly predicted CEOs' likelihood of turnover, $z = 2.65$, $SE = .03$, $CI [1.022, 1.154]$, $p = .008$. However, contrary to the hypothesized direction, power motivation increased the chances of CEO turnover in comparison to a low need for power. In other words, CEOs' turnover hazards increased with each unit increase in power motivation. Furthermore, the proportion of explained variance increased by $\Delta R^2 = .04$ when power motivation was added to the model with CEO sex. A Chi-squared test showed that Model 5c explained our data significantly better than Model 1, $\chi^2(1) = 6.89$, $p = .009$, and Model 4, $\chi^2(1) = 7.65$, $p = .006$, independently. We furthermore tested Model 5c against a model including all three implicit motives (Model 6) and all four predictor variables (Model 7). The Chi-squared test found that Model 6 better explained our data than Model 5c, $\chi^2(1) = 6.40$, $p = .011$. However, an investigation of the incremental validity showed that Model 5c ($R^2 = .07$) accounted for more variance in turnover hazards than Model 6 ($R^2 = .03$). Finally, a Chi-squared test found that a model including all four predictor variables (Model 7), did not explain our data better than Model 5c, $\chi^2(2) = .21$, $p = .902$. Therefore, CEOs' power motivation was retained as a predictor in the model including sex, and Model 5c served as the final model for our analyses.

More specifically, in Model 5c, the Cox survival technique estimated that being female was associated with an approximately 75% increase in the hazard rates ($HR = 1.75$). Furthermore, the Cox hazard ratio indicated that increases in power motivation significantly increased CEOs' risk of turnover. Moreover, the Cox model estimated that with each unit increase in power motivation, CEOs were 9% more likely to face turnover at any point in time ($HR = 1.09$). Table 4.3 summarizes results from the Cox proportional hazards models. The table illustrates that when power was added to the model, women's turnover risks increased in comparison to when power was not in the model ($HR = 1.58$).

Finally, we tested for a potential interaction between power motivation and CEO sex in order to assess whether measures of implicit motives worked differently for men and women. As Table 4.3 shows, power motivation and CEO sex did not significantly interact with each other, and the interaction term did not significantly contribute to our ability to predict turnover hazards, $z = 1.21$, $SE = .06$, $CI [0.955, 1.215]$, $p = .227$.

Table 4.4

Multiple Linear Regression for Firm-Financial Performance

Variables	<i>Prior financial performance</i>				<i>Turnover financial performance</i>			
	RoA	RoE	RoI	Tobin's Q	RoA	RoE	RoI	Tobin's Q
Sex (female)	-0.04 (0.02)	-9.84 (7.12)	-0.13 (0.06)	0.30 (0.24)	-0.01 (0.02)	-0.05 (0.04)	-0.02 (0.04)	-0.04 (0.21)
Achievement	-0.01 (0.00)	0.82 (0.99)	0.01 (0.01)	-0.02 (0.03)	-0.00 (0.00)	-0.01 (0.00)*	-0.01 (0.01)	0.00 (0.03)
Power	-0.00 (0.00)	-0.78 (1.12)	-0.02 (0.01)	0.01 (0.04)	-0.00 (0.00)	-0.02 (0.01)*	-0.00 (0.01)	0.03 (0.03)
Affiliation	-0.01(0.00)	0.54 (1.60)	0.02 (0.01)	-0.05 (0.05)	0.00 (0.00)	0.01 (0.01)	0.01 (0.01)	0.00 (0.05)

Note. $N = 128 - 153$ CEOs. Unstandardized b coefficients are listed with standard errors in parentheses. Prior financial performance was measured in the year before the CEO appointment. Turnover financial performance was measured in the year of CEO turnover. In case the CEO was still in office at the end of the study, financial performance was measured in 2018. RoA = return on assets, RoE = return on equity, RoI = return on investments. Return on assets, return on equity, return on investment, and Tobin's Q were sourced from the Compustat database and estimated using the formulas provided in Yuan (2017) and Ramalingegowda and Yu (2012).

* $p < .05$.

Furthermore, a Chi-squared test of the two models showed that a model including the interaction term (Model 8) did not explain our data significantly better than Model 5c, $\chi^2(1) = 1.45, p = .229$. Taken together, our findings suggest that motive measures function similarly in men and women. Significant increases in the incremental validity of our combined model (Model 5c) versus the independent models (Model 1 and Model 4), provided further support for the independent influence of power motivation and CEO sex on CEOs' turnover hazards. In other words, sex is a predictor that likely affected leader success independently from implicit motives.

Further Analyses

In exploratory analyses, the study compared mean differences in "objective," accountancy-based (i.e., return on assets, return on equity, and return on investment) and "subjective," stock-based financial performance indicators (i.e., Tobin's Q) amongst male and female CEOs [3.4] (Haslam et al., 2010; Marinova et al., 2016). There were no clear differences in firms' financial performance or firm valuation between men and women in the year prior to CEO appointment or in the year of CEO turnover. However, as Table 4.4 shows, implicit achievement and power motivation negatively related to return on equity in the year of CEO turnover. In interpreting these results, it is important to remember that the present study focused on incumbent CEOs with comparable prior management experience, industries, macroeconomic environment, and market capitalization. Furthermore, neither objective nor subjective *prior* firm-financial performance predicted CEOs' turnover hazards. However, Model 9 showed that subjective financial performance (firm valuation; Tobin's Q) *in the year of CEO turnover* significantly predicted CEOs' turnover hazards, $z = -2.02, SE = .00, CI [0.99, 1.00], p = .044$. Yet, if included in a model with CEO sex and power motivation (Model 10), only the latter two variables significantly related to CEOs' turnover hazards. Furthermore, a Chi-squared test showed that Model 10 did not explain our data better than Model 5c, $\chi^2(1) = 2.47, p = .116$.

Discussion

The present study examined how implicit motives and gender relate to CEOs' leadership success, as measured by the length of tenure until CEO turnover. Specifically, the current research analyzed turnover hazards in a gender-balanced sample of male and female CEOs of publicly-traded companies from the S&P 1500 Index.

Implicit Motives Effects

Using a survival technique, this study showed that leaders' implicit power motivation significantly influenced CEOs' turnover hazards. However, contrary to our expectations, higher levels of power motivation increased rather than decreased the turnover hazards of CEOs. This finding is in contrast to extant theory and empirical research that considers power motivation to be an important determinant of successful leadership (e.g., Jacobs & McClelland, 1994; McClelland & Boyatzis, 1982; Spangler & House, 1991). Thus, the question arises as to why the present findings differ from earlier implicit motives studies that examined the relationship of power motivation and successful leadership.

Two likely explanations may be considered. First, past research has found that power motivation can, under certain conditions, also harm successful leadership. Specifically, if power motivation is not *inhibited*, that is, if CEOs have low levels of self-control, power can impede their success as leaders (McClelland & Boyatzis, 1982; Schultheiss & Brunstein, 2010). More specifically, low levels of activity inhibition were found to channel power motivation into ineffective leadership, whereby the attainment of personal goals is prioritized over prosocial goals related to team- or organizational outcomes (House et al., 1991; Magee & Langner, 2008; Spangler et al., 2014). While activity inhibition was not included in our hypotheses, additional analyses demonstrated that in the context of writing a shareholder letter, both male and female CEOs showed a strongly right-skewed distribution with a majority of CEOs expressing no or only minimal levels of activity inhibition ($M = 1.85$; $Mdn = 1$; $SD = 2.39$). It is therefore possible that, in the current sample, the expression of uninhibited power motivation by CEOs brought about the negative leader outcome of an increased risk of turnover. It is possible that in the aftermath of corporate scandals in which individual leaders played a role in creating crises related to self-serving leadership (e.g., the ENRON or Volkswagen scandal), (uninhibited) power motivation could elicit more scrutiny of increasingly ethically concerned shareholders (Cory, 2004; Rose, 2007; Silverstein, 2013).

The changing leadership demands of modern organizations that favor leadership styles characterized by more feminized, communal qualities (e.g., caring) rather than traditional masculine, agentic qualities (e.g., dominant) may be considered as a second possible explanation of the current findings. Transformational leadership, for example, is largely based on communal leader behaviors (Eagly,

2007; Eagly & Carli, 2003). Through its collaborative and participative elements, transformational leadership meets the societal shift in leadership norms and is frequently regarded as one of the most effective leadership styles for modern organizations (Eagly, 2007). More specifically, research has found that transformational leadership was related to higher promotability ratings than autocratic leadership, resulting from leaders' higher perceived communion and higher perceived leadership effectiveness (Hentschel et al., 2018). Thus, to mitigate negative effects of power motivation for successful leadership in the form of increased turnover hazards, it seems critical for leaders to express power motivation in socially responsible ways (Winter, 1991a). Similarly, leaders can exert a more benign form of influence such as resourceful power which is characterized by the desire to help, give, share, or empower others rather than an assertive form of influence such as reactive power which is characterized by the desire for strong, assertive, actions (Jacobs & McClelland, 1994).

Achievement and affiliation motivation were both found to be unrelated to turnover hazards. For achievement motivation, the present finding could suggest that this form of motivation might indeed play a more important role in the process of becoming a leader than being an effective leader (Sorrentino, 1973). Furthermore, past research has found achievement motivation to be related to success in the context of entrepreneurial performance (Winter, 2010b), where advancement is largely dependent on one's ability to "move the pieces" rather than leadership, where advancement is largely dependent on "influencing others to move the pieces" (Winter, 2002a, p. 130).

For affiliation motivation, the absence of a significant relationship with turnover hazards might possibly be due to the study context. For example, past research has suggested affiliation motivation to be more important in the context of non-profit organizations than for-profit organizations (De Hoogh, Den Hartog, Koopman, et al., 2005). In addition, affiliation motivation, which is reflective of communion, might be a nice but ultimately expendable trait in leaders (Vial & Napier, 2018). For example, Vial and Napier (2018) found that leaders' expression of communion alone is not enough to be valued as successful leaders. Instead, when asked to construe an ideal leader, other-evaluations "showed that [communion] was valued in leaders only after meeting the more stereotypically masculine requirements of the role (i.e., competence and assertiveness)" (Vial & Napier, 2018, p. 1).

Furthermore, self-ratings indicated that both male and female participants saw their agentic traits to be more important determinants of successful leadership than their communal traits (Vial & Napier, 2018). This research aligns with findings from Steinmann et al. (2015), who found that the positive effects of affiliation motivation only emerged in interaction with agentic motives, that is, power. Specifically, Steinmann et al. (2015) observed increased leadership success, when managers held high levels in both power and affiliation motivation as well as activity inhibition. Also, Lang et al. (2012) found that extraversion—an explicit trait that has been related to charismatic leadership (e.g., Bono & Judge, 2004; Crant & Bateman, 2000; Judge & Bono, 2000)—channeled affiliation motivation into increased task and contextual performance. Thus, affiliation may be best considered as a motivational add-on for executives to inspire follower satisfaction (Spangler et al., 2014; Vial & Napier, 2018).

Lastly, it should be noted that the low variance accounted for by motivational displays is typical for studies that examine the effects of implicit motives on leadership outcomes (Kirkpatrick et al., 2002). Given the conceptual distance from the CEO letter to turnover hazards, and the fact that CEOs' implicit motives are only one of the many factors that potentially influence CEOs' turnover risk, small effect sizes are not surprising (Kirkpatrick et al., 2002).

Gender Effects

Survival analysis also showed that the gender of the CEO influenced their leadership success, as measured by CEOs' turnover hazards. In line with our predictions, female CEOs faced a greater risk of turnover than male CEOs at any given point in time. This finding aligns with prior research on women CEOs' shorter tenures (Glass & Cook, 2016) and increased risk of dismissal (Gupta, Mortal, et al., 2018). In the present study, male and female CEOs were matched according to their age, the year they became CEO, their industry membership, and the S&P Index category. Therefore, differences in hazard rates are unlikely to stem from differences in prior management experience, the macroeconomic environment such as leading a company in times of recession, the sectors the companies operate in, or the firm's market capitalization.

Instead, the propensity matching procedure increased the likelihood that the observed difference in turnover risk might indeed be attributable to CEOs' gender (Connelly et al., 2013). Given that the current sample of male and female CEOs did

not significantly differ on several important background characteristics, the present findings suggest that gender bias and discrimination might contribute to women's compared to men's increased turnover hazards as CEOs.

For example, role congruity theory (Eagly & Karau, 2002) postulates that female leaders face bias and prejudice resulting from a perceived incongruity of the female gender role with the masculine, sex-typed leader role. In support of this theoretical framework, research evidence has shown that men are indeed often preferred over women for masculine, sex-typed positions (Davison & Burke, 2000; see *Goldberg paradigm* in Eagly & Karau, 2002) such as leadership roles (Bosak & Sczesny, 2011). In fact, the perceived incongruity between the female gender role and agentic leadership roles is "likely to be the most extreme at the highest levels of leadership" (Eagly & Karau, 2002, p. 577). As a result, female executives should face even more bias and prejudice than female middle managers. However, even when fulfilling agency requirements of these masculine sex-typed leadership roles, female managers are often evaluated as more hostile than male managers (Heilman et al., 1995), which potentially impedes their perceived effectiveness as leaders (Eagly & Karau, 2002).

Another potential explanation might be that women's increased risk of turnover is a result of poor leadership or company performance. However, research by Ryan and Haslam (2005) has shown that rather than causing poor financial performance, female leaders are more likely than male leaders to be appointed to precarious leadership positions. In particular, "during a period of overall stock-market decline those [FTSE 100] companies who appointed women to their boards were more likely to have experienced consistently bad performance in the preceding five months than those who appointed men" (Ryan & Haslam, 2005, p. 81). Thus, Ryan and Haslam (2005) illustrated that women were preferentially appointed as board members in companies associated with an increased risk of failure, making women leaders prone to fall from the 'glass cliff.' Hereby the term "glass cliff" represents a metaphor for the invisible barriers women face once they have acquired leadership positions. Ryan and colleagues (2005; 2011) reason that poor company performance encourages companies to appoint female leaders as a signal of change for maintaining shareholder confidence (Furtado & Rozeff, 1987).

However, given that exploratory analyses in the present research indicate that women were not appointed to more precarious leadership positions than men, as

measured by objective and subjective financial performance indicators in the year prior to CEO appointment, we render this explanation unlikely. Future research should nevertheless examine more closely the reasons pertaining to women's increased turnover hazards; for example, researchers might investigate differences in companies' (prior) financial performance in non-matched samples. Finally, exploratory analyses in the present research indicate that male and female CEOs did not differ in their objective and subjective financial performance KPIs in their last year of tenure, suggesting that female managers are not less successful in attaining organizational goals than male CEOs.

Further Findings: Replication of Study 1

In descriptive analyses, we partly replicated results from *Study 1 (Chapter 3)*, indicating that gender predicts CEOs' motivational expressions of power and affiliation. While CEOs-in-general showed higher power and achievement motives than affiliation motives, gender nevertheless influenced the strength with which implicit motives were expressed. More specifically, male CEOs expressed significantly higher power motivation and significantly lower affiliation motivation than female CEOs. Unlike the findings from *Study 1*, we additionally observed that female CEOs expressed significantly higher achievement motivation than male CEOs. Even though *Study 1* neither hypothesized nor found evidence of a gender difference in achievement motivation, this finding is not entirely at odds with existing theory and research on leadership and gender.

The role congruity account of sex differences and similarities in motivation, for example, postulates that "individuals will generally tend to seek to fulfill basic human needs by gender-normative means" (Diekmann & Eagly, 2008, p. 437) in order to reap rewards and avoid punishments in the form of bias and prejudice arising from the display of role-incongruent characteristics. In the past, gender role expectations and norms proscribed women from displaying agency in the form of striving for achievement (Duncan & Peterson, 2010). However, in line with the shifts in women's participation in the workforce resulting from the women's liberation movement, expectations, and norms towards their display of achievement-oriented agency changed (Veroff, 1982). Along with these shifts in societal perceptions, women's expressions of achievement motivation increased between 1957 and 1976, while men's achievement motivation remained unchanged. Following Veroff's

(1982, 1984) analysis, we would expect male and female CEOs not to differ in achievement motivation in a contemporary organizational context.

Thus, the question arises of why present findings differ from earlier implicit motives studies that examined gender differences in achievement motivation. One likely explanation may entail that in expressing certain motivations, “female leaders seek and often find a middle way that is effective yet neither unacceptably masculine nor unacceptably feminine” (Eagly, 2007, p. 4). In describing women’s predicaments in leadership, Eagly (2007) has pointed out that women leaders are expected to be agentic, which is considered to be a prerequisite characteristic of successful leadership. Displaying agency, however, can come at the cost of women’s perceived communion which, in turn, may leave female leaders prone to bias and prejudice in the form of reduced perceived likability or effectiveness (e.g., Heilman & Okimoto, 2007; Heilman et al., 2004; Parks-Stamm et al., 2008; Rudman, 1998; Rudman & Glick, 1999, 2001; Rudman, Moss-Racusin, Glick, & Phelan, 2012). Of the *Big Three* motives, the need for achievement can be considered to have the weakest association with negative consequences resulting from prejudice in the upper echelons of organizations. While affiliation-motivated female CEOs may be perceived as lacking an ability to take charge of others, power-motivated female CEOs may be perceived as lacking an ability to take care of others (Catalyst, 2007; Prime, Carter, & Welbourne, 2009). In general, women seem to be more strongly proscribed from expressing power-related agency, that is, exerting influence over others than from expressing achievement-related agency, that is, striving for excellence. Thus, it is possible that female CEOs (consciously or not) navigate the challenges of the double bind by increasingly expressing the type of agency for which they are least likely to be penalized, or may even be rewarded (Schaumborg & Flynn, 2017).

Limitations and Future Research

Although our current study advances the understanding of the role of gender and implicit motives in leader success, it comes with certain limitations. First, our study did not utilize longitudinal data, and therefore we cannot draw causal inferences from our findings. However, since this study has measured implicit motives at the beginning of CEOs’ tenure to infer CEOs’ success measured by their turnover in later years, this study nevertheless allows us to gain initial insights into the potential direction of the relationship between implicit and turnover hazards.

Another limitation concerns the issue of generalizability as we researched leadership among CEOs of U.S.-based, publicly-traded companies that were sourced through their listings on the S&P 1500 Composite Index. The study findings, therefore, likely do not generalize to men and women from the wider population. To be more precise, CEOs may differ from the wider population in unique ways (e.g., in their personalities, motivations, or abilities), which limits the possibility of extending our results to employees or middle managers. The U.S.-based sample further implies that generalizations to other cultural contexts, especially to non-WEIRD ^[4.2] countries, should be made with caution. Ideally, our use of secondary data from the Execucomp database would have allowed us to use additional background characteristics for the propensity score matching. However, with a database of 1,500 companies per annum and a sampling range of 1999 - 2015, it was not feasible to gather manually (the sometimes ambiguous) additional CEO data, like education, nationality, or ethnicity, before conducting a propensity score matching. As a consequence, we were unable to control for all CEO characteristics that could have potentially influenced CEOs' survival rates. Yet, we argue that by controlling for CEOs' age, their year of CEO appointment, industry membership, and the firms' market capitalization, we have provided a comprehensive selection of possible confounding variables.

Finally, measuring implicit motives at a distance makes it impossible to guarantee with absolute certainty that CEO letters are indeed written by CEOs, although this should not diminish the contribution of our study for the following reasons. First, the possibilities of CEOs addressing all shareholders simultaneously are limited; therefore, the annual report presents a unique opportunity for CEOs to exert influence on the company's development (Apers, Lang, De Lange, & Brueckner, 2016). In fact, high-level CEOs such as Warren Buffet, Jack Welch, and Jeff Bezos are known for the importance they place on writing their own shareholder letters (Amernic & Craig, 2007). Second, past research on the political leadership of U.S. presidents has shown that political speeches, which are typically written by political consultants, are still considerably adapted by the politicians themselves (Winter, 2002b). It is reasonable to assume that, in this regard, CEOs may behave similarly to other top leaders, for instance, presidents (Chusmir & Azevedo, 1992). Third, if used, a ghostwriter also typically adapts the writing style to the target person in order to create fit. Thus, even if the CEO letter is not constructed by the

CEO singlehandedly, it may still reflect his/her personality and motivation and surely “provide important insights to company policy, strategy, commitment, attitudes, and accountability” (Amernic & Craig, 2007, p. 25). Lastly, by providing their signatures, CEOs endorse and accept legal responsibility for the content of the letters (Amernic & Craig, 2007).

Despite the significant contributions of the present study, our findings suggest that the relationship between implicit motives and successful leadership is complex and that more research is needed to understand fully the role of achievement, power, and affiliation motivation in contemporary organizations led by male or female CEOs. Therefore, we recommend future research to source primary data of corporate executives through, for example, interviews to enrich the present findings.

Furthermore, we recommend future research to (a) extend the study of implicit motives in the upper echelons by investigating the effects of male and female CEOs’ implicit motives on leadership outcomes using a longitudinal design; and (b) broaden the investigative scope regarding the role of gender and implicit motives in the context of leadership by testing experimentally how male and female CEOs with affiliation or power motivation are evaluated by their shareholders (see *Chapter 5*). Given that women’s turnover hazards increased when power motivation was added to the model, it is unlikely that power motivation has caused women’s increased turnover in the present study. Nevertheless, we recommend future research to examine a potentially mediating effect of power motivation in the relationship between gender and, for example, tenure recommendations, more closely.

Implications

The present research has important implications for contemporary leaders and theory. First, this research provides a valuable *practical* implication for organizations to remove structural barriers to women’s advancements in leadership. Present findings showed that women who successfully made it to executive positions are subject to increased turnover hazards. Thus, female managers have managed to break through the “glass ceiling” only to find themselves leaving the companies at a faster pace than their male counterparts. This finding was observed when controlling for CEOs’ age, their year of CEO appointment, industry membership, and the firms’ market capitalization via the propensity score matching. This suggests that women who rose into the upper echelons of organizations might continue to encounter barriers that contribute to their increased risk of turnover (Haslam et al., 2010; Ryan

& Haslam, 2005, 2007). Using a gender-balanced sample of CEOs who were matched according to their prior leadership experience, the macroeconomic environment in which they led, their industry membership, and their firms' market capitalization, the present study shows that female CEOs have shorter survival rates than male CEOs. As found by a recent meta-analysis, male and female leaders are, on average, equally effective leaders (Paustian-Underdahl et al., 2014); thus, it is likely that female leaders' subjection to gender stereotypes might contribute to their shorter survival rates.

Considering the evidence that (a) female leaders face negative evaluations in leadership due to a perceived incongruence between their female gender role and the masculine, sex-typed leadership role (Eagly & Karau, 2002); (b) female leaders are more likely to be appointed to precarious leadership positions than men (Ryan & Haslam, 2005); and (c) female CEOs have a higher likelihood of dismissal than men under conditions of successful organizational performance (Gupta, Mortal, et al., 2018), it is critical for organizations to continue their efforts to remove structural barriers and establish skill-based evaluation criteria that reduce the repercussions of gender stereotypes for women's advancements in leadership (Heilman, 2012). In order to contest bias and prejudice in leadership, researchers have a responsibility and opportunity to function as agents of change by increasing awareness and accessibility of scientific findings through dialogue with a practitioner audience, policymakers, and company boards, and the sharing of information on the potential role of hidden biases in the turnover hazards of executive leaders. Gender-sensitivity training can be one strategy to increase company board awareness of gender stereotypes in executive leadership (Gupta, Mortal, et al., 2018).

Second, this research has an important *theoretical* implication for the study of implicit motives as critical antecedents of leadership. In particular, present findings showed that power-motivated CEOs are subject to increased turnover hazards. This finding was observed when controlling for CEOs' age, their year of CEO appointment, industry membership, and the firms' market capitalization via the propensity score matching. This suggests that power motivation may not be as beneficial for executive leadership as initially thought (e.g., McClelland & Boyatzis, 1982; McClelland & Burnham, 1976, 2003).

As research by Spangler et al. (2014) suggests, different types of organizations require different types of leadership shaped by varied motivational

profiles. Therefore, it is unlikely for one superior pattern of implicit motives to fit the sometimes conflicting demands of different industries and business models. Spangler et al. (2014) developed a classification of different motive patterns for eight different types of organizations (see Table 2.1). Following their recommendations, power-motivated leaders would flourish the most in classic bureaucracies, new bureaucracies, new voluntary organizations, and new professional service firms. However, in all organizational types, for which Spangler et al. (2014) recommend highly power-motivated leaders, the scholars equally emphasize the importance of leaders' activity inhibition. Therefore, from a practical viewpoint, both male and female power-motivated leaders would benefit from motive training to channel better their power motivation towards the attainment of organizational goals (McClelland & Boyatzis, 1982; Rheinberg & Engeser, 2010; Spangler & House, 1991).

Third, our study has important *methodological* implications for motivation and leadership researchers. More specifically, this study is the first of its kind to examine implicit motives in a survival analysis. By utilizing this advanced analysis, we were able to address the problematic issue of misleading information resulting from CEOs who are still in office at the end of a study, as survival analysis takes right-censored data into consideration (Elsaid & Ursel, 2018). In other words, survival analysis distinguishes between events that have already occurred (i.e., has a CEO already turned over?) and those that have not (i.e., is the CEO still in office at the end date of the study?) while considering the time until event occurrence (i.e., CEO tenure). Thereby, survival analysis offers a more accurate assessment of a potentially inflated turnover risk for female versus male CEOs, than an analysis of tenure or turnover using traditional methods of linear or logistic regression, would alone (Hosmer, Lemeshow, & May, 2011; Klein & Moeschberger, 2006). In applying this technique, we have identified implicit power motivation and gender as important variables for CEO survival.

Conclusion

The present study provides empirical support for the importance of implicit motives and gender for leadership success. Survival analysis indicated that female CEOs are more likely to face turnover than male CEOs. Thereby, current findings draw attention to the barriers women continue to face when navigating “the labyrinth” of leadership (Eagly & Carli, 2007a; 2007b). Further, these findings complement existing research pertaining to the “glass cliff” phenomenon, whereby

women are at increased risk of failure once they have achieved leadership positions (Ryan & Haslam, 2005). Moreover, present results challenge the general assumption in the implicit motives literature that power motivation is a positive determinant of successful leadership. In particular, survival analysis showed that with higher levels of power motivation, CEOs' risk of experiencing turnover increases. Considering the incremental negative effects of power motivation and gender, our current findings suggest that, of all CEOs in the present sample, power-motivated women might have lower chances of survival as leaders than power-motivated male CEOs. Finally, we discussed the possibility that women's shorter survival rates might be caused by CEOs' expressions of power motivation, which should be investigated in future research. Therefore, the field will benefit from longitudinal and experimental studies in order to: (a) test a potential mediating effect of power motivation on the relationship between gender and turnover; and (b) understand better the underlying reasons for higher turnover hazards among power-motivated and female CEOs.

Footnotes

[4.1] Activist shareholders describe “extra-organizational stakeholders who, when dissatisfied with some aspect of the way the firm is being managed, seek to change the strategy or operations of the firm” (Gupta, Han, et al., 2018, p. 1) through, for example, filing a Schedule 13D form with the Securities and Exchange Commission. This filing typically signals distrust in the companies’ management and often carries increased scrutiny from other stakeholders such as the media or financial analysts (Gramm, 2016; Gupta, Han, et al., 2018). Thus, shareholder activism can be considered a threat to management (Gantchev, 2013; Goranova & Ryan, 2014)

[4.2] WEIRD is an acronym that refers to countries that are Western, Educated, Industrialized, Rich, and Democratic.

Chapter 5

Implicit Motives and Gender as Antecedents of CEO Evaluations

Summary

This research contributes to the present debates about (1) the role of implicit power and affiliation motivation for CEO leadership; and (2) the circumstances under which men and women experience a leadership advantage or disadvantage. In an experimental vignette study, this research examined next-generation shareholders' leadership evaluations of CEOs who expressed either gender-congruent or gender-incongruent implicit motives. In total, 922 participants rated male or female CEOs who displayed power motivation or affiliation motivation in a letter to their shareholders. Results showed that affiliation motivation positively predicted social outcomes in terms of perceived likability of the CEO as well as economic outcomes in terms of better general leader evaluation ratings and longer tenure recommendations. Power motivation positively predicted social outcomes in terms of perceived competence of the CEO as well as economic outcomes in terms of better financial performance ratings. Surprisingly, female gender vanguards (i.e., gender-atypical, power-motivated female CEOs) received higher leader evaluation ratings than gender conformists (i.e., gender-typical, power-motivated male CEOs). This study discusses how women's power motivation, if displayed on behalf of others, might represent a context in which a female disadvantage can reverse into a female advantage.

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Chapter 5: Implicit Motives and Gender as Antecedents of CEO Evaluations

Despite significant advances in women's participation in the workforce and occupancy of mid-level managerial roles, women are still dramatically underrepresented in executive leadership, and even more so in Chief Executive Officer (CEO) positions of large publicly-traded companies (Catalyst, 2020a, 2020b). Previous research suggests that one reason pertaining to women's continued underrepresentation in CEO positions concerns the role of gender stereotypes. In particular, gender stereotypes impact perceivers and their evaluations of leadership performance (Eagly & Karau, 2002), showing routinely negative reactions towards gender vanguards [5.1], that is, atypical women displaying male-stereotypical attributes and atypical men displaying female-stereotypical attributes (Bosak et al., 2018). More specifically, perceivers' evaluations are influenced by stereotypical expectations about what men, women, and leaders are like and should be like (e.g., Prentice & Carranza, 2002; Rudman & Glick, 2001; Schein, 1973, 1975).

Gender stereotypical beliefs encompass that women are and should be more communal (e.g., warm, caring, compassionate) than men, while men are and should be more agentic (e.g., career-oriented, assertive, dominant) than women (Prentice & Carranza, 2002). Stereotypical beliefs about leaders imply that leaders are and should be more agentic than communal (Koenig et al., 2011; Vial & Napier, 2018). Consequently, gender-stereotypical beliefs about men rather than women align more closely with beliefs about leaders (Schein, 1973, 1975). Thus, men and women who display the same leadership behavior are not necessarily evaluated equally (Eagly & Karau, 2002; Hentschel et al., 2018). Instead, as a result of perceived incongruity (Eagly & Karau, 2002), female leaders who are perceived as having masculine/agentic qualities have been found to face social and economic penalties (termed *backlash effects*; Rudman, 1998; Rudman & Fairchild, 2004) in the form of reduced likability and hireability (Rudman, 1998; Rudman, Moss-Racusin, Phelan, et al., 2012) as well as an increased risk of CEO dismissal (Gupta, Mortal, et al., 2018) and scrutiny from activist shareholders (Gupta, Han, et al., 2018).

Recent research building on expectancy violation theory (Jussim et al., 1987), however, has also found that individuals who display counter-stereotypical traits in unexpected, yet *positive* ways can benefit from a social or economic bonus elicited by more favorable evaluations towards gender vanguards than gender conformists

(Bettencourt et al., 1997; Hentschel et al., 2018; Prentice & Carranza, 2004; Schaumburg & Flynn, 2017).

Although scholars have examined backlash against female leaders who disconfirm gender stereotypes (for reviews, see Eagly & Karau, 2002; Williams & Tiedens, 2016), they have rarely done so focusing on executive leadership and considering both female *and* male leaders as potential victims of backlash. Furthermore, to date, no study has examined how evaluative biases manifest in response to atypical displays of CEOs' *implicit motives*, which are typically described as trait-like individual difference characteristics that energize and direct leader behavior in unstructured situations (Hoffman, Woehr, et al., 2011; Schultheiss & Brunstein, 2010). In particular, leaders' implicit motivational profiles—the manifestation of their needs for achievement, power, and affiliation—have been suggested to be important antecedents of successful leadership and have been frequently related to leader outcomes such as effectiveness in a variety of contexts (Hoffman, Woehr, et al., 2011; Spangler, House, & Palrecha, 2004). However, few empirical studies, to date, have examined how leaders' expression of implicit motives is perceived and evaluated by others (House et al., 1991; Steinmann et al., 2016; Winter, 1987b). Especially in the CEO context, where leaders and their critical evaluators are difficult to access, empirical evidence is scarce (De Hoogh, Den Hartog, Koopman, et al., 2005; Delbecq et al., 2013). To the best of our knowledge, no research has yet attended to how the expression of implicit motives in a gender-congruent versus gender-incongruent way might create expectancy violations for female and male executive leaders, which in return might affect individuals' leadership evaluations, creating either backlash reactions or bonuses for gender vanguards. The goal of the present study was to (a) address these knowledge gaps in the literature; and (b) examine how the expression of implicit motives shapes shareholders' *evaluations* of male and female CEOs. In doing so, the study makes three important contributions.

First, research on implicit motives to date has neither sufficiently examined the role of implicit motives in evaluations of CEO-leadership nor systematically analyzed the isolated effects of power and affiliation motivation on evaluations of CEOs. Instead, studies building on motive disposition theory (MDT; McClelland et al., 1989) have largely examined motives in the form of profiles, using a typological approach in which power and affiliation motivation have been combined in a

dichotomized manner to reflect the *Leadership Motive Pattern* (LMP), consisting of high power and comparatively lower affiliation motivation (McClelland & Boyatzis, 1982) using arbitrary cut-off scores. Furthermore, studies on CEOs' implicit motives have been conducted in relatively small sample sizes and rarely focused on the perception of leaders (for an exception see De Hoogh, Den Hartog, Koopman, et al., 2005), but rather on different measures of performance, such as financial performance (Chusmir & Azevedo, 1992; Kirkpatrick et al., 2002; Veenstra, 2013). Thus, to date, it is unclear how power and affiliation motivation affect leader evaluations independently. To address this issue, the present research is based on an empirical vignette study, in which a CEO expresses either affiliation, reflective of communion, or power, reflective of agency.

Second, due to the general inaccessibility of CEOs and the non-disclosed identity of their critical evaluators—the shareholders, knowledge on the CEO-shareholder relationship is fragmented. In particular, above and beyond stock market responses towards CEOs (e.g., Gupta, Han, et al., 2018), little is known about how shareholders' cognitive frames and biases potentially affect their evaluations of power versus affiliation-motivated CEOs. However, given that shareholders have voting rights, and can exert control over a CEO through the companies' board of directors, which, in turn, has the power to discharge the CEO or to limit the CEO's discretionary decision making, understanding their perceptions towards CEOs is critically important. In order to convince shareholders of their leadership skills, experience, and strategy (Porter, Lorsch, & Nohria, 2004), CEOs typically utilize the annual report as a communication channel and directly address all company owners in the form of a *CEO letter*. Thus, the present research adopts a shareholder perspective in studying CEOs' motives and asks participants to take on the role of a common shareholder in evaluating power and affiliation motives from CEO letters.

Third, this study uniquely investigated reactions toward female and male executive leaders who display motives that are seen as either congruent or incongruent with gender norms. Building on role congruity theory of prejudice towards female leaders (Eagly & Karau, 2002), status incongruity hypothesis (Rudman, Moss-Racusin, Phelan, et al., 2012), as well as expectancy violation theory (Jussim et al., 1987) and the double standards for competence model (Foschi, 1992, 2000), this study examines whether these gender-role violations are judged as positive or negative. On the one hand, previous research has observed backlash

against communal men (Bosak et al., 2018; Moss-Racusin et al., 2010; Rudman & Mescher, 2013) resulting from perceptions of low agency. On the other hand, specific communal displays such as showing transformational leadership might be judged as a strength rather than a weakness, even (or especially) for men (Hentschel et al., 2018). By comparing and contrasting different theoretical accounts pertaining to a male versus female leader advantage, the present study offers a novel perspective on how gender stereotypes affect the evaluations of implicit motives in male and female leaders. In doing so, this research represents the first of its kind to systematically examine gender differences in the evaluations of CEOs' implicit motives in a gender-balanced experimental vignette study.

Theoretical Background

In the following sections, this research explains what implicit motives are and how they influence leadership. Next, we review the literature on gender stereotypes and evaluations of gender-atypical leaders. Finally, this study compares and contrasts predictions from the role congruity theory perspective (RCT; Eagly & Karau, 2002), the status incongruity hypothesis (SIH; Rudman, Moss-Racusin, Phelan, et al., 2012), expectancy violation theory (EVT; Jussim et al., 1987), and the double standards for competence model (Foschi, 1992, 2000) in order to explain possible differences in leader outcomes for male and female CEOs.

Implicit Motives and Leadership

Implicit motives are typically described as “associative networks connecting situational cues with basic affective reactions that lead to behavioral tendencies” (Runge & Lang, 2019, p. 1). Their conceptualization falls under the two fundamental dimensions of social behavior (see Brown, 1965) and interpersonal traits (Conte & Plutchik, 1981; Wiggins, 1980; Winter, 1987b), and essentially reflects the two distinct and broad personality dimensions that are *agency* and *communion* (Saragovi, Aubé, Koestner, & Zuroff, 2002, p. 563). Thereby, power motivation aligns with the construct of agency, and affiliation motivation aligns with the construct of communion (Bakan, 1966; Winter, 1973). While agentic motives relate to people's desire to influence and control others, as well as to maintain high and distinct status, communal motives relate to the need for deep, meaningful relationships, interpersonal friendliness, warmth, and care (Locke, 2015). Both power and affiliation motivation are, by definition, related to others, which is why they are also often referred to as agentic and communal social motives. Decades of past research

demonstrate that implicit motives predict leadership skills and styles and thereby affect leader outcomes such as effectiveness (Delbecq et al., 2013; House et al., 1991; McClelland, 1975, 1987b; Spangler, 1992; Winter, 2010a). From this research, a relative consensus emerged that power motivation is the most important motive for successful leadership (e.g., McClelland & Boyatzis, 1982). In contrast, findings regarding the role of affiliation motivation are more mixed (e.g., House et al., 1991; Spangler et al., 2014). In the next section, we examine evidence on the positive and negative correlates of power- and affiliation motivation relevant for leadership.

Power and leadership. Power motivation is characterized as the need to influence, dominate and control others and was found to be a critical antecedent of leadership success, specifically in large corporations and politics (Andrews, 1967; Kirkpatrick et al., 2002; McClelland & Boyatzis, 1982; Winter, 2010a, 2010b). Several studies have established a theoretical and empirical link of power motivation with evaluations of charismatic leadership, indicating leadership effectiveness (e.g., De Hoogh, Den Hartog, Koopman, et al., 2005; House & Aditya, 1997; House & Howell, 1992; House et al., 1991). Furthermore, research by Hoffmann, Woehr, and colleagues (2011) quantitatively reviewed that power motivation predicted leader behaviors and, consequently, follower perceptions of leader effectiveness. Research also linked power motivation to successful leadership through its positive relationship with career advancement, job promotions, and occupancy of upper management roles (McClelland, 1975, 1987b). However, a high level of power motivation may also expose a dark side of leadership, characterized by self-serving behaviors and exploitation (House & Howell, 1992). In fact, power motivation may manifest itself in two different types; socialized and personalized power [5.2]. While leaders who are high in socialized power are concerned with enacting power in socially responsible ways to attain organizational goals, leaders high in personalized power are concerned with a self-serving enactment of power to attain personal goals. McClelland (1975, 1980), for example, suggests that leaders who do not care for the moral implications of influencing others are likely to abuse their power, which can potentially impede organizational success.

Affiliation and leadership. Affiliation motivation is characterized as the need for deep, meaningful relationships, interpersonal friendliness, and warmth and was found largely as “either unrelated or negatively related to successful leadership” in past research (Delbecq et al., 2013; p. 10; McClelland, 1975; McClelland &

Boyatzis, 1982). Research on U.S.-presidents showed that affiliation motivation was positively associated with dysfunctional performance, susceptibility to scandal, and resignation (Spangler & House, 1991; Winter, 2002b). Winter (2002b) reasoned that affiliation-motivated leaders might be constrained by their need for positive relationships and acceptance, and thus prioritize their personal wish to belong over attaining organizational goals. Other studies found no significant relationships between affiliation motivation and charismatic leadership (for CEOs, see De Hoogh, Den Hartog, Koopman, et al., 2005; for presidents, see House et al., 1991). Yet other research showed that affiliation motivation was occasionally related to positive leader outcomes such as enhanced unit-level performance (Kirkpatrick et al., 2002), or increased followers' job satisfaction and work performance (Cornelius & Lane, 1984). These findings suggest that developing, sustaining, and repairing positive relationships and social networks is not always detrimental to leaders' success.

Moreover, the qualities believed to be characteristic of good leadership have become more androgynous over time, incorporating more affiliative, communal attributes (Hentschel et al., 2018; House et al. 1991; Koenig et al. 2011; Vial & Napier, 2018). In line with these changing beliefs about good leader qualities, supporting evidence for positive effects of affiliation motivation on leadership has been increasing (e.g., Kirkpatrick et al., 2002; Lang et al., 2012; Spangler et al., 2014). In addition, leaders with high levels of affiliative interest, one form of affiliation motivation, were described to express concern for their followers' needs and growth, and thereby create interpersonal trust (Boyatzis, 1973, 1979). Thus, managers with high affiliative interest are likely more eager to provide feedback and collaborate with their followers in order to attain organizational goals, which is likely to promote job satisfaction and leader effectiveness (Boyatzis, 1979). High affiliation motivation alone, however, does not seem to be predictive of successful leadership but rather only when combined with power motivation (Steinmann et al., 2015) [5.3], suggesting that affiliation motivation represents a "motivational add-on" for successful leadership (Spangler et al., 2014). Similarly, Vial and Napier (2018) found that while communal attributes have become more important for leadership over the years, agentic traits are still perceived as critically advantageous for successful leadership.

Implicit Motives and Evaluations of Leadership

While the impact of implicit motives on successful leadership has been extensively examined (House et al., 1991; McClelland & Boyatzis, 1982; Spangler & House, 1991; Winter, 1987b, 1991a), implicit motives research has rarely studied how implicit motives of CEOs' are perceived by others (De Hoogh, Den Hartog, Koopman, et al., 2005; Delbecq et al., 2013; House et al., 1991; Winter, 1987b), that are, leaders' employees, colleagues, boards of directors, or shareholders. Among the formerly listed exceptions, one study found power motivation positively related to and affiliation motivation unrelated to perceived charismatic leadership of CEOs, which, in turn, was positively related to follower attitudes (De Hoogh, Den Hartog, Koopman, et al., 2005). Another study found (a) power motivation to be negatively related to; and (b) affiliation motivation to be unrelated to perceived charismatic leadership, which, in turn, was positively related to followers' motivation and exceptional performance (Delbecq et al., 2013).

Winter (1987b) has argued that power and affiliation motivation reflect the two basic dimensions of social behavior and interpersonal traits (Brown, 1965; Conte & Plutchik, 1981; Wiggins, 1980). In fact, past research by Helgeson (1994) has found considerable conceptual overlap between the constructs of power and affiliation motivation (McAdams, 1992; McClelland, 1975; Winter, 1992), and masculine and feminine traits (Spence, 1984) and argue that both essentially reflect the personality dimensions of agency and communion, which are regarded as the two fundamental dimensions of social perception (Bakan, 1966). Research on leader prototypes—i.e., mental representations about how leaders should behave—showed that, to the extent that individuals fulfill evaluators' expectations of the ideal leader, they are perceived more or less favorably (Johnson, Murphy, Zewdie, & Reichard, 2008; Lord, Foti, & De Vader, 1984; Lord & Maher, 1993; Smith & Foti, 1998). While communal traits have become increasingly important leader characteristics in recent years, agentic traits are still perceived as critically advantageous for successful leadership (e.g., Koenig et al., 2011; Vial & Napier, 2018). Given that power motivation closely resembles agency, its display in CEO letters should elicit more favorable leader evaluations than displays of affiliation motivation, which closely resembles communion.

However, due to (a) the lack of research on CEOs' implicit motives and evaluations of leadership; and (b) the mixed evidence regarding a positive or

negative relationship of implicit motives with evaluations of leadership, it is unclear how the recipients of a shareholder letter would rate highly power-motivated versus highly affiliation-motivated CEOs on various leader outcomes.

On the one hand, it seems that, as a consequence of big corporate scandals in which individual leaders played a key role in creating large-scale crises (e.g., the ENRON scandal or the Lehman Brothers scandal), societal perceptions towards “power-hungry” CEOs might be changing, calling for more socially responsible leaders who are “worthy” of followers’ trust (McCann & Sweet, 2014). Therefore, it is possible that power motivation does not have the same beneficial effects for the perception and evaluation of corporate leaders that it had in previous decades (see Burnham, 1997). Consequently, proxy-shareholders may interpret a striving for influence and control as a non-desirable characteristic of contemporary leaders due to the changing requirements of modern leadership to include more cooperation and collaboration. Thus, displays of affiliation motivation may more closely align with proxy-shareholders’ lay theories of successful leadership.

On the other hand, affiliation motivation is often seen as a supportive but not essential trait of successful leaders (Spangler et al., 2014; Vial & Napier, 2018). Therefore, displays of power motivation may more closely align with proxy-shareholders prototypes of ideal leaders, especially when these leaders are distant. Furthermore, House’s (1977) influential theory of charismatic leadership and later empirical evidence by House et al. (1991) established a critical link between power motivation (but not affiliation motivation) and charisma, which in turn related to increased perceptions of leader effectiveness as well as increased confidence in and loyalty towards the leaders by their followers. Taken these different perspectives into consideration, this research hypothesizes that power motivation positively predicts leaders’ social outcomes in the form of higher perceived competence, and economic outcomes in the form of higher general evaluations, tenure recommendations, and financial performance ratings while affiliation motivation predicts leaders’ social outcomes in the form of higher perceived likability.

Gender Stereotypes, Implicit Motives, and Evaluations of Leadership

To date, little is known about how implicit motives affect the perception of female leaders in comparison to male leaders. Drawing on leadership and gender research, an array of studies demonstrated that leaders’ gender, and in particular the *beliefs* and *expectations* associated with leaders’ gender, impact how they are

perceived and evaluated (e.g., Eagly & Karau, 2002; Heilman, 2012). Thus, even if men and women express the same implicit motives, they likely result in different outcomes due to a combination of descriptive, prescriptive and proscriptive stereotypes related to peoples' social role as leaders and their respective gender roles (Diekmann & Steinberg, 2013). More specifically, gender stereotypes relate to people's overgeneralizations about the characteristics of men and women and vary along the two fundamental dimensions of social perceptions that are agency and communion (Hentschel et al., 2018; Meissner, 1967). Hereby, descriptive stereotypes refer to widely shared beliefs about what people *are* like, whereas prescriptive and proscriptive stereotypes refer to shared expectations of what people *should* or *should not be* like.

Whilst women are believed and expected to be more communal (i.e., warm and caring) than men; men are believed and expected to be more agentic (i.e., assertive and independent) than women (Prentice & Carranza, 2002). Furthermore, women are often proscribed from being dominant, while men are proscribed from being weak (Rudman, Moss-Racusin, Phelan, et al., 2012). As agency, more than communion is traditionally expected to be a typical characteristic of effective leaders (Brenner, Tomkiewicz, & Schein, 1989; Heilman et al., 1989; Schein; 1973, 1975), men seem to hold an advantage in leadership (Schaumburg & Flynn, 2017). In line with past research on gender stereotypes, Johnson et al. (2008) found that individuals construe more agentic leader prototypes for men and more communal leader prototypes for women. Furthermore, Johnson et al. (2008) found that although both strength (as a dimension of agency) and sensitivity (as a dimension of communion) were important determinants of perceived leadership effectiveness, strength was more important than sensitivity.

Consequently, RCT (Eagly & Karau, 2002) proposes that the perceived incongruity between the female gender role and the leader role can give rise to prejudice, with female leaders experiencing negative reactions for leader behavior as the agentic nature of this behavior violates female gender norms. On the one hand, women who take charge through expressions of agency violate their female gender role expectations, which thereby undermines their perceptions of communality, making female leaders less likable (Rudman, Moss-Racusin, Phelan, et al., 2012). On the other hand, women who take care by expressing communality may be liked better but violate role expectations of what constitutes a good leader, potentially leading to

reduced competence ratings (Rudman, 1998). In essence, women leaders face a *double bind* in which they “are seen as [either] competent or likable, but rarely both” (Catalyst, 2007, p. 1) which puts women at risk of experiencing economic penalties—also called *backlash* (Rudman & Glick, 2001).

Recent research gives rise to the assumption that men are not shielded from biased evaluations either and that they are penalized for displaying gender-atypical communal characteristics and behaviors such as other-advocacy (e.g., Bosak et al., 2018). For example, Bosak and colleagues (2018) found that atypical men who expressed counter-stereotypical behaviors were perceived to be less agentic, less competent, and subsequently were penalized more than communal women. Moreover, research found that modest male applicants were liked less than modest female applicants (Moss-Racusin et al., 2010) and that male applicants for stereotypically female professions were liked less than female applicants (Moss-Racusin & Johnson, 2016). Thus, it appears that gender-stereotypical expectations about agency and communion carry differences in how favorable male and female CEOs are perceived, irrespective of their actual leader behaviors (Hentschel et al., 2018; Prentice & Carranza, 2002; Rudman & Phelan, 2008).

Research by Rudman, Moss-Racusin, Phelan, et al. (2012) recently developed the SIH and proposed that negative evaluations towards male and female leaders would only occur if gender-role violations challenge the status quo of the current gender hierarchy (e.g., through dominance displays). Thus, women would be expected to experience backlash for expressions of power motivation. In testing the RCT in the context of leader prototyping, however, Johnson et al. (2008) found that not the violation itself, but the absence of expected communal behavior in female leaders and agentic behavior in male leaders induced negative evaluations. Additionally, female leaders described as low in agency—however, not male leaders described as low in communion—were liked less and perceived as less effective. In line with findings by Heilman and Chen (2005), this result suggests that male and female leaders are evaluated with a double standard.

Furthermore, research has shown that violating gender stereotypes does not always result in negative evaluations. Building on EVT (Jussim et al., 1987), Schaumberg and Flynn (2017) argue that the *direction* of leader evaluations depends on the *valence* of the violation. In other words, if people violate gender stereotypes in unexpected positive ways, they may be evaluated more favorably than people of

whom this behavior was expected in the first place. This way, positive violations of agency can result in a leadership advantage for women, whilst positive violations of communion can result in a leadership advantage for men. Consistent with this notion, Schaumburg and Flynn (2017) observed a female leadership advantage when women positively violated the agency gender stereotype by displaying self-reliance, while Hentschel et al. (2018) found a male leader advantage when men positively violated the communality gender stereotype by displaying care for others through transformational leadership. Furthermore, Shaughnessy et al. (2015) observed that men who showed communal behaviors during negotiations (i.e., small talk) achieve better negotiation outcomes than women who engage in small talk. Moreover, Heilman and Chen (2005) found that men who showed altruistic citizenship behavior at work were evaluated better than women who showed altruism. These findings support the idea that gender vanguards receive more credit for displaying positively-valenced atypical behaviors than gender conformists who show the same behavior.

Another theoretical perspective that predicts a female leader advantage is the double standards for competence model (Foschi, 1992; 2000). According to this model, female leaders are seen as facing stricter evaluative standards on their leadership journey than men. Thus, women who have successfully advanced into top-managerial positions are evaluated as particularly competent since they have managed to overcome these additional barriers. Rosette and Tost (2010) provided empirical support for the double standards for competence model and showed that high-level female leaders were evaluated more favorably than high-level male leaders and mid-level male and female leaders.

As this section demonstrates, the relationship between gender stereotypes and leader evaluations is complex, and the circumstances under which a male or female leader advantage unfolds are not yet fully understood. To enhance the knowledge about the effect of implicit motives on the evaluation of male and female CEOs and to contribute to unraveling potential contingencies leading to a male or female leader advantage, this study compares and contrasts predictions that follow from RCT with predictions that follow from EVT. In this research, we hypothesize that gender role stereotypes moderate the evaluation of CEOs' implicit motives (Figure 5.1). However, due to the contrasting theoretical arguments of RCT and EVT, we develop competing hypotheses about the direction of this moderation.

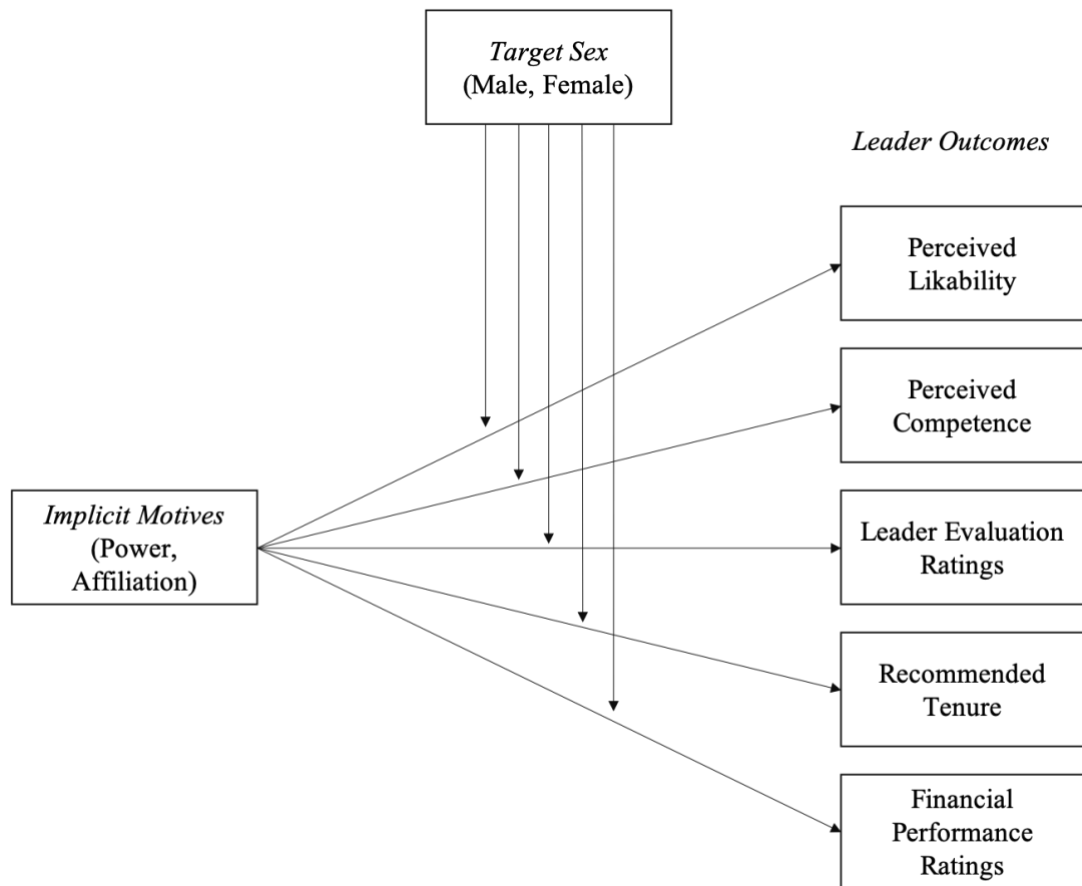


Figure 5.1. Conceptual diagram of hypothesized effects.

From an RCT perspective, the present study would expect a dominance penalty for power-motivated women but not for power-motivated men for social outcomes (i.e., perceived likability) and economic outcomes (i.e., leader evaluation ratings, tenure recommendations, and financial performance ratings). As expressing dominance violates the expectations of the female but not the male gender role, women's expressions of power motivation should undermine their perceptions of communality (Heilman & Okimoto, 2007). This lack of communality, in turn, should make female power-motivated CEOs face more social and economic penalties by being less liked and by being penalized in the form of less favorable leader evaluations, shorter tenure recommendations, and lower financial performance ratings (Eagly & Karau, 2002; Rudman, Moss-Racusin, Phelan, et al., 2012). As displays of power are status-challenging, power motivation should also be interpreted as a negative violation from the perspective of the SIH (see dominance penalty, e.g., Okimoto & Brescoll, 2010; Rudman, Moss-Racusin, Phelan, et al., 2012; Williams &

Tiedens, 2016). To the extent that power motivation is perceived as a negative counter-stereotypical display by the evaluators, these predictions would also be consistent with EVT. Following these theoretical arguments, backlash against power-motivated women would be expected.

From an RCT perspective, affiliation-motivated male CEOs should also receive more negative leader evaluations. More specifically, men's expressions of communality should undermine men's perceptions of agency. In particular, from an RCT perspective and from SIH, male CEOs expressing affiliation should be liked less and penalized more than female CEOs expressing affiliation and male CEOs expressing power. However, from the EVT perspective, affiliation is a trait that is positive and also valued in men. Therefore, male CEOs expressing affiliation should experience an advantage (i.e., communality bonus) and should be liked more and penalized less than female CEOs expressing affiliation and male CEOs expressing power. In particular, due to descriptive stereotypes associated with their gender, men are inherently perceived to be more agentic and less communal than women. As men are generally not proscribed from displaying affiliation to the same extent that women are proscribed from expressing power, affiliation motivation could be perceived as an unexpected positive violation, with affiliation-motivated male CEOs experiencing a leader advantage. Furthermore, as previously reviewed, agency is an important prerequisite to be perceived as a successful leader, and affiliation motivation was only found to positively relate to successful leadership when combined with agentic social motives, that is, power motivation. Due to their gender, men are automatically linked to high agency (Rudman, Moss-Racusin, Phelan, et al., 2012). Since more feminine-typed leadership skills are in demand in contemporary organizations (see Bosak et al., 2018), it could be expected that affiliation motivation will function as a positive motivational add-on for men, who would thus show a more complete behavioral repertoire through more modern, androgynous leadership which blends communal and agentic qualities. In line with this, care for customers, employees, and the organization would likely be interpreted as a more unexpected positive surprise when expressed by a male versus a female CEO (Jussim et al., 1987).

Building on EVT, it could be argued that power-motivated female CEOs would also be interpreted as positively violating expectations (similar to affiliation-motivated male CEOs): As women are automatically linked to high communion due

to their gender (Rudman, Moss-Racusin, Phelan, et al., 2012), it could be theorized that power motivation would function as a positive motivational add-on for women. However, given that women's power displays are closely linked to high status and thus reflect strong proscriptive female gender stereotypes (Rudman, Moss-Racusin, Phelan, et al., 2012), it is more likely that female power will be interpreted as an undesirable unexpected negative violation of gender norms. While men's affiliation may also elicit perceptions of weakness, a proscription for men that is generally attributed to low status, "past research has shown that agency is linked to high status more so than communality is linked to low status" (Rudman, Moss-Racusin, Phelan, et al., 2012, p. 166). Likewise, Hentschel et al. (2018) have argued that despite the expectation of women's higher communality in comparison to men, displaying communality is not necessarily undesirable for men (Prentice & Carranza, 2002). Taken together, it is unlikely that power-motivated women would benefit from androgynous leadership in the same way as men.

Lastly, from a double standard for competence perspective, female CEOs should have a leader advantage over their male counterparts regardless of their motivational displays. As female CEOs are thought to have successfully overcome harder evaluative standards than men, they should be evaluated as especially competent. This assumption would also be in line with recent research on changing gender stereotypes, which found that, today, women and men are generally perceived as equally competent, with a slight advantage favoring women (Eagly et al., 2019).

Hypotheses

By extending the examination of backlash to the context of implicit motives, the present research aims at addressing inconsistent findings in the literature concerning the conditions under which a male versus female leader advantage emerges. Therefore, this experimental vignette study investigates next-generation shareholders' leader evaluations of CEOs who expressed either gender-congruent or gender-incongruent implicit motives in their letters to shareholders.

If results are consistent with House's (1977) theory of charismatic leadership, power-motivated CEOs will be evaluated more favorably than affiliation-motivated CEOs in terms of perceptions of competence and social and economic leader outcomes. Nevertheless, given that affiliation likely elicits perceptions of warmth and care, which are closely linked to communion, affiliation-motivated CEOs will be liked better than power-motivated CEOs. Furthermore, if results are consistent with

RCT (Eagly & Karau, 2002) and the backlash literature (Rudman, 1998; Rudman, Moss-Racusin, Phelan, et al., 2012), gender-atypical CEOs will experience social and economic penalties from shareholders. This hypothesis is made for female power-motivated CEOs, following from the dominance penalty for women. This prediction, however, is contrasted with an alternative hypothesis from the EVT (Jussim et al., 1987) for male affiliation-motivated CEOs as displaying affiliation is likely seen as a positive violation of gender norms. However, if results are consistent with the double standards for competence model (Foschi 1992, 2000), female CEOs should have a leader advantage over their male counterparts regardless of their motivational displays. As female CEOs are thought to have successfully overcome harder evaluative standards than men, they should be evaluated as more competent. Taken together, the following hypotheses were developed:

MDT and theory of charismatic leadership	H1: Affiliation-motivated CEOs receive a <i>social</i> bonus in the form of higher perceived <i>likability</i> compared to power-motivated CEOs.
	H2: Power-motivated CEOs receive a <i>social</i> bonus in the form of higher perceived <i>competence</i> compared to affiliation-motivated CEOs.
	H3: Power-motivated CEOs receive an <i>economic</i> bonus in the form of (a) more favorable <i>leader evaluations</i> , (b) longer <i>tenure recommendations</i> , and more favorable <i>financial performance ratings</i> compared to affiliation-motivated CEOs.
Double standards for competence model	H4: Female CEOs receive a <i>social</i> bonus in the form of higher perceived <i>competence</i> compared to male CEOs.
	H5: Female CEOs portrayed with power motivation receive more <i>social</i> penalties in the form of reduced <i>likability</i> compared to male CEOs portrayed with power motivation, and female CEOs portrayed with affiliation motivation.
Role congruity theory & status incongruity hyp.	H6: Female CEOs portrayed with power motivation receive more <i>economic</i> penalties in the form of (a) less favorable <i>leader evaluation ratings</i> , (b) shorter <i>tenure</i>

recommendations, and (c) less favorable *financial performance* ratings compared to male CEOs portrayed with power motivation and female CEOs portrayed with affiliation motivation.

Expectancy
violation
theory

H7: Male CEOs portrayed with affiliation motivation receive a *social* bonus in the form of increased *likability* compared to female CEOs portrayed with affiliation motivation and male CEOs portrayed with power motivation.

H8: Male CEOs portrayed with affiliation motivation receive an *economic* bonus in the form of (a) better *leader evaluation ratings*, (b) longer *tenure recommendations*, and (c) better *financial performance* evaluations compared to female CEOs portrayed with affiliation motivation and male CEOs portrayed with power motivation.

Method

Participants and Design

To examine differences in the evaluation of male and female CEOs who express gender-congruent versus gender-incongruent implicit motives, we carried out an experimental vignette study. The study employed a 2 (Target Sex: male vs. female) $\times$ 2 (Implicit Motives: power vs. affiliation) between-subjects design. We randomly assigned each participant to one of the four experimental conditions. The sample consisted of 983 students from a university in Ireland. Ethical approval for this project was obtained from the Dublin City University Research Ethics Committee, which qualified the study as a low-risk social research project (Appendix A). Data were collected between April and December 2018, and study participation required a basic understanding of organizations, which was ensured through exclusively sampling students enrolled in business-related study programs. In preliminary analyses, a total of 58 responses were deleted from the initial dataset for the following reasons: (1) non-completion of the survey; (2) participants' non-disclosure of their sex; (3) participants' self-indication that answers are not valid to use for research; and (4) participants' failure to pass the manipulation- and attention-checks (Huang, Liu, & Bowling, 2015; Meade & Craig, 2012; Oppenheimer,

Meyvis, & Davidenko, 2009) [5.4]. The final sample consisted of 922 business students (52.7% female, 47.3% male; $M_{age} = 22$ years; $SD_{age} = 5.56$ years). On average, participants had two years of work experience ($SD = 3.33$ years). On a 7-point scale ranging from 1 = *very unlikely* to 7 = *very likely*, participants indicated that they were likely to purchase shares in the future ($M = 5.15$; $SD = 1.61$), reflective of next-generation shareholders.

Procedure

Study participation was voluntary and took place in a classroom setting at a university in Ireland. The study was administered in a paper-pencil version (Appendix B) and consisted of two stages. To begin, participants received the profile of a fictional company that was listed in the S&P 1500 Index. Participants were instructed to imagine that they were shareholders of this organization. They were informed that

“HUDONIX Inc. is a U.S.-based stock market company, operating in the professional services industry. For 11 consecutive years, HUDONIX Inc. is listed in the Standard & Poor 1500 Index. In fiscal 2017, the company board appointed a new Chief Executive Officer (CEO) to lead HUDONIX.”

Then, participants were introduced to an excerpt from the company’s annual report, consisting of a financial performance graph and a CEO letter. Experimental manipulations consisted of either a power- or affiliation-motivated CEO letter that was presumably written by either a male or female CEO. Objective financial performance indicators were kept constant across all four conditions. Participants were tasked to carefully read the information provided before completing a questionnaire, which they were told assessed their perceptions about leaders.

Financial performance metrics were purposefully displayed as ambiguous so that neither a top performance nor a crisis scenario was induced. According to attributional theories of leadership, leader evaluations are highly dependent on information about past performance, which is then attributed to leaders’ abilities (Jacquart & Antonakis, 2015). According to Jacquart and Antonakis (2015), “observers will mostly rely on attributional mechanisms when performance signals clearly indicate good or poor performance outcomes. However, under conditions of attributional ambiguity (i.e., when performance signals are unclear), observers will mostly rely on inferential processes” (p. 1051). Thus, in ambiguous contexts, the extent of the similarity between leaders’ perceived characteristics and evaluators’

leader prototypes and leader stereotypes would influence the valence of leader evaluations more than past organizational performance (Lord et al., 1984).

At the end of the questionnaire, subjects were asked to provide their thoughts about what the study possibly has been. While some participants were able to tell that the study was related to the topic of leadership and gender or dominant versus affiliative CEOs, no subject was fully aware of the true hypotheses of the study. Participants were debriefed about the true aim of the experiment after data collection.

Materials

Implicit Motives manipulation. Implicit Motives were manipulated by means of two CEO letters. These letters were of similar length and setup. However, they consisted of either power- or affiliation-motivated statements that were adapted from real CEO letters (Appendix B). The letters were crafted by an expert in the Winter (1994) methodology for scoring motive imagery in running text. The CEO letters were then reviewed by a second expert in the Winter (1994) methodology who correctly identified all but two Implicit Motives. Incorrectly identified statements were then altered in the CEO letters, which then underwent a second revision with a third experienced coder until a clearly power-laden and affiliation-laden letter was constructed. Experts are defined as experienced coders who successfully completed the Winter calibration with > 0.85 . Implicit motives were dummy-coded (1 = *power*, 0 = *affiliation*).

Target Sex manipulation. Target Sex was manipulated in the CEO letter, which was either signed with a male or a female name (Patricia versus Patrick Fitzsimmons). Target Sex was dummy-coded (1 = *female*, 0 = *male*).

CEO Ratings

Leader evaluation ratings. General leader evaluations were aggregated from selected items adapted from Schaumberg and Flynn's (2017) leader evaluations, Bosak et al.'s (2018) penalty index, and Rudman and Glick's (2001) hireability index. They encompass a variety of leader performance dimensions. The first two items were presented on a 7-point scale ranging from 1 = *strongly disagree* to 7 = *strongly agree* and read "The CEO is highly capable" and "The CEO makes a good leader." The third item asked "How likely or unlikely would you be to hire this CEO to run a company that you started" and was rated on a 7-point scale ranging from 1 = *very unlikely* to 7 = *very likely*. The fourth item asked, "How well or poorly managed do you think HUDONIX will be over the next five years?" and ranged from 1 = *very*

poorly managed to 7 = *very well managed*. Four items adapted from the hireability index were assessed on a 7-point scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. Items were “Hiring this CEO was the right decision of the board,” “If it was up to me, I would not re-elect this CEO” (reverse-coded), “I would use my shareholder voting rights on the company board to increase the CEO’s chances of re-election,” and “I would not recommend this CEO to lead another company” (reverse-coded). The final item read “How likely or unlikely is it that the board would re-elect the CEO?” and was measured on a 7-point scale ranging from 1 = *very unlikely* to 7 = *very likely*. Cronbach’s alpha of the leader evaluation ratings index was $\alpha = .89$.

Likability. Perceived likability was measured with three items from Bosak et al. (2018). The items were “I personally like this CEO,” “I think that this CEO is generally likable,” and “This CEO is someone I want to get to know better.” Participants’ responses to these items were measured on a 7-point scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. Cronbach’s alpha for the likability index was $\alpha = .82$.

Competence. Perceived competence was measured with three items from Bosak et al. (2018). The items were “I think that the CEO is competent,” “I think that the CEO has the necessary skills to lead HUDONIX,” and “I think that the CEO is an expert in his/her industry” and were assessed with a 7-point scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. Cronbach’s alpha for the competence index was $\alpha = .82$.

Tenure recommendations. The recommended tenure for a CEO ($M = 4.58$, $MD = 4$; $SD = 2.85$ years) was measured with a single item that asked, “Counting from the CEO’s first day of tenure, how many years do you think the CEO should be in office?” Participants were instructed to provide an integral number. All recommended tenures exceeding 50 years were deemed unrealistic and therefore excluded from further analysis. However, due to the nature of measurement in an open format, tenure recommendations nevertheless showed a right skew. Therefore, we applied the natural logarithm transformation with the LG (10) function in SPSS.

Financial performance rating. HUDONIX’ perceived financial performance ($M = 6.16$; $SD = 1.59$) was assessed with a 10-point single item ranging from 1 = *very poor* to 10 = *outstanding* (“Please rate HUDONIX’ overall financial performance of 2017”).

Pretests

Pretest 1. We conducted a pretest to pilot the experimental manipulation in an in-class study at an Irish university with 32 undergraduate Business students with mixed majors. One participant did not provide informed consent and two participants did not fill in the survey despite providing informed consent. Thus, the pretest consisted of 29 participants (18 women, 11 men; $M_{\text{age}} = 22.21$; $SD_{\text{age}} = 3.22$ years). Results revealed that the power-laden CEO letter was indeed perceived as significantly more reflective of characteristics associated with power motivation (i.e., assertive, controlling, influencing, dominant, forceful) than with characteristics associated with affiliation motivation (i.e., empathic, warm, caring, sympathetic, affectionate; $t(28) = 9.41, p < .001$) while the opposite was true for the affiliation-laden CEO letter ($t(27) = 10.55, p < .001$). Furthermore, the power-laden CEO letter was rated significantly higher on selected power-related items adapted from the Multi-Motive Grid (i.e., “HUDONIX’ CEO tries to influence others.” And “HUDONIX’ CEO fears to be overpowered by others.”; Sokolowski et al., 2000) than on affiliation-related items (i.e., “HUDONIX’ CEO feels good about interacting with other people.” And “HUDONIX’ CEO is afraid to be rejected by others.”; $t(27) = 4.77, p < .001$, while the opposite was true for the affiliation-laden CEO letter, $t(27) = 2.06, p = .049$. All items were measured on a 5-point scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*.

Pretest 2. To strengthen the experimental manipulation of Target Sex, the study incorporated a picture of a male or female CEO in the letter. To ensure that the picture itself does not create an effect, 15 photos of middle-aged male or female managers were purchased and pretested in an in-class study including 42 undergraduate Accounting and Finance students from a university in Ireland (14 women, 26 men, 2 unidentified; $M_{\text{age}} = 19.55$; $SD_{\text{age}} = 3.87$ years). Participants were asked to rate the photos based on their perceived attractiveness (measured on a 5-point scale ranging from 1 = *unattractive* to 5 = *attractive*), likability (measured on a 5-point scale ranging from 1 = *unlikable* to 5 = *likable*), competence (measured on a 5-point scale ranging from 1 = *incompetent* to 5 = *competent*), masculinity/femininity (measured on a 5-point scale ranging from 1 = *masculine* to 5 = *feminine*), and age (measured in an open response format where participants were instructed to provide an integral number). To avoid order effects and bias, different versions of the pretest were created in which (1) the order of CEO pictures

Table 5.1

Descriptive Statistics of Picture Characteristics of Male and Female CEOs

	<i>Female CEOs</i>			<i>Male CEOs</i>		
	Picture A	Picture B	Picture C	Picture D	Picture E	Picture F
Attractiveness	2.38 (0.79)	3.19 (0.86)	3.17 (1.03)	3.12 (0.97)	2.85 (1.06)	2.98 (0.92)
Likability	3.21 (0.75)	2.86 (1.03)	3.64 (0.73)	3.45 (0.80)	3.40 (0.83)	3.36 (0.98)
Competence	3.52 (0.89)	3.98 (0.84)	3.81 (0.80)	3.74 (0.66)	3.83 (0.85)	3.45 (0.86)
Femininity	3.38 (0.94)	3.90 (1.03)	4.00 (1.01)	1.86 (0.90)	1.36 (0.66)	2.19 (0.71)
Age	50.79 (6.75)	46.74 (5.15)	49.71 (7.32)	45.31 (6.73)	47.88 (6.31)	52.98 (6.68)

Note. Means and standard deviations (in parentheses) among the dependent variables for male and female CEO pictures shown in Appendix B.

was randomized and (2) the masculinity/femininity scale was reverse-coded. Subsequently, we chose three male and three female managers who were evaluated comparably on these variables (Appendix B). Table 5.1 summarizes descriptive statistics of picture characteristics of the chosen male and female CEOs.

Manipulation Check

To test the success of the experimental manipulation of Target Sex, we asked participants to indicate whether the CEO was male or female. Participants who named the incorrect Target Sex were excluded from further analyses (.03%). Moreover, we assessed how affiliation- and power-laden letters correlated with perceived agentic, communal, dominant, and weak traits. Perceived traits were measured by means of selected items of the agency index, communality index, dominance index, and weakness index adapted from Rudman, Moss-Racusin, Phelan, et al. (2012) [55]. Finally, at the end of the questionnaire, we tested whether participants perceived the power-motivated CEO letter as more power-oriented than the affiliation-motivated CEO letter and vice versa with two single items that were measured on a 5-point scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*.

Demographics

In the demographics section of the survey, participants provided the following information: sex, age, country of origin, nationality, ethnicity, student status, the program of study, study year, employment status, and the number of years of prior work experience.

Results

Manipulation Check

To assess the effectiveness of the experimental motive manipulation, the study tested and found that participants perceived power-motivated letters indeed as more powerful ($M = 4.37$; $SD = 0.8$) than affiliative ($M = 2.07$; $SD = 0.86$), $t(456) = 36.55$, $p < .001$, and affiliation-motivated letter as more affiliative ($M = 4.44$; $SD = 0.75$) than powerful ($M = 2.43$; $SD = 1.07$), $t(438) = 27.85$, $p < .001$. The manipulation of Implicit Motives in the CEO letters was therefore deemed successful. Furthermore, group membership of affiliation motivation showed significant positive point biserial correlations with prescriptive female gender-stereotypic traits (communion, $r = .79$, $p < .01$) and proscriptive male gender-stereotypic traits (weakness, $r = .34$, $p < .01$) as well as significant negative point

biserial correlations with male prescriptive gender-stereotypic traits (agency, $r = -.43$, $p < .01$) and female proscriptive gender-stereotypic traits (dominance $r = -.79$, $p < .01$) and vice versa for power motivation.

Factor Structure Leader Evaluation Ratings

We conducted a principal component analysis with a varimax rotation, which revealed two factors with eigenvalues greater than 1 (Keller, 2005). Combined, these two factors accounted for 66.38% of the total variance in leader evaluation ratings. However, a scree test showed that there was a strong dominating factor with an eigenvalue of 4.95 that alone accounted for 55.03% of the variance in leader evaluation ratings (Davidovitz, Mikulincer, Shaver, Izsak, & Popper, 2007; Keller, 2005). Furthermore, the scree plot showed a steep decline between the first and second factor, which had an eigenvalue of 1.02 (Keller, 2005). All nine items loaded between .461 and .828 on factor 1 and were therefore retained. Next, we conducted a principal axis factor analysis and extracted one factor using no rotation. Results confirmed that the general factor explained 55.03% of the variance in leader evaluation ratings. All nine items loaded between .403 and .809 on factor 1 and were therefore retained.

Furthermore, we conducted a parallel analysis (Monte Carlo Simulation) to determine statistically significant eigenvalues using the random number generation approach as well as the robust permutation test approach with 5000 datasets and a 95% confidence interval (O'Connor, 2000). Both methods revealed that only the first factor but not the second factor had a statistically significant eigenvalue (Figure 5.2). This analysis validated that there only was one component to be extracted from the nine items. Thus, the main analyses proceeded with a one-factor solution which displayed item-total correlations of at least .382 and a mean interitem correlation of .483 (Keller, 2005).

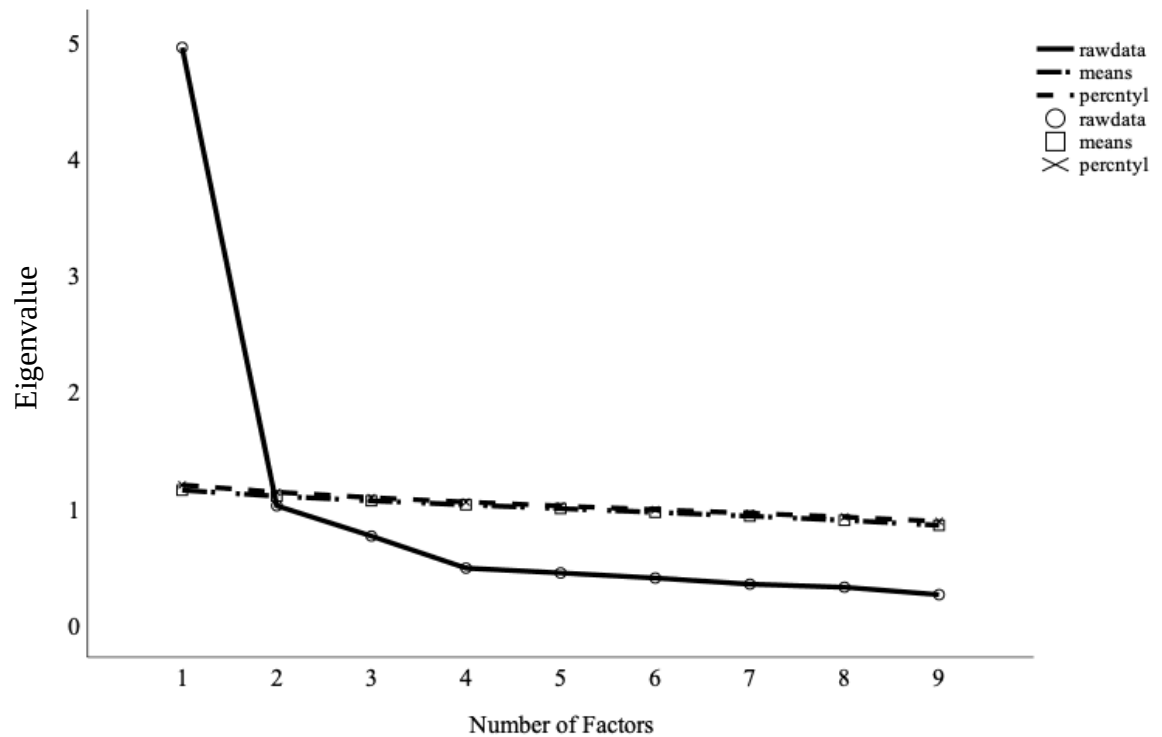


Figure 5.2. Scree plot of principal components analysis and raw data permutation with 5,000 datasets and a 95% percentile for the nine items of the leader evaluation rating scale. Lines represent raw data eigenvalues, mean, and percentile random data eigenvalues.

Table 5.2

Participant Distribution Across Experimental Manipulations

		<i>Implicit motives</i>		Total
		Affiliation	Power	
Target sex	Male	226 (24.5%)	233 (25.3%)	459 (49.8%)
	Female	227 (24.6%)	236 (25.6%)	463 (50.2%)
	Total	453 (49.1%)	469 (50.9%)	922 (100%)

Note. Number of participants in each experimental condition. Percentages in parentheses.

CHAPTER 5

Table 5.3

Means, Standard Deviations, and Correlations Among Dependent Measures

Variable	<i>M (SD)</i>					<i>Pearson bivariate correlations</i>				
	<i>Total</i>		Target sex	<i>Experimental groups</i>						
	Implicit motives			Affiliation		Affiliation				
	Affiliation	Power		(1) Female	(2) Male	1	2	3	4	5
1. Likability	5.16 (0.97)	3.56 (1.36)		5.10 (1.00)	5.22 (0.94)	—	.514**	.480**	.247**	.228**
2. Competence	4.74 (1.04)	5.03 (1.01)		4.80 (1.02)	4.68 (1.06)	.419**	—	.778**	.428**	.368**
3. Leader evaluations	4.84 (1.00)	4.52 (1.14)		4.80 (0.97)	4.89 (1.03)	.593**	.711**	—	.508**	.440**
4. Tenure (log)	0.61 (0.22)	0.58 (0.23)		0.60 (0.23)	0.63 (0.22)	.316**	.405**	.530**	—	.289**
5. Financial performance	6.05 (1.65)	6.26 (1.52)		6.13 (1.56)	6.22 (1.60)	.159*	.308**	.324**	.292**	—

Table 5.3 (Continued)

Means, Standard Deviations, and Correlations Among Dependent Measures

Variable	<i>M (SD)</i>					<i>Pearson bivariate correlations</i>				
	<i>Total</i>		Target sex	<i>Experimental groups</i>						
	Target sex			Power		Power				
	Female	Male		(3) Female	(4) Male	1	2	3	4	5
1. Likability	4.36 (1.37)	4.33 (1.49)		3.66 (1.31)	3.46 (1.41)	—	.444**	.607**	.319**	.061
2. Competence	4.92 (1.03)	4.85 (1.04)		5.05 (1.02)	5.01 (1.00)	.424**	—	.682**	.401**	.254**
3. Leader evaluations	4.71 (1.06)	4.65 (1.11)		4.62 (1.14)	4.42 (1.15)	.464**	.684**	—	.502**	.234**
4. Tenure (log)	0.60 (0.24)	0.60 (0.23)		0.60 (0.25)	0.57 (0.24)	.191**	.362**	.382**	—	.264**
5. Financial performance	6.12 (1.58)	6.20 (1.59)		6.14 (1.57)	6.41 (1.46)	.162*	.332**	.410**	.192**	—

Note. $N = 922$. Means and standard deviations (in parentheses) among the dependent variables for affiliation motivation ($n = 453$), power motivation ($n = 469$), female CEOs ($n = 463$), and male CEOs ($n = 459$) and means, standard deviations (in parentheses), and correlations (*male CEOs in italics*) across four experimental groups, whereby group (1) $n = 227$, group (2) $n = 226$, group (3) $n = 236$, and group (4) $n = 233$. Tenure (log) refers to the logarithm of the years of recommended tenure for the CEO.

* $p < .05$ ** $p < .001$.

Table 5.4

MANOVA Main and Interaction Effects for Implicit Motives and Target Sex

Variable	Implicit motives					Target sex					Implicit motives × Target sex				
	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>	η_p^2	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>	η_p^2	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>	η_p^2
Likability	400.03**	1	892	.000	.310	.11	1	892	.74	.000	4.82*	1	892	.028	.005
Competence	16.89**	1	892	.000	.019	1.19	1	892	.276	.001	.41	1	892	.524	.000
Leader evaluations	19.69**	1	892	.000	.022	.51	1	892	.475	.001	3.96*	1	892	.047	.004
Tenure recommendations (log)	3.74†	1	892	.054	.004	.01	1	892	.956	.000	5.01*	1	892	.026	.006
Financial performance	3.49†	1	892	.062	.004	.61	1	892	.434	.001	3.16†	1	892	.076	.004

Note. $N = 922$. MANOVA results of 2×2 factorial model with the independent variables Implicit Motives and Target Sex.

† $p < .1$ * $p < .05$ ** $p < .001$.

Table 5.5

ANOVA Main and Interaction Effects for Implicit Motives and Target Sex

Variable	Implicit motives					Target sex					Implicit motives × Target sex				
	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>	η^2_p	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>	η^2_p	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>	η^2_p
Likability	421.19**	1	918	.000	.315	.17	1	918	.683	.000	4.2*	1	918	.041	.005
Competence	18.41**	1	918	.000	.020	1.28	1	918	.259	.001	.37	1	918	.543	.000
Leader evaluations	20.66**	1	918	.000	.022	.71	1	918	.400	.001	4.17*	1	918	.042	.005
Tenure recommendations (log)	3.86†	1	897	.050	.004	.04	1	897	.838	.000	5.27*	1	897	.022	.006
Financial performance	4.23*	1	911	.040	.005	.56	1	911	.453	.001	3.59†	1	911	.059	.004

Note. $N = 922$. ANOVA results of 2×2 factorial model with the independent variables of Implicit Motives and Target Sex.

† $p < .1$ * $p < .05$ ** $p < .001$.

Preliminary Analysis

Crosstabulation indicated that the study had a balanced design, with participants being equally distributed across experimental manipulations (Table 5.2). Overall descriptive statistics, as well as descriptive statistics and correlations of the four experimental conditions, are shown in Table 5.3. To protect against the possibility of a Type I error from running multiple pairwise comparisons and to test the assumption that there would be one or more mean differences between Implicit Motives (power, affiliation) and Target Sex (male, female) and the outcomes variables, a multivariate analysis of variance (MANOVA) was performed in SPSS. As shown in Table 5.4, the MANOVA revealed significant main effects of Implicit Motives, Pillai's Trace = .41, $F(5, 888) = 124.61$, $p < .001$, $\eta_p^2 = .412$, on perceived likability ($p < .001$), competence ($p < .001$), leader evaluation ratings ($p < .001$), but not for tenure recommendations ($p = .054$) and evaluations of financial performance ($p = .062$). Furthermore, the MANOVA showed that Target Sex did not significantly contribute to the model and that it did not predict any of the leader outcomes, Pillai's Trace = .01, $F(5, 888) = .54$, $p = .743$, $\eta_p^2 = .003$. However, the interaction term between Implicit Motives and Target Sex did significantly contribute to the model, Pillai's Trace = .03, $F(5, 888) = 4.8$, $p < .001$, $\eta_p^2 = .026$. Specifically, Implicit Motives and Target Sex significantly interacted to predict perceived likability ($p = .028$), leader evaluation ratings ($p = .047$), and tenure recommendations ($p = .026$). However, perceived competence ($p = .524$) and evaluations of financial performance ($p = .076$) were not predicted by the interaction term.

To test our specific hypotheses, a series of analyses of variances (ANOVAs) and simple effects analyses were conducted in SPSS. Prior to hypotheses testing, homogeneity of variances was examined using the Levene's F test for each planned ANOVA. While the Levene's tests for likability, $F(3, 918) = 22.23$, $p < .001$, and leader evaluation ratings, $F(3, 918) = 4.18$, $p = .006$, turned out statistically significant, suggesting heterogeneity, a closer inspection of standard deviations showed that none of the largest standard deviations were more than four times as large as the smallest standard deviation, which, according to Howell (2009) makes the ANOVA sufficiently robust for inferential analyses.

Main Analysis

As Table 5.5 shows, supporting Hypothesis 1, Implicit Motives had a significant main effect on perceived likability, $F(1, 918) = 421.19$, $p < .001$, $\eta_p^2 =$

.315. CEOs who expressed affiliation motivation ($M = 5.16$; $SD = 0.97$) were liked better than CEOs who expressed power motivation ($M = 3.56$; $SD = 1.36$).

Supporting Hypothesis 2, Implicit Motives had a significant main effect on perceived competence, $F(1, 918) = 18.41$, $p < .001$, $\eta_p^2 = .02$. CEOs who expressed power motivation ($M = 5.03$; $SD = 1.01$) were perceived as more competent than CEOs who expressed affiliation motivation ($M = 4.74$; $SD = 1.04$).

Implicit Motives also had a significant main effect on leader evaluation ratings, $F(1, 918) = 20.66$, $p < .001$, $\eta_p^2 = .022$. However, contrary to expectations, CEOs who expressed affiliation motivation ($M = 4.84$; $SD = 1.00$) received more favorable leader evaluations than CEOs who expressed power motivation ($M = 4.52$; $SD = 1.14$). Thus, Hypothesis 3a was rejected.

Furthermore, with $p = .05$, Implicit Motives are at the cut-off of reaching statistical significance for tenure recommendations, $F(1, 897) = 3.86$, $p = .05$, $\eta_p^2 = .004$, likely driven by strong statistical power. CEOs who expressed power motivation ($M = 0.61$; $SD = 0.22$) marginally differed from CEOs who expressed affiliation motivation ($M = 0.58$; $SD = 0.23$). Moreover, with affiliation-motivated CEOs receiving slightly higher tenure recommendations, results took an unexpected direction. Thus, Hypothesis 3b was rejected.

Supporting Hypothesis 3c, Table 5.5 further demonstrates that Implicit Motives had a significant main effect on evaluations of financial performance, $F(1, 911) = 4.23$, $p = .04$, $\eta_p^2 = .005$. CEOs who expressed power motivation ($M = 6.26$; $SD = 1.52$) received better financial performance ratings than CEOs who expressed affiliation motivation ($M = 6.05$; $SD = 1.65$).

Hypothesis 4 examined a double standards for competence effect for female versus male leaders. However, no main effect of Target Sex for perceived competence in male CEOs ($M = 4.85$; $SD = 1.04$) versus female CEOs ($M = 4.92$; $SD = 1.03$) was observed, $F(1, 918) = 1.28$, $p = .259$, $\eta_p^2 = .001$. Therefore, Hypothesis 4 was rejected.

Hypothesis 5 examined a potential social backlash in form of a dominance penalty resulting in reduced perceived likability towards female power-motivated CEOs. As illustrated in Figure 5.3, findings showed a significant interaction between Implicit Motives and Target Sex for perceived likability, $F(1, 918) = 4.2$, $p = .041$, $\eta_p^2 = .005$. However, simple effects analysis of significant Implicit Motives and Target Sex interactions showed that while power-motivated female CEOs ($M = 3.66$;

$SD = 1.31$) were indeed less liked than affiliation-motivated female CEOs ($M = 5.10$; $SD = 1.00$), $F(1, 918) = 171.37$, $p < .001$, $\eta_p^2 = .157$, they were not liked less than power-motivated male CEOs ($M = 3.46$; $SD = 1.41$), $F(1, 918) = 3.08$, $p = .08$, $\eta_p^2 = .003$. Therefore, Hypothesis 5 was partially supported.

Hypothesis 6a examined a potential economic backlash in form of a dominance penalty resulting in reduced leader evaluations towards female power-motivated CEOs. Findings showed a significant interaction between Implicit Motives and Target Sex for leader evaluations, $F(1, 918) = 4.17$, $p = .042$, $\eta_p^2 = .005$. However, contrary to expectations, we observed that power-motivated female CEOs ($M = 4.62$; $SD = 1.14$) did not receive worse leader evaluation ratings than affiliation-motivated female CEOs ($M = 4.80$; $SD = 0.97$), $F(1, 918) = 3.45$, $p = .076$, $\eta_p^2 = .003$. Unexpectedly, power-motivated women were evaluated more favorably than power-motivated men ($M = 4.42$; $SD = 1.15$), $F(1, 918) = 4.23$, $p = .04$, $\eta_p^2 = .005$, supportive of the EVT perspective rather than our backlash prediction.

Hypothesis 6b examined a potential economic backlash in form of a dominance penalty resulting in shorter tenure recommendations towards power-motivated CEOs. The findings indeed showed a significant interaction between Implicit Motives and Target Sex for tenure recommendations, $F(1, 897) = 5.27$, $p = .022$, $\eta_p^2 = .006$. However, power-motivated female CEOs ($M = 0.60$; $SD = 0.25$) were neither recommended shorter tenures than affiliation-motivated female CEOs ($M = 0.60$; $SD = 0.23$), $F(1, 897) = .05$, $p = .814$, $\eta_p^2 = .000$, nor than power-motivated male CEOs ($M = 0.57$; $SD = 0.24$), $F(1, 897) = 3.21$, $p = .073$, $\eta_p^2 = .004$. Therefore, Hypothesis 6b was rejected.

EFFECTS OF MOTIVES AND GENDER ON CEO EVALUATIONS

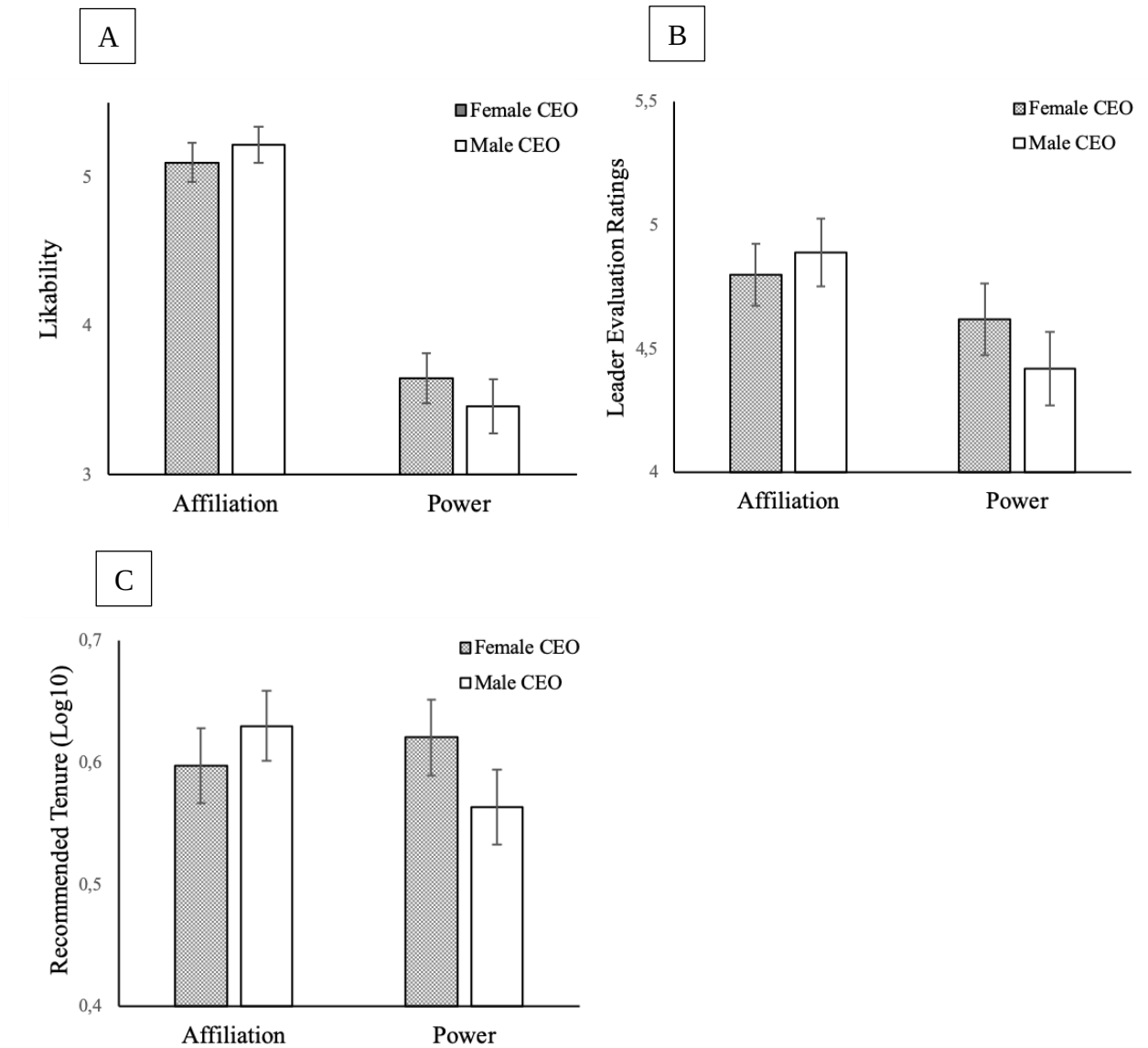


Figure 5.3. Bar plots of Implicit Motives (Affiliation, Power) and Target Sex (Male, Female) with 95% confidence intervals for the dependent measures of (A) likability, (B) general leader evaluation ratings, and (C) the natural logarithm of tenure recommendations.

Hypothesis 6c examined a potential economic backlash in the form of a dominance penalty for power-motivated female CEOs in their financial performance ratings. However, as the findings did not show any significant interaction between Implicit Motives and Target Sex for financial performance ratings, $F(1, 911) = 3.59$, $p = .059$, $\eta^2_p = .004$, Hypothesis 6c was rejected.

Hypothesis 7 examined a potential social communality bonus for affiliation-motivated male CEOs in their perceived likability. As illustrated in Figure 5.3, findings showed a significant interaction between Implicit Motives and Target Sex for perceived likability, $F(1, 918) = 4.2$, $p = .041$, $\eta^2_p = .005$. When examining the direction of this interaction, we observed that affiliative men received the most favorable evaluations of perceived likability among all four experimental conditions. However, simple effects analysis of significant Implicit Motives and Target Sex interactions showed that while affiliation-motivated male CEOs ($M = 5.22$; $SD = 0.94$) were significantly better liked than power-motivated male CEOs ($M = 3.46$; $SD = 1.41$), $F(1, 918) = 253.68$, $p < .001$, $\eta^2_p = .217$, they were not better liked than affiliation-motivated female CEOs ($M = 5.10$; $SD = 1.00$), $F(1, 918) = 1.32$, $p = .25$, $\eta^2_p = .001$. Therefore, Hypothesis 7 was partially supported.

Hypothesis 8a examined a potential economic communality bonus for affiliation-motivated male CEOs in their leader evaluations. Findings showed a significant interaction between Implicit Motives and Target Sex for leader evaluations, $F(1, 918) = 4.17$, $p = .042$, $\eta^2_p = .005$. Although, affiliation-motivated male CEOs ($M = 4.89$; $SD = 1.03$) received significantly better leader evaluation ratings than power-motivated male CEOs ($M = 4.42$; $SD = 1.15$), $F(1, 918) = 21.56$, $p < .001$, $\eta^2_p = .023$, they did not significantly differ from affiliation-motivated female CEOs ($M = 4.80$; $SD = 0.97$), $F(1, 918) = .71$, $p = .401$, $\eta^2_p = .001$. Therefore, Hypothesis 8a was partially supported.

Hypothesis 8b examined a potential economic communality bonus for affiliation-motivated male CEOs in their tenure recommendations. Findings indeed showed a significant interaction between Implicit Motives and Target Sex for tenure recommendations, $F(1, 897) = 5.27$, $p = .022$, $\eta^2_p = .006$. Affiliation-motivated male CEOs ($M = 0.63$; $SD = 0.22$) were recommended significantly longer tenures than power-motivated male CEOs ($M = 0.57$; $SD = 0.24$), $F(1, 897) = 9.02$, $p = .003$, $\eta^2_p = .002$, but not than affiliation-motivated female CEOs ($M = 0.60$; $SD = 0.23$), $F(1, 897) = 2.13$, $p = .145$, $\eta^2_p = .002$. Therefore, Hypothesis 8b was partially supported.

Hypothesis 8c examined a potential economic communality bonus for affiliation-motivated male CEOs in their financial performance ratings. However, as the findings did not show any significant interaction between Implicit Motives and Target Sex for financial performance ratings, $F(1, 911) = 3.59, p = .059, \eta^2 = .004$, Hypothesis 8c was rejected.

Participant Sex effects. The present research did not include specific hypotheses about Participant Sex effects. Nevertheless, for matters of completeness, analyses are reported in the endnotes [5,6].

Discussion

Bias and discrimination in the form of social and economic penalties towards atypical female leaders routinely interfere with women's career advancement and leader success (Phelan & Rudman, 2010); Rudman, 1998; Rudman, Moss-Racusin, Phelan, et al., 2012). Specifically, due to the incongruity between their female gender role and agentic leadership role, female leaders often face a *double bind* or *Catch-22*: If women are highly communal, they may be criticized for not being agentic enough. However, if women are highly agentic, they may be criticized for lacking communion. Either way, they may leave the impression that they don't have "the right stuff" for powerful jobs (Eagly & Carli, 2007b). Men also have been discriminated against in the past for violating agency requirements by displaying gender-atypical feminine traits such as modesty or other-advocacy (Bosak et al., 2018; Moss-Racusin et al., 2010; Phelan et al., 2008).

Nevertheless, atypical behavior does not always result in bias and discrimination. Instead, under certain conditions, not conforming to gender-stereotypical expectations has been found to reverse backlash into a social or economic bonus (Hentschel et al., 2018). Likewise, some empirical evidence has suggested that female leaders are evaluated with a negative double standard in terms of having to meet stricter competence requirements than their male counterparts in order to be successful in leadership (Foschi, 1992, 2000). Yet, if women were able to overcome these stricter evaluation standards successfully (e.g., by successfully advancing into CEO positions), researchers have found that the double standard transforms into an advantage whereby women are seen as exceptionally competent (Rosette & Tost, 2010).

To date, however, no research has addressed these inconsistent findings in the context of implicit motives, which were found to be critical antecedents of leadership

(Delbecq et al., 2013). Consequently, knowledge is lacking on whether evaluative biases towards atypical CEOs who display gender-incongruent implicit motives manifest in a male or female leader advantage.

To understand better the consequences of gender-violations in the expressions of implicit power and affiliation motives, the present research thus set out to investigate (a) how agentic and communal implicit motives affect leader outcomes; and (b) whether male and female CEOs with gender-(in)congruent implicit motives are evaluated differently using a large sample of Business and Finance students who functioned as proxy-shareholders.

Implicit Motives Effects

Concerning implicit motives, the study found that they indeed influenced leader perceptions and outcomes. More specifically, the results of the analysis showed that supporting current predictions, affiliation-motivated CEOs were perceived as more likable than power-motivated CEOs. As expected, expressions of power motivation also caused CEOs to be perceived as more competent. Furthermore, in line with expectations, power-motivated CEOs received higher ratings of financial performance than affiliation-motivated CEOs. Unexpectedly, however, affiliation-motivated CEOs received higher leader evaluation ratings from their proxy-shareholders and longer tenure recommendations than power-motivated CEOs.

In line with recent theorizing of Spangler et al. (2014), these findings suggest that affiliative displays are relevant for the evaluation of leaders in contemporary organizations and challenge the general assumption that affiliation motivation is detrimental for leadership (e.g., McClelland & Boyatzis, 1982). More than just being perceived as nice and friendly, leaders' affiliation motivation translates into generally favorable evaluations of leaders and elicits positive leader outcomes. There are several possible explanations for this finding.

First, results could possibly reflect a secular trend in leadership, deemphasizing strongly hierarchical organizational structures and leadership styles in favor of flatter organizational structures and more considerate and supportive leadership styles (Burnham, 1997; Eagly & Sczesny, 2009). With displays of care and compassion, affiliation motivation may be an antecedent of considerate leader behaviors (Boyatzis et al., 2006) whereby affiliative helping may reflect a benign form of influence (Steinmann et al., 2015).

Second, the shareholder context represents a setting in which establishing and maintaining relationships is of great importance in order to gain shareholders' trust and continued investment. The behavioral manifestation of affiliation motivation corresponds with behaviors that foster relationship-building (Duncan & Peterson, 2010; Winter, 1991a). Furthermore, research by Vial and Napier (2018) have shown that leader role expectations have become "more" feminine over time with an increased focus on communal characteristics such as collaboration, empathy, and compassion. In the present research, affiliation motivation strongly correlated with perceptions of communality, which further emphasizes the strong conceptual overlap of these two constructs.

Gender Effects

Concerning a double standard for competence towards female CEOs (Foschi, 1992, 2000), the present research found that women are perceived as equally competent as men. This finding differs from research showing that high-level female leaders were evaluated more favorably than high-level male leaders and male and mid-level female leaders (Rosette & Tost; 2010). Whilst this result does not support current predictions following from the double standards for competence model, it aligns with recent research from Eagly et al. (2019) who have found that gender stereotypes towards women's lower perceived competence have disappeared. In fact, changes in gender stereotypes about men's and women's competence could explain the absence of a competence bonus. In particular, if men and women are generally perceived to be equally competent, women should no longer have to overcome stricter competence requirements than men. As a result, women who have succeeded in advancing into executive leadership roles should likewise not be perceived as exceptionally competent.

Backlash Effects Against Atypical Female CEOs

Concerning backlash against power-motivated female CEOs, this study has built on RCT (Eagly & Karau, 2002) and the backlash literature (Rudman, 1998; Rudman, Moss-Racusin, Phelan, et al., 2012), and hypothesized that female CEOs experience a dominance penalty, that is, they are evaluated less favorably than affiliation-motivated female CEOs and power-motivated male CEOs. Statistical analyses showed significant interactions between CEOs' implicit motives and gender for perceptions of likability, leader evaluation ratings, and tenure recommendations.

However, when decomposing the interaction terms, only leader evaluation ratings revealed a significant main effect of CEOs' gender.

However, contrary to expectations, power-motivated female CEOs were evaluated more favorably than power-motivated male CEOs. This finding is inconsistent with research showing that agentic female leaders risk more social and economic penalties than agentic male leaders (Heilman & Okimoto, 2007; Heilman, Wallen, Fuchs, & Tamkins, 2004; Parks-Stamm, Heilman, & Hearn, 2008; Rudman, 1998; Rudman & Glick, 1999, 2001) due to their display of counter-stereotypical (agentic), and status-threatening behaviors (Rudman, Moss-Racusin, Phelan, et al., 2012). Instead, present findings align with the EVT perspective, which suggests that the direction of leaders' evaluation depends on the valence of the counter-stereotypical violation (Jussim et al., 1987). Schauberg and Flynn (2017) provided support for this theoretical perspective and have shown that if female leaders display counter-stereotypical traits (i.e., self-reliance) in unexpected, yet positive ways, they experience a female leader advantage. Furthermore, Hentschel et al. (2018) have found unexpected support for the EVT perspective, suggesting that gender vanguards are evaluated more favorably than gender conformists. In particular, Hentschel et al. (2018) found that autocratic female leaders were evaluated more favorably than autocratic male leaders. Moreover, Luthar (1996) observed gender contrast effects whereby autocratic female leaders received higher performance evaluations than autocratic male managers.

Taken together, evidence for women's better evaluations following the display of counter-stereotypical motives, traits, or behaviors is accumulating. However, one central theme of EVT is that gender vanguards would be evaluated more positively than gender conformists *if* their behavior is perceived as unexpectedly positive. Both Luthar's (1996) and Hentschel et al.'s (2018) studies have examined autocratic leadership. Given that autocratic leadership is generally perceived as rather undesirable than desirable, their findings are especially surprising (Hentschel et al., 2018). Thus, future research should more closely investigate what (and under which conditions) stereotypical violations are perceived as positive versus negative. One starting point for this investigation is integrating EVT with research on the SIH, which has specified what traits are considerably pre- and proscribed and how strongly men and women's pre- and proscriptive traits are associated with status. An investigation of Rudman, Moss-Racusin, Phelan, et al.'s (2012)

proscriptive gender stereotypes suggests that the traits that are considered particularly undesirable for women are primarily comprised of dominance-related attributes, which were also associated with high status. In this particular research study, power motivation strongly correlated with perceived dominant traits; therefore, it is surprising that power motivation itself is perceived favorably in women by participants.

One possible explanation for the surprising finding of a *female power bonus* might be rooted in the shareholder context of the present study. Unlike classic leader-follower relationships, the relationship between CEOs and shareholders is characterized by its parties' mutual dependence. On the one hand, shareholders have a certain power over the CEO through their voting rights of the board of directors, which, in turn, appoints and dismisses the CEO (Bhagat & Brickley, 1984). On the other hand, the shareholder value, that is, the number of dividends paid to investors partly depends on company performance and its CEO (Azhagaiah & Priya, 2008; Hambrick & Quigley, 2014). Drawing on research regarding the negotiation performance of men and women (Amanatullah & Morris, 2010), we argue that certain conditions allow the expression of dominance among women. Amanatullah and Morris (2010), for example, found that women achieve better negotiation outcomes when they *advocate on behalf of others* than when they advocate on their own behalf. Likewise, Bowles, Babcock, and McGinn (2005) found that female negotiators do not face punishments when they display dominance on behalf of others, which conforms to communality prescriptions and is thus congruent with the female gender role. Thus, we reason that by expressing power motivation, women may be perceived as exerting influence on behalf of their proxy-shareholders, who in turn, interpret their power as a positive violation or even as conforming to communal prescriptions for their gender role (similar to the concepts of socialized or resourceful power (e.g., Chusmir, 1986; Jacobs & McClelland, 1994; McClelland & Boyatzis, 1982).

Bonus Effects Towards Atypical Male CEOs

Moreover, the study drew on EVT and hypothesized that men's expressions of affiliation motivation would be interpreted as an unexpected positive violation and, therefore, should lead to more favorable evaluations of their leadership (i.e., *male communality bonus*). As the male gender stereotype is associated with lower communality than the female gender stereotype, their standard to be perceived as

communal should be lower than the standard of women (Hentschel et al., 2018). Following the EVT perspective, affiliation-motivated men should exceed communality expectations and should, therefore, be perceived more favorably and receive better evaluations than power-motivated men or affiliation-motivated women.

Statistical analyses indeed showed significant interactions between CEOs' implicit motives and gender for perceptions of likability, leader evaluation ratings, and recommended tenure. In decomposing the interaction terms, this study found that while affiliation-motivated male CEOs were indeed perceived as more likable, received better general leader evaluations, and longer tenure recommendations than power-motivated male CEOs, they were not perceived as more likable, received better general leader evaluations, and longer tenure recommendations than affiliation-motivated female CEOs. Thus, the present research partially supports the EVT perspective. This finding is inconsistent with research showing that communal men risk more social and economic penalties than communal women (e.g., Bosak et al., 2018; Moss-Racusin et al., 2010) due to their display of counter-stereotypical (communal) traits which might trigger a perceived absence of agency.

Instead, present findings partly align with past research by Hentschel et al. (2018), who found that male transformational leaders were perceived as more effective than male autocratic leaders. Furthermore, Shaughnessy, Mislin, and Hentschel (2015) found that men who show communality in negotiations through engaging in small-talk were liked better, seen as more cooperative, and received higher relational satisfaction ratings than men who did not engage in communal small-talk. Moreover, Heilman and Chen (2005) found that men who engaged in communal behavior through helping a colleague received more favorable recommendations than men who did not display communion through helping. Even though the present research does not provide support for a communality bonus of affiliation-motivated male CEOs over affiliation-motivated female CEOs, current findings nevertheless reject the idea of a potential backlash against gender-atypical men. Instead, present findings suggest that communal male CEOs are viewed as deserving of social and economic rewards more than agentic male CEOs.

Research Contributions

Even though researchers have long been interested in the motivation of leaders, little is known about how CEOs' implicit motives affect the shareholders'

evaluations. In fact, the few studies that have investigated the relationship of leaders' implicit motives and other-perceptions have mostly focused on their followers, that is, their subordinates. This research contributes to the literature by offering a novel perspective to an understudied relationship by investigating next-generation shareholders' evaluation of the CEOs' power- or affiliation-imagery in the letter to their shareholders. Thereby, the present study offers new empirical evidence to the debated question of how power and affiliation motivation relate to important leader outcomes.

Albeit a bulk of research on gender biases in the leadership context exists, the directions and contingencies of evaluative biases are still debated in scientific discourse (e.g., Eagly, 2007; Eagly & Carli, 2003; Vecchio, 2002, 2003). In order to better understand the manifestations of these biases, Hentschel and colleagues (2018) have called for research to assess the circumstances and types of evaluations under which a male or female leader advantage unfolds. Addressing this call, the present study has made three important contributions:

First, the study contributed to the scarce literature on the effects of implicit motives on evaluations of male and female CEOs. While implicit motives research has a long tradition in the field of organizational psychology, past research largely (a) examined the general population, employees, lower-level managers, and political leaders, with few known studies, addressing the effect of implicit motives in the upper echelons of organizations, specifically in the CEO context (for exceptions see Chusmir & Azevedo, 1992; Delbecq et al., 2013; De Hoogh, Den Hartog, Koopman, et al., 2005; Kirkpatrick et al., 2002; Veenstra, 2013); and (b) used samples with unbalanced gender ratios due to women's historic underrepresentation at work and ongoing underrepresentation in leadership positions (Catalyst, 2019, 2020a; OECD, 2019). The present research has addressed these limitations by utilizing an experimental power and affiliation vignette reflective of Winter's (1994) implicit motives scoring definitions. With the goal to unravel how motivational expressions influence other-ratings of top managers, this study has added to the existing knowledge derived from mostly projective measures. Second, by examining gender role-congruent and -incongruent motivational expressions of both female *and* male CEOs, this study has addressed the call for more research on potential backlash reactions towards not only atypical women but also atypical men (Moss-Racusin et al., 2010). Third, this research contributed to refining our understanding of the

circumstances under which a male or female leader advantage unfolds in relation to both social and economic outcomes.

Limitations and Future Research

While the current experimental research design demonstrates good internal validity by controlling the effects of the explanatory variables—implicit motives and CEO gender—on other-evaluations of leadership, the study is limited in its ecological validity, that is, its ability to similarly predict outcomes in real-life situations. Nevertheless, we argue that the current design approximates realities in the CEO-shareholder relationship by adapting experimental vignettes from existing, publicly available annual reports (Atzmüller & Steiner, 2010). By presenting fictional KPIs and manipulating implicit motives adapted from real CEO letters, the present study increased the face validity of the experimental design.

A second limitation relates to the use of students as proxy-shareholders. However, as essentially everybody with purchasing power can become a common shareholder of an organization, we argue that with their background in Business and Finance as well as their strong self-indicated interest to purchase shares in the future, the present participants may be regarded as next-generation shareholders. Nevertheless, this study recommends a future investigation into how implicit motives and gender affect the evaluations of actual shareholders in a naturalistic design to hone practical contributions for leader communications and investor relations.

Implications

This research has several practical implications concerning the relationship between CEOs and their shareholders.

First, this study provides valuable first insights into the cognitive frames and evaluative biases of next-generation shareholders. Much like in the experimental vignette study, the relationship between CEOs and shareholders is characterized by its parties' relative distance, which limits shareholders' options for personal appraisal. Thus, even in the natural shareholder context, KPIs, shareholder meetings, media coverage, and annual company reports, including CEO letters, summarize the few resources investors can draw upon to form a judgment of a company and its CEO. The CEO letter, in particular, might represent the most personal and direct communication in the CEO-shareholder relationship, as it aims to communicate the company's past performance and the leader's strategic vision (Costa, Oliveira, Rodrigues, & Craig, 2013). Antonakis and Atwater (2002) claim that "although our

current understanding of leadership is quite broad, we still do not understand the fundamental processes undergirding the influencing effect of leadership” (p. 674). More specifically, they critique that psychological investigation largely focuses on dyadic relationships between followers and their direct supervisors, while leaving other forms of leadership unattended. One of these under-researched areas constitutes the CEO-shareholder relationship.

Similar to political leadership, CEO leadership occurs at a distance, with followers who are not directly subordinated to the leaders but instead hold an indirect power over the leaders through elections and board appointments. We agree with Antonakis and Atwater (2002) and argue that increased use of interdisciplinary literature (particularly in the fields of political science on distal leaders) has the potential to advance the understanding of how leaders’ implicit motives affect the evaluations by followers and other stakeholders, such as investors. By unraveling what evaluative biases play a role in the CEO-shareholder relationship, the present study has important practical implications to the fields of management and investor relations and gives first insights into what motivational expressions yield favorable or unfavorable evaluations, which may translate into economic bonuses or penalties such as the decision to buy, keep, or sell stocks.

Second, the finding that affiliation motivation and power motivation predict different leader outcomes has valuable implications for motivation and leadership researchers. More specifically, this finding suggests two important issues that can advance the theoretical understanding of the role of implicit motives in leadership: (A) Affiliation motivation does not only seem to benefit CEOs’ social evaluations in terms of increased perceived likability but also translates to economic outcomes that are directed towards the CEO as an individual. Power motivation, however, predicts CEOs’ perceived competence but does not seem to influence personal leader evaluations per se. Instead, it predicts the more “distal” leader outcome of financial performance ratings. This suggests that affiliation and power motivation might function differently in affecting other-evaluations of leadership. (B) The strong correlations between affiliation with likability, and likability with leader evaluations and tenure recommendations might suggest that perceptions of likability could mediate the relationship between affiliation and economic leader outcomes, such that affiliation-motivated leaders receive better leader outcomes as they are liked better.

The same rationale would apply for the relationship among power motivation, perceived competence, and financial performance ratings.

Third, this research has important practical implications for women and men in CEO roles who seek to write letters to their shareholders. While CEOs who displayed affiliation motivation were perceived as more likable and received better leader evaluations as well as longer tenure recommendations than CEOs who displayed power motivation, the latter CEOs were perceived as more competent and received higher financial performance ratings. Knowing how implicit motives relate to different leader outcomes can support CEOs to improve their strategic communication with their shareholders. Strategic communication training can help CEOs to better adjust their motivational expression to their explicit goals or organizational vision (Hallahan, Holtzhausen, van Ruler, Verčič, & Sriramesh, 2007; Rowley Mayfield, Mayfield, & Kopf, 1998). On a deeper level, CEOs may benefit from motive training, which can facilitate self-awareness of their inner drives and increase their motivational competence by promoting the congruence of implicit motives and leaders' motivational self-concept (see Rheinberg & Engeser, 2010). In contrast to more surface-level behavioral communication training, deep-level motive training has the potential to create more lasting change. However, this change may not necessarily relate to changes in implicit motives per se, but rather to changes in the way they are enacted and embedded in their leadership through congruency effects. In fact, past research by Langens and McClelland (1997), has suggested that congruency between explicit traits and implicit motives is associated with better mood and increased well-being, whereas Hofer, Chasiotis, and Campos (2006) observed that congruence between individuals' implicit affiliation motivation with explicit affiliation-oriented values increased their life satisfaction. While future research is needed to determine if increased well-being and life satisfaction would also translate into tangible enhancements of leader effectiveness, given their high-pressure roles and responsibilities, improving CEOs' psychological well-being generally reflects a critical positive implication in its own right.

Fourth, this study has important practical implications for male and female executives, and potentially for men and women in general who work in gender-incongruent occupations or struggle with violating gender norms in the workplace. Even though overall, affiliation-motivated leaders were evaluated better and received longer tenure recommendations than power-motivated leaders, power-motivated

female CEOs were still evaluated significantly better, and received significantly longer tenure recommendations than power-motivated male CEOs, while affiliation-motivated male CEOs were evaluated slightly but not significantly better than affiliation-motivated female CEOs.

In line with EVT (Jussim et al., 1987), this finding suggests that displaying gender-atypical behaviors is not necessarily penalized. The present research context specifically focuses on a situation in which CEOs aim to attain organizational goals. To facilitate the achievement of this aim, fictional CEOs “utilized” two contrasting motivational strategies (affiliation versus power). Despite their differential emphasis on communal goals and agentic goals, both CEO letters were characterized by a focus on increasing shareholder benefits through improving the organization. It is, therefore, likely that it is the focus on *other-advocacy* versus *self-advocacy* that leads perceivers to evaluate certain counter-stereotypical traits as positively rather than negatively. Since prior research has established other-advocacy as being in line with prescriptions for communion for women, and self-advocacy as being in line with prescriptions for agency for men (e.g., Amanatullah & Morris, 2010, Bowles, et al., 2005), female leaders can benefit from framing their communication with their critical evaluators in ways that emphasizes benefits to others rather than the self. Furthermore, displaying power on behalf of others versus the self closely resembles Chusmir’s (1986) definition of socialized versus personalized power (Wade, 2001). In analyzing these two sub-types of power, Chusmir (1986) found that (a) women were more likely to enact socialized power than men; and (b) “leaders with higher needs for socialized versus personalized power were stronger assets to organizations” (Wade, 2001, p. 74). While there is evidence suggesting that men should be more concerned with self-advocacy than women (Wade, 2001) in the context of salary negotiations, and that men receive backlash for displaying other-advocating behaviors (Bosak et al., 2018), this penalty may not translate to a context in which the critical beneficiary of CEOs’ behavior is also their critical evaluator. This proposition, however, should be examined in future research comparing and contrasting affiliation- and power-oriented CEO letters directed at achieving personal versus organizational goals.

Conclusion

The present study extends our knowledge on the impact of both implicit motives and gender on leadership evaluations (Delbecq et al., 2013; Eagly & Karau,

2002). By providing experimental evidence, this study has shown that despite identical financial performance, expressions of affiliation motivation and power motivation have different consequences for male and female CEOs, with power-motivated men generally receiving the least favorable leader evaluation ratings from their proxy-shareholders. In line with the EVT perspective, the study also found an unexpected contrast effect, indicating a power bonus in general leader evaluations for female gender vanguards. The field will benefit from future research addressing the causal pathways of shareholder evaluations towards male and female CEOs with different implicit motives.

Footnotes

[5.1] This research adopts the term gender vanguard to describe “individuals who demonstrate gender-atypical skills and behavior” (Bosak et al., 2018, p. 156) and gender conformists to describe individuals who demonstrate gender-typical skills and behavior.

[5.2] Depending on the operationalization of power, research as also differentiated responsible and profligate power (e.g., Winter, 1991a), or resourceful and reactive power (e.g., Jacobs & McClelland, 1994).

[5.3] and activity inhibition, that is, people’s ability to restrain their motivational impulses, or in other words, their ability to self-control (Schultheiss & Brunstein, 2010).

[5.4] To verify that participants paid attention to the questions’ content, two attention checks were incorporated in the study (“If you read this, please select 7 (1)”). Participants who failed both attention checks were excluded from the study. To validate that the CEO gender manipulation is working, participants were asked to indicate the sex of the CEO at the end of the study.

[5.5] Perceived prescriptive and proscriptive gender stereotypes were measured by means of the agency index, communality index, weakness index, and dominance index adapted from Rudman, Moss-Racusin, Phelan, et al. (2012). The agency index measured prescriptive gender stereotypes for men and included the traits career-oriented, leadership ability, assertive, and ambitious ($\alpha = .645$). The communality index measured prescriptive stereotypes for women and included the traits warm, sensitive to the needs of others, cooperative, and friendly ($\alpha = .922$). The weakness index measured proscriptive gender stereotypes for men and included the traits weak, emotional, naïve, and uncertain ($\alpha = .59$). The dominance index measured proscriptive gender stereotypes for women and included the traits dominating, intimidating, ruthless, and controlling ($\alpha = .924$). All items were measured on a 5-point scale ranging from 1 = *not at all* to 5 = *very*.

[5.6] Even though this study does not include explicit hypotheses about participant effects, we additionally performed an exploratory $2 \times 2 \times 2$ ANOVA to examine if men and women differ in their perceptions about CEOs who express gender-(a)typical Implicit Motives (Lawson & Lips, 2014). While few backlash studies have observed such effects, investigating potential Participant Sex relations is recommended by scholars in the field (Bosak, Kulich, et al., 2018; Rudman, Moss-Racusin, Glick, et al., 2012).

The $2 \times 2 \times 2$ ANOVA of Participant Sex (1 = *female*, 0 = *male*), Target Sex (1 = *female*, 0 = *male*), and Implicit Motives (1 = *power*, 0 = *affiliation*) indicated that Participant Sex and Target Sex interacted to predict perceived likability, $F(1, 914) = 4.03, p = .045, \eta^2_p = .004$. However, further splitting the data according to Participant Sex revealed that the sex of the CEO did not significantly influence the likability ratings of male and female participants, $F_f(1, 914) = 2.55, p = .11, \eta^2_p = .003$; $F_m(1, 914) = 1.56, p = .211, \eta^2_p = .002$. Similarly, neither male nor female participants showed interaction effects of Target Sex with Implicit Motives, $F_f(1, 914) = 1.52, p = .217, \eta^2_p = .002$; $F_m(1, 914) = 3.61, p = .058, \eta^2_p = .004$.

Results from the three-way ANOVA indicated that Participant Sex significantly predicted perceived competence, $F(1, 914) = 9.43, p = .002, \eta_p^2 = .01$, with female participants providing higher competence ratings than male participants. However, further splitting the data according to Participant Sex revealed that neither Target Sex, $F_f(1, 914) = 1.99, p = .159, \eta_p^2 = .002$; $F_m(1, 914) = .02, p = .961, \eta_p^2 = .000$, nor an interaction between Target Sex and Implicit Motives, $F_f(1, 914) = .02, p = .888, \eta_p^2 = .000$; $F_m(1, 914) = .38, p = .538, \eta_p^2 = .000$, differentially affected men and women's competence evaluations.

However, three-way ANOVA did show that Participant Sex significantly interacted with Target Sex and Implicit Motives to predict recommended tenure, $F(1, 893) = 5.67, p = .017, \eta_p^2 = .006$. More specifically, splitting the data according to Participant Sex revealed a significant interaction of Implicit Motives and Target Sex for male participants, $F_m(1, 893) = 10.53, p = .001, \eta_p^2 = .012$, but not for female participants, $F_f(1, 893) = .00, p = .962, \eta_p^2 = .000$, as shown in Figure 5.4. Pairwise comparisons revealed that male participants recommended significantly longer tenures to affiliation-motivated male CEOs than to power-motivated male CEOs, $F_m(1, 426) = 12.51, p < .001, \eta_p^2 = .029$, while a reverse, yet non-significant recommendation was observed for female CEOs. Furthermore, male participants recommended significantly longer tenures to power-motivated female CEOs than power-motivated male CEOs, $F_m(1, 426) = 11.08, p < .001, \eta_p^2 = .025$, while a reverse, yet non-significant recommendation was observed for affiliation-motivated CEOs.

Finally, a three-way ANOVA showed no main or interaction effects of Participant Sex with Implicit Motives and Target Sex on leader evaluation and financial performance ratings.

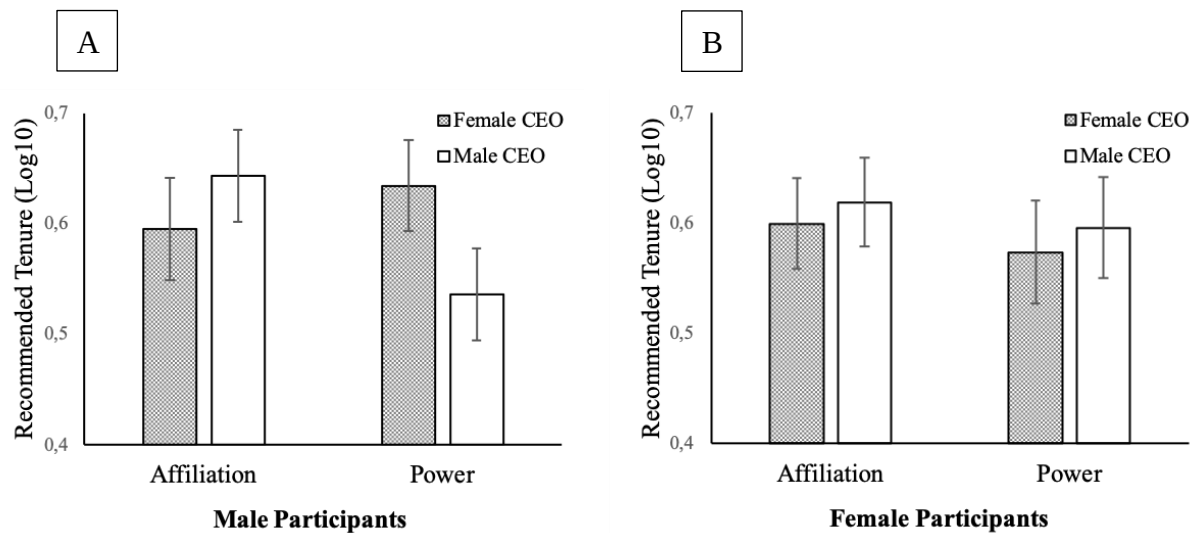


Figure 5.4. Bar plots of Implicit Motives (Affiliation, Power) and Target Sex (Male, Female) by Participant Sex (Male; Female) with 95% confidence intervals for the natural logarithm of recommended tenure. Plot A depicts male participants. Plot B depicts female participants.

Chapter 6

General Discussion

Summary

The final chapter summarizes and integrates the main results of the three empirical studies that were conducted as part of this dissertation. In doing so, this chapter elaborates on the implications of my research and specifies its theoretical, empirical, methodological, and practical contributions. Furthermore, the limitations of the current research are discussed. Finally, this chapter formulates recommendations for future research on the role of gender and implicit motives in the upper echelons.

Chapter 6: General Discussion

The present research investigated the role of implicit motives and gender in CEO leadership. By studying top executives of publicly-traded companies from a gendered perspective, this dissertation strived to expand knowledge on the similarities and differences in the implicit achievement, power, and affiliation motivation of male versus female leaders in the upper echelons, and their link to leader outcomes. In particular, in a set of three original empirical studies, this thesis was designed to provide quantitative insights into three main research questions that are: (1) What implicit motives do male and female CEOs express?; (2) How do implicit motives and CEO gender relate to leadership success?; and (3) How are male and female CEOs with different implicit motives evaluated by others?

To facilitate the achievement of these aims, my research drew on both, archival and experimental data and specified three concrete research objectives: My first objective was to compare and contrast the motivational expressions of CEOs listed in the Standard & Poor 1500 Composite Index (S&P 1500 Index) through analyzing an equal number of male and female CEOs from comparable samples. My second objective was to relate the motivational expressions of an equal number of male and female CEOs from comparable samples listed in the S&P 1500 Index to their survival rates as CEOs, which represents an important measure of successful leadership. My third objective was to investigate experimentally if the expression of gender-congruent (male CEOs expressing power motivation and female CEOs expressing affiliation motivation) versus gender-incongruent implicit motives (male CEOs expressing affiliation motivation and female CEOs expressing power motivation) is evaluated more or less favorably by others, that are, students who function as proxy-shareholders.

In *Chapter 2*, I introduced the theoretical background of my research and identified gaps in the literature. This chapter illustrated that, despite the long history of research on implicit motives, their demonstrated relevance for predicting long-term behavioral tendencies that are critical to leadership, and recent advancements in the measurement of implicit motives, relatively few studies have investigated the role of achievement, power, and affiliation motivation in the CEO context empirically. Also, the few studies which addressed this topic empirically have yielded inconsistent results as to what implicit motives are most fruitful for relevant leader

outcomes. Furthermore, I illustrated that empirical studies on the role of gender in the relationship between implicit motives and leadership are lacking. Due to a combination of reasons pertaining to, for example, methodological limitations of early implicit motives research, which often used gender-consistent picture cues in TAT or PSE experiments, knowledge on this topic is fragmented and inconclusive. Also, due to women's historical underrepresentation in the workplace and women's current underrepresentation in leadership positions, existing studies oftentimes included only a small proportion of women in their samples, or even exclusively sampled men. Furthermore, I have highlighted that even though different theoretical perspectives are offered to explain potential gender differences in implicit motives (i.e., psychoendocrinological processes, interaction effects of implicit and explicit motives, and socio-cultural factors), to the best of my knowledge, no empirical study has investigated the relationship of gender, implicit motives, and CEO leadership from a socio-cultural perspective using a-priori theorizing and hypothesis-testing with comparable, gender-balanced samples. Thus, the present research was designed to provide novel theoretical, methodological, empirical, and practical insights into the manifestation of implicit motives in male and female CEOs, which are discussed in the following sections and summarized in [Table 6.1](#).

CHAPTER 6

Table 6.1

Research Contributions

<i>Study</i>	<i>Theoretical</i>	<i>Methodological</i>	<i>Empirical</i>	<i>Practical</i>
Study 1: Gender differences in the expression of CEOs' implicit motives.	Integrating McClelland et al.'s (1989) implicit motives theory with social role theory (Eagly, 1987), the role congruity account of men, women, and motivation (Diekmann & Eagly, 2008), and the role congruity theory of prejudice against female leaders (Eagly & Karau, 2002) to show that (a) roles are likely an important motivational force; and (b) CEOs' motivational displays are likely influenced by both their social role and their gender role in ways that maximize perceived congruence to increase intrapersonal, interpersonal, and economic rewards.	Using a validated instrument to content-code implicit motives (Winter's (1994) scoring manual for text analysis) from CEO letters of publicly-traded organizations in the S&P 1500 Index.	Providing new empirical evidence as to what implicit motives CEOs express in the context of writing a shareholder letter.	Highlighting the importance of gender roles in the workplace, especially in the leadership context.
		Addressing limitations of prior empirical research that has largely utilized predominantly male samples by applying a propensity score matching to study a comparable and gender-balanced sample of male (n = 45) and female (n = 45) CEOs.	Addressing the inconsistent findings in the literature as to how men and women differ in the expression of their implicit motives, by providing new empirical evidence from the CEO context that challenges the idea that men and women only differ in affiliation motivation but not in their power motivation.	Discussing the implications of the <i>double-bind</i> for female leaders.
	Advancing the knowledge on the motivational expressions of (comparably) successful male and female leaders in the CEO context and thereby contributing to the debate as to what implicit motives are most relevant for executive leadership.	Sampling a group of largely inaccessible participants by conducting an archival study utilizing publicly available annual report data from companies listed in the Execucomp database.	Being the first study to systematically examine gender differences in the expression of implicit motives in the context of CEO leadership.	Discussing women's opportunity to meet the agency requirement in leadership by displaying achievement rather than power.
		Utilizing CEO letters, which represent a highly consistent, uniform, and motive-laden material.	Providing exploratory evidence suggesting that male and female CEOs do not differ in their firm-financial performance.	Showcasing that despite gender differences in affiliation and power motivation, male and female CEOs overall are fairly similar in their motivational expressions.
		Using multiple, blind, trained raters for reliably assessing implicit motives and increasing objectivity.		

<i>Study</i>	<i>Theoretical</i>	<i>Methodological</i>	<i>Empirical</i>	<i>Practical</i>
Study 2: The relationship between implicit motives of male and female CEOs and leaders' survival.	Supporting McClelland et al.'s (1989) implicit motives theory by showing that CEOs' implicit motives have effects on leader success, operationalized as CEOs' turnover risk.	Using a validated instrument to content-code implicit motives (Winter's (1994) scoring manual for text analysis) from CEO letters of publicly-traded organizations in the S&P 1500 Index.	Providing additional evidence to how men and women differ in the expression of their implicit motives that challenge the idea that men and women only differ in affiliation motivation but not in their achievement and power motivation.	Highlighting that men and women face a different turnover risk, which might be due to gender bias and barriers faced by women in male-dominated roles, including top management roles (see role congruity theory; Eagly & Karau, 2002).
	Advancing the theoretical understanding of the power motive for CEO leadership by showing that in a comparable sample of CEOs, higher levels of power motivation are associated with higher turnover risk.	Addressing limitations of prior empirical research that has largely utilized predominantly male samples by applying a propensity score matching to study a comparable and gender-balanced sample of male (n = 82) and female (n = 82) CEOs.	Addressing the inconsistent findings in the literature as to how implicit motives relate to leader success, by providing new empirical evidence from the CEO context that challenges the assumption that power motivation is beneficial for leaders' survival.	Providing practical implications for the development of top executives.
	Showing that in a comparable sample of CEOs, women face an increased turnover risk compared to male CEOs, which might be due to gender bias and barriers faced by women in male-dominated roles, including top management roles (see role congruity theory; Eagly & Karau, 2002).	Sampling a group of largely inaccessible participants by conducting an archival study utilizing publicly available annual report data from companies listed in the Execucomp database.	Providing new empirical evidence to the question of whether female CEOs face a higher risk of turnover than male CEOs.	Discussing the relevance of motive training for executive managers.
		Utilizing CEO letters, which represent a highly consistent, uniform, and motive-laden material.	Studying time-to-turnover rather than tenure or turnover allows accounting for right-censored data (i.e., CEOs who are still in office).	Discussing how different types of organizations might benefit from different motive patterns.
		Using multiple, blind, trained raters for reliably assessing implicit motives and increasing objectivity.	Being the first study to analyze the relationship between implicit motives and the survival of leaders.	

CHAPTER 6

<i>Study</i>	<i>Theoretical</i>	<i>Methodological</i>	<i>Empirical</i>	<i>Practical</i>
Study 3: The relationship between implicit motives of male and female CEOs and other-evaluations of their leadership.	Supporting McClelland et al.'s (1989) implicit motives theory to show that CEOs' implicit motives have effects on leader evaluations.	Developing an original experimental vignette in the form of a CEO letter based on motivational expressions adapted from real CEO letters from Study 1 and Study 2.	Providing new empirical evidence to the under-researched question of how CEOs' gender and implicit motives interact to predict leader evaluations.	Providing practical recommendations for top executives' communication with shareholders (e.g., investor relations).
	Advancing knowledge on the role of gender in the evaluation of CEOs' implicit motives by comparing and contrasting competing predictions derived from the theoretical perspectives of role congruity theory (Eagly & Karau, 2002), the status incongruity hypothesis (Rudman, Moss-Racusin, Phelan, et al., 2012), expectancy violation theory (Jussim et al., 1987), and the double standards for competence model (Foschi, 1996)	Developing experimental vignettes based on Winter's (1994) scientific scoring definitions by using trained raters in the Winter (1994) methodology to content-code vignettes.	Addressing the inconsistent findings in the literature as to how implicit motives relate to leader evaluations, by adding new empirical evidence from a 2 (implicit motives) × 2 (CEO gender) experimental vignette study followed by a survey.	Showcasing how demonstrating power on behalf of others (e.g., organization or shareholder) might reverse a leader disadvantage into a female advantage.
	Contributing to the understanding of the circumstances under which men and women experience a leadership advantage or disadvantage.	Using a large gender-balanced sample of male (n = 459) and female (n = 463) students with experience in Business and Finance.	Offering new insights that challenge the assumption that power-motivated female leaders face negative consequences in terms of social and economic penalties as measured by others' evaluation of their perceived likability, competence, leadership, appropriate tenure, and financial performance.	Discussing the importance of the influencing effect of implicit motives for leadership at a distance.
	Extending theoretical perspectives (e.g., role congruity theory) to also study biased perceptions towards male leaders who display gender-incongruent implicit motives.		Showing new evidence that participants' gender influences the evaluation of male or female CEOs' power or affiliation motivation.	

Note. This tables summarizes key theoretical, methodological, empirical, and practical contributions of this dissertation.

Overview of Research Studies

In *Chapter 3*, I presented an archival study that examined the role of gender in the motivational expressions of CEOs. Building on motive disposition theory (McClelland et al., 1989), I investigated what implicit motives male and female CEOs of publicly-traded companies in the S&P 1500 Index display in their letters to shareholders. In doing so, this chapter is informed by the role congruity account of sex differences and similarities in motivation (Diekmann & Eagly, 2008). For the context of CEO leadership, I hypothesized that CEOs express higher levels of achievement and power motivation in their shareholder letters than affiliation motivation. Furthermore, I hypothesized that female CEOs express higher levels of affiliation motivation than male CEOs and similar levels of achievement motivation, whereas a gender difference in power motivation was explored. The study used a propensity score matching to generate a comparable and gender-balanced sample of 90 CEOs (45 female) of publicly-traded companies and subsequently content-coded CEO letters from annual reports using Winter's (1994) manual for scoring motive imagery in running text employing multiple experienced raters. Results showed that, overall, CEOs expressed higher levels of achievement and power motivation than affiliation motivation. Furthermore, comparisons between male and female CEOs showed that female CEOs expressed lower levels of power and higher levels of affiliation motivation than male CEOs but did not differ in their achievement motivation. Thus, results challenged the assumption that men and women only differ in their affiliation motivation. In addition, the results suggest that CEOs' motivational displays might be influenced by both their social role *and* their gender role in ways that maximize perceived role-congruence to increase intrapersonal, interpersonal, and economic rewards, thus supporting the role congruity account of men, women, and motivation (Diekmann & Eagly, 2008).

In *Chapter 4*, I presented an archival study that examined the association of implicit motives and gender with successful leadership. Building on role congruity theory (Eagly & Karau, 2002) and motive disposition theory (McClelland et al., 1989), I investigated how being male or female and expressing specific implicit motives in shareholder letters relate to CEOs' turnover hazards. In doing so, my research addressed inconsistent findings in the literature as to whether CEO gender and implicit motives contribute to explaining leaders' success. First, I hypothesized that female CEOs face a greater turnover risk than male CEOs. Second, I

hypothesized that power motivation negatively relates to CEOs' turnover risk, while the associations of achievement and affiliation motivation with CEOs' turnover hazards were explored. Third, in further analyses, I tested gender differences in CEOs' motivational displays in order to see whether the gender differences in implicit motives found in *Study 1* (see *Chapter 3*) would replicate. I also used a propensity score matching to generate a comparable and gender-balanced sample of 164 CEOs (82 female) of publicly-traded companies and subsequently content-coded CEO letters from annual reports using Winter's (1994) manual for scoring motive imagery in running text employing multiple experienced raters.

The results partly replicated results from *Study 1* (see *Chapter 3*) and found that, overall, CEOs expressed higher levels of achievement and power motivation than affiliation motivation. Furthermore, comparisons between male and female CEOs showed that female CEOs expressed higher levels of affiliation motivation and lower levels of power motivation than male CEOs. However, in contrast to *Study 1* (see *Chapter 3*), female CEOs also expressed higher levels of achievement motivation in their letters than male CEOs. In line with my hypotheses outlined and existing research, female CEOs faced a significantly higher turnover risk than male CEOs. To explain *why* women might be subject to a higher turnover risk in top management positions than their male counterparts, I built on the role congruity theory perspective as well as respective empirical findings. However, contrary to my expectations, power motivation related *positively* to turnover risk, meaning that a higher level of power motivation was accompanied by a higher turnover risk. The results of this study indicated that, in contrast to most prior research, power motivation seems to be detrimental to the success of male and female CEOs in the current sample. Changing demands to leadership—favoring less autocratic and more transformational/charismatic leadership styles—were discussed as a possible explanation for the present findings.

In *Chapter 5*, I presented an experimental vignette study that examined how implicit motives and gender impact evaluations of leadership by others. Specifically, I investigated how gender-congruent versus gender-incongruent CEO letters of a fictional stock market company CEO in the S&P 1500 Index are perceived by next-generation shareholders. In doing so, this chapter reviewed research on leader evaluations from the implicit motives tradition and predicted that power-motivated CEOs would be perceived as less likable, but more competent than affiliation-

motivated CEOs, and receive higher general leader evaluations, tenure recommendations, and financial performance ratings than affiliation-motivated CEOs. To better understand how gender vanguards are being evaluated in the context of CEO leadership, I compared and contrasted predictions following from the role congruity theory (Eagly & Karau, 2002), status incongruity hypothesis (Rudman, Moss-Racusin, Phelan, et al., 2012), expectancy violation theory (Jussim et al., 1987), and the double standards for competence model (Foschi, 1996, 2000) and developed competing hypotheses following from these theoretical accounts.

Results showed that CEOs' implicit motives indeed significantly influenced leadership perceptions by others. Specifically, affiliation motivation positively predicted perceived likability, overall leader evaluation ratings, and tenure recommendations, whereas power motivation positively predicted perceived competence and financial performance ratings. Furthermore, CEOs' implicit motives and gender interacted to predict perceived likability, overall leader evaluation ratings, and recommended tenures, with power-motivated female CEOs being evaluated more favorably than power-motivated male CEOs. Additionally, male participants recommended significantly longer tenures to affiliation-motivated male and power-motivated female CEOs than power-motivated male CEOs. As a possible explanation for the unexpected results, the chapter discussed how women's display of dominance on behalf of others (i.e., the shareholders) could have reversed the anticipated backlash into a female leader advantage.

Discussion of Findings

Together, my three empirical studies provide important insights into the role of gender and implicit motives in CEO leadership. First, **my research has shown that, in general, CEOs display higher levels of achievement motivation and power motivation than affiliation motivation in their shareholder letters. Furthermore, CEOs' achievement and power displays did not significantly differ from each other.** This finding supports prior research by De Hoogh, Den Hartog, Koopman, et al. (2005), who observed a similar prevalence of motives in CEOs and concluded that the leadership context does not afford the display of affiliation motivation as much as the display of achievement and power. However, beyond situational affordances, it is likely that CEOs are indeed driven by achievement and power motivation to a greater extent than the general population. In fact, the role congruity account of motivation (Diekmann & Eagly, 2008) postulates

that the relationship between motives and roles is bidirectional, meaning that individuals with certain motives are more likely to seek opportunities and roles that afford the fulfillment and display of these motives. The occupancy of these roles would, in turn, further foster the development of certain motives. Thus, it is likely that individuals with greater achievement and power motivation seek the attainment of leadership roles, which, in turn, further nurture the strength of these motives (Diekmann & Eagly, 2008; Jenkins, 1987, 1994).

The current findings align with prior research on the *Leadership Motive Pattern* (LMP; McClelland & Boyatzis, 1982) which constitutes of a high need for power and a comparatively lower need for affiliation (and, depending on the scientific conceptualization, also high levels of activity inhibition; a high concern for the moral exercise of power, or a high responsibility disposition; McClelland & Burnham, 1976, 2003; Winter & Barenbaum, 1985). According to research on the LMP, individuals who hold this *combination* of motives are more likely than others to develop into executive management positions (McClelland & Boyatzis, 1982). Given that participants of the current research have developed into CEO roles, they may generally be regarded as highly successful executive managers. As a result, it is not surprising that both male and female CEOs generally displayed motives that reflect this motive pattern, which is characterized by a higher power motivation than affiliation motivation.

While achievement motivation is often regarded as a hindrance for effective leadership, given achievement-motivated leaders' tendency to avoid delegation (House & Aditya, 1997), it is generally seen to be crucial for leader emergence and attainment of middle management (Jacobs & McClelland, 1994; Sorrentino, 1973). Given that CEOs emerged into their leadership roles by climbing all other organizational hierarchies, it is not surprising that they are highly achievement-motivated. Yet, their achievement motivation may not contribute as much to their continued success as leaders as their power motivation. As Winter (2002a, p. 130, as cited in Delbecq et al., 2013, p. 11) reasoned, "achievement motivation involves skill at moving the pieces. Most leadership roles, however, require the skills of influence: this is getting the pieces to move by themselves." Consequently, achievement-oriented CEOs may immerse themselves in managerial tasks but can fall short of the visionary characteristics that distinguish many successful leaders from less successful ones (Delbecq et al., 2013).

Furthermore, research on affiliation motivation has increasingly questioned whether the construct should enter the LMP as a negative component (Winter, 1991a, p. 70) and has advocated for a supporting role of affiliation motivation in leadership (e.g., Spangler et al., 2014). With changing definitions of good leadership in favor of “more” feminine, supportive qualities such as collaboration and empathy (Eagly & Sczesny, 2009), leadership roles should afford affiliation motivation more than in the past. However, while research has observed that leadership requirements have converged towards more stereotypically feminine characteristics, stereotypically male traits such as competence and assertiveness are still critically advantageous (Vial & Napier, 2018). Furthermore, empirical evidence on the relationship between affiliation motivation and leadership is mixed. In my critical review of the literature, I have argued that the lack of affiliation displays in executive leadership (e.g., De Hoogh, Den Hartog, Koopman, et al., 2005; McClelland & Boyatzis, 1982) and the inconsistent findings as to whether affiliation motivation is beneficially associated with leadership (e.g., Winter, 1991a), could be potentially explained by a lack of scholarly attention to leaders’ gender. First, women were largely underrepresented in samples used for implicit motives research, which could have painted a misleading picture of the extent to which affiliation is displayed in leadership. Second, the extent to which implicit motives elicit beneficial outcomes may be dependent on the perceived congruity of the motivational expression and the leaders’ gender (Eagly & Karau, 2002).

In fact, in examining the implicit motives of a gender-balanced and comparably successful sample of male and female CEOs, **I have found that female CEOs show significantly higher affiliation motivation (and achievement motivation in *Study 2*; see *Chapter 4*) and significantly lower power motivation than male CEOs.** While past research has argued that women’s greater affiliation (and men’s greater power motivation) can be attributed to psychoendocrinological differences in the sex hormones testosterone and progesterone (e.g., Schultheiss, 2013b), an alternative, yet not mutually exclusive explanation highlights the importance of gender role socialization and gender stereotypes.

Following the role congruity account of motivation (Diekmann & Eagly, 2008) which postulates that individuals seek to display their motivation in line with both their leadership role *and* their respective gender role in order to maximize rewards from perceived role congruence, different internal and external mechanisms likely

explain women's greater affiliation and lower power motivation. Hereby, *internal* mechanisms relate, for example, to individuals' internalization of traditional gender role beliefs and stereotypes. Past research has, for example, found that women embrace a higher communal identity (Twenge; 1997) and place higher importance on communal life goals than men (Kinahan, 2014). Therefore, previous studies have suggested that women may be better socialized to display affiliative needs than men (Drescher & Schultheiss, 2016; Duncan & Peterson, 2010). *External* mechanisms relate, for example, to a reaction towards gender bias and discrimination (e.g., if individuals interact with people who have internalized traditional beliefs and expectations about leader and gender roles). For example, research has found that if negative consequences are anticipated, individuals are less likely to display the qualities that are thought to elicit these consequences (Amanatullah & Morris, 2010). Such reactions, however, could have potentially disadvantageous consequences for women in leadership, where power motivation is considered to be a critical determinant of success (McClelland & Burnham; 1976, 2003). While women's display of dominance in terms of power motivation could indeed result in negative consequences, such as reduced likability and promotability due to a perceived incongruence with their female gender role (Eagly & Karau, 2002) and/or a threat of challenging the status quo of the gender hierarchy (Rudman, Moss-Racusin, Phelan, et al., 2012), the absence of power could likewise trigger negative consequences in terms of reduced competence evaluations due to a perceived incongruence with their masculine sex-typed leader role (Eagly & Karau, 2002).

Female leaders thus face a *double bind* and have limited possibilities to escape the so-called *Catch-22*. Building on *social role theory* (Eagly, 1987; Eagly & Wood, 2011), women who hold executive leadership positions should be more similar to their male counterparts in terms of higher agency in the enactment of their social role. Nevertheless, due to their pervasive effects, gender roles are thought to spill over to men and women's leadership (Gutek & Morasch, 1982).

The present findings reflect this idea in the sense that leaders likely blend their motives to satisfy both their leader and their respective gender roles. This blending can either occur consciously, for example, through impression management tactics (Amanatullah & Morris, 2010) or unconsciously. More specifically, women's conscious motivation to avoid backlash could interact with their implicit motives and channel the way implicit motives are expressed. However, as gender role stereotypes

are pervasive and affect behavior even if people are not consciously aware of their presence (e.g., Eagly & Sczesny, 2009; Sczesny & Kühnen, 2004), it is also possible that they affect individuals' motivational expressions without their conscious decision to engage in impression management.

However, as past research indicates, not all agency displays trigger backlash. Instead, some forms of agency, such as self-reliance, may even trigger a female leader advantage (Schaumberg & Flynn, 2017). Power-oriented agency encompasses traits like being dominant or controlling, which are *proscribed* by female gender stereotypes, whereas achievement-oriented agency encompasses traits like being career-oriented or ambitious, which are *prescribed* by male gender stereotypes (Rudman, Moss-Racusin, Phelan, et al., 2012). In contrast to proscriptions, prescriptions are generally less status threatening. Instead, violating prescriptive stereotypes may even be perceived as a positive, unexpected surprise (Jussim et al., 1987). Furthermore, reflective of changes in the prevalent norms about gender roles, research has shown that women's achievement motivation has increased over the years, whereas men's achievement motivation remained unchanged. Therefore, in my research, I argue that in the leadership context, achievement motivation may represent an opportunity for female CEOs to display agency and thus increase the perceived congruity to their leadership role without violating proscriptive gender stereotypes. The present findings support this idea by showing that both male and female CEOs display high levels of achievement motivation. In *Study 2* (see *Chapter 4*), **female CEOs displayed even higher levels of achievement motivation than male CEOs.**

In general, however, gender differences in CEOs' implicit motives were somewhat minor in nature (i.e., medium effect sizes) and can best be understood as overlapping distributions, which should be kept in mind given peoples' "tendency to easily move from a gender-as-difference perspective to a more polarized difference-as-explanation perspective" (Pang & Baumann, in press, p. 10) which encourages essentialism and a neglect of socio-contextual moderators. For example, in the present studies effect sizes ranged from $d = .14$ to $d = 1.02$ (see *Figure 6.1* for an example histogram of male and female CEOs with a medium effect size).

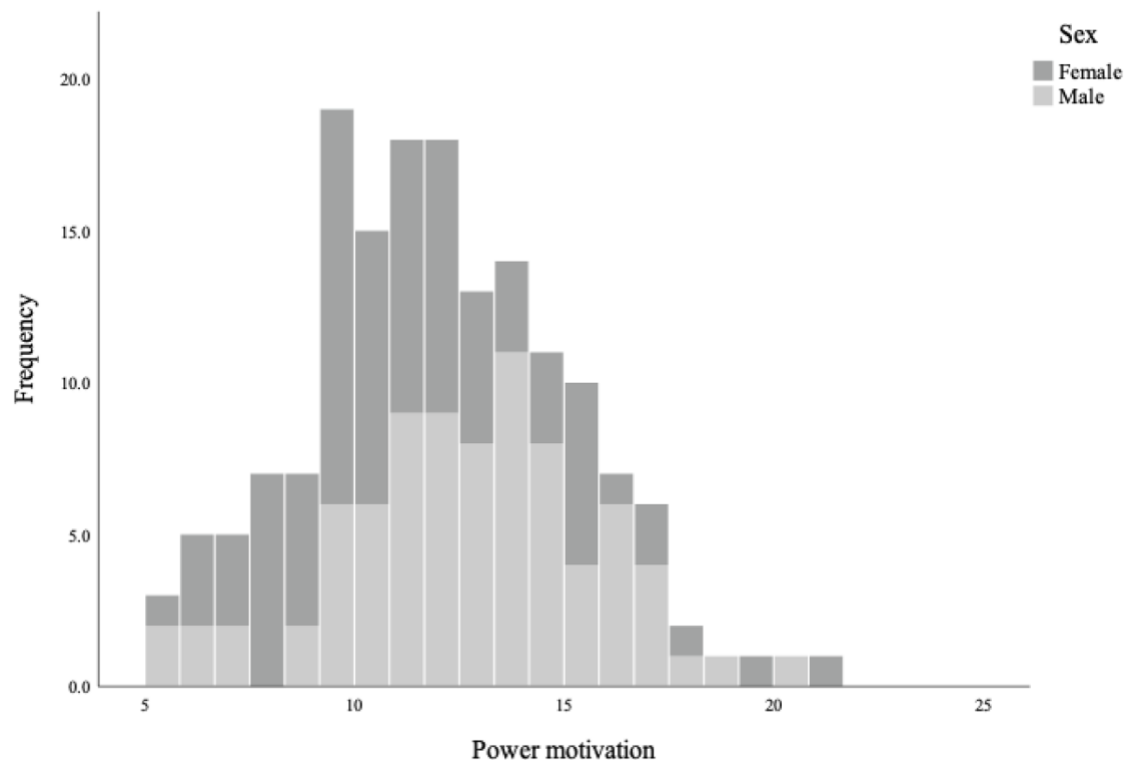
Distribution of men and women's power motivation

Figure 6.1. $N = 164$ (82 women; Study 2). Overlay histograms depicting the distributions of power motivation per 1,000 words for male and female CEOs ($d = .47$). While women, on average, display lower levels of power motivation than male CEOs, their distributions still overlap to a considerable extent.

My research has further addressed mixed findings in the literature as to how gender and implicit motives relate to leader success. Specifically, in a gender-balanced sample of comparable male and female CEOs, I found that **female CEOs faced significantly greater turnover hazards than male CEOs, after controlling personal, organizational, industrial, and macroeconomic factors**. Utilizing data from Singh and Vinnicombe (2003), journalists have suggested that female leaders lead organizations into worse financial performance than male leaders (Judge, 2003) and thereby “wreaked havoc on companies’ [...] share prices.” (Judge, 2003, p. 21, as cited in Ryan, 2005). As poor financial performance is generally considered the greatest antecedent of CEO dismissal (Gupta, Mortal, et al., 2018; Hubbard, Christensen, & Graffin, 2017) it would, at first glance, seem reasonable to assume that female CEOs face a higher turnover risk due to poor firm performance (Judge, 2003).

However, there are several reasons that speak against this explanation. Research by Ryan and Haslam (2005, 2007) and Haslam et al. (2010), for example, has indicated that female CEOs are prone to encounter a “glass cliff” when appointed to executive leadership positions. More specifically, women were found more likely to be appointed to precarious leadership positions than men. Precarious leadership positions imply that the organizational context is considered to be particularly risky (e.g., when organizations experienced a drop in financial performance). Along the lines of “think crisis—think female,” Ryan et al. (2011) have found that in times of poor performance, women are preferentially appointed over men, for example in order to indicate a signal of change to the shareholders (Furtado & Rozeff, 1987; Ryan & Haslam, 2005). Research on the “glass cliff” has further been supported by Gupta, Mortal, et al. (2018), who found that male CEOs were less likely to be dismissed when they achieved high financial performance while the dismissal of female CEOs did not change depending on financial performance. However, given that in the present research, male and female CEOs neither differed in organizations’ prior financial performance nor in financial performance in the year of their turnover, gender differences in turnover hazards may more likely be associated with biased perceptions towards female leaders.

Thus, a second and more probable explanation for women’s higher risk of turnover relates to gender bias in the leadership context. In this regard, the role congruity perspective to leadership (Eagly & Karau, 2002) postulates two types of prejudices. More specifically, due to women’s perceived incongruity with the masculine, sex-typed leadership role, they are (a) perceived to have lower leadership potential than men; and (b) are evaluated less favorably for the same leader behaviors than men. While some scholars claim that women’s undervaluation in leadership is unlikely the cause of prejudice (e.g., Arvey & Murphy, 1998; Latham, 1986), Antal and Izraeli (1993) stress that “probably the single most important hurdle for women in management in all industrialized countries is the persistent stereotype that associates management with being male” (p. 63). In line with role congruity theory (Eagly & Karau, 2002), research by, for example, Gupta, Han, et al. (2018), has found that female CEOs are more likely than male CEOs to be threatened by interference from activist shareholders. The present finding of women’s greater turnover hazards provides further empirical evidence favoring role congruity

explanations and rejecting the idea of a female leader advantage (Fondas, 1997; Leslie, Flaherty, & Dahm, 2017).

In my analysis of a gender-balanced sample of comparable male and female CEOs, I have further found that **power motivation positively predicted CEOs' turnover hazards, whereas both achievement and affiliation motivation were unrelated to turnover hazards**. While past research on the association between implicit motives and leader success has provided mixed results, power motivation has nevertheless been the motive most consistently associated with successful leadership (e.g., De Hoogh, Den Hartog, Koopman, et al., 2005; McClelland & Boyatzis, 1982; McClelland & Burnham, 1976, 2003; Winter, 1987b). These past findings, however, largely stem from studies in which implicit motives were studied in profiles or interactions (e.g., McClelland & Boyatzis, 1982). Fewer studies have investigated the effect of power motivation on leadership alone. Furthermore, despite the fact that calls for the importance of affiliation motivation have been increasing over the years (e.g., Spangler et al., 2014; Winter, 1991a), empirical evidence for the beneficial effects of affiliation in the CEO context is scarce (e.g., De Hoogh, Den Hartog, Koopman, et al., 2005; Delbecq et al., 2013; Kirkpatrick et al., 2002; Veenstra, 2013).

A potential reason for this lack of evidence may be rooted in the fact that the leadership context does not particularly afford affiliative displays, and that men (on which the research was largely based) tend to display lower levels of affiliation motivation. Therefore, an effect of affiliation motivation may be less likely to emerge. Also, of the studies that have studied power motivation in the CEO context, most have found a positive relationship of the power motive and organizational performance (Chusmir & Azevedo, 1992; Kirkpatrick et al., 2002; Veenstra, 2013) and charismatic leader behaviors (De Hoogh, Den Hartog, Koopman, et al., 2005), while others have observed a negative association of power motivation and charismatic leadership (Delbecq et al., 2013). Yet, in the grand scheme of things, power is still most frequently regarded as the great motivator of leadership (McClelland & Burnham, 1976, 2003).

Thus, the present finding that power motivation negatively related to CEO survival is surprising. One possible explanation for the present finding could relate to the fact that the definition of what is good leadership has been changing over the past decades. In fact, ideal leadership has been moving away from “command and

control” towards the inclusion of more feminine, supportive qualities (Eagly & Sczesny, 2009). In fact, research by Duehr and Bono (2006) has found that both male and female managers and students have more communal and less agentic leader stereotypes than in the past. Likewise, Powell et al. (2002) have observed that people’s understanding of good leadership became less agentic over time (Eagly & Sczesny, 2009). Changes in the definition of good leadership are associated with changes in managerial practice which increasingly emphasize the importance of feminine sex-typed communal qualities (Fondas, 1997; Garvin, 1993; Senge, 1990) for long-term managerial success (Hoobler et al., 2018) and reflect changes in the organizational environment related to globalization, digitalization, workforce diversification, and de-hierarchization (Eagly & Sczesny, 2009). According to Eagly and Sczesny (2009), new circumstances require new leadership models that better fit the environments of contemporary organizations (Kanter, 1977; Lipman-Blumen, 1996, 2017). Similarly, Burnham (1997) has noted the aforementioned trends are associated with changes in the effectiveness of the LMP. In fact, Burnham (1997) has observed that, in line with changing realities, beginning from the 1990s, a new paradigm of successful leadership emerged, which the author coined the *InterActive Power Profile* (IPP; Burnham, 1997) which strongly relates to enacting power on behalf of others. Yet, his study on IPP superiority for successful leadership does not give unequivocal information about construct operationalization and measurement; therefore, results need to be interpreted with caution. Although speculative at this point, it is possible that after corporate scandals in which individual leaders contributed to provoking wide-ranging crises (e.g., the ENRON or the Lehman Brothers scandal), shareholder perceptions towards “power-hungry” CEOs might have changed in favor for more socially responsible leaders who are considered more “deserving” of followers’ trust (McCann & Sweet, 2014) and who may be more likely to create long-term shareholder value. Thus, Burnham’s (1997) observations have important implications for the current research.

Furthermore, it might be possible that the positive association between power motivation and turnover hazards in the current research is attributable to specific power subcategories that are less in line with modern leadership (e.g., dominating or controlling). Thus, it would be valuable to investigate different subcategories or subtypes of implicit motives such as, for example, resourceful and reactive power (e.g., Jacobs & McClelland, 1994) or affiliative interest and affiliative assurance

(e.g., Boyatzis, 1973; 1979). Yet, it needs to be mentioned that in contrast to Winter's (1994) integrative scoring methodology, alternative coding manuals (a) have not been validated to the same extent to fit a range of different applications (such as assessing leaders' motivation at a distance from a range of written materials); and (b) are at times even more resource-intensive.

Another explanation for the surprising positive association between power motivation and turnover hazards could be related to the type of organization. De Hoogh, Den Hartog, Koopman, et al. (2005), for example, have found that organization type (for-profit versus non-profit) moderated the relationship between power motivation and charismatic leadership. Although all organizations in the present research are for-profit companies, and although our research has controlled for both industry membership and market capitalization of the company, it is nevertheless possible that organizational subtypes have influenced our results. Spangler et al. (2014), for example, have argued that different organizations come with different role requirements, which, in turn, provide distinct incentives for the achievement, power, or affiliation motive. Their taxonomy suggests that classic and new bureaucratic organizations, as well as new professional service firms, provide strong incentives for highly power-motivated CEOs (see Table 2.1). New entrepreneurial firms, however, provide strong incentives for medium power motivation, and classic professional service firms provide strong incentives for low power motivation. Consequently, suiting leader motive profiles for the leadership roles of different organizations follow from the *incentives* different role requirements provide (Spangler et al., 2014).

A third explanation for the surprising finding relates to the fact that the present study is gender-balanced and includes 82 female CEOs in the sample. Research has rarely ever examined the relationship between implicit motives and leadership in the upper echelons from a gendered perspective. More specifically, until now, there has not been a female president in the US. Therefore, Winter's and House's studies on political leadership have solely focused on the effects of motives in men. Likewise, most studies in the CEO context have sampled a disproportionately larger number of men than women. From a role congruity theory perspective, as well as research on backlash against dominant women, it is possible that power motivation is more positively associated with turnover hazards when CEOs are female than when they are male.

In my analysis of other-evaluations regarding male and female CEOs with high affiliation or high power motivation, the present research has shown that implicit motives expressions significantly influence leader evaluations. More specifically, supporting predictions, I have found that **displays of power motivation positively predict perceived competence and financial performance ratings**. This finding is in line with prior research which has proposed that high power motivation is an important determinant of leader charisma, which, in turn, relates to increased perceptions of leader effectiveness, as well as increased confidence in and loyalty towards the leader (House, 1977; House & Aditya, 1997; House & Howell, 1992). Empirical evidence on U.S. presidents (House, Spangler, & Woycke, 1991) and CEOs (De Hoogh, Den Hartog, Koopman, et al., 2005) has largely supported House's (1977) theory of charismatic leadership and found that power motivation positively predicts perceived charisma while affiliation motivation is unrelated to perceptions of charisma. Furthermore, research has argued that in order "to be effective and maintain their position, charismatic leaders need to understand and build on the needs, values, and hopes of their followers" (De Hoogh, Den Hartog, Koopman, et al., 2005, p. 20). In taking the perspective of company shareholders, present participants' hopes likely relate to building shareholder value and receiving dividends on their investments. In the current study, leaders' power motivation is described as dominant; however, directed at organizational rather than personal gains. Given that past research has indicated that power motivation induces confidence in leaders, the observed positive relationship between power motivation and perceived competence and financial performance ratings was not surprising.

However, in contrast to predictions, I have found that **displays of affiliation motivation positively predict general leader evaluations and recommended tenures. Furthermore, in line with predictions, I have found that affiliation motivation predicts perceived likability**. These findings suggest that affiliative displays are relevant for the evaluation of leaders in contemporary organizations and challenge the general assumption that affiliation motivation is detrimental for leadership. More than just being perceived as nice and friendly, leaders' affiliation motivation translates into perceptions of generally favorable evaluations of leaders and elicits positive leader outcomes. There are several possible explanations for this finding.

First, results could possibly reflect a contemporary trend in leadership, which is developing away from steep hierarchies, classic organization types, and authoritarian leadership styles towards flatter hierarchies, more flexible organization types, and more considerate and supportive leadership styles (Burnham, 1997; Eagly & Sczesny, 2009; Spangler et al., 2014). In comparison to past leader role requirements, it is likely that in contemporary organizations, the supportive and compassionate facets of affiliation motivation are no longer a hindrance but a help for leaders who wish to build follower trust (Boyatzis, 1979; Spangler et al., 2014). In fact, the shareholder context represents a setting in which establishing and maintaining relationships is of great importance in order to gain shareholders' trust and continued investment. As Duncan and Peterson (2010), for example, have indicated, affiliation-motivated individuals are highly concerned with developing and maintaining positive relationships with others.

A second potential explanation for the unexpected findings that led to a rejection of the hypothesis that power motivation would positively predict general leader evaluations and tenure recommendations relates to the experimental manipulation. As the manipulation check indicates, power-motivated letters were very strongly correlated with perceptions of dominance but less strongly correlated with perceptions of agency. In order to craft two clearly distinct experimental manipulations and reduce the risk of perceived overlap between the affiliation and power concepts, the power-motivated letter was largely composed of motive imagery related to forceful and impactful actions, as well as concerns for status, reputation, and control. Whilst the letter also encompasses themes of powerful helping in terms of defending the interests of the shareholders, they are more indirect than the other themes. As a result, it is possible that power-motivated CEOs are perceived as more unfavorable on leader dimensions that involve more "personal" evaluative elements. This argument is in line with research by Diekmann (2007) who found that "negativity toward dominance was more pronounced in interpersonal evaluations" (p. 559) (e.g., getting along well with others, related to warmth) than instrumental evaluations (e.g., accomplishing a task, related to competence).

Furthermore, Runge (2019) has noted that laypeople typically have a different interpretation of implicit motives than researchers. Laypeople would, for example, tend to categorize some forms of helping (e.g., instrumental helping) as affiliation motivation, while researchers would categorize it as power motivation

(Hofer et al., 2007). Thus, laypeople's differential perceptions of motivational displays might have contributed to the unexpected findings. This, however, would not in any way invalidate the findings of the present research given that its aim was to investigate how implicit motives of male and female CEOs are evaluated by others (i.e., non-expert coders).

Moreover, Steinmann et al. (2015) have argued that one possible explanation for a general lack of evidence for positive effects of affiliation motivation in past studies pertains to the fact that earlier research on implicit motives and leadership has largely focused on men. As previously indicated, Winter's and House's studies on political leadership have solely focused on the effects of motives in men, as no female president has yet been elected. Similarly, only a small percentage of CEOs in publicly-traded companies are female. As a result, most studies in the CEO context show unbalanced samples. However, the present study rejects the idea that displays of affiliation motivation have more positive evaluative effects in female than in male leaders. Instead, affiliation-motivated male leaders were perceived as slightly more likable and received slightly (albeit non-significantly) higher leader evaluations and tenure recommendations than affiliation-motivated female leaders, as shall be discussed in the next section.

Holistically, results indicate that implicit motives play an important role in the evaluation of leaders. More than reflecting leaders' internal drives, implicit power and affiliation motives have tangible effects on next-generation shareholder evaluations of different leader outcomes. Interestingly, of all tested effects, the relationship between implicit motives and perceived likability had the largest effect size. Future research should determine the extent to which general leader evaluations and recommended tenures depend on (are mediated by) perceived likability. Likewise, it would be valuable to assess if the relationship between implicit motives and financial performance evaluations is mediated by CEOs' perceived competence.

The study also provided support for a moderating relationship between implicit motives and CEOs' gender. More specifically, **CEOs' implicit motives and gender interacted to predict perceived likability, overall leader evaluation ratings, and recommended tenures. However, results followed an unexpected direction, namely that power-motivated female CEOs were evaluated more favorably than power-motivated male CEOs.** Similar findings have also been observed by Schaumburg and Flynn (2017), who found that self-reliant female

leaders were evaluated more favorably than self-reliant male leaders since they were viewed as comparably competent, however at the same time more communal than men. Similarly, Hentschel et al. (2018) showed that autocratic female leaders were actually seen as more effective than autocratic male leaders. Likewise, Luthar (1996) observed gender contrast effects whereby autocratic female managers received higher performance evaluations than autocratic male managers.

These findings are less expected from a backlash perspective (Rudman, 1998) and the status incongruity hypothesis (Rudman, Moss-Racusin, Phelan, et al., 2012). Backlash researchers postulate that a violation of gender stereotypes gives rise to biased perceptions and unfavorable evaluations towards female leaders. More specifically, Rudman, Moss-Racusin, Phelan, et al. (2012) argued that status violations that threaten the traditional gender hierarchy trigger negative evaluations towards CEOs who violate proscriptive stereotypes. Consequently, backlash researchers would expect that female leaders receive less favorable evaluations for displaying the same agentic behavior as their male counterparts. Present results, however, show a contrasting effect, supporting predictions following from expectancy violation theory (Jussim et al., 1987), which postulates that the direction of leader evaluations depends on the valence of the stereotype violation. More specifically, if the display of counter-stereotypical motives is perceived as an unexpected positive violation, leaders are evaluated more favorably than if the display is perceived as an unexpected negative violation, or simply a stereotype confirmation.

This research, however, had no explicit hypothesis about whether power motivation would be perceived as a positive or negative violation of gender stereotypes. While research on the status incongruity hypothesis would generally suggest that power motivation is strongly proscribed for women (Rudman, Moss-Racusin, Phelan, et al., 2012)—as evidenced by recent meta-analysis which has found support for backlash against women who display dominance (Williams & Tiedens, 2016)—other research emphasized the importance of contextual moderators, such as organizational roles (Diekmann, 2007) and advocacy (Amanatullah & Morris, 2010). In particular, according to the *organizational role hypothesis* (Diekmann, 2007), displays of dominance yield fewer penalties in agentic versus communal occupations. In fact, traits such as dominance and power have been thought to facilitate success in traditionally male-dominated occupations (Cejka &

Eagly, 1999; Diekmann, 2007). Specifically, Diekmann (2007) emphasized that “even behavior that generally evokes negativity can be considered positive if that behavior is useful in a certain context” (p. 559). Another context in which women may not be proscribed from showing power is when they display dominance on behalf of others, which is encoded as congruent with communal femininity and thus in line with expectations for the female gender role (Amanatullah & Morris, 2010).

Supporting this argument, Amanatullah and Morris (2010) found that women attain better negotiation outcomes when they *advocate on behalf of others* than when they advocate on their own behalf. Similarly, Bowles et al. (2005) observed that female negotiators do not receive backlash when they display dominance on behalf of others. Consequently, I argue that in the context of writing a letter to their investors, power-motivated female CEOs may be perceived as exerting influence on behalf of their proxy-shareholders, who, in turn, interpret female power as a positive rather than a negative counter-stereotypical quality. Another context that, according to Leslie et al. (2017), created a female leader advantage related to the presence of diversity goals. More specifically, Leslie et al. (2017) found that under conditions of explicit diversity goals, high-potential women benefitted from a pay bonus rather than a pay penalty. Together, these findings “[challenge] the prevailing assumption that women are uniformly disadvantaged” (Leslie et al., 2017, p. 428) in leadership evaluations. While the present study did not explicitly induce diversity goals, modern Business and Management courses are putting increased emphasis on integrating the topic of workforce diversity into business curricula (e.g., Avery & Thomas, 2004; Muller & Parham, 1998). Combined with an increased public discourse about gender equality in the workplace, it is possible that achieving gender equality is an increasingly important factor when evaluating leaders.

An alternative explanation for an absence of backlash in the present study, however, relates to the study design. For example, Diekmann (2007) noted that in comparison to stimuli that involve social interactions, experiments that rely on written stimuli are less likely to evoke backlash in terms of more negative evaluations toward dominant women than dominant men. Furthermore, an absence of backlash effects might also be the result of the unique characteristics of the present sample (i.e., young adults with third-level education) who might embrace less traditional gender and leader stereotypes and who might have had more exposure to non-traditional women (Diekmann, 2007).

Moreover, my research has provided unexpected evidence against the perceptual similarity thesis (Pulakos & Wexley, 1983; Wexley & Klimosky, 1984). Given that past research has often observed that evaluators give higher ratings to similar others, or members of their in-group (e.g., Eagly & Karau, 2002; Luthar, 1996), one could have expected that male participants favor male CEOs over female CEOs. Indeed, when splitting data into male and female participants, past research has indicated that men often evaluate female leaders with more scrutiny (a) than they evaluate male leaders; and (b) than women evaluate female leaders, suggesting that men and women differ in their attitudes towards traditional gender and leader roles (see Eagly & Karau, 2002). Instead, **male participants recommended significantly longer tenures to affiliation-motivated male and power-motivated female CEOs than to power-motivated male CEOs**. While descriptive statistics indicate that male participants overall recommended the longest tenures for affiliation-motivated male CEOs, the difference to affiliation-motivated female CEOs was not significant. While the present research had no specific hypotheses on potential participant gender effects, this result is nevertheless surprising. Albeit speculative at this point, it could be that men's more favorable evaluations of female leaders are a result of (a) their socialization in a more egalitarian society that has increasingly advocated for the importance of "feminine" leadership; or (b) the proscriptive norm that one *ought not* to discriminate which may have even stronger effects than proscriptive gender norms.

Research Contributions

Together, my three empirical studies contribute to scholarly knowledge in several ways:

First, this dissertation makes ***theoretical*** contributions by advancing the theoretical understanding of the role of gender and implicit motives in the context of executive leadership through integrating the implicit motives literature with the literature on gender and leadership. More specifically, I have integrated McClelland et al.'s (1989) motive disposition theory with Diekmann and Eagly's (2008) role congruity account of sex differences and similarities in motivation. In merging these two literature streams, I have developed a conceptual model (see Figure 1.2 in *Chapter 1*) that enhances the knowledge on the expression, effects, and evaluations of implicit motives in male and female leaders, with a particular emphasis on socio-cultural factors. By adopting a role congruity perspective, I have explained

underlying internal and external mechanisms that direct individuals to display their implicit motives in congruence with their various roles. Furthermore, by building on this role congruity account to motivation (Diekmann & Eagly, 2008), I have extended the argument that roles are important determinants of human behavior to the expression of implicit motives.

Taking a gender perspective in studying implicit motives further addresses a critical topic that was long left under-investigated and yet sparked considerable interest by both researchers (Denzinger et al., 2016; Drescher & Schultheiss, 2016; Duncan & Peterson, 2010; Pang & Baumann, in press; Stewart & Chester, 1982; Winter, 1988) and practitioners (Siegel, 2013). It is proposed that this thesis represents the first systematic theoretical and empirical investigation that has extended the study of gender differences in implicit motives to the largely inaccessible CEO-leadership and shareholder context. As my critical review of the literature has indicated, research on executive leadership largely reverts to demographic variables as proxies for CEOs' cognitive frames (Hambrick, 2007), which are limited in their ability to fully explain real psychological and social mechanisms that energize executive behavior. My application of the theoretically and empirically derived Winter (1994) method for scoring motive imagery from running text, thus provided novel insights into the so-called "black box" of male and female executive leadership (Hambrick, 2007, p. 335). Finally, to the best of my knowledge, this research represents the first account to examine the effects of affiliation and power on the evaluation of several leader outcomes from a gender perspective. By comparing and contrasting theoretical perspectives pertaining to a male versus female leadership advantage resulting from the display of gender-incongruent motives in CEO letters, I have advanced the theoretical understanding how implicit motives and gender affect the perception and evaluation of various aspects of leadership and have extended the study of backlash to the field of implicit motives.

Second, this research makes several *methodological* contributions. More specifically, by employing a statistical matching procedure, I was able to generate a gender-balanced sample, and thereby I extended the study of leaders' motives to the under-investigated population of female CEOs. By matching a sample of female CEOs to a sample of male CEOs via the use of propensity score matching, I utilized a non-randomized design to create samples that are comparable on certain relevant

predefined background characteristics, which has increased the meaningfulness of my cross-sectional data. Further, I made a relevant methodological contribution by applying the psychometrically validated Winter's (1994) scoring method to the under-researched context of male and female executive leadership by content-coding implicit motives at a distance from CEO letters which represent a critical communication channel in the CEO-shareholder relationship.

Also, this research has investigated implicit motives using a dimensional rather than a typological approach—in which implicit motives are dichotomized into high and low—that has often been utilized in prior implicit motives research. This methodological choice has prevented my research from losing valuable information and misinterpreting relationships based on arbitrary cut-off scores.

Moreover, I have designed experimental manipulations that have enabled me to isolate the effects of implicit motives and gender in a large gender-balanced experimental vignette study. More specifically, expert raters in the Winter scoring methodology were involved in the development of the experimental manipulations and have coded both CEO letters, which were subsequently revised until they clearly reflected either affiliation or power motivation while holding achievement motivation constant. This methodological choice ensures that implicit motives expressed in the letter reflect Winter's (1994) scoring definitions and thus gives valuable information on how scientifically operationalized implicit motives are interpreted and evaluated by laypeople, that are, next-generation shareholders.

Third, this dissertation makes valuable *empirical* contributions by addressing inconsistent findings in the literature as to what motives are most fruitful for successful leadership. While studies building on House's (1977) charismatic theory of leadership and the LMP (McClelland & Boyatzis, 1982) have linked power motivation to leader charisma and leader success, other studies have observed negative relationships (Delbecq et al., 2013). Furthermore, power motivation has largely been studied in combination with other motives or constructs (e.g., activity inhibition or responsibility orientation). Therefore, knowledge of the individual effects of power is still fragmented. Similarly, the question of whether achievement motivation is a help or hindrance to successful leadership is still debated in the field. Also, research on the affiliation motive provided contradicting findings, with older studies largely finding negative or no relationships of affiliation motivation with

successful leadership, and newer studies providing initial evidence for a more positive role (Kirkpatrick et al., 2002; Lang et al., 2012; Spangler et al., 2014).

Further, I made a relevant empirical contribution by providing new evidence to the understudied topic of gender similarities and differences in the implicit motives of leaders. Past research has largely used male-only or predominantly male samples for research. All three empirical studies in the current research are entirely gender-balanced, which provides novel findings towards the role of gender in motivation. Moreover, I have built on the role congruity account of men, women, and motivation and thus provided empirical support favoring the idea that social roles and gender roles might be an important motivational force. Lastly, I have addressed inconsistent findings in the literature aiming to resolve the question of a male versus female leadership advantage by providing new empirical evidence to the question of whether gender-role violations in CEOs' implicit motives are penalized or praised.

Based on my findings, I suggest that while both male and female CEOs seem to display motives that are afforded by the culturally masculine sex-typed leadership role (i.e., higher achievement and power than affiliation motivation), male and female CEOs nevertheless seem to differ in the strength with which they express such motives. In line with Diekmann and Eagly's (2008) role congruity account to motivation which postulates that "individuals will generally tend to seek to fulfill basic human needs by gender-normative means" (p. 437), the direction of these differences reflect traditional stereotypical beliefs about what men and women are and should (not) be like, with women showing higher affiliation (and achievement; *Study 2*) but lower power motivation than men, suggesting that gender roles might spill over into men and women's leadership. Considering how women's striving for achievement (Veroff, 1982, 1984) has increased over the years, I further suggest that women's similar strength (or higher strength; *Study 2*) of achievement motivation might be reflective of cultural changes in gender stereotypes towards women's competence and career-orientation (Eagly et al., 2019). Thus, displaying achievement motivation (more than power motivation) might represent an opportunity for women to fulfill the agency requirements of leadership roles without risking backlash.

However, survival analysis (*Study 2*) indicated that of all the *Big Three* motives, only power motivation predicted CEOs' survival rates—in an unexpected

negative direction. Given that women generally tended to express lower power motivation than men, one would assume that female CEOs should consequently have higher chances to survive as CEOs than male CEOs. However, women faced increased turnover hazards in comparison to men. Furthermore, I suggest that implicit motives indeed seem to be critical predictors of other-evaluations of leadership. However, this research gives rise to the idea that different implicit motives might predict different leader outcomes, whereby power motivation might positively relate to perceptions of competence and favorable firm financial performance, while affiliation motivation might positively relate to perceptions of likability and more personal leader outcomes such as general leader evaluations and tenure recommendations.

In summary, given (a) that female CEOs generally display lower power motivation than male CEOs (*Study 1*); but (b) power-motivated female CEOs were evaluated more favorably than power-motivated male CEOs (*Study 3*) one possibility is that motives might manifest differently in men and women, whereby perhaps not women's *presence* of power motivation but women's *absence* of power motivation might increase their turnover hazards. Thus, it might be that women's tendency to express motives in gender-normative means might interfere with their success as leaders (see Amanatullah and Morris' (2010) negotiation study in which women's *hedging* of assertiveness in self-advocating negotiations led to less successful outcomes). However, considering extensive research on the double bind and backlash, which suggests that women who display dominance face prejudice and negative evaluations, I suggest that female leaders may only benefit from power if they display it on behalf of others.

Fourth, this dissertation makes important ***practical*** contributions by, for example, showcasing the relevance of gender (leader) roles and gender (leader) stereotypes for men and women in executive leadership positions. While this work is generally hesitant to recommend changes directed at women rather than the system, present findings indicate that successful female leaders generally display lower power but higher affiliation (and in *Study 2 (Chapter 4)* also higher achievement) motivation than male leaders nevertheless bear useful, practical insights for women who aspire leadership. In fact, this research suggests that achievement motivation may provide a unique opportunity for women to advance in their careers without risking backlash from status violations. Following the double standards for

competence model, it is likely that, with increasing organizational hierarchy, achievement motivation triggers increased perceptions of competence. In senior leadership roles, which are characterized by an increased importance of impacting and leading others rather than personal achievements, women likely benefit from displaying power on behalf of others.

For example, as results by *Study 3 (Chapter 5)* have indicated, gender vanguards (male CEOs who display affiliation motivation and female CEOs who display power motivation) were oftentimes evaluated more favorably than gender conformists (male CEOs who display power motivation and female CEOs who display affiliation motivation). Given that leadership is seen as increasingly androgynous (Koenig et al., 2011)—approaching a more balanced set of agentic and communal traits—it is possible that androgyny is also increasingly *preferred* over and hence *rewarded* more than highly feminine or highly masculine leadership. For instance, research by Kark, Waismel-Manor, and Shamir (2012) has found that androgynous leadership is strongly associated with transformational leadership (Avolio, 1999; Bass, 1998), an effective leadership style for the demands of contemporary organizations (Eagly, 2007). Since women are automatically perceived as more communal than men, and men are automatically perceived as more agentic than women, it may thus be likely that in order to achieve “the best of both worlds” affiliation-motivated men and power-motivated women might be preferred over affiliation-motivated women and power-motivated men. Thus, male and, in particular, female leaders might benefit from displaying counter-stereotypical traits to present a complete leadership repertoire in terms of a balanced set of agentic and communal qualities (Eagly, 2007; Kark et al., 2012).

Extending the study of implicit motives to the CEO-shareholder relationship, also represents an important practical contribution of the present dissertation as academic research in the area of investor relations is still considered as emerging (Laskin, 2005, 2018). Yet, increasing organizational emphasis on investor relations signals the importance of its successful practice for the development and maintenance of trusting relationships between leaders and their shareholders with the goal to ensure organizational and leader success (Hong & Ki, 2007; Laskin, 2005, 2018; Marston & Straker, 2001). Shareholders are important for organizations for numerous reasons. First, based on their evaluations of a firm, shareholders buy or sell stocks, which directly affects the valuation and survival of publicly-traded

companies. Second, shareholders can exert control over a CEO through the company's board of directors, which has the power to discharge the CEO or to limit the CEO's discretionary decision making. Therefore, it is essential for newly appointed CEOs to convince shareholders of their leadership skills, experience, and strategy (Porter et al., 2004).

One increasingly utilized communication channel for achieving this aim is a narrative summary in the form of a CEO letter. In fact, "the CEO letter has been identified as one of the most widely read and most important parts of a company annual report" (Costa et al., 2013, p. 436). Used as a means to influence shareholder opinions (Conaway & Wardrope, 2010) and engage with shareholder activism (Uysal, 2014), the CEO letter "personifies the culture and personality of the company" (Costa et al., 2013, p. 436) and can "spark action, enhance branding, share knowledge, transmit values, tame the grapevine, foster collaboration and lead people into the future" (Amernic and Craig, 2007, p. 25). Through their signatures, CEOs take personal responsibility for the letters, which are thus considered to provide insights into their thinking and attitudes (Costa et al., 2013).

By providing empirical evidence on which motives successful leaders display in their shareholder letters, how CEOs' motives relate to successful leadership, and how motives are perceived and evaluated by the recipients of their letters—the shareholders—this research bears important practical implications for CEOs and other leaders with regards to improving their strategic communication, increasing their impact as leaders, and improving their relationships with important stakeholders. Two different forms of training can be helpful in this regard. First, *motive training*, which addresses leaders' deeper, inner motivation (Burnham, 1997) can help managers to increase their motivational competence by promoting the congruence of implicit motives and leaders' motivational self-concept (see Rheinberg & Engeser, 2010 for an overview of training methods and their effectiveness). This way, leaders learn "new ways of thinking about their jobs by testing and re-shaping their beliefs and assumptions" (Burnham, 1997, p. 12) and increase their self-awareness (see Burnham, 1997). Second, the application of a behavioral form of *communication training* targeted at improving leaders' effective strategic communication skills (Hallahan et al., 2007; Rowley, Mayfield et al., 1998), can help managers to tailor their motivational expressions to their explicit goals and improve relationships with and evaluations by key stakeholders. When applying

certain training, practitioners should consider the potentially shorter-lasting effects of behavioral training in comparison to motive training (Burnham, 1997).

While it is above and beyond the scope of the present research to evaluate the positive and negative short- and long-term consequences of activist investors, it is noteworthy that shareholder activism (as defined in [4.1]) is an increasing phenomenon in the stock market (Uysal, 2014) and is generally perceived as threatening by organizations' top management (Gupta, Mortal, et al. 2018). In this context, recent research has found that female CEOs face significantly more shareholder activism than male CEOs (Gupta, Han, et al., 2018). Likewise, the current research has found that female CEOs face significantly higher turnover risks than male CEOs. Therefore, it is critical for leaders and other stakeholders to uncover and beware the active biases in the relationship of CEOs and board of directors, or common shareholders that may impede women's advancement into leadership. Heightened awareness concerning the effects of particular motivational expressions can, therefore, potentially mitigate the negative effects of gender biases on the part of the actors and the evaluators.

Given that implicit motives were found to be key drivers of successful leadership, practitioners are increasingly interested in how the assessment of leaders' implicit motives can serve as a useful addition to management diagnostics (Sarges, 2014). While an application of implicit motives research to personnel selection is generally difficult given the resource-intensive assessment using expert coders (Lang et al., 2012), recent innovations in implicit motives measurement have developed an assessment tool with promising reliability, as well as predictive and discriminant validity which does not require the use of expert coders (MSC; Runge & Lang, 2019). However, future research on the MSC is needed before it can be securely applied in organizational selection practice.

Limitations and Future Research

Although this dissertation has significant contributions, it also has some limitations and remaining open questions that should be addressed in future studies.

To begin, the potential influence of a third confounding variable in the relationship between implicit motives and male and female leadership cannot be excluded in the current research. However, by utilizing a non-randomized design in which a sample of female CEOs is matched with a sample of male CEOs on several predefined control variables, *Study 1 (Chapter 3)* and *Study 2 (Chapter 4)* are able to

“rule out” several possible alternative explanations—such as prior leadership experience as measured by the age of the CEO—for gender differences in CEOs’ implicit motives and for the relationship of implicit motives and gender with leadership success. Furthermore, the third study (*Chapter 5*) uses an experimental vignette design in which the independent variables were manipulated. Therefore, *Study 3 (Chapter 5)* is even more conclusive in that participants’ perceptions are a function of CEOs’ implicit motives and CEOs’ gender.

Furthermore, *Study 1 (Chapter 3)* and *Study 2 (Chapter 4)* of the present thesis have a relatively small sample size. Given that female CEOs are still dramatically underrepresented, there is a naturally low upper limit to the sample size, especially if one wishes to study large, publicly-traded corporations, in which female leaders are particularly scarce. For example, at this current time, there are only 26 women occupying CEO positions in the S&P 500 companies (Catalyst, 2020b) and 33 women occupying CEO positions in the Fortune 500 companies (Zillman, 2019). Given the large overlap between the S&P and Fortune CEOs, it would have been ineffective to combine CEOs from both lists. To deal with this limitation of limited data, I have chosen to source participants from the larger S&P 1500 Index, which entails information about the 1500 largest publicly-traded firms in the US. Despite this strategy, with $n = 90$ (45 female) and $n = 164$ (82 female) CEOs, sample sizes are still relatively small. Future research could address this challenge by extending the data collection to private companies, organizations in the public sector, non-profit organizations, or family-led firms. This approach would trade an increased number of female leaders for lower sample comparability and data cohesiveness. Another option is to go lower in terms of the level in the organizational hierarchy and to examine female leaders in executive positions more generally. In this case, researchers could draw on different data to study implicit motives, as there are no uniform letters available for other upper managerial roles. Finally, future studies could combine female CEOs from different stock market indices. However, this strategy bears the risk of blurring defined boundaries of the research and sourcing data that is difficult to compare.

Moreover, a concern that has, on occasion, been raised in the scientific community is related to the letter authorship (see Kirkpatrick et al., 2002). Some critics argue that the possibility that company letters are written by a team of corporate communication experts rather than by the CEOs themselves cannot be

excluded. In their analysis of CEO vision statements, Kirkpatrick et al. (2002), therefore, note that “it cannot be inferred that the motive imagery in the vision statements reflects the manager’s (or CEO’s) own motives. Rather, this methodology results in a measure of motive imagery present in the vision statement” (p. 147). Nevertheless, several arguments speak for the idea that it is reasonable to attribute the letter’s content to the company’s CEO (Chusmir & Azevedo, 1992).

First, the CEO letter, which is an integral part of the annual company report of most publicly-listed organizations, is among the most important communication channels in the CEO-shareholder relationship as it represents one of the few opportunities for a CEO to directly address all company owners. By utilizing this communication path, CEOs explain their leadership strategies, vision, past organizational performance, and other topics of importance to the parties involved. As CEOs’ possibilities to address all shareholders simultaneously are limited, leveraging the annual report, presents a unique opportunity to exert influence on the company’s development (Apers et al., 2016). Second, past research on the political leadership of U.S. presidents has shown that political speeches, which are typically written by political consultants, are still adapted to a great deal by the politicians themselves (Winter, 2002b). It is reasonable to assume that CEOs behave similarly to other top leaders, e.g., presidents. Furthermore, Winter (2002b) has indicated that even though presidential speeches are frequently written by political speechwriters, implicit motives coded from such speeches still predicted presidents’ future leadership behaviors. Third, ghostwriters or professional speechwriters typically adapt the writing style to the target person in order to create fit. Therefore, even if the CEO letter is not constructed by the CEO singlehandedly, it likely still reflects his/her personality and motivation. Veenstra (2013) has provided support for this argument by content-coding a certain percentage of CEO conference calls alongside CEO letters and obtained highly significant correlations between these two measures. Thus, Veenstra (2013) concluded that the CEO letter represents a valid proxy for measuring implicit motives. Lastly, Chusmir and Azevedo (1992) argue that, rather than being purely factual, CEO letters are at least partly imaginative and depict some form of real, imagined, or planned behaviors. They further consider “both [as] representative and reasonably standardized sample[s] of the written production of the political or business organizations’ CEOs” (Chusmir & Azevedo, 1992, p. 596).

Nevertheless, it would be valuable for future research to investigate implicit motives of CEOs using primary data from picture-based assessment methods such as the MSC (Runge & Lang, 2019) to replicate and validate the present results. Should the collection of primary data from CEOs be a realizable option, it would be highly valuable to further compare and contrast men and women on the different subcategories of their motivational displays. As Winter (1988), for example, has found, power motivation was associated with more profligate impulsive behaviors in men than in women, which Winter attributes to differences in socialization. It is, therefore, possible that even if men and women showed similar mean levels in power motivation, their subdimensions might differ such that women might be more likely than men to display power in terms of helping that is not explicitly solicited (e.g., instrumental helping in terms of influencing and supporting) whilst men might be more likely than women to display power in terms of enforcing control and regulations, as well as strong, forceful actions that have impact on others or the world at large (Winter, 1994). Likewise, women might be more likely than men to display affiliation in terms of expressing positive, friendly or intimate feelings toward others whilst men might be more likely than women to display affiliation in terms of describing companionate activities such as friendly small talk (Winter, 1994).

An examination of primary data using picture-based assessments would further advance our understanding of whether CEOs' generally high achievement and power motivation and low affiliation motivation should partly be attributed to the measurement context or is truly reflective of leaders' different innate characteristics. De Hoogh, Den Hartog, Koopman et al. (2005), for example, have argued that situations in which individuals are studied in relation to their role and functioning as a leader are likely limited in their opportunities to afford affiliative displays. Instead, the leadership context likely "pulls" for the achievement and power motive more than for the affiliation motive. To fully understand the extent to which implicit motives, as measured by the Winter manual, are influenced by the specific context of writing a letter about their leadership, it would be valuable to supplement the assessment at a distance with traditional picture-based assessment methods.

One unresolved issue in the field of implicit motives research pertains to the question of how *implicit* are implicit motives measured in CEO letters? Implicit motives are generally thought to be inaccessible through introspection and operate on

an unconscious level. Consequently, measures of explicit motives and implicit motives generally do not correlate. Given that in the current research, implicit motives were assessed at a distance, it is possible that CEO letters, to a certain extent, also reflect CEOs' explicit motives. More specifically, the measurement at a distance, could in fact, also partly reflect CEOs' explicit motives, since the CEO letter is a document written with a particular goal in mind—namely the goal to influence and build relationships with shareholders, communicate vision, and present organizational achievements.

Thus, it is yet unclear if the differences in the motivational expressions of male and female CEOs truly reflect differences in their implicit motives or, alternatively, represent an interaction of their implicit and explicit motives. As, for example, research by Lang et al. (2012) has demonstrated, explicit motives channel the way implicit motives are expressed in behaviors. Thus, it is possible that differences in implicit motives, as coded by the Winter manual, might be facilitated or inhibited by differences in CEOs' explicit motives. For example, if CEOs hold high levels of explicit affiliation or power motivation, it could be that they express their implicit motives differently. Although speculative at this point, it is possible that CEOs with a high explicit affiliation motive inhibit their implicit power motivation or express their power motivation in more socially responsible ways. Likewise, it is possible that CEOs with a high explicit power motivation and low implicit affiliation motivation express their power motivation in especially assertive and dominant ways. Thus, it could be possible that CEO letters reflect a mixture of implicit and explicit motives. However, to fully answer this question, future research should examine the implicit motives of CEOs both, in their letters *and* using traditional picture-based assessment methods.

While “writing a CEO letter” and traditional, picture-based methods of assessment can both be considered as *operant* (McClelland et al., 1989) in that motivational displays are free and spontaneous rather than responding to a particular fixed stimulus such as a Likert scale test item (Emmons & McAdams, 1991; Runge, 2019), the projective assessment is probably “more purely” operant than the assessment of the CEO letter at a distance. One thing, however, that both content-coding at a distance and traditional projective assessments such as the OMT and PSE have in common is their reliance on expert raters, which is associated with two limitations.

First, using expert raters is resource-intensive in that it requires extensive training, and correspondingly considerable time and funding. Second, using human raters is unavoidably associated with a certain degree of subjectivity, resulting from coders' own world views and biases, to a different understanding of the content to be coded. While subjectivity is minimized by following standard procedure of studying practice materials, calibrating one's codings against expert scoring definitions, and discussing scoring disagreements which ensures sufficiently high reliability levels for research purposes, resource-intensity remains a limitation of the implicit motives assessment methods that utilize expert raters. However, recent innovations in the assessment of implicit motives developed a promising new motive self-categorization method that combines the advantages of projective-measures (i.e., taps into the implicit instead of the explicit motivational system) with resource efficiency (i.e., participants themselves categorize the motives of their stories), using story-specific items (i.e., items that were developed from original stories that were categorized by expert coders and thus reflect scientific scoring definitions; Runge & Lang, 2019). However, as described in earlier chapters, one difficulty with studying top executives is that they are largely inaccessible and generally unavailable for research in sufficiently large numbers.

Another limitation of the present research relates to the use of students as proxy-shareholders in *Study 3 (Chapter 5)* in order to examine how implicit motives are evaluated by recipients of the shareholder letter. However, while students may be interpreted as having different characteristics than shareholders, several reasons indicate that the use of a student sample nevertheless represents a valuable first insight into how recipients of CEO letters evaluate leaders in an investment context.

For one, common shareholders of stock market companies are not publicly listed and, therefore, largely inaccessible. Furthermore, essentially everybody can become a common shareholder of a company. However, recent research on Australian investors has indicated that shareholders are likely to be university-educated (Hanson & Tranter, 2006; White, Tranter, & Hanson, 2004). With sampling a large number of Business School students ($n = 922$, 463 female) with a Business and Finance background who rated themselves as generally likely to purchase shares in the future, and have partly indicated to have already bought shares in the past, the present research took several measures to ensure that the sample can be considered as next-generation shareholders. Moreover, like study participants, most actual

shareholders—especially when owning a smaller percentage of stocks—would not have personal contact with the CEO. Instead, actual shareholders' relationship with the CEO would similarly be characterized by physical distance, status differences, and would be restricted to the few communication channels of investor relations (e.g., general meetings, annual reports, and mailings). Lastly, in contrast to expert coders, both actual and proxy-shareholders have *lay theories* of human motivation and are therefore not expected to fundamentally differ in their evaluations of implicit motives as expressed in CEO letters.

Thus, despite using a student sample, the present research makes an important contribution to investor relations and corporate communications. More specifically, advancing the understanding of how the content of CEO letters is perceived by the general public, can potentially have beneficial effects on shareholder behavior and investment decisions. As Laskin (2005, p. 11, as cited in Laskin, 2007) states, “investor relations is not about numbers anymore, today’s investor relations is about building and maintaining relationships” and about building trust. Increased trust, in turn, can have positive effects on the organization’s bottom line and preventing shareholders from selling stocks in case of challenges (Laskin, 2007). Future research could further improve the external validity of this research by conducting a follow-up study using, for example, the Amazon Mechanical-Turk crowdsourcing marketplace, or alternative online panels to replicate findings with actual company shareholders.

An additional challenge associated with *Study 3 (Chapter 5)* is the cultural approximation of an Irish sample to the U.S. context. However, several reasons speak for the argument that the Irish sample still provides valuable information about the evaluation of U.S.-based company CEOs. First, although organizations sampled in *Study 1 (Chapter 3)* and *Study 2 (Chapter 4)* are listed in a U.S.-based stock market index, this does not imply that their shareholders must be based in the US. In fact, shareholders can have any national, cultural, or educational background. Second, due to Ireland’s *relative* cultural similarity to the U.S. on matters relevant for the present research (e.g., gender egalitarianism, values towards leadership, and masculinity/femininity among others) and comparable economic status, the Irish context may be regarded as an appropriate cultural approximation for studying other-evaluations of CEOs in the U.S.-based S&P1500 Index (Chhokar et al., 2007; Hofstede, Hofstede, & Minkov, 2010; House, Hanges, Javidan, Dorfman, & Gupta,

2004). Nevertheless, it is informative to reflect critically upon similarities and differences between the two countries from which data are being used:

Scientific criticisms towards Hofstede's cultural framework acknowledged (e.g., Baskerville, 2003; Javidan, House, Dorfman, Hanges, & De Luque, 2006), Ireland, and the U.S. score fairly similar on the cultural dimension of Masculinity/Femininity. This dimension of culture relates to societies' explicit motivational preferences for agency or communion. Within Hofstede's framework, societies would be "called masculine when emotional gender roles are clearly distinct: Men are supposed to be assertive, tough, and focused on material success, whereas women are supposed to be more modest, tender, and concerned with the quality of life." (Hofstede et al., 2010, p. 140). With values of 62 and 68, both the U.S. and Ireland score high in masculinity and are considered fairly achievement- and performance-oriented societies (Hofstede et al., 2010).

An alternative, yet also partially critiqued (e.g., Graen, 2006), approach to studying cross-cultural differences, is the Global Leadership and Organizational Effectiveness (GLOBE) project (House et al., 2004). However, the aim of the current section is not to reconcile criticisms on the various approaches to studying culture. Instead, this section shall illuminate that, with regards to a comparison between Ireland and the U.S., different methods yielded similar conclusions when clustering nations based on several dimensions. Thus, for example, the GLOBE program clusters both Ireland and the U.S. into the same category of Anglo [6.1] countries, which, according to their description, are characterized by high level of Performance Orientation, medium levels of Assertiveness, Future Orientation, Gender Egalitarianism, Humane Orientation, Institutional Collectivism, Power Distance, and Uncertainty Avoidance, as well as low levels of In-Group Collectivism (Chhokar, Brodbeck, & House, 2013; House et al., 2004). As societies, both Ireland and the U.S. tend to believe to a great extent that men and women should be treated fairly in accordance with their respective needs. "This may include equal treatment or treatment that is different, but which is considered equivalent in terms of rights, benefits, obligations, and opportunities" (International Labour Office, 2000, p. 48, as cited in Mencarini, 2014). Building on the GLOBE categorization, Ireland and the U.S. are also considered similar in their very strong preference for value-based, or charismatic leadership styles (Chhokar et al., 2007) and people-focused leadership. Despite these similarities, Ireland and the U.S. seem to differ in the way leaders are

expected to achieve goals for the purpose of others. As cited by Chhokar et al. (2007):

“The United States seems to prefer the “heroic” leader, promoting team spirit and also caring about people [...] whereas in Ireland a leader is expected to uphold values with integrity, loyalty, and conceptual decision making without flaunting his or her authority” (Chhokar et al., 2007, p. 297).

In summary, however, Ireland and the U.S. are frequently merged under the same cohort of advanced postindustrial democracies, such as, for example, in a more recent study related to the dimensions and dynamics of national culture (Beugelsdijk & Welzel, 2018). Therefore, in the current dissertation, I considered it an appropriate approximation to sample Irish students with the instruction to evaluate fictional CEOs whose shareholder letters were adapted from real CEO letters written in a U.S.-context.

Furthermore, it is possible that participants’ responses towards the content of CEO letters in *Study 3 (Chapter 5)* were influenced by their own implicit motives (e.g., Antonakis & Atwater, 2002). For example, if participants themselves are particularly affiliation-motivated, it is likely that they perceive affiliation-motivated letters as more favorable than if participants are highly power-motivated. Future research could test this possibility by integrating an assessment of participants’ own implicit motives in the assessment of shareholder perceptions. Ideally, an assessment of participants’ own implicit motives should be temporally separated from their experimental vignette.

Finally, it would be insightful to understand better *how much* of the variance in the implicit motives of male and female leaders can be attributed to (1) hormonal differences between men and women; (2) differences in men and women’s personality traits; (3) differences in socialization; and (4) prevailing gender norms and stereotypes. As Eagly and Wood’s (2011) extension of the social role theory suggests, sex differences in human behavior likely originate from a complex interplay of biological and social causes. Consequently, an analysis of the interplay between psychoendocrinological aspects and socio-cultural aspects of gender differences in implicit motives represents an area ripe for closer investigation by social-, organizational-, bio-, neuro- and developmental psychologists. This recommendation is in line with Eagly (2017), who has called for more

interdisciplinary research in the study of leadership and gender and has flagged the dangers of academic isolation in gender research. The study of sex hormones may add valuable knowledge to the understanding of gender differences in leaders' power and affiliation motives.

Further development of the present research. While all of the aforementioned suggestions for future research would add significant value to our understanding of the role of implicit motives and gender for leadership, not all of them are feasible given the inaccessibility of top executives for research (Zaccaro, 2001). To develop the current research further, three concrete follow-up research ideas are proposed which aim at extending the knowledge of gender and implicit motives in the leadership context.

First, I recommend future research to examine the relationship between implicit motives and leadership longitudinally to establish whether changes in implicit motives cause changes in leader outcomes for men and women. Here, research could also investigate a potential mediating effect of implicit motives on the relationship between CEO gender and leader outcomes and can answer the question if, for example, women's higher turnover risks can be explained by their motivational expressions.

On the one hand, given that female leaders are often penalized for displaying status-threatening, counter-stereotypical traits such as dominance, *and* given that power motivation was positively related to turnover risk in the present research, it might be possible that the *presence* of power motivation might increase critical evaluators' perceptions of female executives' incongruence to their female gender role and thereby might increase women's turnover risk. On the other hand, given that female CEOs expressed a lower need for power than male CEOs in the present research, it could also be that the *absence* of power motivation might increase critical evaluators' perceptions of female executives' incongruence to the leadership role and thereby might increase their risk of turnover. Further, it would be valuable to investigate if and how implicit motives might influence other outcomes for male and female leaders (e.g., income growth trajectories, career trajectories, or dual role occupancy, i.e., being CEO *and* president).

Second, research should further explore the underlying reasons for women's lower levels of power motivation and higher levels of affiliation (and possibly achievement) motivation. As a critical review of the leadership and gender literature

has shown, women are likely to experience backlash in terms of social and economic penalties for displaying status-threatening counter-stereotypical traits such as dominance (Rudman, Moss-Racusin, Phelan, et al., 2012). In addition, men are prone to experiencing backlash for displaying status-threatening counter-stereotypical traits such as modesty or other-advocacy (Bosak et al., 2018). Past research on backlash has further indicated that women can “anticipate that assertiveness will evoke incongruity evaluations, negative attributions, and subsequent backlash” (Amanatullah & Morris, 2010, p. 256). This awareness of potential backlash leads women to engage in impression management tactics, whereby they elude their assertiveness and dominance displays.

Implicit motives, however, are generally thought to be outside of individuals’ conscious awareness. Nevertheless, as indicated by Runge (2019), individuals can, to some extent, control their implicit motives, for example, when they are given the instruction to write a story for a particular motive. It is possible that if CEOs have a particular explicit goal such as avoiding backlash resulting from status-violations, the content of the CEO letters is, to some extent, concealed by their explicit goals. Thus, it is possible that participants’ fear of backlash mediates the relationship between gender and motivational displays and leader outcomes. To shed light on this question, future research could, for example, develop an experimental study that instructs MBA students to take on the role of a CEO and compose a CEO letter from previously crafted sentences adapted from real S&P1500 CEO letters. The motivational content of these sentences should have previously been content-coded for achievement, power, and affiliation motivation by expert raters.

As fear of backlash is more likely to develop if behavior is explicitly visible and in interaction with other potentially higher-status evaluators, research should compare CEO letters from an experimental group and a control group. Here, the experimental group would be given the information that they will accept personal responsibility for the content of the letter, which will be publicly read and judged by their fellow MBA classmates and the course instructor. The control condition would receive no such instructions. In the experiment, participants could then be asked to select, for example, their 15 favorite sentences from a collection of sentences clearly reflective of achievement, power, and affiliation, and order them to craft their own CEO letter, which they should subsequently sign. After handing in their signed letters, participants should complete a survey that assesses their fear of backlash

(e.g., “Based on how you composed the CEO letter, would you think that others would perceive you as too controlling?”; Moss-Racusin & Rudman, 2010) and concern over losing power (e.g., “Do you think that how you composed the CEO letter would make you seem less effective?”; Brescoll, 2011). Finally, participants’ self- and other-evaluations of their leadership should be compared. Self-evaluations would be retrieved from a short questionnaire in which participants evaluate their own views on their perceived effectiveness, likability, and competence. Other-evaluations would be retrieved from responses of their peers after letters would have been collected and randomly distributed to be evaluated by another person in the class. Hereby, research should control for the gender of the participant and evaluator. Due to the lengthiness of the assessment, this study would best be incorporated into an MBA development and communication seminar to increase value for study participants.

Third, I propose to extend *Study 3 (Chapter 5)*, which was concerned with other-evaluations of CEO leadership. More specifically, in order to get a deeper understanding of how CEOs with gender-congruent versus gender-incongruent implicit motives are perceived by others, the experimental vignette of *Study 3 (Chapter 5)* could be extended to a within-group design. Hereby, individuals should be given a set of different CEO letters that highlight either achievement, power, or affiliation motivation, and that are either written by a male or female CEO. Subsequently, participants should be asked to evaluate all the CEO letters based on different leader outcomes such as general leader evaluations, perceived likability, perceived competence, recommended tenures, and financial performance ratings. Reasonably, both the length of the letter and the length of the questionnaire from *Study 3 (Chapter 5)* would need to be significantly shortened in order to keep participants highly focused on the assessment. Incorporating a within-groups measure into the study of other-evaluations of CEO leadership would allow us to understand relative preferences for or against specific gender-motive combinations better.

Together, these recommendations for future research would give the field a more fine-grained understanding of the role of socio-cultural factors in the relationship between gender and implicit motives in the leadership context.

Conclusion

In this dissertation, I presented three empirical studies with the goal of

advancing our understanding of how implicit motives and gender impact executive leadership. Based on motive disposition theory (McClelland et al., 1989), I examined (1) what implicit motives male and female CEOs express; (2) how implicit motives and CEO gender relate to leadership success; and (3) how male and female CEOs with different implicit motives are evaluated by others. In doing so, I adopted a socio-cultural perspective and argued that the expressions and effects of implicit motives are influenced by individuals' social and gender roles as well as stereotypical expectations associated with those roles.

Results from the archival studies showed that CEOs displayed higher levels of achievement and power motivation than affiliation motivation in letters to their shareholders. Furthermore, female CEOs displayed higher affiliation and lower power motivation than male CEOs. Findings on gender differences in achievement motivations were mixed: While *Study 1 (Chapter 3)* observed similar levels of achievement motivation in male and female CEOs, *Study 2 (Chapter 4)* found that female CEOs displayed higher achievement motivation than male CEOs. I further provided empirical evidence that both CEOs' gender (i.e., being female) and CEOs' implicit power motivation negatively relate to successful leadership as measured by turnover hazards. Finally, in a third experimental study, this dissertation provided support that CEOs' implicit motives relate to proxy-shareholders' evaluations of leadership. The relationship between CEOs' implicit motives and leader evaluations was further moderated by CEOs' gender such that power-motivated female CEOs and affiliation-motivated male CEOs were evaluated more favorably than power-motivated male CEOs.

Together, this research addresses inconsistent findings in the literature as to what motives are most fruitful for leadership. It also represents one of the first accounts to systematically study the under-researched topic of gender differences in implicit motives of top executives in a gender-balanced manner using propensity-matched samples and experimental data. In doing so, this dissertation enriches our knowledge about the circumstances under which a male or female leadership advantage might unfold.

Footnotes

[6.1] Within the Global Leadership and Organizational Effectiveness (GLOBE) framework, the Anglo cluster includes Australia, English speaking parts of Canada, England, Ireland, New Zealand, White population of South Africa, and the U.S. For an extensive review on culture and leadership in Ireland and the U.S., please refer to, for example, the chapters of Keating and Martin as well as Hoppe and Bhagat in Chhokar et al.'s (2007) edition of the book *Culture and Leadership Across the World: The GLOBE Book of In-Depth Studies of 25 Societies*.

References

- Abele, A. E., Hauke, N., Peters, K., Louvet, E., Szymkow, A., & Duan, Y. (2016). Facets of the fundamental content dimensions: Agency with competence and assertiveness- Communion with warmth and morality. *Frontiers in Psychology*, 7(11), 1–17. <https://doi.org/10.3389/fpsyg.2016.01810>
- Abele, A. E., Uchronski, M., Suitner, C., & Wojciszke, B. (2008). Towards an operationalization of the fundamental dimensions of agency and communion: Trait content ratings in five countries considering valence and frequency of word occurrence. *European Journal of Social Psychology*, 38(7), 1202–1217. <https://doi.org/10.1002/ejsp.575>
- Altman, D. G., & Royston, P. (2006). The cost of dichotomising continuous variables. *British Medical Journal*, 332(7549), 1080. <https://doi.org/10.1136/bmj.332.7549.1080>
- Amanatullah, E. T., & Morris, M. W. (2010). Negotiating gender roles: Gender differences in assertive negotiating are mediated by women's fear of backlash and attenuated when negotiating on behalf of others. *Journal of Personality and Social Psychology*, 98(2), 256–267. <https://doi.org/10.1037/a0017094>
- Amernic, J. H., & Craig, R. J. (2007). Guidelines for CEO-speak: Editing the language of corporate leadership. *Strategy and Leadership*, 35(3), 25–31. <https://doi.org/10.1108/10878570710745802>
- Andrews, J. D. W. (1967). The achievement motive and advancement in two types of organizations. *Journal of Personality and Social Psychology*, 6(2), 163–168. <https://doi.org/10.1037/h0024689>
- AnnualReports [Annual report service]. (2019). Retrieved from <http://www.annualreports.com>
- Antal, A. B., & Izraeli, D. N. (1993). A global comparison of women in management: Women managers in their homelands and as expatriates. In E. A. Fagenson (Ed.), *Women and work: A research and policy series, Vol. 4. Women in management: Trends, issues, and challenges in managerial diversity* (p. 52–96). Newbury Park: Sage Publications, Inc.
- Antonakis, J., & Atwater, L. (2002). Leader distance: a review and a proposed theory. *The Leadership Quarterly*, 13(6), 673–704. [https://doi.org/10.1016/S1048-9843\(02\)00155-8](https://doi.org/10.1016/S1048-9843(02)00155-8)
- Antonakis, J., Cianciolo, A. T., & Sternberg, R. J. (2004). Leadership: Past, present, future. In J. Antonakis, A. T. Cianciolo, & R. J. Sternberg (Eds.), *The nature of leadership* (pp. 3–15). Thousand Oaks: Sage.
- Antonakis, J., & Day, D. V. (Eds.). (2017). *The nature of leadership* (3rd ed.). Thousand Oaks: Sage Publications, Inc.
- Antonakis, J., & House, R. J. (2002). The full-range leadership theory: The way forward. In B. J. Avolio & F. J. Yammarino (Eds.), *Transformational and*

REFERENCES

- charismatic leadership: The road ahead* (pp. 3-34). Kidlington, England: Elsevier Science.
- Apers, C., Lang, J. W. B., De Lange, B. G., & Brueckner, J. (2016). Turning crisis into opportunity: CEOs' implicit motives predict firm performance in recovery years. *Academy of Management Proceedings, USA, 2016*(1), 14424. <https://doi.org/10.5465/ambpp.2016.14424abstract>
- Apers, C., Lang, J. W. B., & Derous, E. (2019). Who earns more? Explicit traits, implicit motives and income growth trajectories. *Journal of Vocational Behavior, 110*, 214–228. <https://doi.org/10.1016/j.jvb.2018.12.004>
- Appelbaum, S. H., Audet, L., & Miller, J. C. (2003). Gender and leadership? Leadership and gender? A journey through the landscape of theories. *Leadership & Organization Development Journal, 24*(1), 43–51. <https://doi.org/10.1108/01437730310457320>
- Arvey, R. D., & Murphy, K. R. (1998). Performance evaluation in work settings. *Annual Review of Psychology, 49*(1), 141–168. <https://doi.org/10.1146/annurev.psych.49.1.141>
- Atkinson, J. W. (1957). Motivational determinants of risk-taking behavior. *Psychological Review, 64*(6, Pt.1), 359-372. <https://doi.org/10.1037/h0043445>
- Atkinson, J. W. (1958). *Motives in fantasy, action, and society: A method of assessment and study*. Princeton, NJ: Van Nostrand.
- Atkinson, J. W. (1981). Studying personality in the context of an advanced motivational psychology. *American Psychologist, 36*(2), 117–128. <https://doi.org/10.1037/0003-066X.36.2.117>
- Atkinson, J. W., & Birch, D. (1970). *The dynamics of action*. New York: Wiley.
- Atkinson, J. W., & McClelland, D. C. (1948). The projective expression of needs. II. The effects of different intensities of the hunger drive on thematic apperception. *Journal of Experimental Psychology, 38*(6), 643–658. <https://doi.org/10.1037/h0061442>
- Atwater, L. E., Brett, J. F., Waldman, D., DiMare, L., & Hayden, M. V. (2004). Men's and women's perceptions of the gender typing of management subroles. *Sex Roles, 50*(3/4), 191–199. <https://doi.org/10.1023/B:SERS.0000015551.78544.35>
- Atzmüller, C., & Steiner, P. M. (2010). Experimental vignette studies in survey research. *Methodology, 6*(3), 128–138. <https://doi.org/10.1027/1614-2241/a000014>
- Austin, P. C., & Brunner, L. J. (2004). Inflation of the type I error rate when a continuous confounding variable is categorized in logistic regression analyses. *Statistics in Medicine, 23*(7), 1159–1178. <https://doi.org/10.1002/sim.1687>
- Avery, D. R., & Thomas, K. M. (2004). Blending content and contact: The roles of

- diversity curriculum and campus heterogeneity in fostering diversity management competency. *Academy of Management Learning & Education*, 3(4), 380–396. <https://doi.org/10.5465/amle.2004.15112544>
- Avolio, B. J. (1999). *Full leadership development: Building the vital forces in organizations*. Thousand Oaks, CA: Sage.
- Azhagaiah, R., & Priya, S. N. (2008). The impact of dividend policy on shareholders' wealth. *International Research Journal of Finance and Economics*, 20, 180–187. Retrieved from <http://www.internationalresearchjournaloffinanceandeconomics.com/ISSUES/I RJFE%20issue%2020.htm>
- Badura, K. L., Grijalva, E., Newman, D. A., Yan, T. T., & Jeon, G. (2018). Gender and leadership emergence: A meta-analysis and explanatory model. *Personnel Psychology*, 71(3), 335–367. <https://doi.org/10.1111/peps.12266>
- Bakan, D. (1966). *The duality of human existence: An essay on psychology and religion*. Chicago, IL: Rand McNally.
- Banaji, M. R., & Hardin, C. D. (1996). Automatic stereotyping. *Psychological Science*, 7(3), 136–141. <https://doi.org/10.1111/j.1467-9280.1996.tb00346.x>
- Banaji, M. R., Hardin, C., & Rothman, A. J. (1993). Implicit stereotyping in person judgment. *Journal of Personality and Social Psychology*, 65(2), 272–281. <https://doi.org/10.1037/0022-3514.65.2.272>
- Bark, A. S. H., Escartín, J., Schuh, S. C., & van Dick, R. (2016). Who leads more and why? A mediation model from gender to leadership role occupancy. *Journal of Business Ethics*, 139(3), 473–483. <https://doi.org/10.1007/s10551-015-2642-0>
- Baskerville, R. F. (2003). Hofstede never studied culture. *Accounting, Organizations and Society*, 28(1), 1–14. [https://doi.org/10.1016/S0361-3682\(01\)00048-4](https://doi.org/10.1016/S0361-3682(01)00048-4)
- Bass, B. M. (1998). *Transformational leadership: Industrial, military, and educational impact*. Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Bass, B. M. (1990). *Bass & Stogdill's handbook of leadership: Theory, research, and managerial applications* (3rd ed.). New York: Free Press.
- Baumann, N., Kaschel, R., & Kuhl, J. (2005). Striving for unwanted goals: Stress-dependent discrepancies between explicit and implicit achievement motives reduce subjective well-being and increase psychosomatic symptoms. *Journal of Personality and Social Psychology*, 89(5), 781–799. <https://doi.org/10.1037/0022-3514.89.5.781>
- Baumann, N., & Scheffer, D. (2010). Seeing and mastering difficulty: The role of affective change in achievement flow. *Cognition & Emotion*, 24(8), 1304–1328. <https://doi.org/10.1080/02699930903319911>
- Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of*

REFERENCES

- Consulting and Clinical Psychology*, 42(2), 155–162.
<https://doi.org/10.1037/h0036215>
- Bennis, W. G. (1959). Leadership theory and administrative behavior: The problem of authority. *Administrative Science Quarterly*, 4(3), 259–301.
<https://doi.org/10.2307/2390911>
- Berger, J., Webster, M., Jr., Ridgeway, C. L., & Rosenholtz, S. J. (1986). Status cues, expectations, and behaviors. In E. Lawler (Ed.), *Advances in group processes*, Vol. 3. (pp. 1–22). Greenwich, CT: JAI Press.
- Bernecker, K., & Job, V. (2011). Assessing implicit motives with an online version of the picture story exercise. *Motivation and Emotion*, 35(3), 251–266.
<https://doi.org/10.1007/s11031-010-9175-8>
- Bettencourt, B. A., Dill, K. E., Greathouse, S. A., Charlton, K., & Mulholland, A. (1997). Evaluations of ingroup and outgroup members: The role of category-based expectancy violation. *Journal of Experimental Social Psychology*, 275(33), 244–275. Retrieved from
https://www.researchgate.net/profile/Karen_Dill-Shackleford/publication/230759258_Evaluations_of_Ingroup_and_Outgroup_Members_The_Role_of_Category-Based_Expectancy_Violation/links/0912f503f7dbe147f5000000.pdf
- Beugelsdijk, S., & Welzel, C. (2018). Dimensions and dynamics of national culture: Synthesizing Hofstede With Inglehart. *Journal of Cross-Cultural Psychology*, 49(10), 1469–1505. <https://doi.org/10.1177/0022022118798505>
- Bhojraj, S., & Lee, C. M. C. (2002). Who is my peer? A valuation-based approach to the selection of comparable firms. *Journal of Accounting Research*, 40(2), 407–439. <https://doi.org/10.1111/1475-679X.00054>
- Bigelow, L., Lundmark, L., McLean Parks, J., & Wuebker, R. (2014). Skirting the issues. *Journal of Management*, 40(6), 1732–1759.
<https://doi.org/10.1177/0149206312441624>
- Bing, M. N., LeBreton, J. M., Davison, H. K., Migetz, D. Z., & James, L. R. (2007). Integrating implicit and explicit social cognitions for enhanced personality assessment: A general framework for choosing measurement and statistical methods. *Organizational Research Methods*, 10(2), 346–389.
<https://doi.org/10.1177/1094428107301148>
- Bing, M. N., Stewart, S. M., Davison, H. K., Green, P. D., McIntyre, M. D., & James, L. R. (2007). An integrative typology of personality assessment for aggression: Implications for predicting counterproductive workplace behavior. *Journal of Applied Psychology*, 92(3), 722–744. <https://doi.org/10.1037/0021-9010.92.3.722>
- Blair, I. V., & Banaji, M. R. (1996). Automatic and controlled processes in stereotype priming. *Journal of Personality and Social Psychology*, 70(6), 1142–1163. <https://doi.org/10.1037/0022-3514.70.6.1142>

- Böckenholt, U. (2004). Comparative judgments as an alternative to ratings: Identifying the scale origin. *Psychological Methods*, 9(4), 453–465. <https://doi.org/10.1037/1082-989X.9.4.453>
- Böckenholt, U. (2006). Thurstonian-based analyses: Past, present, and future utilities. *Psychometrika*, 71, 615–629. doi:10.1007/s11336-006-1598-5
- Bodenhausen, G. V., Todd, A. R., & Becker, A. P. (2007). Stereotypes and Stereotyping. In R. F. Baumeister, & K. D. Vohs (Eds.), *Encyclopedia of Social Psychology* (Vol. 1, pp. 940-943). Thousand Oaks, CA: SAGE Publications Inc. <https://doi.org/10.4135/9781412956253.n557>
- Bono, J. E., & Judge, T. A. (2004). Personality and transformational and transactional leadership: A meta-analysis. *Journal of Applied Psychology*, 89(5), 901–910. <https://doi.org/10.1037/0021-9010.89.5.901>
- Bosak, J., Eagly, A., Diekman, A., & Sczesny, S. (2018). Women and men of the past, present, and future: Evidence of dynamic gender stereotypes in Ghana. *Journal of Cross-Cultural Psychology*, 49(1), 115–129. <https://doi.org/10.1177/0022022117738750>
- Bosak, J., Kulich, C., Rudman, L., & Kinahan, M. (2018). Be an advocate for others, unless you are a man: Backlash against gender-atypical male job candidates. *Psychology of Men & Masculinity*, 19(1), 156–165. <https://doi.org/10.1037/men0000085>
- Bosak, J., & Sczesny, S. (2011). Gender bias in leader selection? Evidence from a hiring simulation study. *Sex Roles*, 65(3–4), 234–242. <https://doi.org/10.1007/s11199-011-0012-7>
- Bosak, J., Sczesny, S., & Eagly, A. H. (2012). The impact of social roles on trait judgments. *Personality and Social Psychology Bulletin*, 38(4), 429–440. <https://doi.org/10.1177/0146167211427308>
- Bowles, H. R., Babcock, L., & McGinn, K. L. (2005). Constraints and triggers: Situational mechanics of gender in negotiation. *Journal of Personality and Social Psychology*, 89(6), 951–965. <https://doi.org/10.1037/0022-3514.89.6.951>
- Boyatzis, R. E. (1973). Affiliation motivation: A review and a new perspective. In D. C. McClelland, & R. S. Steele (Eds.) *Human motivation: A book of readings*, (pp. 252–276). Morristown, NJ: General Learning Press.
- Boyatzis, R. E. (1979). The need for close relationships and the manager's job. In D. A. Kolb, I. M. Rubin, & J. M. McIntyre (Eds.), *Organizational psychology: A book of readings* (3rd Ed., pp. 95–100). Englewood Cliffs, NJ: Prentice Hall.
- Boyatzis, R. E., Smith, M. L., & Blaize, N. (2006). Developing sustainable leaders through coaching and compassion. *Academy of Management Learning and Education*, 5(1), 8–24. <https://doi.org/10.5465/AMLE.2006.20388381>
- Brandstätter, V., Job, V., & Schulze, B. (2016). Motivational incongruence and well-being at the workplace: Person-job fit, job burnout, and physical symptoms.

REFERENCES

- Frontiers in Psychology*, 7(AUG), 1–11.
<https://doi.org/10.3389/fpsyg.2016.01153>
- Brenner, O. C., Tomkiewicz, J., & Schein, V. E. (1989). The relationship between sex role stereotypes and requisite management characteristics revisited. *Academy of Management Journal*, 32(3), 662–669.
<https://doi.org/10.5465/256439>
- Brescoll, V. L. (2011). Who takes the floor and why: Gender, power, and volubility in organizations. *Administrative Science Quarterly*, 56(4), 622–641.
<https://doi.org/10.1177/0001839212439994>
- Broverman, I. K., Vogel, S. R., Broverman, D. M., Clarkson, F. E., & Rosenkrantz, P. S. (1972). Sex-role stereotypes: A current appraisal. *Journal of Social Issues*, 28, 59–78. doi:10.1111/j.1540-4560.1972.tb00018.x
- Brown, A., & Maydeu-Olivares, A. (2011). Item response modeling of forced-choice questionnaires. *Educational and Psychological Measurement*, 71(3), 460–502.
<https://doi.org/10.1177/0013164410375112>
- Brown, A., & Maydeu-Olivares, A. (2013). How IRT can solve problems of ipsative data in forced-choice questionnaires. *Psychological Methods*, 18(1), 36–52.
<https://doi.org/10.1037/a0030641>
- Brown, R. W. (1965). *Social psychology*. New York: Free Press.
- Brunstein, J. C. (2010). Implicit motives and explicit goals: The role of motivational congruence in emotional well-being. In O. C. Schultheiss & J. Brunstein (Eds.), *Implicit Motives* (pp. 347–374). New York: Oxford University Press.
<https://doi.org/10.1093/acprof:oso/9780195335156.001.0001>
- Brunstein, J. C., & Maier, G. W. (2005). Implicit and self-attributed motives to achieve: Two separate but interacting needs. *Journal of Personality and Social Psychology*, 89(2), 205–222. <https://doi.org/10.1037/0022-3514.89.2.205>
- Brunstein, J. C., Schultheiss, O. C., & Grässman, R. (1998). Personal goals and emotional well-being: The moderating role of motive dispositions. *Journal of Personality and Social Psychology*, 75(2), 494–508. <https://doi.org/10.1037/0022-3514.75.2.494>
- Burnham, D. H. (1997). Power is still the great motivator – With a difference! *Burnham Rosen Group, Llc*, 1–12.
- Buss, D. M., & Schmitt, D. P. (1993). Sexual strategies theory: An evolutionary perspective on human mating. *Psychological Review*, 100(2), 204–232.
<https://doi.org/10.1037/0033-295X.100.2.204>
- Bussey, K., & Bandura, A. (1999). Social cognitive theory of gender development and differentiation. *Psychological Review*, 106(4), 676–713.
<https://doi.org/10.1037/0033-295X.106.4.676>
- Carter, N. T., Daniels, M. A., & Zickar, M. J. (2013). Projective testing: Historical

- foundations and uses for human resources management. *Human Resource Management Review*, 23(3), 205–218.
<https://doi.org/10.1016/j.hrmr.2012.12.002>
- Carver, C. S., & Scheier, M. F. (2007). *Perspectives on personality* (6th ed.). Boston: Allyn and Bacon.
- Catalyst. (2007). *The double-bind dilemma for women in leadership: Damned if you do, doomed if you don't*. Retrieved from
<http://www.catalyst.org/knowledge/double-bind>
- Catalyst. (2015, April). *Pyramid: Women in S&P 500 companies*. Retrieved from
<https://www.catalyst.org/research/women-in-sp-500-companies/>
- Catalyst. (2018, August). *The double-bind dilemma for women in leadership*. Retrieved from <https://www.catalyst.org/research/infographic-the-double-bind-dilemma-for-women-in-leadership/>
- Catalyst. (2019, May). *Historical list of women CEOs of the fortune lists: 1972-2019*. Retrieved from https://www.catalyst.org/wp-content/uploads/2019/05/Catalyst_Women_Fortune_CEOs_1972-2019_Historical_List_5.16.2019.pdf
- Catalyst. (2020a, January). *Pyramid: Women in S&P 500 companies*. Retrieved from
<https://www.catalyst.org/research/women-in-sp-500-companies/>
- Catalyst. (2020b, January). *Women CEOs of the S&P 500*. Retrieved from
<https://www.catalyst.org/research/women-ceos-of-the-sp-500/>
- Cejka, M. A., & Eagly, A. H. (1999). Gender-stereotypic images of occupations correspond to the sex segregation of employment. *Personality and Social Psychology Bulletin*, 25(4), 413–423.
<https://doi.org/10.1177/0146167299025004002>
- Central Statistics Office. (2016). *Women and men in Ireland 2016*. Retrieved from
<https://www.cso.ie/en/releasesandpublications/ep/p-wamii/womenandmeninireland2016/>
- Central Statistics Office. (2019). *Gender balance in business survey 2019*. Retrieved from
<https://www.cso.ie/en/csolatestnews/pressreleases/2019pressreleases/presstate mentgenderbalanceinbusinesssurvey2019>
- Chan, K., & Drasgow, F. (2001). Motivation to lead scale, 86, 21–22.
<https://doi.org/10.1037/t09052-000>
- Chasiotis, A. (2015). Measuring implicit motives. In T. Ortner & F. van de Vijver (Eds.), *Behavior-based assessment in psychology. Going beyond self-report in the personality, affective, motivation, and social domains* (pp. 81-96). Göttingen: Hogrefe.
- Chhokar, J. S., Brodbeck, F. C., & House, R. J. (2007). *Culture and leadership*

REFERENCES

- across the world: The GLOBE book of in-depth studies of 25 societies.*
Mahwah, NJ: Lawrence Erlbaum Associates.
- Child J. (1972). Organizational structure, environment and performance: The role of strategic choice. *Sociology*, 6(1), 1–22.
<https://doi.org/10.1177/003803857200600101>
- Chung, C. K., & Pennebaker, J. W. (2012). Linguistic inquiry and word count (LIWC). In *Applied Natural Language Processing* (pp. 206–229). IGI Global.
<https://doi.org/10.4018/978-1-60960-741-8.ch012>
- Chusmir, L. H. (1985). Motivation of managers: Is gender a factor? *Psychology of Women Quarterly*, 9(1), 153–159. <https://doi.org/10.1111/j.1471-6402.1985.tb00868.x>
- Chusmir, L. H. (1986). Personalized vs. socialized power needs among working women and men. *Human Relations*, 39(2), 149–159.
<https://doi.org/10.1177/001872678603900204>
- Chusmir, L. H., & Azevedo, A. (1992). Motivation needs of sampled Fortune-500 CEOs: Relations to organization outcomes. *Perceptual and Motor Skills*, 75(2), 595–612. <https://doi.org/10.2466/PMS.75.5.595-612>
- Chusmir, L. H., & Parker, B. (1984). Dimensions of need for power: Personalized vs. socialized power in female and male managers. *Sex Roles*, 11(9–10), 759–769.
<https://doi.org/10.1007/BF00287808>
- Cislak, A., Formanowicz, M., & Saguy, T. (2018). Bias against research on gender bias. *Scientometrics*, 115(1), 189–200. <https://doi.org/10.1007/s11192-018-2667-0>
- Clarivate Analytics (2019). *Web of Science*. Retrieved from
https://apps.webofknowledge.com/WOS_GeneralSearch_input.do?product=WOS&search_mode=GeneralSearch&SID=D4DS8NjPPodpgVLJWpV&preferencesSaved=
- Cohen, J., (1983). The cost of dichotomization. *Applied Psychological Measurement*, 7(3), 249–253. Retrieved from
<http://conservancy.umn.edu/bitstream/handle/11299/107497/v07n3p249.pdf?sequence=1>
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112(1), 155–159. <https://doi.org/10.1037/0033-2909.112.1.155>
- Cohen, P., West, S. G., & Aiken, L. S. (2014). *Applied multiple regression/correlation analysis for the behavioral sciences*. Psychology Press.
- Colby, A. & Damon, W. (1982). Listening to a different voice: A review of Gilligan's: In a different voice. *Merrill-Palmer Quarterly*, 29(4), 473–481.
Retrieved from <https://www.jstor.org/journal/merrpalmquar1982>
- Conaway, R. N., & Wardrope, W. J. (2010). Do their words really matter? Thematic

- analysis of U.S. and Latin American CEO letters. *Journal of Business Communication*, 47(2), 141–168. <https://doi.org/10.1177/0021943610364523>
- Connelly, B. S., Sackett, P. R., & Waters, S. D. (2013). Balancing treatment and control groups in quasi-experiments: An introduction to propensity scoring. *Personnel Psychology*, 66(2), 407–442. <https://doi.org/10.1111/peps.12020>
- Conte, H. R., & Plutchik, R. (1981). A circumplex model for interpersonal personality traits. *Journal of Personality and Social Psychology*, 40(4), 701–711. <https://doi.org/10.1037/0022-3514.40.4.701>
- Conway, M., Pizzamiglio, M. T., & Mount, L. (1996). Status, communality, and agency: Implications for stereotypes of gender and other groups. *Journal of Personality and Social Psychology*, 71(1), 25–38. <https://doi.org/10.1037/0022-3514.71.1.25>
- Cook, A., & Glass, C. (2014a). Above the glass ceiling: When are women and racial/ethnic minorities promoted to CEO? *Strategic Management Journal*, 35(7), 1080–1089. <https://doi.org/10.1002/smj.2161>
- Cook, A., & Glass, C. (2014b). Women and top leadership positions: Towards an institutional analysis. *Gender, Work and Organization*, 21(1), 91–103. <https://doi.org/10.1111/gwao.12018>
- Cornelius, E. T., & Lane, F. B. (1984). The power motive and managerial success in a professionally oriented service industry organization. *Journal of Applied Psychology*, 69(1), 32–39. <https://doi.org/10.1037/0021-9010.69.1.32>
- Cory, J. (2004). *Business ethics: the ethical revolution of minority shareholders*. New York: Springer Science & Business Media.
- Costa, G. A., Oliveira, L. C., Rodrigues, L. L., & Craig, R. (2013). Factors associated with the publication of a CEO letter. *Corporate Communications*, 18(4), 432–450.
- Cox, D. R., & Oakes, D. (2018). *Analysis of Survival Data*, Chapman and Hall/CRC. <https://doi.org/10.1201/9781315137438-9>
- Crant, J. M., & Bateman, T. S. (2000). Charismatic leadership viewed from above: the impact of proactive personality. *Journal of Organizational Behavior*, 21(1), 63–75. [https://doi.org/10.1002/\(SICI\)1099-1379\(200002\)21:1<63::AID-JOB8>3.0.CO;2-J](https://doi.org/10.1002/(SICI)1099-1379(200002)21:1<63::AID-JOB8>3.0.CO;2-J)
- Crocker, J., & Major, B. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological Review*, 96(4), 608–630. <https://doi.org/10.1037/0033-295X.96.4.608>
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297–334. <https://doi.org/10.1007/BF02310555>
- Cummin, P. C. (1967). TAT correlates of executive performance. *Journal of Applied Psychology*, 51(1), 78–81. <https://doi.org/10.1037/h0024246>

REFERENCES

- Dalton, D. R., & Kesner, I. F. (1985). Organizational performance as an antecedent of inside/outside chief executive succession: An empirical assessment. *Academy of Management Journal*, 28(4), 749–762. <https://doi.org/10.2307/256235>
- Davidovitz, R., Mikulincer, M., Shaver, P. R., Izsak, R., & Popper, M. (2007). Leaders as attachment figures: Leaders' attachment orientations predict leadership-related mental representations and followers' performance and mental health. *Journal of Personality and Social Psychology*, 93(4), 632–650. <https://doi.org/10.1037/0022-3514.93.4.632>
- Davison, H. K., & Burke, M. J. (2000). Sex discrimination in simulated employment contexts: A meta-analytic investigation. *Journal of Vocational Behavior*, 56(2), 225–248. <https://doi.org/10.1006/jvbe.1999.1711>
- Dawson, J. F., & Richter, A. W. (2006). Probing three-way interactions in moderated multiple regression: Development and application of a slope difference test. *Journal of Applied Psychology*, 91(4), 917–926. <https://doi.org/10.1037/0021-9010.91.4.917>
- Day, D. V., & Lord, R. G. (1988). Executive leadership and organizational performance: Suggestions for a new theory and methodology. *Journal of Management*, 14(3), 453–464. <https://doi.org/10.1177/014920638801400308>
- Day, D. V., & Zaccaro, S. J. (2007). Leadership: A critical historical analysis of the influence of leader traits. In L. L. Koppes (Ed.), *Historical perspectives in industrial and organizational psychology* (pp. 383–405). Mahwah, NJ: Erlbaum.
- DeCharms, R., Morrison, H. W., Reitman, W., & McClelland, D. C. (1955). Behavioral correlates of directly and indirectly measured achievement motivation. In D. C. McClelland (Ed.), *Studies in motivation* (pp. 414–423). New York: Appleton- Century-Crofts.
- De Hoogh, A. H. B., Den Hartog, D. N., & Koopman, P. L. (2005). Linking the Big Five-Factors of personality to charismatic and transactional leadership; perceived dynamic work environment as a moderator. *Journal of Organizational Behavior*, 26(7), 839–865. <https://doi.org/10.1002/job.344>
- De Hoogh, A. H. B., Den Hartog, D. N., Koopman, P. L., Thierry, H., Van den Berg, P. T., Van der Weide, J. G., & Wilderom, C. P. M. (2005). Leader motives, charismatic leadership, and subordinates' work attitude in the profit and voluntary sector. *The Leadership Quarterly*, 16(1), 17–38. <https://doi.org/10.1016/j.leaqua.2004.10.001>
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01
- Delbecq, A., House, R. J., de Luque, M. S., & Quigley, N. R. (2013). Implicit motives, leadership, and follower outcomes: An empirical test of CEOs. *Journal of Leadership and Organizational Studies*, 20(1), 7–24. <https://doi.org/10.1177/1548051812467207>

- Denzinger, F. (2017). *The malleability of implicit motives: how basic motivational orientations are affected by time, situations, and people* (Doctoral dissertation, University of Zurich, Zurich, Switzerland). Retrieved from <https://doi.org/10.5167/uzh-150661>
- Denzinger, F., Backes, S., Job, V., & Brandstätter, V. (2016). Age and gender differences in implicit motives. *Journal of Research in Personality*, 65, 52–61. <https://doi.org/10.1016/j.jrp.2016.09.003>
- Denzinger, F., & Brandstätter, V. (2018). Stability of and changes in implicit motives. A narrative review of empirical studies. *Frontiers in Psychology*, 9(MAY), 1–18. <https://doi.org/10.3389/fpsyg.2018.00777>
- Derue, D. S., Nahrgang, J. D., Wellman, N., & Humphrey, S. E. (2011). Trait and behavioral theories of leadership: An integration and meta-analytic test of their relative validity. *Personnel Psychology*, 64(1), 7–52. <https://doi.org/10.1111/j.1744-6570.2010.01201.x>
- Diekmann, A. B. (2007). Negotiating the double bind: Interpersonal and instrumental evaluations of dominance. *Sex Roles*, 56(9–10), 551–561. <https://doi.org/10.1007/s11199-007-9198-0>
- Diekmann, A. B., & Eagly, A. H. (2000). Stereotypes as dynamic constructs: Women and men of the past, present, and future. *Personality and Social Psychology Bulletin*, 26(10), 1171–1188. <https://doi.org/10.1177/0146167200262001>
- Diekmann, A. B., & Steinberg, M. (2013). Navigating social roles in pursuit of important goals: A communal goal congruity account of STEM pursuits. *Social and Personality Psychology Compass*, 7(7), 487–501. <https://doi.org/10.1111/spc3.12042>
- Diekmann, A. B., & Eagly, A. H. (2008). Of women, men, and motivation: A role congruity account. In J. Y. Shah & W. L. Gardner (Eds.), *Handbook of motivational science* (pp. 434–447). New York: Guilford Press.
- Dietl, E., Meurs, J. A., & Blickle, G. (2017). Do they know how hard I work? Investigating how implicit/explicit achievement orientation, reputation, and political skill affect occupational status. *European Journal of Work and Organizational Psychology*, 26(1), 120–132. <https://doi.org/10.1080/1359432X.2016.1225040>
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147–160. <https://doi.org/10.2307/2095101>
- Donley, R. E., & Winter, D. G. (1970). Measuring the motives of public officials at a distance: An exploratory study of american presidents. *Behavioral Science*, 15(3), 227–236. <https://doi.org/10.1002/bs.3830150304>
- Drescher, A., & Schultheiss, O. C. (2016). Meta-analytic evidence for higher implicit affiliation and intimacy motivation scores in women, compared to men. *Journal of Research in Personality*, 64, 1–10. <https://doi.org/10.1016/j.jrp.2016.06.019>

REFERENCES

- Duehr, E. E., & Bono, J. E. (2006). Men, women, and managers: Are stereotypes finally changing? *Personnel Psychology*, 59(4), 815–846. <https://doi.org/10.1111/j.1744-6570.2006.00055.x>
- Dulebohn, J. H., Bommer, W. H., Liden, R. C., Brouer, R. L., & Ferris, G. R. (2012). A meta-analysis of antecedents and consequences of leader-member exchange : Integrating the past with an eye toward the future. *Journal of Management*, 38(6), 1715–1759. <https://doi.org/10.1177/0149206311415280>
- Duncan, L. E., & Peterson, B. E. (2010). Gender and motivation for achievement, affiliation–intimacy, and power. In J. C. Chrisler & D. R. McCreary (Eds.), *Handbook of gender research in psychology* (Vol. 63, pp. 41–62). New York, NY: Springer New York. https://doi.org/10.1007/978-1-4419-1467-5_3
- Eagly, A. H. (1987). *Sex differences in social behavior: A social-role interpretation*. Hillsdale, NJ: Erlbaum.
- Eagly, A. H. (2000). Gender roles. In A. E. Kazdin (Ed.), *Encyclopedia of psychology* (Vol. 3, pp. 448–453). Washington, DC: APA Books.
- Eagly, A. H. (2007). Female leadership advantage and disadvantage: Resolving the contradictions. *Psychology of Women Quarterly*, 31(1), 1–12. <https://doi.org/10.1111/j.1471-6402.2007.00326.x>
- Eagly, A. H. (2017, June). Invited talk given at the European Association of Social Psychology (EASP) Small Group Meeting on “Gender Roles in the Future? Theoretical Foundations and Future Research Directions,” Berlin, Germany.
- Eagly, A. H., & Antonakis, J. (2015). Leadership. In M. Mikulincer, P. R. Shaver, E. Borgida, & J. A. Bargh (Eds.), *APA handbooks in psychology. APA handbook of personality and social psychology, Vol. 1. Attitudes and social cognition* (pp. 571–592). Washington, DC: APA Books.
- Eagly, A. H., & Carli, L. L. (2003). The female leadership advantage: An evaluation of the evidence. *Leadership Quarterly*, 14(6), 807–834. <https://doi.org/10.1016/j.leaqua.2003.09.004>
- Eagly, A. H., & Carli, L. L. (2007a). Women and the labyrinth of leadership. *Harvard Business Review*, 85(9), 62–71.
- Eagly, A. H., & Carli, L. L. (2007b). *Through the labyrinth: The truth about how women become leaders*. Boston: Harvard Business School Press
- Eagly, A. H., Johannesen-Schmidt, M. C., & Van Engen, M. L. (2003). Transformational, transactional, and laissez-faire leadership styles: A meta-analysis comparing women and men. *Psychological Bulletin*, 129(4), 569–591. <https://doi.org/10.1037/0033-2909.129.4.569>
- Eagly, A. H., & Johnson, B. T. (1990). Gender and leadership style: A meta-analysis. *Psychological Bulletin*, 108(2), 233–256. <https://doi.org/10.1037/0033-2909.108.2.233>

- Eagly, A. H., & Karau, S. J. (1991). Gender and the emergence of leaders: A meta-analysis. *Journal of Personality and Social Psychology*, 60(5), 685–710. <https://doi.org/10.1037/0022-3514.60.5.685>
- Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, 109(3), 573–598. <https://doi.org/10.1037/0033-295X.109.3.573>
- Eagly, A. H., Karau, S. J., & Makhijani, M. G. (1995). Gender and the effectiveness of leaders: A meta-analysis. *Psychological Bulletin*, 117(1), 125–145. <https://doi.org/10.1037/0033-2909.117.1.125>
- Eagly, A. H., Makhijani, M. G., & Klonsky, B. G. (1992). Gender and the evaluation of leaders: A meta-analysis. *Psychological Bulletin*, 111(1), 3–22. <https://doi.org/10.1037/0033-2909.111.1.3>
- Eagly, A. H., & Mladinic, A. (1989). Gender stereotypes and attitudes toward women and men. *Personality and Social Psychology Bulletin*, 15(4), 543–558. <https://doi.org/10.1177/0146167289154008>
- Eagly, A. H., Nater, C., Miller, D. I., Kaufmann, M., & Sczesny, S. (2019). Gender stereotypes have changed: A cross-temporal meta-analysis of U.S. public opinion polls from 1946 to 2018. *American Psychologist*, 1(999). <https://doi.org/10.1037/amp0000494>
- Eagly, A. H., & Sczesny, S. (2009). Stereotypes about women, men, and leaders: Have times changed? In M. Barreto, M. K. Ryan, & M. T. Schmitt (Eds.), *The glass ceiling in the 21st century: Understanding barriers to gender equality* (pp. 21–47). Washington, DC: APA Books.
- Eagly, A. H., & Wood, W. (2011). Social role theory. In P. van Lange, A. Kruglanski, & E. T. Higgins (Eds.), *Handbook of theories in social psychology* (Vol. 2, pp. 458–476). Thousand Oaks, CA: Sage Publications.
- Eagly, A. H., Wood, W., & Diekmann, A. B. (2000). Social role theory of sex differences and similarities: A current appraisal. In T. Eckes & H. M. Trautner (Eds.), *The developmental social psychology of gender* (pp. 123–174). Mahwah, NJ: Erlbaum.
- Elprana, G., Felfe, J., Stiehl, S., & Gatzka, M. (2015). Exploring the sex difference in affective motivation to lead: Furthering the understanding of women's underrepresentation in leadership positions. *Journal of Personnel Psychology*, 14(3), 142–152. <https://doi.org/10.1027/1866-5888/a000137>
- Elsaid, E., & Ursel, N. D. (2018). Re-examining the glass cliff hypothesis using survival analysis: The case of female CEO tenure. *British Journal of Management*, 29(1), 156–170. <https://doi.org/10.1111/1467-8551.12241>
- Emmons, R. A., & McAdams, D. P. (1991). Personal strivings and motive dispositions: Exploring the links. *Personality and Social Psychology Bulletin*, 17(6), 648–654. <https://doi.org/10.1177/0146167291176007>

REFERENCES

- Engeser, S. (2005). *Lernmotivation und volitionale Handlungssteuerung: Eine Längsschnittsuntersuchung beim Statistik Lernen im Psychologiestudium* [Motivation to learn and volitional action control: A longitudinal study of learning statistics in a psychology course]. University of Potsdam. Retrieved from <https://publishup.uni-potsdam.de/opus4-ubp/frontdoor/deliver/index/docId/217/file/ENGESER.PDF>
- Engeser, S., & Baumann, N. (2014). Does achievement motivation mediate the semantic achievement priming effect? *Journal of Experimental Psychology: General*, 143(5), 1861–1874. <https://doi.org/10.1037/a0036864>
- Entwistle, D. R. (1972). To dispel fantasies about fantasy-based measures of achievement motivation. *Psychological Bulletin*, 77(6), 377–391. <https://doi.org/10.1037/h0020021>
- Falkenberg, L. (1990). Improving the accuracy of stereotypes within the workplace. *Journal of Management*, 16(1), 107–118. <https://doi.org/10.1177/014920639001600108>
- Fama, E. F., & French, K. R. (1997). Industry costs of equity. *Journal of Financial Economics*, 43(2), 153–193. [https://doi.org/10.1016/S0304-405X\(96\)00896-3](https://doi.org/10.1016/S0304-405X(96)00896-3)
- Felin, T., Foss, N. J., & Ployhart, R. E. (2015). The microfoundations movement in strategy and organization theory. *The Academy of Management Annals*, 9(1), 575–632. <https://doi.org/10.1080/19416520.2015.1007651>
- Feuer, D. (1988). How women manage. *Training*, 25(8), 23–31.
- Fineman, S. (1977). The achievement motive construct and its measurement: Where are we now? *British Journal of Psychology*, 68(1), 1–22. <https://doi.org/10.1111/j.2044-8295.1977.tb01554.x>
- Fiske, A. P., Haslam, N., & Fiske, S. T. (1991). Confusing one person with another: What errors reveal about the elementary forms of social relations. *Journal of Personality and Social Psychology*, 60(5), 656–674. <https://doi.org/10.1037/0022-3514.60.5.656>
- Fiske, S. T. (1998). Stereotyping, prejudice, and discrimination. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 2, pp. 357–411). Boston: McGraw-Hill.
- Fondas, N. (1997). Feminization unveiled: Management qualities in contemporary writings. *The Academy of Management Review*, 22(1), 257–282. <https://doi.org/10.2307/259231>
- Forbes, J. B., Piercy, J. E., & Hayes, T. L. (1988). Women executives: Breaking down barriers? *Business Horizons*, 31(6), 6–9. [https://doi.org/10.1016/0007-6813\(88\)90016-X](https://doi.org/10.1016/0007-6813(88)90016-X)
- Foschi, M. (1992). Gender and double standards for competence. In C. L. Ridgeway (Ed.), *Gender, interaction, and inequality* (pp. 181–207). New York: Springer-Verlag.

- Foschi, M. (1996). Double standards in the evaluation of men and women. *Social Psychology Quarterly*, 59(3), 237–254. <https://doi.org/10.2307/2787021>
- Foschi, M. (2000). Double standards for competence: Theory and research. *Annual Review of Sociology*, 26(1), 21–42. <https://doi.org/10.1146/annurev.soc.26.1.21>
- French, K. R. (2019, January). *Detail for 12 industry portfolios*. Retrieved from http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/Data_Library/det_12_in_d_port.html (accessed 14 January 2019).
- Furtado, E. P. H., & Rozeff, M. S. (1987). The wealth effects of company initiated management changes. *Journal of Financial Economics*, 18(1), 147–160. [https://doi.org/10.1016/0304-405X\(87\)90065-1](https://doi.org/10.1016/0304-405X(87)90065-1)
- Gable, S. L., Reis, H. T., & Elliot, A. J. (2003). Evidence for bivariate systems: An empirical test of appetition and aversion across domains. *Journal of Research in Personality*, 37(5), 349–372. [https://doi.org/10.1016/S0092-6566\(02\)00580-9](https://doi.org/10.1016/S0092-6566(02)00580-9)
- Gantchev, N. (2013). The costs of shareholder activism: Evidence from a sequential decision model. *Journal of Financial Economics*, 107, 610–631. <http://dx.doi.org/10.1016/j.jfineco.2012.09.007>
- Gardner, J. (1965). The antileadership vaccine. In *1965 Annual Report, Carnegie Corporation of New York* (pp. 3–12). New York, NY: Carnegie Corporation of New York.
- Gardner, W. L., & Gabriel, S. (2004). Gender differences in relational and collective interdependence: Implications for self-views, social behavior, and subjective well-being. In A. H. Eagly, A. E. Beall, & R. J. Sternberg (Eds.), *The psychology of gender* (2nd ed., pp. 169–191). New York: Guilford Press.
- Garvin, D. A. (1993). Building a learning organization. *Harvard Business Review*, 71(4), 78–91.
- Geis, F. L. (1993). Self-fulfilling prophecies: a social psychological view of gender. In A. E. Beall & R. J. Sternberg (Eds.), *The psychology of gender* (pp. 9–54). Guilford Press, New York, NY.
- Gilbert, D. T., & Malone, P. S. (1995). The correspondence bias. *Psychological Bulletin*, 117(1), 21–38. <https://doi.org/10.1037/0033-2909.117.1.21>
- Gilligan, C. (1982). *In a different voice*. Cambridge: Harvard University Press.
- Glass, C., & Cook, A. (2016). Leading at the top: Understanding women's challenges above the glass ceiling. *Leadership Quarterly*, 27(1), 51–63. <https://doi.org/10.1016/j.leaqua.2015.09.003>
- Glick, P., & Fiske, S. T. (2007). Sex discrimination: The psychological approach. In F. J. Crosby, M. S. Stockdale, & S. A. Ropp (Eds.), *Sex discrimination in the workplace: Multidisciplinary perspectives* (pp. 155–187). Malden, MA: Blackwell.

REFERENCES

- Goranova, M., & Ryan, L. V. (2014). Shareholder activism: A multidisciplinary review. *Journal of Management*, 40, 1230–1268.
<http://dx.doi.org/10.1177/0149206313515519>
- Graen, G. B. (2006). In the eye of the beholder: Cross-cultural lesson in leadership from project GLOBE: A response viewed from the third culture bonding (TCB) model of cross-cultural leadership. *Academy of Management Perspectives*, 20(4), 95–101. <https://doi.org/10.5465/amp.2006.23270309>
- Gramm, J. (2016). *Dear Chairman: Boardroom battles and the rise of shareholder activism*. New York, NY: HarperCollins.
- Green, S. B. (1991). How many subjects does it take to do a regression analysis. *Multivariate behavioral research*, 26(3), 499-510.
https://doi.org/10.1207/s15327906mbr2603_7.
- Gupta, V. K., Han, S., Mortal, S. C., Silveri, S. (Dino), & Turban, D. B. (2018). Do women CEOs face greater threat of shareholder activism compared to male CEOs? A role congruity perspective. *Journal of Applied Psychology*, 103(2), 228–236. <https://doi.org/10.1037/apl0000269>
- Gupta, V. K., Mortal, S. C., Silveri, S., Sun, M., & Turban, D. B. (2018). You're fired! Gender disparities in CEO dismissal. *Journal of Management*. Advance online publication. <https://doi.org/10.1177/0149206318810415>
- Gutek, B. A., & Morasch, B. (1982). Sex-ratios, sex-role spillover, and sexual harassment of women at work. *Journal of Social Issues*, 38(4), 55–74.
<https://doi.org/10.1111/j.1540-4560.1982.tb01910.x>
- Hair J. F., Jr., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Haleblian, J., & Finkelstein, S. (1993). Top management team size, CEO dominance, and firm performance: The moderating roles of environmental turbulence and discretion. *Academy of Management Journal*, 36(4), 844–863.
<https://doi.org/10.2307/256761>
- Hallahan, K., Holtzhausen, D., van Ruler, B., Verčič, D., & Sriramesh, K. (2007). Defining strategic communication. *International Journal of Strategic Communication*, 1(1), 3–35. <https://doi.org/10.1080/15531180701285244>
- Hambrick, D. C. (2007). Upper echelons theory: An update. *Academy of Management Review*, 32(2), 334–343.
<https://doi.org/10.5465/AMR.2007.24345254>
- 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.
<https://doi.org/10.5465/amr.1984.4277628>
- Hambrick, D. C., & Quigley, T. J. (2014). Toward more accurate contextualization of the CEO effect on firm performance. *Strategic Management Journal*, 35(4),

- 473–491. <https://doi.org/10.1002/smj.2108>
- Hannan, M. T., & Freeman, J. (1977). The population ecology of organizations. *American Journal of Sociology*, 82(5), 929–964. <https://doi.org/10.1086/226424>
- Hanson, D., & Tranter, B. (2006). Who are the shareholders in Australia and what are their ethical opinions? An empirical analysis. *Corporate Governance: An International Review*, 14(1), 23–32. <https://doi.org/10.1111/j.1467-8683.2006.00481.x>
- Haslam, S. A., & Ryan, M. K. (2008). The road to the glass cliff: Differences in the perceived suitability of men and women for leadership positions in succeeding and failing organizations. *The Leadership Quarterly*, 19(5), 530–546. <https://doi.org/10.1016/j.leaqua.2008.07.011>
- Haslam, S. A., Ryan, M. K., Kulich, C., Trojanowski, G., & Atkins, C. (2010). Investing with prejudice: The relationship between women's presence on company boards and objective and subjective measures of company performance. *British Journal of Management*, 21(2), 484–497. <https://doi.org/10.1111/j.1467-8551.2009.00670.x>
- Haveman H. A. (1993). Follow the leader: mimetic isomorphism and entry into new markets. *Administrative Science Quarterly*, 38(4), 593–627. <https://doi.org/10.2307/2393338>
- Heilman, M. E. (1983). Sex bias in work settings: The lack of fit model. *Research in Organizational Behavior*, 5, 269–298.
- Heilman, M. E. (2001). Description and prescription: How gender stereotypes prevent women's ascent up the organizational ladder. *Journal of Social Issues*, 57(4), 657–674. <https://doi.org/10.1111/0022-4537.00234>
- Heilman, M. E. (2012). Gender stereotypes and workplace bias. *Research in Organizational Behavior*, 32, 113–135. <https://doi.org/10.1016/j.riob.2012.11.003>
- Heilman, M. E., Block, C. J., & Martell, R. F. (1995). Sex stereotypes: Do they influence perceptions of managers? *Journal of Social Behavior and Personality*, 10(6), 237–252.
- Heilman, M. E., Block, C. J., Martell, R. F., & Simon, M. C. (1989). Has anything changed? Current characterizations of men, women, and managers. *Journal of Applied Psychology*, 74(6), 935–942. <https://doi.org/10.1037/0021-9010.74.6.935>
- Heilman, M. E., & Chen, J. J. (2005). Same behavior, different consequences: Reactions to men's and women's altruistic citizenship behavior. *Journal of Applied Psychology*, 90(3), 431–441. <https://doi.org/10.1037/0021-9010.90.3.431>
- Heilman, M. E., & Okimoto, T. G. (2007). Why are women penalized for success at

REFERENCES

- male tasks? The implied communality deficit. *Journal of Applied Psychology*, 92(1), 81. <https://doi.org/10.1037/0021-9010.92.1.81>
- Heilman, M. E., Wallen, A. S., Fuchs, D., & Tamkins, M. M. (2004). Penalties for success: Reactions to women who succeed at male gender-typed tasks. *Journal of Applied Psychology*, 89(3), 416–427. <https://doi.org/10.1037/0021-9010.89.3.416>
- Helgeson, V. S. (1994). Relation of agency and communion to well-being: Evidence and potential explanations. *Psychological Bulletin*, 116(3), 412–428. <https://doi.org/10.1037/0033-2909.116.3.412>
- Hentschel, T., Braun, S., Peus, C., & Frey, D. (2018). The communality-bonus effect for male transformational leaders—leadership style, gender, and promotability. *European Journal of Work and Organizational Psychology*, 27(1), 112–125. <https://doi.org/10.1080/1359432X.2017.1402759>
- Heyns, R. W., Veroff, J., & Atkinson, J. W. (1958). A scoring manual for the affiliation motive. In J. W. Atkinson (Ed.), *Motives in fantasy, action, and society* (pp. 205–218). Princeton, NJ: Van Nostrand.
- Hofer, J., Busch, H., Bond, M. H., Campos, D., Li, M., & Law, R. (2010). The implicit power motive and sociosexuality in men and women: Pancultural effects of responsibility. *Journal of Personality and Social Psychology*, 99(2), 380–394. <https://doi.org/10.1037/a0020053>
- Hofer, J., Busch, H., Chasiotis, A., Kärtner, J., & Campos, D. (2008). Concern for generativity and its relation to implicit pro-social power motivation, generative goals, and satisfaction with life: A cross-cultural investigation. *Journal of Personality*, 76(1), 1–30. <https://doi.org/10.1111/j.1467-6494.2007.00478.x>
- Hofer, J., & Chasiotis, A. (2003). Congruence of life goals and implicit motives as predictors of life satisfaction: Cross-cultural implications of a study of Zambian male adolescents. *Motivation and Emotion*, 27(3), 251–272. <https://doi.org/10.1023/A:1025011815778>
- Hofer, J., & Chasiotis, A. (2011). Implicit motives across cultures. *Online Readings in Psychology and Culture*, 4(1). <https://doi.org/10.9707/2307-0919.1097>. Retrieved from <http://scholarworks.gvsu.edu/orpc/vol4/iss1/5>
- Hofer, J., Chasiotis, A., & Campos, D. (2006). Congruence between social values and implicit motives: effects on life satisfaction across three cultures. *European Journal of Personality*, 20(4), 305–324. <https://doi.org/10.1002/per.590>
- Hofer, J., Chasiotis, A., Friedlmeier, W., Busch, H., & Campos, D. (2005). The measurement of implicit motives in three cultures power and affiliation in Cameroon, Costa Rica, and Germany. *Journal of Cross-Cultural Psychology*, 36(6), 689–716. <https://doi.org/10.1177/0022022105280510>
- Hoffman, B. J., Bynum, B. H., Piccolo, R. F., & Sutton, A. W. (2011). Person-organization value congruence: How transformational leaders influence work group effectiveness. *Academy of Management Journal*, 54(4), 779–796.

<https://doi.org/10.5465/amj.2011.64870139>

- Hoffman, B. J., Woehr, D. J., Maldagen-Youngjohn, R., & Lyons, B. D. (2011). Great man or great myth? A quantitative review of the relationship between individual differences and leader effectiveness. *Journal of Occupational and Organizational Psychology*, 84(2), 347–381. <https://doi.org/10.1348/096317909X485207>
- Hofstede, G., Hofstede G. J., & Minkov, M. (2010). *Cultures and organizations: Software of the mind* (Rev.ed., 3rd ed.). New York: McGraw-Hill.
- Hogan, R., & Kaiser, R. B. (2005). What we know about leadership. *Review of General Psychology*, 9(2), 169–180. <https://doi.org/10.1037/1089-2680.9.2.169>
- Hogue, M. (2016). Gender bias in communal leadership: examining servant leadership. *Journal of Managerial Psychology*, 31(4), 837–849. <https://doi.org/10.1108/JMP-10-2014-0292>
- Holmes, M. (2008). *Gender and everyday life*. Routledge. <https://doi.org/10.4324/9780203929384>
- Hong, Y., & Ki, E. (2007). How do public relations practitioners perceive investor relations? An exploratory study. *Corporate Communications: An International Journal*, 12(2), 199–213. <https://doi.org/10.1108/13563280710744856>
- Hoobler, J. M., Masterson, C. R., Nkomo, S. M., & Michel, E. J. (2018). The business case for women leaders: Meta-analysis, research critique, and path forward. *Journal of Management*, 44(6), 2473–2499. <https://doi.org/10.1177/0149206316628643>
- Hosmer, D. W., Lemeshow, S., & May, S. (2008). *Applied survival analysis: Regression modeling of time to event data* (2nd ed.) Hoboken, NJ, USA: John Wiley & Sons, Inc. <https://doi.org/10.1002/9780470258019>
- House, R. J. (1977). A 1976 theory of charismatic leadership. In J. G. Hunt & L. L. Larson (Eds.), *Leadership: The cutting edge* (pp. 189-207). Carbondale: Southern Illinois University Press.
- House, R. J., & Aditya, R. N. (1997). The social scientific study of leadership: Quo vadis? *Journal of Management*, 23(3), 409–473. <https://doi.org/10.1177/014920639702300306>
- House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., & Gupta, V. (Eds.). (2004). *Culture, leadership, and organizations: The GLOBE study of 62 societies*. Thousand Oaks, CA: Sage Publications, Inc.
- House, R. J., & Howell, J. M. (1992). Personality and charismatic leadership. *The Leadership Quarterly*, 3(2), 81–108. [https://doi.org/10.1016/1048-9843\(92\)90028-E](https://doi.org/10.1016/1048-9843(92)90028-E)
- House, R. J., Spangler, W. D., & Woycke, J. (1991). Personality and charisma in the U.S. presidency: A psychological theory of leader effectiveness. *Administrative*

REFERENCES

- Science Quarterly*, 36(3), 364. <https://doi.org/10.2307/2393201>
- Howard, A. & Bray, D. W. (1988). *Managerial lives in transition: Advancing age and changing times*. New York: Guilford Press.
- Howell, D. C. (2009). *Statistical methods for psychology* (7th ed.). Belmont, CA: Cengage Learning.
- Huang, J. L., Liu, M., & Bowling, N. A. (2015). Insufficient effort responding: Examining an insidious confound in survey data. *Journal of Applied Psychology*, 100(3), 828–845. <https://doi.org/10.1037/a0038510>
- Hubbard, T. D., Christensen, D. M., & Graffin, S. D. (2017). Higher highs and lower lows: The role of corporate social responsibility in CEO dismissal. *Strategic Management Journal*, 38(11), 2255–2265. <https://doi.org/10.1002/smj.2646>
- Hyde, J. S. (2005). The gender similarities hypothesis. *American Psychologist*, 60(6), 581–592. <https://doi.org/10.1037/0003-066X.60.6.581>
- Hymowitz, C., & Schellhardt, T. D. (1986). The glass ceiling: Why women can't seem to break the invisible barrier that blocks them from the top jobs. *The Wall Street Journal*, 24(1), 1573-1592.
- IBM Corp. (2016). IBM SPSS Statistics for Windows (Version 24.0) [Software]. Armonk, NY: IBM Corp.
- IBM Corp. (2017). IBM SPSS Statistics for Windows (Version 25.0) [Software]. Armonk, NY: IBM Corp.
- International Labour Organization. (2007). *ABC of women worker's rights and gender equality* (2nd Ed.). Retrieved from https://www.ilo.org/wcmsp5/groups/public/---dgreports/---gender/documents/publication/wcms_087314.pdf
- Jackson, D. (1984). *Personality research form manual*. Port Huron, MI: Research Psychologists Press.
- Jacobs, R. L., & McClelland, D. C. (1994). Moving up the corporate ladder: A longitudinal study of the leadership motive pattern and managerial success in women and men. *Consulting Psychology Journal: Practice and Research*, 46(1), 32–41. <https://doi.org/10.1037/1061-4087.46.1.32>
- Jacquart, P., & Antonakis, J. (2015). When does Charisma matter for top-level leaders? Effect of attributional ambiguity. *Academy of Management Journal*, 58(4), 1051–1074. <https://doi.org/10.5465/amj.2012.0831>
- Javidan, M., House, R. J., Dorfman, P. W., Hanges, P. J., & Sully de Luque, M. (2006). Conceptualizing and measuring cultures and their consequences: a comparative review of GLOBE's and Hofstede's approaches. *Journal of International Business Studies*, 37(6), 897–914. <https://doi.org/10.1057/palgrave.jibs.8400234>

- Jenkins, S. R. (1987). Need for achievement and women's careers over 14 years: Evidence for occupational structure effects. *Journal of Personality and Social Psychology*, 53(5), 922–932. <https://doi.org/10.1037/0022-3514.53.5.922>
- Jenkins, S. R. (1994). Need for power and women's careers over 14 years: Structural power, job satisfaction, and motive change. *Journal of Personality and Social Psychology*, 66(1), 155–165. <https://doi.org/10.1037/0022-3514.66.1.155>
- Job, V., Langens, T. A., & Brandstätter, V. (2009). Effects of achievement goal striving on well-being: The moderating role of the explicit achievement motive. *Personality and Social Psychology Bulletin*, 35(8), 983–996. <https://doi.org/10.1177/0146167209336606>
- John, O. P., Robins, R. W., & Pervin, L. A. (Eds.). (2008). *Handbook of personality: Theory and research* (3rd ed.). New York: Guilford.
- Johnson, S. K., Murphy, S. E., Zewdie, S., & Reichard, R. J. (2008). The strong, sensitive type: Effects of gender stereotypes and leadership prototypes on the evaluation of male and female leaders. *Organizational Behavior and Human Decision Processes*, 106(1), 39–60. <https://doi.org/10.1016/j.obhdp.2007.12.002>
- Joshi, A., Neely, B., Emrich, C., Griffiths, D., & George, G. (2015). Gender research in AMJ: An overview of five decades of empirical research and calls to action. *Academy of Management Journal*, 58(5), 1459–1475. <https://doi.org/10.5465/amj.2015.4011>
- Judge, E. (2003, November 11). Women on board: Help or hindrance? *The Times*. Retrieved from <https://www.thetimes.co.uk/article/women-on-board-help-or-hindrance-2c6fnqf6fng>
- Judge, T. A., & Bono, J. E. (2000). Five-factor model of personality and transformational leadership. *Journal of Applied Psychology*, 85(5), 751–765. <https://doi.org/10.1037/0021-9010.85.5.751>
- Judge, T. A., Bono, J. E., Ilies, R., & Gerhardt, M. W. (2002). Personality and leadership: A qualitative and quantitative review. *Journal of Applied Psychology*, 87(4), 765–780. <https://doi.org/10.1037/0021-9010.87.4.765>
- Judge, T. A., Piccolo, R. F., & Ilies, R. (2004). The forgotten ones? The validity of consideration and initiating structure in leadership research. *Journal of Applied Psychology*, 89(1), 36–51. <https://doi.org/10.1037/0021-9010.89.1.36>
- 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. *Leadership Quarterly*, 20(6), 855–875. <https://doi.org/10.1016/j.leaqua.2009.09.004>
- Jung, Y., & Takeuchi, N. (2016). Gender differences in career planning and success. *Journal of Managerial Psychology*, 31(2), 603–623. <https://doi.org/10.1108/JMP-09-2014-0281>
- Jussim, L., Coleman, L. M., & Lerch, L. (1987). The nature of stereotypes: A

REFERENCES

- comparison and integration of three theories. *Journal of Personality and Social Psychology*, 52(3), 536–546. <https://doi.org/10.1037/0022-3514.52.3.536>
- Kagan, J. (2002). *Surprise, uncertainty, and mental structures*. Cambridge, MA: Harvard University Press.
- Kanfer, R. (2009). Work motivation: Advancing theory and impact. *Industrial and Organizational Psychology*, 2(1), 118–127. <https://doi.org/10.1111/j.1754-9434.2008.01120.x>
- Kanfer, R., Frese, M., & Johnson, R. E. (2017). Motivation related to work: A century of progress. *Journal of Applied Psychology*, 102(3), 338–355. <https://doi.org/10.1037/apl0000133>
- Kanter, R. M. (1977). Some effects of proportions on group life: Skewed sex ratios and responses to token women. *American Journal of Sociology*, 82(5), 965–990. <https://doi.org/10.1086/226425>
- Kark, R., & Eagly, A. (2010). Gender and leadership: Negotiating the labyrinth. In J. C. Chrisler & D. R. McCreary (Eds.), *Handbook of gender research in psychology* (pp. 443–468). New York, NY: Springer. <https://doi.org/10.1007/978-1-4419-1467-5>
- Kark, R., Waismel-Manor, R., & Shamir, B. (2012). Does valuing androgyny and femininity lead to a female advantage? The relationship between gender-role, transformational leadership and identification. *The Leadership Quarterly*, 23(3), 620–640. <https://doi.org/10.1016/j.leaqua.2011.12.012>
- Kazén, M., & Kuhl, J. (2005). Intention memory and achievement motivation: Volitional facilitation and inhibition as a function of affective contents of need-related stimuli. *Journal of Personality and Social Psychology*, 89(3), 426–448. <https://doi.org/10.1037/0022-3514.89.3.426>
- Kehr, H. M. (2004a). Implicit/explicit motive discrepancies and volitional depletion among managers. *Personality and Social Psychology Bulletin*, 30(3), 315–327. <https://doi.org/10.1177/0146167203256967>
- Kehr, H. M. (2004b). Integrating implicit motives, explicit motives, and perceived abilities: The compensatory model of work motivation and volition. *The Academy of Management Review*, 29(3), 479. <https://doi.org/10.2307/20159055>
- Kehr, H. M., Thrash, T. M., & Wright, R. A. (2011). New directions in implicit motive research: a special issue. *Motivation and Emotion*, 35(3), 249–250. <https://doi.org/10.1007/s11031-011-9240-y>
- Keller, J. (2005). In genes we trust: The biological component of psychological essentialism and its relationship to mechanisms of motivated social cognition. *Journal of Personality and Social Psychology*, 88(4), 686–702. <https://doi.org/10.1037/0022-3514.88.4.686>
- Kets De Vries, M., & Engellau, E. (2010). A clinical approach to the dynamics of leadership and executive transformation. In N. Nohria & R. Khurana (Eds.),

- Handbook of leadership theory and practice* (pp. 183-222). Boston, MA: Harvard Business Press.
- Kihlstrom, J. F. (1990). The psychological unconscious. In L. A. Pervin (Ed.), *Handbook of personality. Theory and research* (pp. 445–464). New York: Guilford.
- Kirkpatrick, S. A., Wofford, J. C., & Baum, J. R. (2002). Measuring motive imagery contained in the vision statement. *Leadership Quarterly*, 13(2), 139–150. [https://doi.org/10.1016/S1048-9843\(02\)00096-6](https://doi.org/10.1016/S1048-9843(02)00096-6)
- Kinahan, M. (2014). *Hierarchy enhancing vs. hierarchy attenuating: do men and women differ in their preferences for leadership roles* (Doctoral dissertation, Dublin City University, Dublin, Ireland). Retrieved from <http://doras.dcu.ie/19729/>
- Klein, J. P., & Moeschberger, M. L. (2006). *Survival analysis: techniques for censored and truncated data* (2nd ed.). Springer Science & Business Media.
- Klinger, E. (1971). *Structure and functions of fantasy*. New York: Wiley & Sons.
- Koenig, A. M. (2018). Comparing prescriptive and descriptive gender stereotypes about children, adults, and the elderly. *Frontiers in Psychology*, 9(JUN). <https://doi.org/10.3389/fpsyg.2018.01086>
- Koenig, A. M., Eagly, A. H., Mitchell, A. A., & Ristikari, T. (2011). Are leader stereotypes masculine? A meta-analysis of three research paradigms. *Psychological Bulletin*, 137(4), 616–642. <https://doi.org/10.1037/a0023557>
- Köllner, M. G., & Schultheiss, O. C. (2014). Meta-analytic evidence of low convergence between implicit and explicit measures of the needs for achievement, affiliation, and power. *Frontiers in Psychology*, 5(AUG). <https://doi.org/10.3389/fpsyg.2014.00826>
- Koo, T. K., & Li, M. Y. (2016). A guideline of selecting and reporting intraclass correlation coefficients for reliability research. *Journal of Chiropractic Medicine*, 15(2), 155–163. <https://doi.org/10.1016/j.jcm.2016.02.012>
- Korn Ferry Institute (2017) *Women CEOs Speak: Strategies for the next generation of female executives and how companies can pave the road*. Retrieved from <https://engage.kornferry.com/womenceospeak>
- Kuhl, J. (1999). *Der Motiv-Umsetzungs-Test (MUT) [The motive- enactment-test (MUT)]*. (Unpublished questionnaire). University of Osnabrück, Osnabrück, Germany.
- Kuhl, J. (2000). A functional-design approach to motivation and self-regulation: The dynamics of personality systems interactions. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 111-169) <https://doi.org/10.1016/B978-012109890-2/50034-2>
- Kuhl, J. (2001). Motivation und Persönlichkeit: Interaktionen psychischer Systeme

REFERENCES

- [Motivation and personality: Interactions of mental systems]. Göttingen, Germany: Hogrefe.
- Kuhl, J., & Scheffer, D. (1999). *Der operante Multi-Motiv-Test (OMT): Manual [The operant multi-motive-test (OMT): Manual]*. University of Osnabrück, Osnabrück, Germany.
- Kunkel, A., Dennis, M. R., & Waters, E. (2003). Contemporary university students' ratings of characteristics of men, women, and CEOs. *Psychological Reports*, 93(1992), 1197–1213. <https://doi.org/10.2466/pr0.2003.93.3f.1197>
- Lang, J. W. B. (2014). A dynamic Thurstonian item response theory of motive expression in the picture story exercise: Solving the internal consistency paradox of the PSE. *Psychological Review*, 121(3), 481–500. <https://doi.org/10.1037/a0037011>
- Lang, J. W. B., Zettler, I., Ewen, C., & Hülshager, U. R. (2012). Implicit motives, explicit traits, and task and contextual performance at work. *Journal of Applied Psychology*, 97(6), 1201–1217. <https://doi.org/10.1037/a0029556>
- Langens, T. A., & McClelland, D. C. (1997). Implicit motives, explicit motives, and emotional well-being. Poster session presented at the 105th Convention of the American Psychological Association, Chicago. Retrieved from <https://pdfs.semanticscholar.org/a9cc/4b03c583b53b95c214575f8282137784da b3.pdf>
- Langens, T. A., & Schmalt, H. D. (2002). Emotional consequences of positive daydreaming: The moderating role of fear of failure. *Personality and Social Psychology Bulletin*, 28(12), 1725–1735. <https://doi.org/10.1177/014616702237653>
- Langens, T. A., & Schmalt, H. D. (2009). Motivational traits: New directions and measuring motives with the Multi-Motive-Grid (MMG). In G. J. Boyle, G. Matthews, & D. H. Sakofske (Eds.), *Personality theory and assessment* (pp. 523–544). London: Sage Publications, Inc.
- Larsen, R. J., & Buss, D. M. (2008). *Personality psychology: Domains of knowledge about human nature* (3rd ed.). New York: McGraw Hill.
- Laskin, A. V. (2005, March). *Investor relations practices at Fortune 500 companies: An exploratory study*. Paper presented at 8th Annual International Public Relations Research Conference, Miami, Florida.
- Laskin, A. V. (2007, March). *The value of investor relations: A Delphi panel investigation*. Paper presented at 10th International Public Relations Research Conference, South Miami, Florida.
- Laskin, A. V. (2018). Investor relations and financial communication: the evolution of the profession. In Laskin, A.V. (Ed.), *Handbook of financial communication and investor relations* (pp. 3-22). Walden, MA: Wiley-Blackwell.
- Latham, G. P. (1986). Job performance and appraisal. In C. L. Cooper & I.

- Robertson (Eds.), *International review of industrial and organizational psychology* (Vol. 1, pp. 117–155). London: Wiley.
- Latham, G. P., Stajkovic, A. D., & Locke, E. A. (2010). The relevance and viability of subconscious goals in the workplace. *Journal of Management*, 36(1), 234–255. <https://doi.org/10.1177/0149206309350777>
- Lawson, K. M., & Lips, H. M. (2014). The role of self-perceived agency and job attainability in women's impressions of successful women in masculine occupations. *Journal of Applied Social Psychology*, 44(6), 433–441. <https://doi.org/10.1111/jasp.12236>
- Lee, P. M., & James, E. H. (2007). SHE'-E-OS: Gender effects and investor reactions to the announcements of top executive appointments. *Strategic Management Journal*, 28(3), 227–241. <https://doi.org/10.1002/smj.575>
- Leslie, L. M., Flaherty, C., & Dahm, P. C. (2017). Why and when does the gender gap reverse? Diversity goals and the pay premium for high potential women. *Academy of Management Journal*, 60(2), 402–432. <https://doi.org/10.5465/amj.2015.0195>
- Lipman-Blumen, J. (1996). *The connective edge: Leading in an interdependent world*. San Francisco: Jossey-Bass.
- Lipman-Blumen, J. (2017). Connective leadership in an interdependent and diverse world. *Roeper Review*, 39(3), 170–173. <https://doi.org/10.1080/02783193.2017.1318994>
- Locke, K. D. (2015). Agentic and communal social motives. *Social and Personality Psychology Compass*, 9(10), 525–538. <https://doi.org/10.1111/spc3.12201>
- Lord, R. G., De Vader, C. L., & Alliger, G. M. (1986). A meta-analysis of the relation between personality traits and leadership perceptions. An application of validity generalization procedures. *Journal of Applied Psychology*, 71(3), 402–410. <https://doi.org/10.1037/0021-9010.71.3.402>
- 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. [https://doi.org/10.1016/0030-5073\(84\)90043-6](https://doi.org/10.1016/0030-5073(84)90043-6)
- Lord, R. G., & Maher, K. J. (1993). *Leadership and information processing: Linking perceptions and performance*. New York: Routledge.
- Lubatkin, M. H., Chung, K. H., Rogers, R. C., & Owers, J. E. (1989). Stockholder reactions to CEO changes in large corporations. *Academy of Management Journal*, 32(1), 47–68. <https://doi.org/10.5465/256419>
- Lueptow, L. B., Garovich, L., & Lueptow, M. B. (1995). The persistence of gender stereotypes in the face of changing sex roles: Evidence contrary to the sociocultural model. *Ethology & Sociobiology*, 16(6), 509–530. [https://doi.org/10.1016/0162-3095\(95\)00072-0](https://doi.org/10.1016/0162-3095(95)00072-0)

REFERENCES

- MacCallum, R. C., Zhang, S., Preacher, K. J., & Rucker, D. D. (2002). On the practice of dichotomization of quantitative variables. *Psychological Methods*, 7(1), 19–40. <https://doi.org/10.1037/1082-989X.7.1.19>
- Magee, J. C., & Langner, C. A. (2008). How personalized and socialized power motivation facilitate antisocial and prosocial decision-making. *Journal of Research in Personality*, 42(6), 1547–1559. <https://doi.org/10.1016/j.jrp.2008.07.009>
- Marinova, J., Plantenga, J., & Remery, C. (2016). Gender diversity and firm performance: evidence from Dutch and Danish boardrooms. *International Journal of Human Resource Management*, 27(15), 1777–1790. <https://doi.org/10.1080/09585192.2015.1079229>
- Marston, C., & Straker, M. (2001). Investor relations: a European survey. *Corporate Communications: An International Journal*, 6(2), 82–93. <https://doi.org/10.1108/13563280110391043>
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370–396. <https://doi.org/10.1037/h0054346>
- McAdams, D. P. (1980). A thematic coding system for the intimacy motive. *Journal of Research in Personality*, 14(4), 413–432. [https://doi.org/10.1016/0092-6566\(80\)90001-X](https://doi.org/10.1016/0092-6566(80)90001-X)
- McAdams, D. P. (1992). The intimacy motive. In C. P. Smith, J. W. Atkinson, D. C. McClelland, & J. Veroff (Eds.), *Motivation and personality: Handbook of thematic content analysis* (pp. 224–228). New York: Cambridge University Press.
- McAdams, D. P. (2009). *The person: An introduction to the science of personality psychology* (5th ed.). Hoboken, NJ: Wiley.
- McAdams, D. P., Lester, R. M., Brand, P. A., McNamara, W. J., & Lensky, D. B. (1988). Sex and the TAT: Are women more intimate than men? Do men fear intimacy? *Journal of Personality Assessment*, 52(3), 397–409. https://doi.org/10.1207/s15327752jpa5203_1
- McCann, J., & Sweet, M. (2014). The perceptions of ethical and sustainable leadership. *Journal of Business Ethics*, 121(3), 373–383. <https://doi.org/10.1007/s10551-013-1704-4>
- McClelland, D. C. (1978). Managing motivation to expand human freedom. *American Psychologist*, 33(3), 201–210. <https://doi.org/10.1037/0003-066X.33.3.201>
- McClelland, D. C. (1980). Motive dispositions. The merits of operant and respondent measures. In L. Wheeler (Ed.), *Review of personality and social psychology* (Vol. 1, pp. 10–41). Beverly Hills, CA: Sage.
- McClelland, D. C. (1984). *Motives, personality, and society: Selected papers*. New York: Praeger Publishers.

- McClelland, D. C. (1987a). *Human motivation*. Cambridge, UK: Cambridge University Press.
- McClelland, D. C. (1987b). The power motive. In *Human motivation* (pp. 268-332). <https://doi.org/10.1017/CBO9781139878289.010>
- McClelland, D. C. (1989). Motivational factors in health and disease. *American Psychologist*, 44(4), 675–683. <https://doi.org/10.1037/0003-066X.44.4.675>
- McClelland, D. C., Atkinson, J. W., Clark, R. A., & Lowell, E. L. (1953). *The achievement motive*. New York: Appleton-Century-Crofts.
- McClelland, D. C., & Boyatzis, R. E. (1982). Leadership motive pattern and long-term success in management. *Journal of Applied Psychology*, 67(6), 737–743. <https://doi.org/10.1037/0021-9010.67.6.737>
- McClelland, D. C., & Burnham, D. (1976). Power is the great motivator. *Harvard Business Review*, 25(3/4), 159-166.
- McClelland, D. C., & Burnham, D. H. (2003). Power is the great motivator. *Harvard Business Review*, 81(1), 117-126.
- McClelland, D. C., & Franz, C. E. (1992). Motivational and other sources of work accomplishments in mid-life: A longitudinal study. *Journal of Personality*, 60(4), 679–707. <https://doi.org/10.1111/j.1467-6494.1992.tb00270.x>
- McClelland, D. C., & Koestner, R. (1992). The achievement motive. In C. P. Smith (Ed.), *Motivation and personality: Handbook of thematic content analysis* (pp. 143–152). New York: Cambridge University Press.
- McClelland, D. C., Koestner, R., & Weinberger, J. (1989). How do self-attributed and implicit motives differ? *Psychological Review*, 96(4), 690–702. <https://doi.org/10.1037/0033-295X.96.4.690>
- McClelland, D. C., & Pilon, D. A. (1983). Sources of adult motives in patterns of parent behavior in early childhood. *Journal of Personality and Social Psychology*, 44(3), 564–574. <https://doi.org/10.1037/0022-3514.44.3.564>
- McClelland, D. C., & Winter, D. G. (1969). *Motivating economic achievement: Accelerating economic development through psychological training*. New York: Free Press.
- Meade, A. W., & Craig, S. B. (2012). Identifying careless responses in survey data. *Psychological Methods*, 17(3), 437–455. <https://doi.org/10.1037/a0028085>
- Mednick, M. T., & Thomas, V. G. (1993). Women and the psychology of achievement: A view from the eighties. In F. L. Denmark & M. A. Paludi (Eds.), *Psychology of women: A handbook of issues and theories* (pp. 585–626). Westport, CT: Greenwood.
- Mencarini L. (2014) Gender equity. In A. C. Michalos (Ed.), *Encyclopedia of quality of life and well-being research* (pp. 2437-2438). Dordrecht: Springer.

REFERENCES

- Miller, E. (1993). *From dependency to autonomy: Studies in organization and change*. London: Free Association Books.
- Miner, J. B. (1978). Twenty years of research on role-motivation theory of managerial effectiveness. *Personnel Psychology*, 31(4), 739–760. <https://doi.org/10.1111/j.1744-6570.1978.tb02122.x>
- Miner, J. B. (1993). *Role motivation theories*. London: Routledge.
- Miner, J. B. (2005). Role motivation theory. In J.B. Miner (Ed.), *Organizational behavior I: Essential theories of motivation and leadership* (Vol. 1., pp. 319–336). Armonk, NY: M.E. Sharpe.
- Mischel, W. (1968). *Personality and assessment*. New York, NY: Wiley.
- Mishra, S. (2018). Women in the C-Suite: The next frontier in gender diversity. *Harvard Law School Forum on Corporate Governance*. Retrieved from <https://corpgov.law.harvard.edu/2018/08/13/women-in-the-c-suite-the-next-frontier-in-gender-diversity/>
- Mitchell, T. R. (1979). Organizational behavior. *Annual Review of Psychology*, 30, 243–281. <http://dx.doi.org/10.1146/annurev.ps.30.020179.001331>
- Morad, R., (2018, May 30). Are women COOs facing a new kind of glass ceiling? *NBC News*. Retrieved from <https://www.nbcnews.com/know-your-value/feature/are-women-coos-facing-new-kind-glass-ceiling-ncna861346>
- Morgan, C. D., & Murray, H. A. (1935). A method for investigating fantasies: the thematic apperception test. *Archives of Neurology & Psychiatry*, 34, 289–306. <https://doi.org/10.1001/archneurpsyc.1935.02250200049005>
- Morrison, A. M., White, R. P., & Van Velsor, E. (1987). *Breaking the glass ceiling: Can women reach the top of America's largest corporations?* Reading, MA: Addison-Wesley.
- Moss-Racusin, C. A., & Johnson, E. R. (2016). Backlash against male elementary educators. *Journal of Applied Social Psychology*, 46(7), 379–393. <https://doi.org/10.1111/jasp.12366>
- Moss-Racusin, C. A., Phelan, J. E., & Rudman, L. A. (2010). When men break the gender rules: Status incongruity and backlash against modest men. *Psychology of Men & Masculinity*, 11(2), 140–151. <https://doi.org/10.1037/a0018093>
- Moss-Racusin, C. A., & Rudman, L. A. (2010). Disruptions in women's self-promotion: The backlash avoidance model. *Psychology of Women Quarterly*, 34(2), 186–202. <https://doi.org/10.1111/j.1471-6402.2010.01561.x>
- Muller, H. J., & Parham, P. A. (1998). Integrating workforce diversity into the business school curriculum: An experiment. *Journal of Management Education*, 22(2), 122–148. <https://doi.org/10.1177/105256299802200202>
- Murray, H. A. (1938). *Explorations in personality*. Retrieved from

- <http://psycnet.apa.org/psycinfo/1938-15040-000>
- Murray, H. A. (1943). *Thematic Apperception Test*. Cambridge, MA: Harvard University Press.
- Murray, H. A., & McAdams, D. P. (2010). *Explorations in personality*. <https://doi.org/10.1093/acprof:oso/9780195305067.001.0001>
- Nieva, V. E., & Gutek, B. A. (1981). *Women and work: A psychological perspective*. New York: Praeger.
- Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychological Review*, 84(3), 231–259. <https://doi.org/10.1037/0033-295X.84.3.231>
- North, M. S., & Fiske, S. T. (2014). Social Categories Create and Reflect Inequality: Psychological and Sociological Insights. In J. Cheng, J. Tracy, & C. Anderson (Eds.), *The psychology of social status* (pp. 243-265). https://doi.org/10.1007/978-1-4939-0867-7_12
- O'Connor, B. P. (2000). SPSS and SAS programs for determining the number of components using parallel analysis and Velicer's MAP test. *Behavior Research Methods, Instrumentation, and Computers*, 32, 396-402.
- O'Connor, V. J. (2001). Women and men in senior management – a “different needs” hypothesis. *Women in Management Review*, 16(8), 400–404. <https://doi.org/10.1108/EUM00000000006291>
- OECD (2018). *Educational attainment and labour-force status: Population who attained tertiary education, by sex and age group*. Retrieved from <https://stats.oecd.org/Index.aspx?QueryId=85692#>
- Okahana, H., & Zhou, E. (2018). *Graduate enrollment and degrees: 2007 to 2017*. Washington, DC: Council of Graduate Schools. Retrieved from https://cgsnet.org/ckfinder/userfiles/files/CGS_GED17_Report.pdf
- Okimoto, T. G., & Brescoll, V. L. (2010). The price of power: Power seeking and backlash against female politicians. *Personality and Social Psychology Bulletin*, 36(7), 923–936. <https://doi.org/10.1177/0146167210371949>
- Oppenheimer, D. M., Meyvis, T., & Davidenko, N. (2009). Instructional manipulation checks: Detecting satisficing to increase statistical power. *Journal of Experimental Social Psychology*, 45(4), 867–872. <https://doi.org/10.1016/j.jesp.2009.03.009>
- Pang, J. S., (2010). Content coding methods in implicit motive assessment: Standards of measurement and best practices for the picture story exercise. In O. C. Schultheiss & J. Brunstein (Eds.), *Implicit Motives* (pp. 119-151). New York: Oxford University Press. doi: 10.1093/acprof:oso/9780195335156.001.0001
- Pang, J. S., & Baumann, N., (in press), At the crossroads of women's experience: Insights from and intersections between motivation, emotion, gender, and

REFERENCES

- culture, in F. M. Cheung and D. F. Halpern (Ed.), *The Cambridge International Handbook on Psychology of Women*, Cambridge University Press, Cambridge, UK, pp. 1-38.
- Pang, J. S., & Ring, H. (2020). Automated coding of implicit motives: A machine-learning approach. *Motivation and Emotion*, 44, 549–566.
<https://doi.org/10.1007/s11031-020-09832-8>
- Pang, J. S., & Schultheiss, O. C. (2005). Assessing implicit motives in U.S. college students: Effects of picture type and position, gender and ethnicity, and cross-cultural comparisons. *Journal of Personality Assessment*, 85(3), 280–294.
https://doi.org/10.1207/s15327752jpa8503_04
- Parks-Stamm, E. J., Heilman, M. E., & Hearn, K. A. (2008). Motivated to penalize: Women's strategic rejection of successful women. *Personality and Social Psychology Bulletin*, 34(2), 237–247.
<https://doi.org/10.1177/0146167207310027>
- Paustian-Underdahl, S. C., Walker, L. S., & Woehr, D. J. (2014). Gender and perceptions of leadership effectiveness: A meta-analysis of contextual moderators. *Journal of Applied Psychology*, 99(6), 1129–1145.
<https://doi.org/10.1037/a0036751>
- Pennebaker, J. W., Francis, M. E., & Booth, R. J. (2001). Linguistic inquiry and word count: LIWC 2001. *Mahway: Lawrence Erlbaum Associates*, 71(2001), 2001.
- Pennebaker, J. W., Booth, R. J., & Francis, M. E. (2007). *LIWC 2007: Linguistic inquiry and word count* [Operator's manual]. Austin, Texas: liwc.net.
- Peterson, B. E., & Stewart, A. J. (1993). Generativity and social motives in young adults. *Journal of Personality and Social Psychology*, 65(1), 186–198.
<https://doi.org/10.1037/0022-3514.65.1.186>
- Phelan, J. E., & Rudman, L. A. (2010). Prejudice toward female leaders: Backlash effects and women's impression management dilemma. *Social and Personality Psychology Compass*, 4(10), 807–820. <https://doi.org/10.1111/j.1751-9004.2010.00306.x>
- Ployhart, R. E., Lim, B. C., & Chan, K. Y. (2001). Exploring relations between typical and maximum performance ratings and the five factor model of personality. *Personnel Psychology*, 54(4), 809–843.
<https://doi.org/10.1111/j.1744-6570.2001.tb00233.x>
- Porter, M. E., Lorsch, J. W., & Nohria, N. (2004). Seven surprises for new CEOs. *Harvard Business Review*, 82(10), 62–72.
- Powell, G. N., & Butterfield, D. A. (1979). The “good manager”: Masculine or androgynous? *Academy of Management Journal*, 22, 395–403.
doi:10.2307/255597
- Powell, G. N., & Butterfield, D. A. (1989). The " Good Manager" Did Androgyny

- Fare Better in the 1980s? *Group & Organization Studies*, 14(2), 216-233.
<https://doi.org/10.1177/105960118901400209>
- Powell, G. N., & Butterfield, D. A. (1994). Investigating the “glass ceiling” phenomenon: An empirical study of actual promotions to top management. *Academy of Management Journal*, 37(1), 68–86. <https://doi.org/10.5465/256770>
- Powell, G. N., Butterfield, D. A. and Parent, J. D. (2002). Gender and managerial stereotypes: have the times changed? *Journal of Management*, 28(2), pp. 177-193.
- Powell, G. N., & Butterfield, D. A. (2003). Gender, gender identity, and aspirations to top management. *Women in Management Review*, 18(1/2), 88–96.
<https://doi.org/10.1108/09649420310462361>
- Powell, G. N., Butterfield, D. A., & Parent, J. D. (2002). Gender and managerial stereotypes: Have the times changed? *Journal of Management*, 28(2), 177–193.
<https://doi.org/10.1177/014920630202800203>
- Prentice, D. A., & Carranza, E. (2002). What women and men should be, shouldn't be, are allowed to be, and don't have to be: The contents of prescriptive gender stereotypes. *Psychology of Women Quarterly*, 26(4), 269–281.
<https://doi.org/10.1111/1471-6402.t01-1-00066>
- Prentice, D. A., & Carranza, E. (2004). Sustaining cultural beliefs in the face of their violation: The case of gender stereotypes. In M. Schaller & C. S. Crandall (Eds.), *The psychological foundations of culture* (pp. 259–280). Mahwah, NJ: Erlbaum Publishers.
- Prime, J. L., Carter, N. M., & Welbourne, T. M. (2009). Women “take care,” men “take charge”: Managers' stereotypic perceptions of women and men leaders. *The Psychologist-Manager Journal*, 12(1), 25–49.
<https://doi.org/10.1080/10887150802371799>
- Puca, R. M. (2005). The influence of the achievement motive on probability estimates in pre- and post-decisional action phases. *Journal of Research in Personality*, 39(2), 245–262. <https://doi.org/10.1016/j.jrp.2004.02.004>
- Puca, R. M., Rinkenauer, G., & Breidenstein, C. (2006). Individual differences in approach and avoidance movements: How the avoidance motive influences response force. *Journal of Personality*, 74(4), 979–1014.
<https://doi.org/10.1111/j.1467-6494.2006.00400.x>
- Pulakos, E. D., & Wexley, K. N. (1983). The relationship among perceptual similarity, sex, and performance ratings in manager-subordinate dyads. *Academy of Management Journal*, 26(1), 129–139.
<https://doi.org/10.2307/256139>
- R Core Team (2013). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. Retrieved from <http://www.R-project.org/>.

REFERENCES

- Ramalingegowda, S., & Yu, Y. (2012). Institutional ownership and conservatism. *Journal of Accounting and Economics*, 53(1/2), 98-114. <https://doi.org/10.1016/j.jacceco.2011.06.004>
- Rauch, A., & Frese, M. (2007). Let's put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners' personality traits, business creation, and success. *European Journal of Work and Organizational Psychology*, 16, 353-385. <https://doi.org/10.1080/13594320701595438>
- Reichard, R. J., Riggio, R. E., Guerin, D. W., Oliver, P. H., Gottfried, A. W., & Gottfried, A. E. (2011). A longitudinal analysis of relationships between adolescent personality and intelligence with adult leader emergence and transformational leadership. *Leadership Quarterly*, 22(3), 471-481. <https://doi.org/10.1016/j.leaqua.2011.04.005>
- Rheinberg, F., & Engeser, S. (2010). Motive training and motivational competence. In O. C. Schultheiss & J. Brunstein (Eds.), *Implicit Motives* (pp. 510-548). New York: Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780195335156.001.0001>
- Ridgeway, C. L. (2001). Gender, status, and leadership. *Journal of Social Issues*, 57(4), 637-655. <https://doi.org/10.1111/0022-4537.00233>
- Ridgeway, C., & Bourg, C. (2004). Gender as status: An expectation states theory approach. In A. H. Eagly, A. E. Beall, & R. J. Sternberg (Eds.), *The psychology of gender* (2nd ed., pp. 217-241). New York: Guilford Press.
- Ridgeway, C. L., & Correll, S. J. (2004). Unpacking the gender system: A theoretical perspective on gender beliefs and social relations. *Gender & Society*, 18(4), 510-531. <https://doi.org/10.1177/0891243204265269>
- Robins, R. W., Fraley, R. C., & Krueger, R. F. (Eds.). (2007). *Handbook of research methods in personality psychology*. New York: Guilford.
- Rose, J. M. (2007). Corporate directors and social responsibility: Ethics versus shareholder value. *Journal of Business Ethics*, 73(3), 319-331. <https://doi.org/10.1007/s10551-006-9209-z>
- Rosette, A. S., & Tost, L. P. (2010). Agentic women and communal leadership: How role prescriptions confer advantage to top women leaders. *Journal of Applied Psychology*, 95(2), 221-235. <https://doi.org/10.1037/a0018204>
- Ross, L. (1977). The intuitive psychologist and his shortcomings: distortions in the attribution process. In *Advances in Experimental Social Psychology*, 10, pp. 173-220. [https://doi.org/10.1016/S0065-2601\(08\)60357-3](https://doi.org/10.1016/S0065-2601(08)60357-3)
- Roter, D. L., Hall, J. A., & Aoki, Y. (2002). Physician gender effects in medical communication: A meta-analytic review. *Journal of the American Medical Association*, 288(6), 756-764. <https://doi.org/10.1001/jama.288.6.756>
- Rowley Mayfield, J., Mayfield, M. R., & Kopf, J. (1998). The effects of leader

- motivating language on subordinate performance and satisfaction. *Human Resource Management*, 37(34), 235–248. [https://doi.org/10.1002/\(SICI\)1099-050X\(199823/24\)37:3/4<235::AID-HRM6>3.3.CO;2-O](https://doi.org/10.1002/(SICI)1099-050X(199823/24)37:3/4<235::AID-HRM6>3.3.CO;2-O)
- Rudman, L. A. (1998). Self-promotion as a risk factor for women: The costs and benefits of counterstereotypical impression management. *Journal of Personality and Social Psychology*, 74(3), 629–645. <https://doi.org/10.1037/0022-3514.74.3.629>
- Rudman, L. A., & Fairchild, K. (2004). Reactions to counterstereotypic behavior: The role of backlash in cultural stereotype maintenance. *Journal of Personality and Social Psychology*, 87(2), 157–176. <https://doi.org/10.1037/0022-3514.87.2.157>
- Rudman, L. A., & Glick, P. (1999). Feminized management and backlash toward agentic women: The hidden costs to women of a kinder, gentler image of middle managers. *Journal of Personality and Social Psychology*, 77(5), 1004–1010. <https://doi.org/10.1037/0022-3514.77.5.1004>
- Rudman, L. A., & Glick, P. (2001). Prescriptive gender stereotypes and backlash toward agentic women. *Journal of Social Issues*, 57(4), 743–762. <https://doi.org/10.1111/0022-4537.00239>
- Rudman, L. A., & Kilianski, S. E. (2000). Implicit and explicit attitudes toward female authority. *Personality and Social Psychology Bulletin*, 26(11), 1315–1328. <https://doi.org/10.1177/0146167200263001>
- Rudman, L. A., & Mescher, K. (2013). Penalizing men who request a family leave: Is flexibility stigma a femininity stigma? *Journal of Social Issues*, 69(2), 322–340. <https://doi.org/10.1111/josi.12017>
- Rudman, L. A., Moss-Racusin, C. A., Glick, P., & Phelan, J. E. (2012). Reactions to vanguards. Advances in backlash theory. *Advances in Experimental Social Psychology*, 45, 167–227. <https://doi.org/10.1016/B978-0-12-394286-9.00004-4>
- Rudman, L. A., Moss-Racusin, C. A., Phelan, J. E., & Nauts, S. (2012). Status incongruity and backlash effects: Defending the gender hierarchy motivates prejudice against female leaders. *Journal of Experimental Social Psychology*, 48(1), 165–179. <https://doi.org/10.1016/j.jesp.2011.10.008>
- Rudman, L. A., & Phelan, J. E. (2008). Backlash effects for disconfirming gender stereotypes in organizations. *Research in Organizational Behavior*, 28, 61–79. <https://doi.org/10.1016/j.riob.2008.04.003>
- Rumelt R. (2011). *Good strategy bad strategy: The difference and why it matters*. Crown Business: New York.
- Runge, J. M. (2019). *The measurement of implicit motives in applied settings* (Doctoral dissertation, Ghent University, Ghent, Belgium). Retrieved from <https://biblio.ugent.be/publication/8632705>
- Runge, J. M., & Lang, J. W. B. (2019). Can people recognize their implicit thoughts?

REFERENCES

- The motive self-categorization test. *Psychological Assessment*, 31(7), 939–951. <https://doi.org/10.1037/pas0000720>
- Runge, J. M., Lang, J. W. B., Chasiotis, A., & Hofer, J. (2019). Improving the assessment of implicit motives using IRT: Cultural differences and differential item functioning. *Journal of Personality Assessment*, 101(4), 414–424. <https://doi.org/10.1080/00223891.2017.1418748>
- Runge, J. M., Lang, J. W. B., Engeser, S., Schüller, J., den Hartog, S. C., & Zettler, I. (2016). Modeling motive activation in the Operant Motive Test: A psychometric analysis using dynamic Thurstonian item response theory. *Motivation Science*, 2(4), 268–286. <https://doi.org/10.1037/mot0000041>
- 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. <https://doi.org/10.1111/j.1467-8551.2005.00433.x>
- Ryan, M. K., & Haslam, S. A. (2007). The glass cliff: Exploring the dynamics surrounding the appointment of women to precarious leadership positions. *Academy of Management Review*, 32(2), 549–572. <https://doi.org/10.5465/AMR.2007.24351856>
- Ryan, M. K., Haslam, S. A., Hersby, M. D., & Bongiorno, R. (2011). Think crisis–think female: The glass cliff and contextual variation in the think manager–think male stereotype. *Journal of Applied Psychology*, 96(3), 470–484. <https://doi.org/10.1037/a0022133>
- Saragovi, C., Aubé, J., Koestner, R., & Zuroff, D. (2002). Traits, motives, and depressive styles as reflections of agency and communion. *Personality and Social Psychology Bulletin*, 28(5), 563–577. <https://doi.org/10.1177/0146167202288001>
- Sarges, W. (2014). Defizitäre Felder in der Praxis der Management-Diagnostik: Daten-Quellen, Diagnostiker-Kompetenzen, Kandidaten-Gruppen. *Report Psychologie*, 39, 200–212.
- Saunders, M., Lewis, P., & Thornhill, A. (2016). *Research Methods for Business Students* (7th ed). Harlow, UK: Pearson Education Limited.
- Schaumberg, R. L., & Flynn, F. J. (2017). Self-reliance: A gender perspective on its relationship to communality and leadership evaluations. *Academy of Management Journal*, 60(5), 1859–1881. <https://doi.org/10.5465/amj.2015.0018>
- Schein, V. E. (1973). The relationship between sex role stereotypes and requisite management characteristics. *Journal of Applied Psychology*, 57(2), 95–100. <https://doi.org/10.1037/h0037128>
- Schein, V. E. (1975). Relationships between sex role stereotypes and requisite management characteristics among female managers. *Journal of Applied Psychology*, 60(3), 340–344. <https://doi.org/10.1037/h0076637>
- Schein, V. E. (2007). Women in management: Reflections and projections. *Women*

- in Management Review*, 22(1), 6–18.
<https://doi.org/10.1108/09649420710726193>
- Schmalt, H. D. (1999). Assessing the achievement motive using the grid technique. *Journal of Research in Personality*, 33, 109–130.
<http://doi.org/10.1006/jrpe.1999.2245>
- Schnelle, J., Brandstätter, V., & Knöpfel, A. (2010). The adoption of approach versus avoidance goals: The role of goal-relevant resources. *Motivation and Emotion*, 34(3), 215–229. <https://doi.org/10.1007/s11031-010-9173-x>
- Schuh, S. C., Hernandez Bark, A. S., Van Quaquebeke, N., Hossiep, R., Frieg, P., & Van Dick, R. (2014). Gender differences in leadership role occupancy: The mediating role of power motivation. *Journal of Business Ethics*, 120(3), 363–379. <https://doi.org/10.1007/s10551-013-1663-9>
- Schüler, J., Brandstätter, V., Wegner, M., & Baumann, N. (2015). Testing the convergent and discriminant validity of three implicit motive measures: PSE, OMT, and MMG. *Motivation and Emotion*, 39(6), 839–857.
<https://doi.org/10.1007/s11031-015-9502-1>
- Schüler, J., Job, V., Fröhlich, S. M., & Brandstätter, V. (2008). A high implicit affiliation motive does not always make you happy: A corresponding explicit motive and corresponding behavior are further needed. *Motivation and Emotion*, 32(3), 231–242. <https://doi.org/10.1007/s11031-008-9096-y>
- Schultheiss, O. C. (2001). An information processing account of implicit motive arousal. In M. L. Maehr & P. Pintrich (Eds.), *Advances in motivation and achievement* (Vol. 12, pp. 1-41). Greenwich, CT: JAI Press.
- Schultheiss, O. C. (2008). Implicit motives. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (3rd ed., pp. 603-633). New York, NY, US: The Guilford Press.
- Schultheiss, O. C. (2013a). Are implicit motives revealed in mere words? Testing the marker-word hypothesis with computer-based text analysis. *Frontiers in Psychology*, 4. <https://doi.org/10.3389/fpsyg.2013.00748>
- Schultheiss, O. C. (2013b). The hormonal correlates of implicit motives. *Social and Personality Psychology Compass*, 7(1), 52–65.
<https://doi.org/10.1111/spc3.12008>
- Schultheiss, O. C., & Brunstein, J. C. (2001). Assessment of implicit motives with a research version of the TAT: Picture profiles, gender differences, and relations to other personality measures. *Journal of Personality Assessment*, 77(1), 71–86.
https://doi.org/10.1207/S15327752JPA7701_05
- Schultheiss, O. C., & Brunstein, J. C. (2002). Inhibited power motivation and persuasive communication: A lens model analysis. *Journal of Personality*, 70(4), 553–582. <https://doi.org/10.1111/1467-6494.05014>
- Schultheiss, O. C., & Brunstein, J. (2010). *Implicit motives*. Oxford University Press.

REFERENCES

- <https://doi.org/10.1093/acprof:oso/9780195335156.001.0001>
- Schultheiss, O. C., Dargel, A., & Rohde, W. (2003). Implicit motives and gonadal steroid hormones: Effects of menstrual cycle phase, oral contraceptive use, and relationship status. *Hormones and Behavior*, 43(2), 293–301. [https://doi.org/10.1016/S0018-506X\(03\)00003-5](https://doi.org/10.1016/S0018-506X(03)00003-5)
- Schultheiss, O. C., & Pang, J. C. (2007). Measuring implicit motives. In R. W. Robins, R. C. Fraley, & R. Krueger (Eds.), *Handbook of research methods in personality psychology* (pp. 322–344). New York, NY: Guilford Press.
- Schultheiss, O. C., & Zimni, M. (2015). Associations between implicit motives and salivary steroids, 2D: 4D digit ratio, mental rotation performance, and verbal fluency. *Adaptive Human Behavior and Physiology*, 1(4), 387–407. <https://doi.org/10.1007/s40750-014-0012-2>
- Szczesny, S. (2005). Gender stereotypes and implicit leadership theories. In B. Schyns & J. R. Meindl (Eds.), *Implicit leadership theories: Essays and explorations* (pp. 159–172). Greenwich, CT: Information Age Publishing.
- Szczesny, S., & Kühnen, U. (2004). Meta-cognition about biological sex and gender-stereotypic physical appearance: Consequences for the assessment of leadership competence. *Personality and Social Psychology Bulletin*, 30(1), 13–21. <https://doi.org/10.1177/0146167203258831>
- Senge, P. M. (1990). *The fifth discipline: The art and practice of the learning organization*. New York: Currency Doubleday.
- Shackelford, S., Wood, W., & Worchel, S. (1996). Behavioral styles and the influence of women in mixed-sex groups. *Social Psychology Quarterly*, 59(3), 284. <https://doi.org/10.2307/2787024>
- Shaughnessy, B. A., Mislin, A. A., & Hentschel, T. (2015). Should he chitchat? The benefits of small talk for male versus female negotiators. *Basic and Applied Social Psychology*, 37(2), 105–117. <https://doi.org/10.1177/1052562916673863>
- Sherwood, J. J. (1966). Self-report and projective measures of achievement and affiliation. *Journal of Consulting Psychology*, 30, 329–337. <http://doi.org/10.1037/h0023574>
- Shinar, E. H. (1975). Sexual stereotypes of occupations. *Journal of Vocational Behavior*, 7, 99–111. [http://doi.org/10.1016/0001-8791\(75\)90037-8](http://doi.org/10.1016/0001-8791(75)90037-8)
- Shrout, P. E., & Fleiss, J. L. (1979). Intraclass correlations: Uses in assessing rater reliability. *Psychological Bulletin*, 86(2), 420–428. <https://doi.org/10.1037/0033-2909.86.2.420>
- Siegel, R., (2013). Why do so many young women want to be COOs? *Venture Beat*. Retrieved from <https://venturebeat.com/2013/03/04/why-do-so-many-young-women-want-to-be-coos/>
- Singer, J. D., & Willett, J. B. (2003). *Applied longitudinal data analysis: Modeling*

- change and event occurrence*. New York: Oxford University Press.
<https://doi.org/10.1093/acprof:oso/9780195152968.001.0001>
- Silverstein, K. (2013, May). Enron, ethics And today's corporate values. *Forbes*. Retrieved from <https://www.forbes.com/sites/kensilverstein/2013/05/14/enron-ethics-and-todays-corporate-values/>
- Singh, V. and S. Vinnicombe (2003). The 2003 Female FTSE Index. Women Pass a Milestone: 101 Directorships on the FTSE 100 Boards. Cranfield School of Management, Cranfield.
- Smith, A. G. (2008). The implicit motives of terrorist groups: How the needs for affiliation and power translate into death and destruction. *Political Psychology*, 29(1), 55–75. <https://doi.org/10.1111/j.1467-9221.2007.00612.x>
- Smith, C. P. (Ed.). (1992). *Motivation and personality: Handbook of thematic content analysis*. New York: Cambridge University Press.
- Smith, J. A., & Foti, R. J. (1998). A pattern approach to the study of leader emergence. *The Leadership Quarterly*, 9(2), 147–160. [https://doi.org/10.1016/S1048-9843\(98\)90002-9](https://doi.org/10.1016/S1048-9843(98)90002-9)
- Sokolowski, K., Schmalt, H. D., Langens, T. A., & Puca, R. M. (2000). Assessing achievement, affiliation, and power motives all at once: The multi-motive grid (MMG). *Journal of Personality Assessment*, 74(1), 126–145. <https://doi.org/10.1207/S15327752JPA740109>
- Sorrentino, R. M. (1973). An extension of theory of achievement motivation to the study of emergent leadership. *Journal of Personality and Social Psychology*, 26(3), 356–368. <https://doi.org/10.1037/h0034476>
- Spangler, W. D. (1992). Validity of questionnaire and TAT measures of need for achievement: Two meta-analyses. *Psychological Bulletin*, 112(1), 140–154. <https://doi.org/10.1037/0033-2909.112.1.140>
- Spangler, W. D., & House, R. J. (1991). Presidential effectiveness and the leadership motive profile. *Journal of Personality and Social Psychology*, 60(3), 439–455. <https://doi.org/10.1037/0022-3514.60.3.439>
- Spangler, W. D., House, R. J., & Palrecha, R. (2004). Personality and leadership. In B. Schneider & D. B. Smith (Eds.), *Personality and Organizations*. Psychology Press. <https://doi.org/10.4324/9781410610034>
- Spangler, W. D., Tikhomirov, A., Sotak, K. L., & Palrecha, R. (2014). Leader motive profiles in eight types of organizations. *Leadership Quarterly*, 25(6), 1080–1094. <https://doi.org/10.1016/j.leaqua.2014.10.001>
- Spence, J. T. (1984). Masculinity, femininity and gender-related traits: A conceptual analysis and critique of current research. In B. A. Maher & W. B. Maher (Eds.), *Progress in experimental personality research* (Vol. 13, pp. 1-97). San Diego, CA: Academic Press.

REFERENCES

- Spence, J. T., & Helmreich, R. L. (1978). *Masculinity and femininity: Their psychological dimensions, correlates, & antecedents*. Austin, Texas: University of Texas Press.
- Spreier, S. W., Fontaine, M. H., & Malloy, R. L. (2006). Leadership run amok: The destructive potential of overachievers. *Harvard Business Review*, 84(6), 72-82.
- Standard & Poor's Compustat (2019). *Compustat capital IQ – fundamentals annual*. Retrieved from <https://wrds-web.wharton.upenn.edu/wrds/index.cfm> (accessed 11 November 2019).
- Standard & Poor's Dow Jones Indices (2019, December). *S&P Composite 1500*. Retrieved from <https://us.spindices.com/indices/equity/sp-composite-1500> (accessed December 30, 2019).
- Standard & Poor's Execucomp (2019, January). *Compustat executive compensation – annual compensation*. Retrieved from <https://wrds-web.wharton.upenn.edu/wrds/index.cfm> (accessed 14 January 2019).
- Standard & Poor's Global Market Intelligence (2016a, January). *Gender gap persists at the CEO level of S&P 500*. Retrieved from <https://www.spglobal.com/marketintelligence/en/news-insights/blog/gender-gap-persists-at-the-ceo-level-of-sp-500>
- Standard & Poor's Global Market Intelligence (2016b, January). *Europe leads U.S. in closing the CEO gender gap at blue chip companies*. Retrieved from <https://www.spglobal.com/marketintelligence/en/news-insights/research/europe-leads-us-in-closing-the-ceo-gender-gap-at-blue-chip-companies>.
- Stangor, C., Lynch, L., Duan, C., & Glass, B. (1992). Categorization of individuals on the basis of multiple social features. *Journal of Personality and Social Psychology*, 62(2), 207–218. <https://doi.org/10.1037/0022-3514.62.2.207>
- Steinmann, B., Dörr, S. L., Schultheiss, O. C., & Maier, G. W. (2015). Implicit motives and leadership performance revisited: What constitutes the leadership motive pattern? *Motivation and Emotion*, 39(2), 167–174. <https://doi.org/10.1007/s11031-014-9458-6>
- Steinmann, B., Ötting, S. K., & Maier, G. W. (2016). Need for affiliation as a motivational add-on for leadership behaviors and managerial success. *Frontiers in Psychology*, 7(DEC), 1–18. <https://doi.org/10.3389/fpsyg.2016.01972>
- Stewart, A. J., & Chester, N. L. (1982). Sex differences in human social motives: Achievement, affiliation, and power. In A. J. Stewart (Ed.), *Motivation and society* (pp. 172–218). San Francisco: Jossey-Bass.
- Stewart, W. H., & Roth, P. L. (2001). Risk propensity differences between entrepreneurs and managers: A meta-analytic review. *Journal of Applied Psychology*. <https://doi.org/10.1037/0021-9010.86.1.145>
- Therneau, T. M., & Lumley, T. (2015). Package ‘survival’. *R Top Doc*, 128. Retrieved from <https://cran.r-project.org/web/packages/survival/index.html>

- Thoemmes, F. (2012). Propensity score matching in SPSS. *ArXiv Preprint*. Retrieved from <http://arxiv.org/abs/1201.6385>. (accessed 14 January 2019).
- Thrash, T. M., Cassidy, S. E., Maruskin, L. A., & Elliot, A. J. (2010). Factors that influence the relation between implicit and explicit motives: A general implicit – explicit congruence framework. In O. C. Schultheiss & J. Brunstein (Eds.), *Implicit Motives* (pp. 308–346). New York: Oxford University Press. doi: 10.1093/acprof:oso/9780195335156.001.0001
- Touhey, J. C. (1974). Effects of additional women professionals on ratings of occupational prestige and desirability. *Journal of Personality and Social Psychology*, 29(1), 86–89. <https://doi.org/10.1037/h0035742>
- Twenge, J. M. (1997). Changes in masculine and feminine traits over time: A meta-analysis. *Sex Roles*, 36(5–6), 305–325. <https://doi.org/10.1007/BF02766650>
- UN (2019). *Sustainable development goals: Goal 5- Achieve gender equality and empower all women and girls*. Retrieved from <https://www.un.org/sustainabledevelopment/gender-equality/>
- U.S. Bureau of Labor Statistics. (2017). *Women in the labor force: A databook*. Retrieved from <https://www.bls.gov>
- U.S. Bureau of Labor Statistics. (2018). *TED: The economics daily: Labor force participation rates by age and sex, seasonally adjusted*. Retrieved from <https://www.bls.gov>
- Uysal, N. (2014). The expanded role of investor relations: Socially responsible investing, shareholder activism, and organizational legitimacy. *International Journal of Strategic Communication*, 8(3), 215–230. <https://doi.org/10.1080/1553118X.2014.905478>
- Van Knippenberg, A., Van Twuyver, M., & Pepels, J. (1994). Factors affecting social categorization processes in memory. *British Journal of Social Psychology*, 33(4), 419–431. <https://doi.org/10.1111/j.2044-8309.1994.tb01038.x>
- Vecchio, R. P. (2002). Leadership and gender advantage. *The Leadership Quarterly*, 13(6), 643–671. [https://doi.org/10.1016/S1048-9843\(02\)00156-X](https://doi.org/10.1016/S1048-9843(02)00156-X)
- Vecchio, R. P. (2003). In search of gender advantage. *The Leadership Quarterly*, 14(6), 835–850. <https://doi.org/10.1016/j.leaqua.2003.09.005>
- Veenstra, K. J. (2013). CEO implicit motives: Their impact on firm investment and firm performance. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2258530>
- Veroff, J. (1982). Assertive motivations: Achievement versus power. In A. J. Stewart (Ed.), *Motivation and society* (pp. 99–132). San Francisco: Jossey-Bass.
- Veroff, J., Depner, C., Kulka, R., & Douvan, E. (1980). Comparison of American motives: 1957 versus 1976. *Journal of Personality and Social Psychology*,

REFERENCES

- 39(6), 1249–1262. <https://doi.org/10.1037/h0077729>
- Veroff, J., Reuman, D., & Feld, S. (1984). Motives in American men and women across the adult life span. *Developmental Psychology*, 20(6), 1142–1158. <https://doi.org/10.1037/0012-1649.20.6.1142>
- Vial, A. C. & Napier, J. L. (2018). Unnecessary frills: Communality as a nice (but expendable) trait in leaders. *Frontiers in Psychology*, 9(OCT). <https://doi.org/10.3389/fpsyg.2018.01866>
- Vittinghoff, E., Glidden, D. V., Shiboski, S. C. & McCulloch, C. E. (2012). *Regression Methods in Biostatistics*. New York: Springer.
- Wade, M. E. (2001). Women and salary negotiation: The costs of self-advocacy. *Psychology of Women Quarterly*, 25(1), 65–76. <https://doi.org/10.1111/1471-6402.00008>
- Watson, C. (1988). When a woman is the boss: Dilemmas in taking charge. *Group & Organization Management*, 13(2), 163–181. <https://doi.org/10.1177/105960118801300204>
- Watson, J. G., & Barone, S. (1976). The self-concept, personal values, and motivational orientations of black and white managers. *Academy of Management Journal*, 19(1), 36–48. <https://doi.org/10.2307/255446>
- Welch, B. L. (1947). The generalization of 'Student's' problem when several different population variances are involved. *Biometrika*, 34(1/2), 28. <https://doi.org/10.2307/2332510>
- Wexley, K. N., & Klimoski, R. (1984). Performance appraisal: An update. In K. Rowland & G. Ferris, (Eds.), *Research in personnel and human resources management* (Vol. 2, pp. 35-79). Greenwich, CT: JAI Press.
- White, R., Tranter, B., & Hanson, D. (2004). Share ownership in Australia: The emergence of new tensions? *Journal of Sociology*, 40(2), 99–120. <https://doi.org/10.1177/1440783304042870>
- Wiggins, J. S. (1980). Circumplex models of interpersonal behavior. In L. Wheeler (Ed.), *Review of personality and social psychology* (Vol. 1, pp. 265-294). Beverly Hills, CA: Sage.
- Wilde, A., & Diekman, A. B. (2005). Cross-cultural similarities and differences in dynamic stereotypes: A comparison between germany and the United States. *Psychology of Women Quarterly*, 29(2), 188–196. <https://doi.org/10.1111/j.1471-6402.2005.00181.x>
- Williams, M. J., & Tiedens, L. Z. (2016). The subtle suspension of backlash: A meta-analysis of penalties for women's implicit and explicit dominance behavior. *Psychological Bulletin*, 142(2), 165–197. <https://doi.org/10.1037/bul0000039>
- Winter, D. G. (1973). *The power motive*. New York: Free Press.

- Winter, D. G. (1980). An exploratory study of the motives of Southern African political leaders measured at a distance. *Political Psychology*, 2(2), 75. <https://doi.org/10.2307/3790818>
- Winter, D. G. (1987a). Enhancement of an enemy's power motivation as a dynamic of conflict escalation. *Journal of Personality and Social Psychology*, 52(1), 41–46. <https://doi.org/10.1037/0022-3514.52.1.41>
- Winter, D. G. (1987b). Leader appeal, leader performance, and the motive profiles of leaders and followers: A study of American presidents and elections. *Journal of Personality and Social Psychology*, 52(1), 196–202. <https://doi.org/10.1037/0022-3514.52.1.196>
- Winter, D. G. (1988). The power motive in women - and men. *Journal of Personality and Social Psychology*, 54(3), 510–519. <https://doi.org/10.1037/0022-3514.54.3.510>
- Winter, D. G. (1991a). A motivational model of leadership: Predicting long-term management success from TAT measures of power motivation and responsibility. *The Leadership Quarterly*, 2(2), 67–80. [https://doi.org/10.1016/1048-9843\(91\)90023-U](https://doi.org/10.1016/1048-9843(91)90023-U)
- Winter, D. G. (1991b). Measuring personality at a distance: Development of an integrated system for scoring motives in running text. In A. J. Stewart, J. M. Healy, Jr., & D. Ozer (Eds.), *Perspectives in personality: Approaches to understanding lives* (pp. 59-89). London: Jessica Kingsley.
- Winter, D. G. (1991c). *Manual for scoring motive imagery in running text* (3rd ed.). Unpublished scoring manual, Department of Psychology, University of Michigan.
- Winter, D. G. (1992). Power motivation revisited. In C. P. Smith (Ed.), *Motivation and personality: Handbook of thematic content analysis* (pp. 301–310). New York: Cambridge University Press.
- Winter, D. G. (1993). Power, affiliation, and war: Three tests of a motivational model. *Journal of Personality and Social Psychology*, 65(3), 532–545. <https://doi.org/10.1037/0022-3514.65.3.532>
- Winter, D. G. (1994). *Manual for scoring motive imagery in running text* (version 4.2). Unpublished Manuscript, Department of Psychology, University of Michigan, Ann Arbor, MI.
- Winter, D. G. (1996). *Personality: Analysis and interpretation of lives*. New York: McGraw-Hill.
- Winter, D. G. (1999). Linking personality and “scientific” psychology: The development of empirically derived Thematic Apperception Test measures. In L. Gieser & M. I. Stein (Eds.), *Evocative images: The Thematic Apperception Test and the art of projection* (pp. 107–124). Washington, DC: American Psychological Association.

REFERENCES

- Winter, D. G. (2002a). The motivational dimensions of leadership: Power, achievement, and affiliation. In R. E. Riggio, S. E. Murphy, & F. J. Pirozzolo (Eds.), *Multiple intelligence and leadership* (pp. 119-138). Mahwah, NJ: Lawrence Erlbaum.
- Winter, D. G. (2002b). Motivation and political leadership. In L. Valenty & O. Feldman (Eds.), *Political Leadership for the New Century: Personality and Behavior among American Leaders* (pp. 25-47). Westport, CT: Praeger.
- Winter, D. G. (2007). The role of motivation, responsibility, and integrative complexity in crisis escalation: Comparative studies of war and peace crises. *Journal of Personality and Social Psychology*, 92(5), 920-937. <https://doi.org/10.1037/0022-3514.92.5.920>
- Winter, D. G. (2010a). Political and historical consequences of implicit motives. In O. C. Schultheiss & J. Brunstein (Eds.), *Implicit Motives* (pp. 407-432). New York: Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780195335156.003.0014>
- Winter, D. G. (2010b). Why achievement motivation predicts success in business but failure in politics: The importance of personal control. *Journal of Personality*, 78(6), 1637-1668. <https://doi.org/10.1111/j.1467-6494.2010.00665.x>
- Winter, D. G., & Barenbaum, N. B. (1985). Responsibility and the power motive in women and men. *Journal of Personality*, 53(2), 335-355. <https://doi.org/10.1111/j.1467-6494.1985.tb00369.x>
- Winter, D. G., & Carlson, L. A. (1988). Using motive scores in the psychobiographical study of an individual: The case of Richard Nixon. *Journal of Personality*, 56(1), 75-103. <https://doi.org/10.1111/j.1467-6494.1988.tb00463.x>
- Winter, D. G., John, O. P., Stewart, A. J., Klohnen, E. C., & Duncan, L. E. (1998). Traits and motives: Toward an integration of two traditions in personality research. *Psychological Review*, 105(2), 230-250. <https://doi.org/10.1037/0033-295X.105.2.230>
- Winter, D. G., & Stewart, A. J. (1977). Content analysis as a technique for assessing political leaders. *A psychological examination of political leaders*, 27-61.
- Wirth, M. M., & Schultheiss, O. C. (2006). Effects of affiliation arousal (hope of closeness) and affiliation stress (fear of rejection) on progesterone and cortisol. *Hormones and Behavior*, 50(5), 786-795. <https://doi.org/10.1016/j.yhbeh.2006.08.003>
- Wojciszke, B., Abele, A. E., & Baryla, W. (2009). Two dimensions of interpersonal attitudes: Liking depends on communion, respect depends on agency. *European Journal of Social Psychology*, 39(6), 973-990. <https://doi.org/10.1002/ejsp.595>
- Wolff, C., & Keith, N. (2019). Motives relate to cooperation in social dilemmas but have an inconsistent association with leadership evaluation. *Scientific Reports*, 9(1), 10118. <https://doi.org/10.1038/s41598-019-45931-4>

- Wolff, H. G., Weikamp, J. G., & Batinic, B. (2018). Implicit motives as determinants of networking behaviors. *Frontiers in Psychology*, 9(APR). <https://doi.org/10.3389/fpsyg.2018.00411>
- Wood, W., Christensen, P. N., Hebl, M. R., & Rothgerber, H. (1997). Conformity to sex-typed norms, affect, and the self-concept. *Journal of Personality and Social Psychology*, 73(3), 523–535. <https://doi.org/10.1037/0022-3514.73.3.523>
- World Economic Forum (2016). *Women are moving into CEO roles – but at a glacial pace, says study*. Retrieved from <https://www.weforum.org/agenda/2016/09/women-in-ceo-roles-slow-progress/> (accessed December 30, 2019).
- World Health Organization (2020a, January). *Gender and genetics*. Retrieved from <https://www.who.int/genomics/gender/en/>
- World Health Organization (2020b, January). *Gender*. Retrieved from <https://www.who.int/health-topics/gender>
- Yuan, M. (2017). What and how the firm features determine CEO equity-based compensation? *SSRN Electronic Journal*. Retrieved from <https://doi.org/10.2139/ssrn.2957308>.
- Zaccaro, S. J. (2001). *The nature of executive leadership: A conceptual and empirical analysis of success*. American Psychological Association. <https://doi.org/10.1037/10398-000>
- Zaccaro, S. J. (2007). Trait-based perspectives of leadership. *American Psychologist*, 62(1), 6–16. <https://doi.org/10.1037/0003-066X.62.1.6>
- Zaccaro, S. J., Green, J. P., Dubrow, S., & Kolze, M. J. (2018). Leader individual differences, situational parameters, and leadership outcomes: A comprehensive review and integration. *Leadership Quarterly*, 29(1), 2–43. <https://doi.org/10.1016/j.leaqua.2017.10.003>
- Zaccaro, S. J., Kemp, C., & Bader, P. (2004). Leader traits and attributes. In J. Antonakis, A. Ciancola, & R. Sternberg (Eds.), *The nature of leadership* (pp. 101–124). Thousand Oaks, CA: Sage.
- Zenger, J., & Folkman, J. (2019). Research: Women score higher than men in most leadership skills. *Harvard Business Review*. Retrieved from <https://hbr.org/2019/06/research-women-score-higher-than-men-in-most-leadership-skills>
- Zhang, Y., & Qu, H. (2016). The impact of ceo succession with gender change on firm performance and successor early departure: Evidence from China's publicly listed companies in 1997-2010. *Academy of Management Journal*, 59(5), 1845–1868. <https://doi.org/10.5465/amj.2014.0176>
- Zillman, C. (2019, May 16). The Fortune 500 has more female CEOs than ever before. *Fortune*. Retrieved from <https://fortune.com/2019/05/16/fortune-500-female-ceos/>

Appendices

Appendix A: Ethical Approval

Ollscoil Chathair Bhaile Átha Cliath
Dublin City University



Ms Julie Brueckner
DCU Business School

29th March 2018

REC Reference: DCUREC/2018/064
Proposal Title: The role of backlash in CEOs' implicit motive expression
(different title for participants)
Applicant(s): Ms Julie Brueckner, Dr Janine Bosak

Dear Julie,

This research proposal qualifies under our Notification Procedure, as a low risk social research project. Therefore, the DCU Research Ethics Committee approves this project.

Materials used to recruit participants should state that ethical approval for this project has been obtained from the Dublin City University Research Ethics Committee.

Should substantial modifications to the research protocol be required at a later stage, a further amendment submission should be made to the REC.

Yours sincerely,

A handwritten signature in blue ink that reads 'Dónal O'Gorman'.

Dr Dónal O'Gorman
Chairperson
DCU Research Ethics Committee



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Appendix B: Study Materials

Power-motivated CEO letter

Dear Shareholder,

Following the economic downturn, HUDONIX had a patchy year. My goal was to end fiscal 2017 as a guiding force, dominating our industry—but we are not quite there yet. The company's transformation rests on the aggressive strategy, which I assert every day. In fact, I joined HUDONIX as CEO to leverage my strengths and influence as a leader in order to conquer the markets we invaded.

When I took control over HUDONIX, I found opportunities to penetrate markets powerfully and to take down our main opponents. By taking a commanding lead, I make our employees oblige with our new strategy to fight our competitors relentlessly.

Further, I exerted my authority and strengthened governance and control practices to inflict HUDONIX' interests and reduce debts. We worked aggressively towards the targets HUDONIX fell short of in 2016. In fact, after recent profit declines, we are building reputation by quelling all disturbances on our path to regain power over the industry. HUDONIX' recovery is an ongoing process that requires a tough, upper hand.

The Way Forward: HUDONIX' goal is to build a company that is dominating the industry landscape, leaving our competitors powerless. However, my top priority is to expand our impact on the world at large. We will deliver this by taking advantage of our rivals' weaknesses and feed on their lost opportunities.

In my new role as Chief Executive Officer of HUDONIX, I am looking forward to leading the company towards unswerving competitiveness and strength to dominate our global economy. As steward of your capital, I am approaching the future with taking aggressive actions to push for industry leadership.

Thank you.

Yours Sincerely,



Patricia / Patrick Fitzsimmons

Affiliation-motivated CEO letter

Dear Shareholder,

Following the economic downturn, HUDONIX had a patchy year. My goal was to end fiscal 2017 with deepened connections to our trusted customers—but we are not quite there yet. The company's transformation rests on our cherished employees, whose passion and commitment I worship every day. In fact, I joined HUDONIX as CEO to be part of this team of warm character and great determination.

When I joined the HUDONIX family, I ensured our customers feel good about the way we treat our people. By listening to their wishes each and every day, we nourished our clients' trust and loyalty.

Further, I gave the utmost care and consideration to our employees as well as developed mutual respect with our business partners to reduce debts. We worked warmheartedly towards the targets HUDONIX fell short of in 2016. In fact, after recent profit declines, I am embracing cooperation and collaboration among team members to help the communities we care for. HUDONIX' recovery is an ongoing process that requires empathic leadership.

The Way Forward: HUDONIX' goal is to enrich customer relationships, promoting the spirit of partnership among our talented team members. However, my priority is to establish long-lasting bonds with HUDONIX' precious clients. I will deliver this by truly caring for the needs of the people we serve.

In my new role as Chief Executive Officer of HUDONIX, I am looking forward to building trusting relationships with you, our shareholders, as well as with the entire HUDONIX family. As steward of your capital, I am approaching the future hand in hand with colleagues to strengthen customers' trust in HUDONIX' ability to improve citizens' lives. My heartfelt thanks to you.

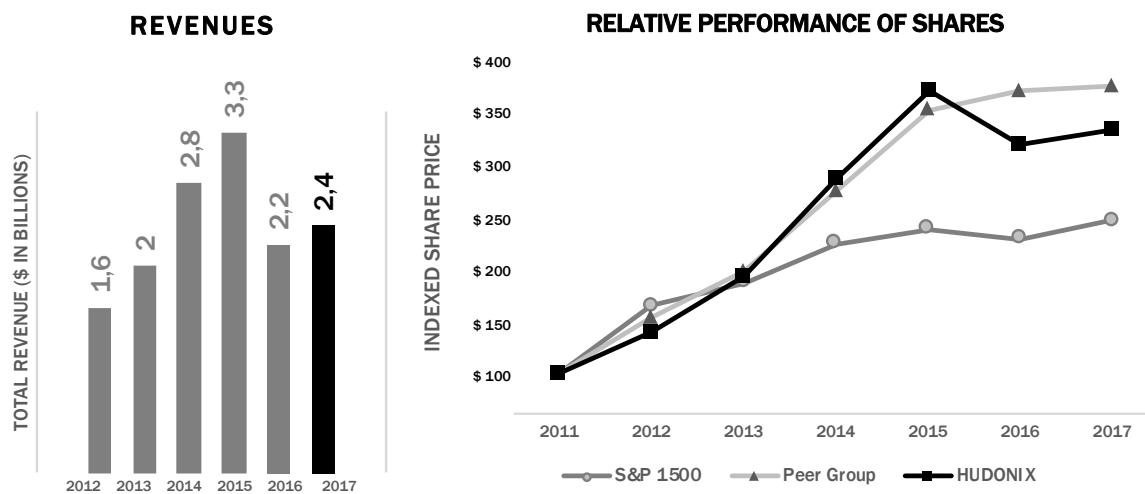
Yours Sincerely,



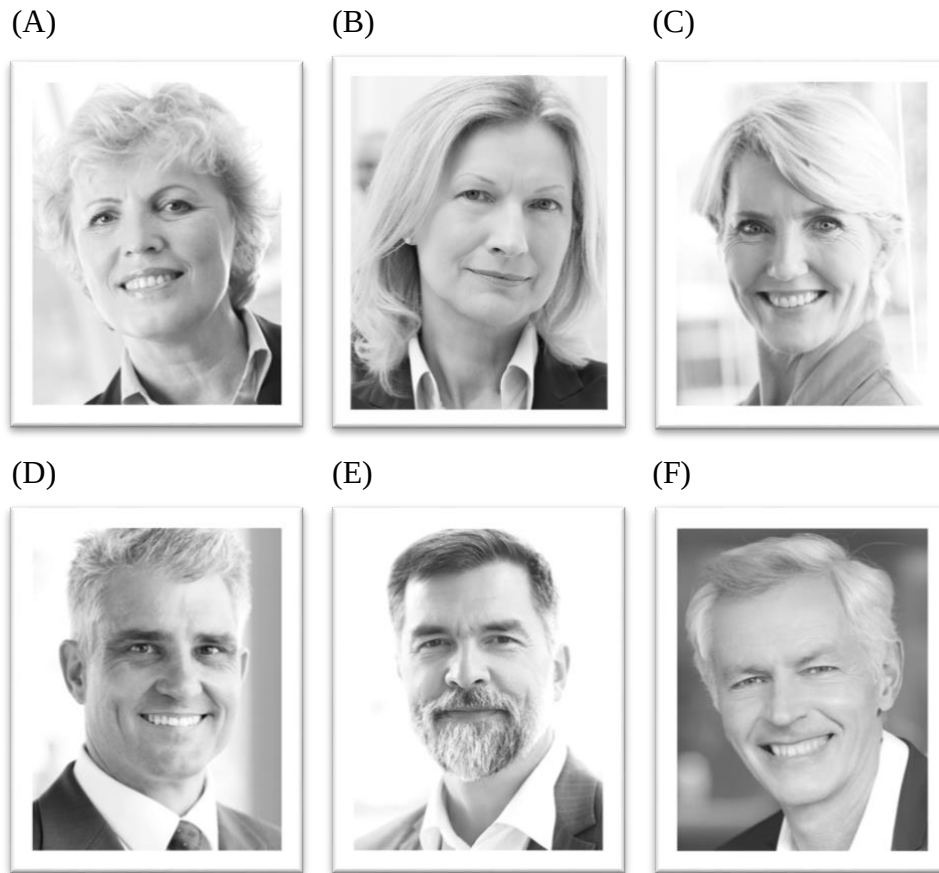
Patricia / Patrick Fitzsimmons

Appendix B: Study Materials (Continued)

Financial Performance Metrics



Note. HUDONIX is a fictional company, and all financial performance metrics are fictitious.

Appendix B: Study Materials (Continued)*CEO Pictures*

Note. Pictures of male and female CEOs used in experimental manipulation. Pictures were purchased from Dreamstime.com Stock Photography on February, 26, 2018. Pictures from upper left to lower right showing (A) ID 27133597 titled “Confident woman” by Pressmaster; (B) ID 30551310 titled “Portrait Of Senior Businesswoman” by Rido; (C) ID 39089259 titled “Senior female corporate worker” by Hongqi Zhang (aka Michael Zhang); (D) ID 39090139 titled “Senior business man” by Hongqi Zhang (aka Michael Zhang); (E), ID 45140025 titled “Happy senior business man smiling” by Opolja; and (F) 70035838 titled “Senior professional man” by Gyorgy.