

DISABILITY, CAREER ADVANCEMENT, AND LEADERSHIP

by

Daniel Samosh

A thesis submitted to the Graduate Program in Management – Smith School of Business
in conformity with the requirements for the degree of Doctor of Philosophy

Queen's University

Kingston, Ontario, Canada

August, 2019

Copyright © Daniel Samosh, 2019

Abstract

My dissertation includes three research papers on disability, career advancement, and leadership. With limited prior research on the lived experience of leaders with disabilities, I begin with a qualitative study on career advancement and leadership facilitators in Chapter 2. Twenty-one leaders with disabilities participated in this study. Participants explained how they benefited from three types of facilitators during their career advancement, including career self-management strategies, organizational and societal factors, and social networks. These facilitators are synthesized with a metaphor called the three-legged stool. This metaphor portrays the importance of three foundational pillars that underlie career advancement and leadership among persons with disabilities. Directing attention to an understudied element of one of those pillars—social networks—I report how leaders’ external networks (e.g., family, friends, acquaintances, and role models) facilitated their career advancement and leadership as well.

Having explored facilitators of career advancement and leadership in Chapter 2, I move on to study the relationship between disability and career advancement with a quantitative, archival study in Chapter 3. The literature provides varied reports on this relationship, and importantly, this stream of research has tended to focus on disability as a homogenous construct. However, in reality, disability is multifaceted and complex. Therefore, I examine whether disaggregating disability by type (physical, sensory, mental, and multiple disabilities) might better predict promotion rates. This analysis includes data from 4025 National Longitudinal Survey of Youth 1997 respondents. Although initially promising, data limitations result in a discussion focused on future research.

My final empirical chapter, Chapter 4, includes experiments on how observers perceive leaders with and without a disability. These studies focus on when bias is expected to arise.

Overall, 578 Amazon Mechanical Turk users participated in the studies of this chapter. Results illustrate how the stereotype-fit (good-fit/poor-fit) of a focal leader's role and disability influence hiring expectations of that leader. However, only after the leader has made a mistake. Findings on leaders without a disability were not consistent with those on leaders with a disability.

This dissertation has implications for research, practice, and persons with disabilities that I discuss in the following chapters.

Prelude

This dissertation began as a response to a personal question. After encountering what I reasoned to be social, disability-related barriers during my studies, I sought to understand how I might navigate my new circumstances. Doing as I had been trained, I went to the prior literature in search of answers. “How is it that others have managed such barriers in the workplace?” “How did they achieve their goals/objectives in light of this extra layer of complexity?”

What I found was unexpected. There was little research on this subject and in the aggregate the small body of literature concerned with these matters was, in my opinion, unsatisfactory. It was in that moment that my personal search developed into a series of academic and applied questions—questions that extend well beyond my initial experience and purpose. In the following pages, you will find a few of those questions, together with my efforts to answer them.

Acknowledgements

Many people helped bring this dissertation from an idea to a complete manuscript. To begin, I would like to write a special thank you to the 21 leaders who participated in the research presented in Chapter 2. You shared and trusted your stories with me and for that I am grateful.

When I was without an academic home, Bill Cooper and Matthias Spitzmuller took me in. Though my research questions and (to some extent) methods were outside your usual, you both dedicated a substantial amount of time to this dissertation and me. Bill, thank you for demonstrating “effective leader behavior” over the past couple years (Cooper, 1978, p. iv). That means a lot. Matthias, your optimism, critical eye, and guidance have been great motivators through this process. I hope that you find new ways to bring authors like Bukowski into the classroom—and I am always available if you would like a second opinion in that regard!

To my remaining committee members, thank you for providing such thoughtful questions and feedback. I am especially grateful for the support and mentorship that I received from Emile Tompa. Further, to many of the faculty members in Organizational Behaviour and Strategy at Queen’s, thank you for sharing your knowledge and passion for research. I would like to acknowledge the staff in the MSc/PhD office as well, for answering question after question, your thoughtfulness, and accommodation.

Thank you to the many other teachers and mentors I have had along the way. Here, I would like to pay special tribute to Jude Kudera. From my early days on the piano, to our music theory classes, and in band on the bass, the lessons that I learned from you have informed who I am as a researcher in many ways. I’d join a protest in your name any day.

Thank you to my friends at Queen’s, in graduate programs at Goodes and elsewhere. We’ve shared many successes and a few challenging times too. I cherish your friendship,

support, and intellect. Kingston first felt like home after finding the KBC and potluck group. Clarrie, Andrew, James, Andrea, Mark, Summer, Kathryn, Roland, and many others, thank you for the many climbing sessions, for sharing a roof (in some cases), and for building community together. Melanie, I continue to learn about life and meaning from you. Rachael, I'll get you that portrait soon... but while you wait, how about a canoe trip?

My friends through childhood and undergraduate have been an important part of this process as well. "Dr. Dr." Tong, you have been a source of inspiration and motivation for as long as I can remember. Will and Andreas, this never would have happened without you both. Harlan, I can't see the drummer... and so many others have helped me get to this point. Thank you all.

To my family, I am grateful for your unwavering support. Dad, I am glad that you took a moment now and then to rest beside the piano. My guess is that you would have been proud. Mom, your empathy and care never fail to amaze. Jon and Adam, I could not ask for better siblings. And of course, to my Bubby, Zaidy, Savta, and Sabba, thank you for being models of love and resilience. Ashley, this would have been a much greater task without your presence. I am incredibly lucky that you are not a stickler for punctuation

Last, I received financial support from the Centre for Research on Work Disability Policy (CRWDP) for the first empirical chapter of this dissertation. Those funds made the transcription of interviews much lighter work and I am thankful for that.

Table of Contents

| | |
|--|-----|
| Abstract | ii |
| Prelude | iv |
| Acknowledgements | v |
| List of Figures | ix |
| List of Tables | x |
| Chapter 1 Disability, Career Advancement, and Leadership: An Introduction | 1 |
| 1.1 Introduction | 1 |
| 1.2 Disability | 3 |
| 1.3 Career Advancement and Leadership | 6 |
| 1.4 Disability and Career Advancement | 7 |
| 1.5 Disability and Leadership..... | 16 |
| 1.6 Three Empirical Chapters..... | 24 |
| Chapter 2 The Career Advancement of Leaders with Disabilities: Synthesizing and Extending Our Understanding of Facilitators | 27 |
| 2.1 Introduction | 27 |
| 2.2 Disability, Career Advancement, and Leadership..... | 31 |
| 2.3 Methods: Participants, Data Collection, and Data Analysis | 37 |
| 2.4 Findings: The Three-Legged Stool and the Influence of External Social Networks | 42 |
| 2.5 Discussion and Conclusion | 51 |
| Chapter 3 Does Disability Influence Promotion? An Empirical Investigation of Disability Status, Disability Type, and Promotion with Data from the National Longitudinal Survey of Youth 1997 | 62 |
| 3.1 Introduction | 62 |
| 3.2 Literature Review | 64 |
| 3.3 Theoretical Development and Hypotheses..... | 68 |
| 3.4 Methods..... | 72 |
| 3.5 Results | 78 |
| 3.6 Discussion and Conclusion | 78 |
| Chapter 4 A Threat to the Three-Legged Stool? Examining the Interactive Influence of Stereotype-Fit Perceptions and a Mistake on Hiring Expectations of Leaders with and without a Disability..... | 89 |
| 4.1 Introduction | 89 |
| 4.2 Theoretical Development and Hypotheses..... | 93 |
| 4.3 Stereotype-Fit Pilot 1: Leaders with a Disability | 99 |
| 4.4 Study 1: Leaders with a Disability | 102 |
| 4.5 Stereotype-Fit Pilot 2: Leaders without a Disability..... | 111 |
| 4.6 Study 2: Leaders without a Disability | 114 |
| 4.7 Discussion and Conclusion | 118 |
| Chapter 5 General Discussion and Conclusion..... | 133 |
| 5.1 Introduction | 133 |
| 5.2 Three Empirical Chapters..... | 134 |
| 5.3 A Puzzle | 138 |
| 5.4 Conclusion..... | 145 |
| References..... | 146 |

| | |
|---|-----|
| Appendix A General Research Ethics Board Approval Letter (Chapter 2)..... | 169 |
| Appendix B Disability-Related Challenges (Chapter 2)..... | 170 |
| Appendix C The Three Foundations of the Stool (Chapter 2)..... | 182 |
| Appendix D General Research Ethics Board Approval Letter (Chapter 4)..... | 194 |
| Appendix E Letters of Information and Consent Forms (Chapter 4)..... | 195 |
| Appendix F Sample Stereotype-Fit Questions (Chapter 4)..... | 207 |
| Appendix G Task Instructions for Participants (Chapter 4)..... | 209 |
| Appendix H Vignettes (Chapter 4)..... | 210 |
| Appendix I Survey Items (Chapter 4)..... | 218 |

List of Figures

| | |
|---|-----|
| Figure 4-1. Hypothesized Model | 124 |
| Figure 4-2. Summary of Expected Outcomes | 125 |
| Figure 4-3. Interactive Effect of Stereotype-Fit and a Mistake on Competence | 126 |
| Figure 4-4. Mediation Analyses..... | 128 |
| Figure 4-5. Interactive Effect of Stereotype-Fit and a Mistake on Hiring Expectations | 129 |

List of Tables

| | |
|--|-----|
| Table 2-1. Participant Information..... | 58 |
| Table 2-2. Metaphors on Disability, Career Advancement, and Leadership..... | 60 |
| Table 2-3. Foundations of the Three-Legged Stool..... | 61 |
| Table 3-1. Descriptive Statistics on Disability Status and Promotion..... | 83 |
| Table 3-2. Descriptive Statistics on Disability Type and Promotion..... | 84 |
| Table 3-3. Logistic Regression Analysis of Disability Status and Promotion..... | 85 |
| Table 3-4. Logistic Regression Analysis of Disability Type and Promotion..... | 87 |
| Table 4-1. Means, Standard Deviations, and Correlations with Confidence Intervals..... | 131 |

Chapter 1

Disability, Career Advancement, and Leadership:

An Introduction

Disability is part of the human condition. Almost everyone will be temporarily or permanently impaired at some point in life, and those who survive to old age will experience increasing difficulties in functioning.

—World Health Organization (2011, p. 3)

Overall, literature points to a dismal career outcomes picture for [persons with disabilities]...

—Kulkarni and Gopakumar (2014, p. 449)

1.1 Introduction

Organizational researchers often study the career advancement and leadership experiences of women and racial minority group members at work. However, these same researchers are nearly silent on the career advancement and leadership experiences of persons with disabilities. For illustration, a search of abstracts resulted in 850 articles with the terms gender and career advancement or leadership. A similar search with the term gender replaced with race produced 144 articles. Yet, when disability and career advancement or leadership was searched, results declined to 51 articles and many of the assembled papers did not examine the career advancement or leadership experiences of persons with disabilities at all. Rather, they focused on topics such as care worker leadership and leading persons with disabilities in the workplace (e.g., Ailey, Lamb, Friese, & Christopher, 2015; Marinescu, 2007; McGuire et al., 2015). This oversight is difficult to grasp, as “more than one billion people in the world live with some form of disability” (WHO, 2011, p. xi). In addition, it is well known that stereotypes and

discrimination negatively impact the working conditions of many persons with disabilities (Colella & Bruyère, 2011; Colella & Stone, 2005; Stone & Colella, 1996).¹

In the few studies that have been conducted on disability and career advancement or leadership, a complex array of social, occupational, and individual-level barriers have been described (e.g., Braddock & Bachelder, 1994; Jones, 1997; Kulkarni, 2012; Kulkarni & Gopakumar, 2014; Roulstone & Williams, 2014; Sayce, 2010; Wilson-Kovacs, Ryan, Haslam, & Rabinovich, 2008). Considering the focus on barriers in this body of research, one might be tempted to expect that it is nearly impossible for persons with disabilities to advance their careers. Yet, many persons with disabilities progress into leadership roles across organizational setting (e.g., Dwertmann & Boehm, 2016; Noonan et al., 2004; Schur, Kruse, Blasi, & Blanck, 2009; Shah, 2005; Turcotte, 2014) and the literature largely overlooks the experiences of those leaders.

Further research is required if we are to understand the contemporary experience of disability, career advancement, and leadership at work. This dissertation includes three research papers on that subject. In Chapter 2, I begin with a study on facilitators of career advancement and leadership for persons with disabilities. Using qualitative methods, I highlight the use of metaphor in the literature (e.g., the glass ceiling, the glass cliff, and glass partitions) and suggest the inclusion of a new metaphor, the three-legged stool. This metaphor was introduced to me by Michael MacDonald (P8, manager) during a round of participant validation. I argue that the

¹ The ProQuest Business – ABI Database was used to conduct these searches, including ABI/INFORM Global, ABI/INFORM Trade & Industry, and Asian Business Databases. Only full text, peer-reviewed articles from scholarly journals were included. Search terms for gender were: ab(gender) AND (ab(career advancement) OR ab(leadership)). Search terms for race were: ab(race) AND (ab(career advancement) OR ab(leadership)). Search terms for disability were: ab(disability) AND (ab(career advancement) OR ab(leadership)). All three searches were conducted on June 8th, 2019. They were limited to article abstracts.

three-legged stool should be added to our repertoire of metaphors on disability, career advancement, and leadership in order to more fully represent the range of contemporary experience. Next, in Chapter 3, I turn to an econometric analysis of disability and career advancement, focusing on disability status and disability type (e.g., physical, sensory, mental, and multiple disabilities) as predictors of promotion. Last, in Chapter 4, I examine bias toward leaders with and without a disability through a series of experiments.

Before diving into the specifics of each paper, key terms need to be defined and prior research reviewed. Next, I explain what I mean when I write the word disability, which is itself a contentious term with conflicting definitions. After that discussion, I turn to definitions of career advancement and leadership. With terms defined, I then review the relevant literature in two sections. The first section is on the topic of disability and career advancement and the second section is on disability and leadership. This chapter concludes with a brief introduction to the three empirical papers that follow.

1.2 Disability

Until recently there were two dominant approaches to defining disability: the medical model and the social model. The medical model of disability presents disability as physical dysfunction, positioning a biological condition as “the problem” (Areheart, 2008, p. 186). This model depicts disability as an issue that resides at the individual-level and requires a cure via rehabilitation or medicine. Often critiqued for oversimplifying the experience of disability, this perspective has been accused of conflating disability with dependence as well as portraying persons with disabilities as sick and pitiful (Charlton, 1998; Rovner, 2004).

In contrast to the medical model, the social model of disability shifts attention away from the individual to characterize disability as “social oppression, cultural discourse and

environmental barriers” (Shakespeare, 2006, p. 197). This model has taken various forms, yet all distinguish impairment from disability, such that impairment, or a health condition, is “individual and private” and disability is “structural and public” (Shakespeare, 2006, p. 198). In this view, an individual using a wheelchair for mobility is not disabled because of their health condition. Rather, they might be disabled because a building is inaccessible or a hiring manager is discriminatory.

Evidently, the social model provides a more humanizing and empowering perspective of disability in comparison to the medical model. In this regard, the social model has been an essential component of disability rights activism over the years. Nevertheless, it is not without criticism (Shakespeare, 2006). For example, the social model largely ignores the potential negative effects of impairment on an individual’s function, because disability is social in this model. A definition of disability that only considers social influence runs the risk of excluding individuals from the disability community who have disabling impairments but do not experience social or environmental barriers.²

Given the limitations of the medical and social models, a third perspective on disability has been developed that combines their strengths. This model acknowledges “both an individual biomedical contribution and an environmental contribution to disability” (McColl & Jongbloed, 2006, p. 3). I follow this view in my research, defining disability as “an umbrella term for impairments, activity limitations, and participation restrictions, denoting the negative aspects of the interaction between an individual (with a health condition) and that individual’s contextual

² There are numerous other models of disability that can be understood as subtypes or variations of the medical and social models. For example, the functional model of disability builds on the medical model to view disability as impairment that limits one’s ability to engage in tasks. As well, the human rights model of disability highlights barriers to exercising rights and is a subgroup of the social model of disability (Office for Disability Issues, 2003).

factors (environmental and personal factors)” (WHO, 2011, p. 327). There are three dimensions of this definition that need to be unpacked for the reader to understand its use in this dissertation.

First, it is essential to differentiate disability from functioning. The WHO (2011) understands functioning as the “positive aspects of the interaction between an individual (with a health condition) and that individual’s contextual factors (environmental and personal factors)” (p. 304), whereas disability encompasses the negative aspects of that interaction. Thus, disability has a negative valence, as in the medical and social models.

Second, and similar to the social model, this perspective separates impairment from disability. Impairment is characterized as “loss or abnormality in body structure or physiological function (including mental functions), where abnormality means significant variation from established statistical norms” (WHO, 2011, p. 305). With this definition of impairment, disability can be subcategorized by impairment type (e.g., physical, sensory, and mental types); specific health conditions within those types (e.g., paraplegia, visual impairment, hearing impairment, cerebral palsy, anxiety, depression, dyslexia or chronic pain); severity of impairment (e.g., no, mild, moderate, severe or complete impairment); and duration of impairment (e.g., temporary or permanent), all of which may be important to understanding observer perceptions and individual experience.

Third, disability can be individual or social in nature. This will depend on the relationship between impairment, activity limitation, and participation restriction. Specifically, impairment is a necessary condition of disability, but it is not a sufficient condition. To experience disability, a person must have an impairment and activity limitations or participation restrictions. Activity limitations reside at the individual-level and involve constraints executing activities because of an impairment. Examples of activity limitations include difficulty moving or difficulty

performing the tasks of a job. In contrast, participation restrictions may be imposed upon a person with an impairment, regardless of whether they experience activity limitations, because participation restrictions are social or environmental. Examples of participation restrictions include difficulty building a social network because of stigma and trouble finding a job because of discrimination.³

With knowledge of the WHO's (2011) definition of disability there is one more term that I need to outline, disability type, which is central to Chapter 3. Because impairment is a necessary condition of disability, I use the term disability type to encompass various categories of disabilities by impairment. Consequently, spinal cord injuries and limb amputations are considered physical disabilities, anxiety and depression are categorized as mental disabilities, and so on. Importantly, throughout this dissertation, the use of terms such as physical or mental disability does not imply that disability is sufficiently defined by impairment. Participation restrictions or activity limitations are still necessary to the definition of disability when these categories are considered.

In sum, I follow the WHO's (2011) definition of disability that mixes the medical and social models. This view distinguishes disability from functioning, highlights how disability can comprise both individual and social factors, and allows for classification by disability type.

1.3 Career Advancement and Leadership

Career advancement and leadership are related terms. In the workplace, career advancement is synonymous with promotion (e.g., Greenhaus & Parasuraman, 1993; Braddock

³ Interestingly, some legal definitions also include being perceived as having a disability as a disability (e.g., the Accessibility for Ontarians with Disabilities Act and the Americans with Disabilities Act). In these definitions, someone without an impairment may still be said to experience disability due to social influence, such as discrimination.

& Bachelder, 1994) and promotions usually offer employees increased decision-making power and authority. These changes in responsibility are associated with leadership because a leader in the workplace is “a person who exercises authority over other people” (Eagly & Carli, 2007, p. 8). From junior to senior roles, promotions will often place individuals into positions of leadership.

Leadership is defined by role occupancy—someone is a leader because they hold a position of authority that is formally sanctioned by their organization. Supervisory, management, and director positions are all examples of leadership roles. Characterizing leadership in this manner is ideal for this dissertation because I aim to assess barriers and facilitators that persons with disabilities encounter through career advancement.

Although I explore leadership as role occupancy, different and equally valid approaches to defining leadership can be found in the literature. For instance, a construct often explored in teams, called informal leadership, encompasses the influence of individuals who do not hold positions of formal authority (e.g., Neubert, 1999; Neubert & Taggar, 2004). Informal leaders are an important part of work life and investigations of their emergence provide valuable contributions to our understanding of disability in the workplace (Luria, Kalish, & Walsh, 2014). In addition, there are many other definitions of leadership that focus on effectiveness, traits, behaviours, and relationships (see Barling, Christie, & Hopton, 2010). These approaches to leadership are not the focus of my dissertation.

1.4 Disability and Career Advancement

Next, I delve into the literature on disability and career advancement. This section of my review begins with a discussion of barriers that impact the promotion of persons with disabilities and it concludes with an assessment of prior quantitative research on promotion rates. Due to the

limited research available on disability and career advancement, I also discuss studies on disability in the workplace more generally when applicable.

Career Advancement Barriers

In their 1994 report on disability and career advancement, Braddock and Bachelder evoked the “glass ceiling” metaphor, which depicts an invisible and impermeable barrier that prevents access to top leadership positions. More recently, researchers continue to highlight the “dismal career outcomes” of persons with disabilities (Kulkarni & Gopakumar, 2014, p. 449) due to an array of attitudinal, occupation-related, and individual-level barriers.

Attitudinal barriers arise from negative observer perceptions of a focal individual’s disability (e.g., Jones et al., 1984; Stone & Colella, 1996). Examining such perceptions, researchers have reported that many employers hold unfounded stereotypes about persons with disabilities, with fears regarding performance, cost, and possible negative reactions from co-workers and customers (Braddock & Bachelder, 1994; Colella & Bruyère, 2011; Lengnick-Hall, Gaunt, & Kulkarni, 2008; Hernandez et al., 2008; Stevens, 2002). Importantly, the influence of attitudinal barriers can be subtle and counterintuitive.

For instance, in their meta-analysis, Ren, Paetzold, and Colella (2008) reported that persons with disabilities generally receive higher performance ratings than persons without disabilities, yet the reverse was true for performance expectations. Although a positive performance bias might initially be perceived as beneficial for persons with disabilities, Braddock and Bachelder (1994) noted that the “inflation of performance ratings prevents a person with a disability from receiving necessary feedback to maximally perform his/her job” (p. 17). In addition, these authors further explained that lower performance expectations result in

fewer opportunities to take part in challenging work assignments that are associated with career advancement.

To put the effect of attitudinal barriers on career advancement into perspective, it is important to consider the specific experiences of persons with disabilities. In 2005, promotion discrimination was the tenth most common allegation of forty categories of allegations under the Americans with Disabilities Act (ADA) (McMahon & Shaw, 2005) and a number of the most frequently cited allegations, such as reasonable accommodation, terms of employment, and disability harassment, are related to an individual's ability to access future promotions. Next, in a study conducted by Roessler, Hennessey, Neath, Rumrill, and Nissen (2011) that included 200 respondents with multiple sclerosis, 59 respondents reported experiencing workplace discrimination. Of these individuals, 24 stated that they had a promotion denied or delayed in relation to their condition. Moreover, research participants in qualitative studies have reported disability-related promotion discrimination as well (e.g., Robert & Harlan, 2006; Wilson-Kovacs et al., 2008).

Importantly, attitudinal barriers can vary by disability type. This is due to a hierarchy of preference for different disabilities types (e.g., Blanck & Adya, 2017; Braddock & Bachelder, 1994; Charlton, 1998; Colella & Stone, 2005; Deal, 2003; Foster-Fishman, Jimenez, Valenti, & Kelley, 2007; Harpur, Connolly, & Blanck, 2017; Reilly, Bocketti, Maser, & Wennet, 2006; Ren et al., 2008; Roulstone & Barnes, 2005; Tringo, 1970). This hierarchy operates such that persons with physical disabilities are perceived more positively than persons with other disabilities, and persons with mental disabilities are perceived most negatively. Considering career advancement, this hierarchy manifests itself in reports of employers being more willing to hire persons with

physical disabilities for management positions in comparison to persons with other types of disabilities (Braddock & Bachelder, 1994).

Beyond attitudinal constraints, occupational differences between persons with and without disabilities may also influence the promotion rates of persons with disabilities. Specifically, persons with disabilities are overrepresented in entry-level and semi-skilled positions that are associated with job insecurity. These positions offer fewer opportunities for promotion in comparison to professional and high-skilled work (Hernandez et al., 2008; Mitra & Kruse, 2016).

At the individual-level, self-limiting behaviors can harm the career advancement of persons with disabilities as well. For instance, Brewster and colleagues (2015, p. 6) reported that “a lack of confidence among disabled staff [at a university in England] may act as a barrier to applying for leadership roles, even if they have the necessary skills”. Further, Kulkarni and Gopakumar (2014) summarized the ways that persons with disabilities can negatively influence their own career advancement, via factors such as dysfunctional career thoughts, low instrumental help seeking, and insufficient signaling of ability. Although presenting at the individual-level, self-limiting behaviors are the product of social influence via two pathways (Jones, 1997). First, the experience of discrimination can result in the internalization of negative stereotypes and lower motivation to attain a promotion. Second, receiving fewer opportunities to develop skills can result in a skills deficit that makes the individual less competitive.

Although barriers exist, persons with disabilities should not be perceived as passive recipients of social influence. This is because many persons with disabilities engage in a variety of strategies to navigate barriers. For example, participants in a study by Kulkarni and Gopakumar (2014, p. 455) who experienced visual impairment, limb atrophy, hearing

impairment, and other impairments reported “sensitizing people to ability over disability”, “engaging in disability advocacy”, and “building, leveraging, and contributing to homophilous networks” as career self-management strategies. These individuals contested low expectations to promote their careers via signaling ability when learning new skills, helping co-workers, and actively pursuing feedback, among other actions. Further, the barriers described above should not be perceived as universal. This is because some research participants have reported that disability did not impact their career advancement (Potgieter, Coetzee, & Ximba, 2017; Sayce, 2010).

Quantitative Research on Promotion Rates

With an understanding of the career advancement barriers that persons with disabilities encounter, I next examine field and experimental research on the relationship between disability status and promotion. Most of the quantitative studies reviewed below were conducted in the United States and they do not illustrate a comprehensive or clear picture of the career advancement experiences of persons with disabilities. For instance, small sample sizes and survey limitations preclude the study of disability type, or the interaction between disability and gender, even though these are plausible antecedents of promotion rates. Therefore, it is important to interpret these quantitative findings in relation to qualitative research.

To begin, the earliest study that I located examined promotion in the United States Air Force Logistics Command civil service (Bressler & Lacy, 1980). These authors compared rates of promotion between 808 White males with visible physical disabilities (described as handicaps in the original paper) to a stratified sample of 808 White males without a disability. All of these participants were “clerks, administrative technicians, managers, and other white-collar workers” in positions that required “few or no physical skills” (Bressler & Lacy, 1980, p. 133-134). The

authors reported mean promotions per year for persons without a disability (.251), persons with an orthopedic impairment (.247), persons with a visual impairment (.248), and persons with a hearing/speech impairment (.246). Although the persons with disabilities experienced slightly lower rates of promotions, the differences were not statistically significant at $\alpha = 0.01$.⁴

Second, broadening analysis to the United States federal workforce, the Equal Employment Opportunity Commission (EEOC, 2008) reported aggregate promotion rates of persons with deafness, blindness, missing extremities, partial paralysis, complete paralysis, convulsive disorders, mental retardation, mental illness, and distortion limb/spine. These disabilities were described as “targeted disabilities” due to their importance to policy (EEOC, 2008). The commission found that the number of promotions for persons with targeted disabilities decreased by 25.19% from 2002 to 2006, falling from 2,604 to 1,948 promotions. Over the same period, the number of promotions fell by only 3.99% among persons without disabilities, from 273,658 to 262,730 promotions. The EEOC (2008) did not include data on mean promotions per year; however, by my own calculations the mean promotions for persons with targeted disabilities decreased from .099 in 2002 to .083 in 2006. For persons without targeted disabilities these figures were .112 in 2002 and .109 in 2006.⁵ Interestingly, these findings may be an extension of the phrase “last hired, first fired” that has been used to describe the employment experiences of persons with disabilities (Mitra & Kruse, 2016). Just as other

⁴ The authors did not provide specific p-values in their report; however, effect sizes were quite small regardless. For instance, the largest difference in promotion was shown between persons with no disability and persons with a hearing/speech impairment. This difference between means represents 0.005 fewer promotions/year for workers with a hearing/speech impairment.

⁵ Average promotions per year were calculated by dividing the number of promotions received by a group (with or without targeted disabilities) over the number of persons in the group. The total number of persons without targeted disabilities was determined by subtracting the total number of persons with targeted disabilities from the report’s total workforce figure. Note that this method places persons with disabilities who are not “targeted” into the total workforce group. This is a limitation of the data that I could access from the EEOC (2008) report.

researchers have reported that economic decline negatively effects the employment rates of persons with disabilities more than persons without disabilities (Fogg, Harrington, & McMahon, 2010; Kaye, 2010), perhaps persons with disabilities are the most impacted when the overall rate of promotion declines.

Third, with a sample of fourteen companies including 30,000 employees (1654 reporting a disability), Schur, Kruse, Blasi, and Blanck (2009) reported that disability had a significant negative relationship with average pay, job security, training, and participation in decisions. A negative relationship between employee disability and promotion was reported as well, but this association was not statistically significant. The researchers noted that their dataset was from a voluntary survey, the National Bureau of Economic Research (NBER) Shared Capitalism Research Project (2001-2006), with participation determined at the firm-level. Because participation was voluntary, Schur and colleagues (2009) cautioned readers that the participating firms' openness to research "may signal that they put more effort than other companies into treating employees well, and are less worried that disparities among employees will be found" (p. 389), meaning that their results were "likely to be understated relative to the population of all firms" (p. 389).

Fourth, researchers used the General Social Survey from the United States, including 186 survey respondents who reported visual, hearing, mobility, and mental disabilities as well as 1304 persons classified as not having a disability, to study an array of workplace outcomes including promotion (Schur, Han, Kim, Ameri, Blanck, & Kruse, 2017). Similar to the previous study, these authors found that the relationship between disability status and promotion was not statistically significant. And related to the two former studies, this research did not explore

promotion rates between disability types, only comparing disability as an aggregate to the no disability control.

Fifth, Luria, Kalish, and Weinstein (2014) conducted the only study that I located with survey data from outside of the United States, including a sample of 1,076 18-year old male Israeli army recruits, of which 237 were identified as having a learning disability. Controlling for cognitive ability, these soldiers completed commander training and entered leadership roles at a lower rate than soldiers without learning disabilities ($\beta = -.451, p < .05$), representing a negative and significant relationship between disability and promotion.⁶ This study narrows in on one type of disability, learning disability, while focusing specifically on the experiences of male participants. Whereas most of the prior studies did not find support for relationship between disability as an aggregate measure and promotion, Luria and colleagues (2014) did. Here, I see reason to study promotion in relation to disability type, an idea that I explore further in Chapter 3.

Turning to experimental research, Bordieri and Drehmer (1997) studied disability and recommendations for promotion with 168 supervisors and mid-level manager participants attending an MBA program in the United States. Their participants received a series of documents with work and performance background information about a promotion candidate with no disability, obesity, low vision, depression, colon cancer, diabetes, arm amputation, or facial burns. Of note, they reported that only the candidates with depression and obesity received lower promotion recommendations than the candidate with no disability. Bordieri and Drehmer

⁶ Luria and colleagues (2014, p. 752) “tested whether individuals with [learning disabilities] had higher rates of not completing the course in order to eliminate the possibility that the course itself was an obstacle for them”. The authors reported that soldiers with learning disabilities actually had higher rates of completion than soldiers without learning disabilities, allaying this potential confound.

(1997, p. 5) explained that “candidates seen [by participants] as personally responsible for their disabilities”, which was the case in the depression and obesity conditions, “were given lower promotion recommendations than were candidates whose disabilities were attributed to external factors”. Bordieri and Drehmer’s (1997) findings are consistent with reports of negative bias towards individuals perceived as having caused their disability (Stone & Colella, 1996). For example, negative bias is more likely to be directed at an individual with a permanent hearing impairment caused by listening to loud music in comparison to an individual with the same condition due to an inner ear infection (Lyons, Volpone, Wessel, & Alonso, 2017).

Next, in a study conducted by Colella and Varma (1999), graduate-level business students in the United States viewed videotapes of actors who were playing employees performing telemarketing and data entry work, with disability manipulations for visual impairment, hearing impairment, and no impairment. Participants rated employees on a variety of outcomes, which included how deserving the employees were of a promotion and pay increase, as well as whether the participant would promote the employees or not.

One of the core purposes of this study was to expand our understanding of disability’s relationship with observer bias, examining stereotype-fit perceptions (e.g., Colella, DeNisi, & Varma, 1998) about an individual’s job and disability. The authors hypothesized that employees in poor-fit conditions, wherein the employee’s disability is expected to influence their job performance negatively (e.g., a visually impaired data entry employee or a hearing impaired telemarketing employee), would be the targets negative rater bias, whereas workers in good-fit conditions (e.g., a hearing impaired data entry employee or a visually impaired telemarketing employee) would not receive negatively biased ratings. Ultimately, the researchers reported a

positive relationship between disability and recommendations for promotion and pay increase. There was no effect of disability or stereotype-fit on promotion.

These findings should be read with caution because it is unclear whether the researchers manipulated consequence for the participant. Consequence, via perceived interdependence with the focal employee, a monetary reward, or otherwise, is necessary for external validity when studying observer perceptions of persons with disabilities. This is because experimental participants will provide socially desirable responses—with a positive bias—when their assessment of persons with disabilities does not influence valued outcomes (Colella et al., 1998; Colella & Stone, 2005). As I could not determine whether procedures included consequence for the participants, results of this study likely do not generalize to promotion experiences in the workplace, where there are often consequences for decision-makers. Bordieri and Drehmer (1997) also do not describe the use of consequence in their research, although they still reported negative bias toward persons with obesity and depression.

In sum, field and experimental findings on disability and promotion are inconsistent, with reports of positive, neutral, and negative bias. A more nuanced approach to examining disability, by disability type, may explain some of the variance in research findings and generate a clearer picture of the magnitude and direction of promotion differences. Moving on, I next consider what happens after a promotion, reviewing research on disability and leadership.

1.5 Disability and Leadership

Calls for research and action on disability and leadership have been made, yet few have actually studied the work experiences of leaders with disabilities (Boucher, 2017). Examining the status of leadership diversity in higher education, Bebbington and Özbilgin (2013) cited data from the United Kingdom, reporting that persons with disabilities were underrepresented in

workplace leadership positions—even inside disability-related charities. These authors noted that intersecting forms of inequality (e.g., Crenshaw, 1991) are largely ignored in current theory on leadership, even though workplace barriers are influenced by the interconnection of factors such as disability, gender, ethnicity, class, and sexual orientation. Holding that “leadership theory, in common with organisational theory, has tended to suppress ‘difference’”, Bebbington & Özbilgin, (2013, p. 18) provide motivation for a more comprehensive and inclusive understanding of leadership. Similarly, Barling and Cloutier (2016) stated that assumptions about the prototypical leader (Epitropaki & Martin, 2005) and the “romance of leadership” (Meindl, Ehrlich, & Dukerich, 1985) may guide perspectives of leaders as strong and well, limiting academic inquiry into the important subject of leaders’ mental health. And in their influential paper on perceptions of disability in the workplace, Stone and Colella (1996) theorized that the status associated with leadership influences observers’ categorization of persons with disabilities. Discussing positive perceptions of prominent political figures with disabilities, they wrote that “research is needed to assess the extent to which job-related status enhances the way disabled individuals are perceived and treated in organizations” (Stone & Colella, 1996, p. 369). To date, I know of no research on this topic.

Considering the importance of studying disability and leadership, I next introduce research on the lived experience of leaders with disabilities, followed by studies on observer perceptions of leaders with disabilities. Career advancement continues to be central to this discussion—particularly in the study of lived experience—with reports of persistent barriers (e.g., Roulstone & Williams, 2014; Wilson-Kovacs et al., 2008).

The Lived Experience of Leaders with Disabilities

In recent years, qualitative researchers have examined the careers of leaders with disabilities to paint a bleak picture. Wilson-Kovacs and colleagues (2008) applied the “glass cliff” metaphor to the conditions of leadership for persons with disabilities. They argued that leadership is especially precarious for these leaders due to attitudinal and organizational barriers, such as paternalistic work environments, tokenism, and a lack of constructive feedback. Further, organizations were described as missing the requisite knowledge of employee health conditions, resulting in unreasonable expectations of leaders with disabilities. Support was found to be lacking at the organization-level as well. For instance, rather than exploring options for accommodation, some employers merely suggested that leaders retire early due to their health conditions. Similarly, social barriers persisted at the team-level. Within teams, Wilson-Kovacs and colleagues (2008, p. 713) described how the existence of “sheltered positions” caused colleagues to regard leaders with disabilities as problematic, “with their workload and responsibilities being more likely to be passed to the rest of the team”.

Next, Roulstone and Williams (2014) extended our understanding of leadership barriers by exploring the combination of cognitive, attitudinal, and organizational factors that impact the work lives of senior staff with disabilities in the United Kingdom. These researchers introduced the “glass partitions” metaphor to the literature, which depicts enclosing walls that cause leaders to remain in their current positions. After achieving some degree of acceptance and accommodation, leaders from their study were less prone to seek out lateral and upward role changes at work because of the “inadvertent tying of staff to current support arrangements” (Roulstone & Williams, 2014, p. 24). For example, a participant stated the following (Roulstone & Williams, 2014, p. 22-23):

... The thought of having a new manager or management reporting system is pretty horrific for me. My current boss accommodates my condition and skates over my history (I wouldn't say they accept me as an equal) ... I would hate to have to begin to explain how my mental health and my role can sit together.

Put differently, the perceived risk of disclosure and potential negativity in a new role caused these leaders to stay in their current positions—limiting their career advancement opportunities.

However, not all leaders with disabilities describe such constraining work experiences. Other researchers have explored the more positive—or neutral—experiences of leaders with disabilities. To begin, in a research report from the United Kingdom with 911 leaders with disabilities, a small minority of respondents reported that disability-related barriers had not influenced their career trajectory at all (Sayce, 2010). According to one respondent, organizational culture was an important factor driving this barrier-free experience (p. 18):

The culture of the organisation helped me progress. It's a meritocracy here. And it is and always has been a very caring place—it's just the way you're brought up in the firm... I definitely haven't been held back.

Sayce (2010) discusses other factors that were integral to participants' career success as well, such as mentoring, networking, specialist support, and broadening individual experience.

Next, Zollers and Yu (1998) developed a model of one school principal's success in an in-depth case study. The principal, "Mr. Knight", was described as having the typical skills required of a school principal. However, given that his workplace did not fully accommodate his visual impairment, Mr. Knight developed strategies to make his environment accommodating. Those strategies included "a unique management style, organizational skills, using his personality to gain acceptance, and proving his capabilities through overachieving" (Zollers and

Yu, 1998, p. 752). Mr. Knight's strategies were similar to those described by Kulkarni and Gopakumar (2014) that I reviewed earlier.⁷

Studying success rather than leadership, Shah (2005) examined the experiences of 31 individuals with disabilities in the United Kingdom, highlighting differences between persons with congenital and acquired disabilities. Leadership was not the main focus of Shah's (2005) research, but her findings are relevant to this review because many of her participants held leadership positions, such as senior architect, barrister, member of parliament, and theatre director. Of note, the author reported that five successful persons with congenital disabilities saw equality as an important component of their success, while only one participant with an acquired disability shared this view. Although a small number of the overall sample, Shah (2005) proposed that this difference in perspective was due to persons with congenital disabilities growing up with the disability label, while persons with acquired disabilities had experienced "non-disabled status" that endured after acquiring a disability (Shah, 2005). Further, overcoming hardship early in life, education, gender socialization, as well as having high status and achievement-oriented parents were all described as important factors in the development of participants' careers (Shah, 2005; Shah, Arnold, & Travers, 2004).⁸

Examining leadership, disability, and intersectionality, Majiet and Africa (2015) explored the experiences of eight women leaders with physical and visual impairments in Zimbabwe. All of the leaders from their study worked in disabled person's organizations (DPOs) and Majiet and

⁷ Importantly, Boucher (2017) provided a caveat in her discussion on the strategies that leaders with disabilities use to navigate barriers at work. In her qualitative research, leaders had to use surface acting and passing in order to make others feel that their impairments were not problematic. Boucher (2017) argued that downplaying disability in this way preserves the invisibility of disability in both research and organizations.

⁸ Note that the hardship participants experienced was not necessarily disability-related. For instance, the death of a parent was referred to as influential (Shah, 2005, p. 70).

Africa (2015) found that numerous barriers their participants encountered were upheld by patriarchal structures. For instance, Majiet and Africa (2015, p. 107) reported that “women with disabilities are excluded from the inner circle [of DPOs] where major decisions are made”. In addition, they wrote that “some [participants] reported that the only way to be recognised by men in the disability movement is when they engaged themselves in romantic relationships and promised allegiances in return for patronage”. Leaders’ self-esteem, resilience, and access to opportunities for training and support were described as critical components of how participants challenged these barriers.

Continuing on the subject of intersectionality, Noonan and colleagues (2004) discussed the interconnection of identities in their model on the career development of highly achieving women with physical and sensory disabilities. Although the authors’ definition of achievement was ambiguous, their sample clearly included a number of participants in formal leadership positions. Their model illustrates the bi-directional influence of contextual inputs, such as family and career attitudes and behaviours, with aspects of the self, such as disability, gender, race/ethnic/cultural identities. Specifically, Noonan and colleagues (2004, p. 77) wrote that “racial and gender issues interacted strongly with disability for some of the women, enhancing or impeding movement into the work world”.

Reflecting on the reviewed research, it is clear that many leaders with disabilities experience barriers that are detrimental to their career advancement. However, such negative experiences are not universal, with some individuals holding that their career advancement had been barrier-free (Sayce, 2010) and others employing strategies to navigate barriers (Kulkarni & Gopakumar, 2014; Zollers & Yu, 1998). Characteristics of disability, such as whether an individual’s impairment was congenital or acquired, as well as the relationship between

disability and other intersecting identities, were also reported to be important antecedents of experience (Majiet & Africa, 2015; Noonan et al., 2004; Shah, 2005). With a focus on barriers in the literature, more research is required to understand how leaders successfully navigate barriers. In addition, we could benefit from further research on how characteristics of disability and impairment (e.g., severity, type, and duration) and identity (e.g., gender, race, and sexual orientation) relate to barriers and lived experience.

Perceptions of Leaders with Disabilities

Although Stone and Colella (1996) proposed that the leadership status of persons with disabilities influences observer perceptions, few experimental researchers have examined how leaders with disabilities are perceived in comparison to leaders without disabilities. Of the three papers that I review next on this subject, all are unpublished graduate research projects. Related to the research on promotion rates described earlier, mixed findings were reported on observer perceptions of leaders with disabilities. Results should be read with caution, as I found no description of consequence for participants in the experiments conducted—although Marchioro (2000) mentioned the importance of consequence in his review.

First, Bingham (1999) studied whether a leader's visible disability impacted observer perceptions of their behaviour. American university students viewed one of four videos in this study, each with a different disability status manipulation, including a leader with no disability, with blindness, using a wheelchair, or using crutches. Using the Leadership Practices Inventory Questionnaire (LPI) (Posner & Kouzes, 1993) as a dependent measure, significant negative bias toward leaders in all three of the disability conditions was reported—in comparison to the no disability control.

Second, Adkins (2003) developed a vignette study wherein participants evaluated the leadership potential of individuals applying for a leadership role at a library. As in Bingham (1999) this study was about visible disability. American university students were given one of three applications, including an image of the applicant with no disability, with a visual impairment, and using a wheelchair. Adkins (2003) predicted negative bias towards the two applicants with a disability; however, the opposite was reported. A self-constructed scale of leadership dimensions as well as the Leader Behavior Description Questionnaire (LBDQ-XII) (Bass & Stogdill, 1990) were used as dependent measures. Adkins (2003 p. 33) suggested that these unexpected findings were due to participants' motivation for social approval, because "the participants may have thought that giving a low rating [to a person with a disability] would make them look bad".

Last, Marchioro (2000) conducted two studies on physical, visible disability and leadership, both with American university student participants. In the first study, participants rated supervisor applications. Disability was manipulated with a photo of the applicant using a wheelchair or having no visible disability. Participants rated the applicants' ability to perform essential supervisory duties (e.g., their ability to meet a fast-paced work schedule, motivate subordinates, prepare reports, set goals, supervise subordinates, and travel overnight) and they provided a final hiring decision as well. Marchioro (2000) reported lower ratings on measures of ability to meet a fast-paced work schedule, supervision, and overnight travel for the wheelchair using applicant. In addition, this applicant received fewer job offers from participants. In Marchioro's (2000) second study, disability was examined alongside behaviour, or whether the target individual's behaviour was "leaderlike". This study used a video manipulation and the author reported higher ratings of liking and charisma for the leader with a disability presenting

prototypical behaviour, in comparison to the leader with no disability presenting the same behaviour. However, no differences were reported between leaders with and without a disability in the antiprototypical behaviour condition.⁹

In sum, findings on observer perceptions of leaders with disabilities are confounding and few. Due to a lack of consequence in the reviewed research, it is especially difficult to interpret results. Therefore, I pursue a similar line of research in Chapter 4 and include consequence for participants in my experiments.

Advocacy and Leadership

Although I maintain focus on formal workplace leadership in this review, there is a body of literature on leadership in the disability rights/advocacy movement that is worth commenting on. Some topics explored in this stream of research include advocacy training and development (e.g., Caldwell, 2010; Foster-Fishman et al., 2007; Jackson & Betsalel, n.d.; Grenwelge, Zhang, & Landmark, 2010; Grenweldge & Zhang, 2012), disability identity (e.g., Caldwell, 2011), young adults' perspectives on leadership (e.g., Carter et al., 2011), and leadership as a component of self-advocacy (e.g., Test, Fowler, Wood, Brewer, & Eddy, 2005). Due to their emphasis on informal leadership and leadership outside of the workplace these studies are outside the scope of this review. That said, this stream of research is highly relevant to anyone interested in the disability rights movement and the development of effective advocates.

1.6 Three Empirical Chapters

The remainder of this dissertation is organized into three independent research papers, each occupying a separate chapter, followed by a conclusion chapter. The research questions and

⁹ Examples of leaderlike or prototypical leader behaviour included seeking suggestions, allowing participation in decisions, and assigning tasks. Examples of antiprototypical leader behaviour included providing harsh criticism, avoiding difficult questions, and getting confused by the task.

methods of the subsequent chapters differ, but they are tied together by the central theme of disability, career advancement, and leadership. In Chapter 2, I explore the career advancement experiences of leaders with disabilities using qualitative methods. Via the insights of 21 leaders with disabilities, I present a metaphor on the facilitators of participants' career advancement, called the three-legged stool. This metaphor depicts three categories of facilitators, including career self-management strategies, organizational and societal factors, and social networks. In addition, I delve into the role that external social networks (e.g., family, friends, acquaintances, and role models) played in participants' career advancement.¹⁰

In Chapter 3, I apply quantitative methods to examine the relationship between disability status, disability type, and promotion. Analysis in this chapter uses American data from the National Longitudinal Survey of Youth 1997 (NLSY97) (Bureau of Labor Statistics, 2015a). With conflicting reports on the relationship between disability status and promotion (e.g., Bressler & Lacy, 1980; EEOC, 2008; Luria et al., 2014; Schur et al., 2009; Schur et al., 2017) as well as no quantitative research that I am aware of on disability type and promotion, I had initially hoped that this study would result in a small step towards clarity for the literature. However, with data limitations and results that were not supportive of my hypotheses, the primary contribution of this third chapter is a call for future research.

Last, in Chapter 4, I present a series of experimental studies on observer perceptions of leaders with and without disabilities. In this chapter, I test the moderated-mediation model in Figure 4-1 which builds from research on impression formation theory (Fiske & Neuberg, 1990), stereotype-fit perceptions (Colella et al., 1998), and gender and leadership (Brescoll, Dawson, &

¹⁰ I use the terms “the three-legged stool” and “the stool” interchangeably. When referring to the different legs of the stool, I use the terms “legs”, “pillars”, and “foundations” interchangeably as well.

Uhlmann, 2010a). Given mixed results on observer perceptions of leaders with disabilities (e.g., Adkins, 2003; Bingham, 1999; Marchioro, 2000), this final paper contributes a more nuanced understanding of the antecedents of bias.

Chapter 2

The Career Advancement of Leaders with Disabilities:

Synthesizing and Extending Our Understanding of Facilitators

I feel that I have a rich network of people who have really strong leadership qualities of supporting others. And that's very helpful to know that there's such a strong community that I can lean on.

—Linda Niksic (P12), Senior advisor, Chapter 2 participant

2.1 Introduction

Persons with disabilities receive lower wages, less job security, and less training at work in comparison to persons without disabilities (Schur, Kruse, Blasi, & Blanck, 2009). Further, researchers have found that persons with disabilities advance into leadership positions at a lower rate than persons without disabilities (Disability Rights Commission, 2006; Turcotte, 2014). With over one billion persons with disabilities in the world as well as the expectation that this number will increase due to an aging population (WHO, 2011), understanding the career advancement experiences of leaders with disabilities has become imperative.

The current literature on disability, career advancement, and leadership focuses heavily on barriers. Researchers have noted that a lack of critical feedback and low expectation stereotypes harm the career advancement of persons with disabilities (Braddock & Bachelder, 1994). After entering leadership positions, other researchers have reported that low levels of group and organizational support constrain the work of leaders with disabilities (Wilson-Kovacs, Ryan, Haslam, and Rabinovich 2008). Internalized stigma and a fear of role change can cause leaders with disabilities to self-limit and avoid promotion opportunities as well (Brewster et al., 2015; Jones, 1997; Roulstone & Williams, 2014).

Recently, researchers have started to look beyond barriers to consider the facilitators of success in the careers of persons with disabilities. Largely emphasizing individual agency, this small literature has explored how persons with disabilities signal competence, access networks, advocate for disability, and construct positive disability identities in order to succeed (Baldrige & Kulkarni, 2017; Kulkarni & Gopakumar, 2014). Although not focused directly on career advancement or leadership, researchers have highlighted organizational and societal factors that can benefit the employment and work of persons with disabilities as well (Beatty, Baldrige, Boehm, Kulkarni, & Colella, 2018), such as disability hiring and training policies (Araten-Bergman, 2016) and accessibility legislation (Stone & Colella, 1996). In addition, social network ties who are internal to the workplace, such as co-workers and supervisors, have been described as influential drivers of career outcomes (Stone & Colella, 1996).

As a nascent literature, there remain many unanswered questions about the facilitators of career advancement and leadership among persons with disabilities. Notably, at present we are missing a synthesis of those facilitators. The absence of synthesis is problematic because our current understanding is largely piecemeal in nature. Without an analysis of facilitators in relation to each other (e.g., What are the types of facilitators? Is it enough for leaders with disabilities to have access to one type of facilitator or do leaders with disabilities require multiple inputs in order to advance their career?) we risk reproducing romanticized disability “hero” narratives when focusing on individual-level factors and repeating disability dependency narratives when attending to social or environmental influences. Yet, from the broader literature we know that careers do not develop in a vacuum. Rather, careers progress through processes that connect various individual, social, organizational, and societal inputs (Tharenou, 1997).

It is critical to build a more comprehensive understanding of facilitators among leaders

with disabilities, because the factors that influence an individual's career advancement, such as social networks, vary by diversity groups (Gersick, Bartunek, & Dutton, 2000; Kulkarni, 2012). Considering social networks, for many years researchers have illustrated how external networks—connections that are outside to the workplace, such as family, friends, and acquaintances—influence career outcomes (Granovetter, 1973; Lin, 1990). However, the current literature focusing primarily on internal networks (e.g., Kulkarni, 2012) and we know little about how external networks influence the careers of leaders with disabilities.

Therefore, in the present study I interviewed 21 leaders with disabilities to explore the facilitators of their career advancement and leadership. The leaders from this study worked in organizations from for-profit, non-profit, and government sectors. They identified with physical, sensory, speech, learning, and mental impairments, and they held a variety of leadership positions, from junior management positions to the most senior roles in their workplaces.

One of my participants, P8 (manager), described a metaphor which synthesizes our knowledge of facilitators and encompasses the experiences of participants from this study. That metaphor is called the three-legged stool. The three-legged stool depicts the importance of three foundational pillars that underlie the career advancement and leadership of leaders with disabilities. Just as a stool requires three legs for stability, successful navigation of disability-related barriers and career advancement requires three points of contact in this metaphor. Those three foundations include career self-management strategies, organizational and societal factors, and social networks, which I describe in detail later. Because the three-legged stool depicts career advancement as reliant upon three distinct yet equally important factors that reside at different levels of analysis, participants' success is not portrayed as the result of romanticized heroes trouncing barriers or munificent social supports alone. Rather, a combination of factors at

the individual-, social-, organizational-, and societal-levels are characterized as the requisites of successful career advancement and leadership.

Focusing on an understudied element of one those foundations, many participants from the present study commented on the positive influence of external social networks in their careers. Some participants explored how external ties facilitated the development of their career self-management strategies—strategies that were later fundamental to their career advancement and leadership. And other participants noted how both strong and weak external ties generated employment opportunities that propelled their careers. With limited research on social networks in the career advancement of persons with disabilities (Kulkarni, 2012) and virtually no research on external networks (see Shah, Arnold and Travers, 2004 for an exception), the analysis of external networks as facilitators of participants’ career advancement is a central contribution of the present study.

Why Study Metaphor?

It is important to consider why I decided to focus on the three-legged stool metaphor before reviewing the relevant literature. The significance of metaphor in theory-building has been contemplated by many (e.g., Bacharach, 1989; Bendl & Schmidt, 2010; Black, 1962; Cornelissen, 2002, 2004, 2005; Daft & Wiginton, 1979; Davidson, 1978; Hunt & Menon, 1995; Inns, 2002; Morgan, 1980, 1996; Oswick, Keenoy, & Grant, 2002; Soyland, 1994; Tourangeau & Sternberg, 1981; Tsoukas, 1991) and as Weick (1989) recognized, metaphors are an inevitable element of comprehending complex phenomena. Herein, the purpose of the three-legged stool metaphor is to convey complexity through “compact description” (Weick, 1989, p. 529). Metaphors are a heuristic device that not only describe but also support theory production (Bacharach, 1989). Metaphors are potent theory-building tools because they guide our attention

as well as the questions we ask as researchers (Cornelissen, 2005). In this way, a metaphor can be a “promissory note” of future research (Soyland, 1994). I see now as the ideal time to explore new metaphors that can guide future research. This is because we have few studies on the topic disability, career advancement, and leadership.

Beyond theory, metaphors have the capacity to influence action (Eagly & Carli, 2007). This leads to the final and perhaps most critical contribution of the three-legged stool metaphor, as a resource for organizational practitioners and s who are working to increase the accessibility of leadership positions among persons with disabilities. Considering that past research has focused so heavily on barriers to career advancement, these decision-makers could benefit from a study and metaphor that examines the interplay between facilitators and barriers—including the experiences of leaders with disabilities who have navigated barriers. With access to this information, programs and policies can be designed to foster situational and individual-level facilitators that contribute to success.

Next, I go on to review the literature on disability barriers to career advancement and leadership. This body of research is described in brief, as a more thorough examination can be found in Chapter 1. My review concludes with research on facilitators of career advancement and leadership among persons with disabilities, setting the stage for the present study’s focus on facilitation.

2.2 Disability, Career Advancement, and Leadership

Career Advancement and Leadership Barriers

Barriers are the most common subject of research on disability and career advancement. For instance, researchers have described how attitudinal barriers negatively impact the careers of persons with disabilities, often through employers’ limited understanding of disability as well as

fears regarding performance, cost, and negative social interactions (Braddock & Bachelder, 1994; Colella & Bruyère, 2011; Hernandez et al., 2008; Lengnick-Hall, Gaunt, & Kulkarni, 2008; Potgieter, Coetzee, & Ximba, 2017; Stevens, 2002). Further, because persons with disabilities are disproportionately represented in low-skilled jobs, they are less likely to receive promotions than persons without disabilities (Hernandez et al., 2008; Mitra & Kruse, 2016). After encountering an array of social and occupational obstacles, barriers to career advancement may emerge at the individual-level as well. Specifically, some persons with disabilities' careers may be stalled because internalized stigma reduces motivation (Jones, 1997). In addition, persons with disabilities may experience a skills deficit that makes accessing promotions difficult. This is because persons with disabilities are less likely to receive opportunities to engage in challenging work wherein promotion-related skills are learned (Jones, 1997).

After becoming a leader, career advancement remains a central concern in the literature. For instance, Wilson-Kovacs and colleagues (2008) described how paternalistic work environments, tokenism, and a lack of constructive feedback harm the career advancement of leaders with disabilities and Roulstone and Williams (2014) explored how leaders from their study did not change positions because they feared negative experiences after disclosure in new environments. Interestingly, metaphor has been central to this stream of research. The glass ceiling (Braddock & Bachelder, 1994) generates an image of an invisible and impenetrable barrier that prevents persons with disabilities from advancing into senior leadership positions. The glass cliff (Wilson-Kovacs et al., 2008) depicts an undetectable and perilous ledge from which leaders with disabilities may fall. And glass partitions (Roulstone & Williams, 2014) portray a suffocating box that forces leaders with disabilities to stay exactly where they are, with glass closing in from all sides.

We have multiple metaphors on barriers in the literature, yet there are no metaphors on the facilitators of career advancement and leadership. As mentioned earlier, this is problematic because metaphors guide our attention as researchers and practitioners. Given that many persons with disabilities advance into leadership positions across organizational hierarchies (e.g., Dwertmann & Boehm, 2016; Noonan et al., 2004; Schur, Kruse, Blasi, & Blanck, 2009; Shah, 2005; Turcotte, 2014), our sole focus on barriers produces an incomplete picture. The literature would benefit greatly from a metaphor that depicts facilitators as well, to balance our understanding of both constraint and enablement.

Facilitators of Career Advancement and Leadership

Few studies have examined the facilitators of career advancement and leadership among persons with disabilities (Baldrige & Kulkarni, 2017) and fewer still focus on leaders with disabilities. However, drawing from the broader literature on disability and work, factors that facilitate the career advancement and leadership of persons with disabilities can fit into three categories: career self-management strategies (e.g., Kulkarni & Gopakumar, 2014), organizational and societal factors (e.g., Stone & Colella, 1996), and social networks (e.g., Kulkarni, 2012).

Career Self-Management Strategies

Given numerous disability-related barriers in the workplace, researchers have examined the importance of career self-management strategies for persons with disabilities (Kulkarni & Gopakumar, 2014). Career self-management strategies are proactive behaviors used by individuals to navigate challenges and, ultimately, benefit their career (King, 2004). In Kulkarni and Gopakumar's (2014) research, persons with disabilities engaged in a range of these strategies with both cognitive and behavioral elements, as described in Chapter 1. Similarly, in their case

study with a principal with a visual impairment, Zollers and Yu (1998) highlighted factors such as the principal's professional, interpersonal, and social skills, as well as management style and work ethic, as antecedents of the principal's success in his leadership role.

Studying the experiences of women leaders with physical impairments, Boucher (2017) described how her research participants navigated workplace barriers by surface acting and passing. These behaviors were used to decrease the visibility of the leaders' impairment and disability status. Boucher argued that the need to employ such strategies contributes to the invisibility of disability in both organizations and academic research on leadership, highlighting how career self-management strategies used to navigate barriers are not necessarily positive in nature, with potential for detrimental consequences.

Last, considering the role of a positive disability identity in the careers of persons with disabilities, Baldrige and Kulkarni (2017) found that professionals with adult onset hearing loss redefined their work, who they are, and what success meant to them, in order to transition into new careers that often leveraged their lived experience with hearing loss. Their study builds from Jammaers, Zanoni, and Hardonk's (2016) research on building positive disability identities in ableist workplaces and findings from the present study further contribute to this literature by examining how external networks fostered positive disability identities among many study participants.

Organizational and Societal Factors

At the organization-level, policy, practices, and culture can support positive work outcomes for persons with disabilities (Stone & Colella, 1996). For instance, Araten-Bergman (2016) found that human resource professionals from organizations with a formal disability hiring policy as well as disability training hired more persons with disabilities than human

resources professionals without those policies or training. Schur and colleagues (2009) also found that organizations with more positively rated justice climates had less turnover intention and more job satisfaction, company loyalty, and willingness to work hard among persons with disabilities. And von Schrader, Malzer and Bruyère (2013) reported that workplace climate relates to an individual's willingness to disclose a disability. This relationship is critical because disclosure can result in access to beneficial social supports, especially for persons with invisible disabilities (e.g., Allen & Carlson, 2003; Clair, Beatty, & MacLean, 2005).

At the societal-level, disability legislation and social movements may benefit the careers of persons with disabilities. Legislation can facilitate success by increasing accessibility and decreasing discrimination on the job (Stone & Colella, 1996), although such positive consequences of legislation are not a guarantee, as researchers have reported both positive and negative consequences of such laws (Acemoglu & Angrist, 2001; DeLeire, 2000; Kruse & Schur, 2003). Second, Noonan and colleagues (2004) found that engagement with social movements such as the civil rights movement, the disability rights movement, and the women's movement were a source of motivation for high achieving women with physical and sensory disabilities. In their research, participants drew inspiration from these social movements as they developed their self-identities and careers.

Social Networks

An individual's social network influences career outcomes through access to instrumental, informational, and emotional support (e.g., Chandler, Kram, & Yip, 2011; Granovetter, 1973; Kulkarni, 2012; Lin, 1990). From entry-level to executive positions, network ties play a central role in career advancement (Burt, 1992). Factors such as homophily (Ibarra, 1993) and social influence drive many promotion decisions (Ferris, Buckley, & Allen, 1992),

and as a minority group, persons with disabilities are expected to have less access to these desired social resources—largely due to the prevalence of disability stereotypes (Kulkarni, 2012).

Research on disability, career outcomes, and social networks emphasizes the importance of internal networks. For example, Stone and Colella (1996) considered how actors at work influence access to challenging job assignments, inclusion in workgroup activities, mentorship, and career advancement opportunities for persons with disabilities. And more recently, Baldrige and Kulkarni (2017) described how individuals with adult-onset hearing loss utilized their internal networks to succeed. An example of this is how one of their participant's navigated a management decision to restrict the use of captioning telephones by recruiting colleagues to listen to telephone messages for them. Furthermore, for persons with invisible disabilities, a strong internal network of support can result in more positive perceptions of the individual after disclosing their disability (Clair et al., 2005).

Although we have begun to understand the influence of internal networks in the career success of persons with disabilities, we know less about external networks. On this topic, Shah and colleagues (2004) reported that having high status and achievement-oriented parents influenced the later career choices of professionals with disabilities in the United Kingdom and Baldrige and Kulkarni (2017) noted that after experiencing adult-onset hearing loss their participants proactively sought out support from external networks, such as hearing loss associations.

In the broader social networks literature, external networks have been found to influence access to employment and career advancement. For instance, in Granovetter's (1973) classic study on "the strength of weak ties" acquaintances provided information to individuals about job

opportunities that resulted in their subsequent employment. And other studies have confirmed the beneficial influence of external network ties, such as family and friends, on access to high status jobs, such as leadership positions (Lin, 1990, 1999; Lin & Dumin, 1986). Given the importance of external networks to career trajectories in this literature, a meaningful next step for research on disability and social networks is to examine how external networks influence the careers of leaders with disabilities.

With a need for additional research, I pursued an understanding of career advancement and leadership facilitators among persons with disabilities in the present study. To this end, I interviewed 21 Canadian leaders with disabilities on the subject of their careers. Analysis of those interviews resulted in a metaphor that synthesizes our current knowledge on facilitators as well as a more in-depth examination of external social networks as facilitators.

2.3 Methods: Participants, Data Collection, and Data Analysis

I used interpretive qualitative methods to study facilitators among leaders with disabilities. This included semi-structured interviews (McCracken, 1988; Spradley, 1979) with leaders with disabilities and an iterative approach to data collection and analysis (Charmaz, 2006; Miles & Huberman, 1994). In total, 21 individuals participated in this study. Eight identified as female and thirteen as male. Two inclusion criteria were used to determine whether a potential participant was eligible. First, the participant must have self-identified as having a disability, and second, the participant must have occupied a formal and paid leadership position in a workplace at the time of or prior to the interview. Definitions of disability, career advancement, and leadership used in this study can be found in Chapter 1.

Importantly, not all participants conceptualized disability in the same manner. Some viewed disability through the medical model whereas others were more closely aligned with the

social model of disability. For instance, P1 (business owner and manager) described his stammer as “my handicap”, whereas P5 (senior executive) reframed the famous final line from Jean-Paul Sartre’s play “No Exit” to state that “disability—is other people”. The WHO’s (2011) definition of disability is inclusive of this diversity of perspective, encompassing both personal and social facets of disability and it is the definition that I use in the present study. As described earlier, according to the WHO (2011), disability is “an umbrella term for impairments, activity limitations, and participation restrictions, denoting the negative aspects of the interaction between an individual (with a health condition) and that individual’s contextual factors (environmental and personal factors)” (p. 327). Participants self-identified as having physical (n = 12; e.g., cerebral palsy and spinal cord injury), sensory (n = 7; e.g., hearing and vision impairment), speech (n = 1; e.g., stammer), learning (n = 1; e.g., dyslexia), and mental impairments (n = 2; e.g., depression and OCD). Two participants self-identified as having more than one impairment. Participants’ leadership positions ranged from junior (e.g., supervisor and advisor) to senior roles (e.g., executive, board member, lieutenant governor, and mayor). Participants worked in a diverse array of organizations, from for-profit, non-profit, and government sectors and all participants were Canadian.

Participants were recruited through a variety of channels. I advertised the present study via disability-related organizations, listservs, and discussion groups as well as personal and academic connections. I cold-called publicly known leaders and individuals found through online searches and I had serendipitous encounters with prospective participants at conferences as well. By far, the most fruitful recruitment avenues were e-mail cold-calls, meetings at conferences, and snowball sampling. Similar to Baldrige and Kulkarni (2017), study participants represented

a targeted sample of individuals who had achieved success in their careers—they were not selected as a random sample of persons with disabilities.

Participants tended to suggest male leaders with disabilities as potential participants more frequently than female leaders with disabilities. I made a conscious effort to contact female leaders with disabilities throughout recruitment due to this. However, given the complexity of recruiting for this study more generally, this still resulted in a sample with more male than female leaders. I do not know whether my difficulty recruiting female leaders with disabilities was a function of lower representation in leadership, higher barriers to leadership, a combination of these factors, or something else. Future research should explore the intersection of leadership, gender, and disability further, as in Noonan et al. (2004) and Majiet and Africa (2015). Similar to Noonan et al. (2004), some participants from the present chapter did consider the role of intersectionality in their career advancement, especially when discussing barriers (found in Appendix B). Yet, the majority of female participants did not highlight the intersection of gender and disability during our interviews, even though it was a part of the interview protocol.

All participants were provided the option to be named in this study. This was done because I believe that participants are the primary owners of their own data. Further it is in agreement with the concept of “nothing about us without us” when conducting disability research (Charlton, 1998). See Table 2-1 for further information on participants. As well, this study received approval from the Queen’s University General Research Ethics Board (GREB) (see Appendix A).

Interviews were conducted via telephone and online. They ranged from 30 to 120 minutes in length, with the average interview running approximately 60 minutes. All interviews were conducted with the author of this manuscript and transcribed via an online service. During one

interview, questions were typed and during another a translator was present. Interviews were semi-structured, beginning with grand tour questions and filtering down to more specific questions (Spradley, 1979).

I entered each interview with a guide, but I did not always rely heavily upon it (Charmaz, 2006). Example interview questions included, “Can you tell me about your career advancement?”, “What role, if any, has disability played in your path to becoming a leader at work?”, “Do you feel that leadership work is different for someone experiencing your disability than for someone who is not?”, “If at all, how have you managed barriers/challenges?”. As data were analyzed more specific interview questions that related to prior participant responses were developed. Generally, these questions followed the format suggested by Charmaz (2006): “Others have mentioned... have you had similar experiences?”

I did not begin this study with the intention of examining external social networks as a facilitator of career advancement and leadership. Rather, I started with an interest in metaphor and how persons with disabilities advance into leadership positions. Part way through data collection and analysis, the current focus on the three-legged stool and leaders’ external social networks developed.

Interview data were initially analyzed with line-by-line, followed by incident-by-incident, coding (Charmaz, 2006) with NVivo 10. Higher order categories and themes were developed from initial codes using the constant comparative method (Glaser & Strauss, 1967). Codes, categories, and themes were refined iteratively and discussed in detail with my supervisors as interview data were collected. I wrote memos during and immediately after interviews as well as at other points through the duration of this study that aided analysis. I conducted interviews until

theoretical saturation was reached—that is, no new codes, categories, or themes relevant to my research question were occurring in the data.

Participants were given the opportunity to comment on and correct my interpretation of findings. As a form of participant validation (Miles & Huberman, 1994) these exchanges were used to confirm the accuracy of findings as well as develop the paper conceptually. For instance, the metaphor of the three-legged stool was not initially discussed during an interview. Rather, P8 (manager) suggested this metaphor—with the legs of the three-legged stool labeled as “the self”, “social connections”, and “systems”—in response to an early report of findings. At that time, I had separated facilitators into individual and social/environmental categories. After being asked if there was a concept that synthesized results, P8 introduced the three-legged stool metaphor to me which was subsequently endorsed by other participants in later communications. Further, after learning of this metaphor I returned to participants’ interview data to examine whether it mapped onto their experiences—those results are included in the findings section that follows. Returning to participants also gave them a second opportunity to withdraw consent or remove identifying information from the manuscript. This was critical to maintaining confidentiality and, in my view, respect for participants and the experiences they shared.

Although this paper focuses on facilitators, disability-related challenges (or barriers) were central to many participants’ career advancement narratives. Some of those challenges are considered in relation to facilitators in the findings section of this manuscript. However, a more complete description of the challenges that participants encountered can be found in Appendix B, for those readers who wish to better understand the complexity of participants’ careers. Of note is the diversity of experience that participants shared. No two individuals conveyed the same

arrangement or magnitude of challenges, highlighting the heterogeneity of participants' lived experience.

2.4 Findings: The Three-Legged Stool and the Influence of External Social Networks

The metaphor of the three-legged stool, first described by P8 (manager), provides a starting point to synthesize our current knowledge of career advancement and leadership facilitators. This metaphor depicts three foundations that facilitate success, including career self-management strategies, organizational and societal factors, and social networks. With all three of these foundations present the individual's career finds steadiness; they have the greatest chance of advancing into leadership positions and succeeding as a leader. Of 21 participants, 17 commented on all three foundations of the stool during our interview, with the remaining four participants describing career self-management strategies and social networks only. Thus, the three-legged stool may not be universally applicable across participants' careers—yet, it is representative of the majority of them.

A different researcher may have sorted these facilitators of career advancement into a different number of categories than in the present analysis. For instance, as noted earlier, I had originally categorized facilitators into two themes, those internal and external to the individual. However, I found that P8's (manager) three category metaphor which separates social networks from organizational and societal factors mapped well onto participants' experiences. Within the codes developed, social networks were often discussed as distinct from organizational and societal factors. Of course, a three category model is less parsimonious than a two category model, however, the three-legged stool offers a more comprehensive illustration of the combination of facilitators that participants described as critical to their success.

A description of the three-legged stool metaphor in relation to the glass metaphors (the glass ceiling, the glass cliff, and glass partitions) can be found in Table 2-2. Table 2-2 includes the butterfly metaphor as well, which I describe further in the discussion section. The components of each foundation of the three-legged stool can be found in Table 2-3. And a detailed description of each foundation including quotes from participants is reported in Appendix C.

External Social Networks as an Influential Component of the Social Networks Foundation

Two themes were constructed on external networks as facilitators of participants' success. The first theme includes the influence of family, friends, and role models upon participants' career self-management strategies (n = 13). This theme was abstracted from lower-level categories and codes on how these ties outside of the workplace i) fostered a positive disability identity and motivated participants' success (n = 11) and ii) modeled skills that participants would later use in their work (n = 4). The second theme is on the generation of employment opportunities (n = 6) and includes how i) acquaintances sought out participants for jobs that were aligned with participants' skills (n = 3) and ii) family and friends helped participants access employment early in their careers (n = 3). Overall, 17 participants commented on external social networks as an important part of their career development, with two participants having discussed experiences categorized under both external network themes.

External Social Networks Influence Career Self-Management Strategies

Fostering a positive disability identity and motivating success. When discussing their childhood and adolescence, many participants with congenital impairments described the benefits of supportive family members and friends “who didn't treat me differently” and “didn't let me make excuses for myself”. These social relations normalized disability for participants,

supporting the development of self-perceptions that de-emphasized medicalized perspectives of disability, instead promoting an understanding of disability as a “neutral” characteristic of the individual.

Emphasizing the “person first”, these external ties helped participants build the confidence required to succeed in their future endeavors. For instance, P13 (advisor) explained that his experiences with family and friends who embraced him “as Anthony the person” gave him “the confidence to be the man that I am”. For P13, his success and the social acceptance of his family and friends “go hand in hand”. After being prompted to further discuss the notion of “embracing Anthony the person”, P13 explained:

It was there from day one. My youth was a little bit challenging before the condition stabilized. But in saying that, I was still Anthony the person. Having the experiences that I had playing sports growing up, learning team skills, leadership skills, it was very important, critical, and vital to the man that I am today. And again, being treated no differently than my siblings or friends in the community. I have my best friend, somebody that I've known for over 30 years. So, to me, that's really vital and critical in saying, “Yeah, they'll stick with you because you're a good person. The disability is not a factor”.

Another participant, P19 (mayor and other roles), conveyed the experience of being fired from two jobs early in her career, because her managers thought that she would “scare away” customers. Through these experiences she began to worry that everyone around her felt similarly to those managers. However, with time and the support of her network she overcame those thoughts:

It took a while for me to have confidence, not just in myself, but also to be confident that the world at large did not, in fact, view me the way that these two people did... It was partly listening to the people around me and believing in what they said, that this perception of me being some kind of a freak is not the perception that the majority of the world was going to have. And I think it's like anything, it's time, it's not letting this perception rule my world, but to move forward and focus on the things that are positive and the things that reinforce my belief in myself.

For other participants, being “immersed” in networks of persons with disabilities gave them the opportunity to interact with “role models” and develop a more positive view of the self. These networks made participants aware of the array of opportunities available to them, while also disconfirming their “own prejudice” toward disability. P8 (manager) explained that during his childhood he did not know many other individuals who were Deaf or hard of hearing. However, in high school, he had the chance to “meaningfully entrench” himself in this community, where he “discovered this whole vast experience of persons with disabilities, and the spectrum, the entire spectrum of possibilities”. It was through those experiences that he recognized that he was “just like anybody else” which was “pivotal” to the development of his positive self-perception.

In some cases these role models were geographically distant from participants, yet they remained influential. Specifically, two participants commented on prominent Canadians with disabilities, including Terry Fox and Rick Hansen, who “made a huge impact” regarding “perceptions of persons with disabilities across the country”. These successful individuals “inspired” P14 (executive and other roles), when he “was looking at newspaper clippings and

seeing the changes that they have paved the way for, in terms of changing people's minds and attitudes”.

In contrast to participants with congenital disabilities, participants with acquired disabilities tended to focus on friends in their external networks, rather than friends and family, when discussing the development of their disability identity and motivation. For instance, P9 (executive) who acquired physical and sensory disabilities part way through her career told the story of how she came to identify with disability. For years, she “would cringe at the notion” of herself “and disability in the same sentence”. Yet, her friends with disabilities became her role models and they facilitated a reframing of her circumstances:

I went through a period where I really did not value myself or what I could contribute, because I was not able to work the way I once worked, which was fast. Very responsive, very reactive. I was very, very high energy. Because I couldn't do that, I thought, “Oh my God! What am I going to do? What is my contribution going to be?” So I went from that to, “Wait. Hold on a second. There's a lot that I can do”. I've come out on the other side of this illness, which could have made me into a very different person, because I was surrounded with people who were doing so many things in spite of mobility challenges, vision impairment, and hearing impairment. I looked at them as my example and my role models.

For another participant, the most influential effect of his friends was not due to their support, but rather, their suffering. P3 (president and executive director) was injured during his first week on the job, after a 50-foot tree split down the middle and broke his back. As an injured worker, he began to witness the destructive power of unaccommodating organizations in the lives of his friends. Through these experiences, he became driven to instigate “structural change”

in Canadian society, with the aim of building safer and more accommodating workplaces. As he stated:

Part of what has motivated me, is that several of my buddies committed suicide. Because in the late '80s they were not accommodated, they didn't go back to work, and you have the classic combination of chronic pain, depression, despair, and no hope for the future.

Modeling skills. Related to fostering a positive disability identity, family members modeled specific skills that four participants would later benefit from over their careers. In one case these skills were directly associated with managing the participant's experience of impairment, whereas the remaining three participants learned skills that supported their navigation of social barriers at work.

Focusing on impairment-specific skills, P10 (manager and director) benefited from the experiences of older family members who also had Tourette syndrome and obsessive compulsive disorder. She explained:

For me, it was family members who were able to relate to what I was saying. Using them as a sounding board, talking about things that worked for them and how I might be able to do the same things.

P10 further explained that her family members had taught her “coping skills for stress and techniques to manage time or thought processes”. In addition, those family members provided her with “general support, acknowledgement, and comfort as well, which helped to normalize what I was experiencing”.

Turning to skills that facilitated the navigation of social barriers, P8 (manager) described how he learned to use his education to signal credibility at work. In his youth, P8 recognized that a university education was “the only way I can get anybody to take me seriously”. Exposure to

family members with graduate degrees were an important part of this realization, as he saw them as “the model of success”. Another interviewee, P16 (manager), conveyed how different norms of communication in Deaf and hearing cultures can cause conflict in the workplace that harms the career outcomes of Deaf community members. However, because P16 grew up in a hearing family he understood both cultures well. This upbringing taught him how to navigate hearing environments:

I grew up in a hearing family. So, I do have, I think, a better understanding of what the hearing world looks like. When you look at people who are called strong culturally Deaf, there's potential for cross-cultural conflict. The Deaf approach is quite straight forward, some may even call it blunt. They're very direct. And I think I've seen this with other cultures as well. But in the workplace, that is not always the best approach. For example, to get your attention culturally Deaf people will bang on a table or bang on the floor, and it's noisy. That wouldn't really work in a hearing workplace. You don't want to start banging on tables... that affects their performance as well. It's a cross-cultural awareness. I think because of my hearing family, I'm more aware of hearing culture.

External Social Networks Generate Employment Opportunities

Weak ties recruiting participants for their skills. As in the broader networks literature, numerous participants described gaining awareness of, and access to, jobs through network ties. These connections formed both inside and outside the workplace. Internally, job opportunities arose because participants were sought after for their expertise. For instance, P6 (manager and executive) explained that throughout his career he had gained access to new roles, because “somebody’s always called me up and said, ‘I have a really bad situation, I need your skillset.’” Similarly, P7 (executive and consultant) commented: “I have reached a point in my career where

people say, ‘There's a particular project or assignment that needs to be done and the person that’s got the right skillset or competencies is Jeff.’”

Three participants commented on job opportunities that were accessed through acquaintances in their external networks. Similar to the internal connections described above, participants explained that it was their particular skillset that led these weak ties to contact them about an opportunity. Participant described these contacts making statements such as, “You’d be really great on my team, why don’t you come over here. I think you’d be great at this position”, “We need a manager, I think you’d be good at it”, and “Look, I am about to post this position. Do you know anybody?” while hinting that the participant would be an ideal candidate. P14 (executive and other roles) told the story of how someone he had met many years earlier asked him to apply for a consulting position. He was working in that consulting role at the time of our interview:

Actually, the person who approached me, the reason she remembered me is that 10 to 15 years ago, when I was training for the BC Summer or Winter games as a competitive athlete, this individual was starting out her career working as a front service desk representative in the city, working at the local community center. And now 10 to 15 year later she was the head of support services and accessibility for the entire city. And it is because of the meaningful connection that I made with her 10 to 15 years ago that she remembered me. She had been following me through social media, and that's how that position came to be.

Strong ties supporting participants’ employment in relation to barriers. Family and friends in participants’ external networks generated employment opportunities for three participants. All three of these experiences transpired early in participants’ careers. Whereas the

previously described opportunities came about due to participants' sought after skills, job opportunities from strong ties were primarily discussed in relation to disability. For instance, commenting on how people perceived his stammer and his difficulty using the telephone early in his career, P1 (business owner and manager) said, "the less I had to speak, the better I would be". With this in mind, he decided to work at his father's carpet store, because the work involved minimal telephone and in-person communication:

Now, my dad had a carpet store. If I wanted to go into something else, I probably could have. But in carpet installation, I'm not having to be on the phone all the time, not having to speak with people the whole time. It's great. Except for the helper and for the customer, I'm not speaking with people. Although I wasn't really aware of it, I'm positive that played a part in why I chose that [career path]. Because if I was to choose other trades that possibly would have involved talking to people, I would have avoided those.

Another participant, P21 (Lieutenant governor and other roles) explained that, "In terms of a job, I, like so many people with disabilities, found it virtually impossible to get a job that had any career path attached to it". Recognizing this, he decided to attend law school, but soon he realized that he was not interested in law. At this juncture, he had the idea that he could write a novel on the American space shuttle program that was then in its infancy. Through his father's contacts it was arranged that he would visit the Kennedy Space Center in Houston to collect data for his novel which later became a bestseller in Canada.

For P4 (executive and other roles) the opportunity to work came from a friend at a critical moment. While in the hospital, shortly after a work injury that resulted in an arm amputation, P4 had the following exchange with a prosthetist:

He [the prosthetist] said, “So what kind of work were you doing?” I said, “Construction”. Then he said, “Well, you'll never do that now”. I didn't know... then he says, “What kind of hobbies do you have?” “Gardening. I love gardening”. He says, “Well, you won't do that either”. By now, tears were running down my face. He said, “My advice to you is find a good woman to look after you for the rest of your life”. Then he left. I went, “Here's the expert telling me my life's over”.

Subsequently, P4 decided not to seek employment because he believed that no one would hire a carpenter with one arm. However, soon after these self-limiting perceptions took form a friend came to visit. This visit changed Steve's belief in his own abilities, and ultimately, resulted in Steve's later decision to start his own construction company:

One of my neighbors comes in and says “So let's get up and get going here Steve”. This was September. “Next spring I want you to build my house”. I said, “What? You can't see? What have you been smoking man? Look, you want me to build you a house?” And he said, “Yeah. Come on, let's go. Get going, I want you to build my house”. And so he created a vision for me that I didn't have and he gave it to me. And I went, “Oh, well maybe I could. If he thinks I could, maybe I could”.

2.5 Discussion and Conclusion

I explored the career advancement and leadership experiences of 21 leaders with disabilities in the present study. Through the insights of those leaders, the three-legged stool was introduced as a metaphor that depicts three categories of facilitators that propelled leaders' careers. The three categories were career self-management strategies, organizational and societal factors, and social networks. This metaphor is similar to standard models of career advancement that highlight social networks (e.g., mentorship and homophily) and individual-level factors

(e.g., human capital and performance) as predictor of progression (Burt, 1992; Granovetter, 1973; King, 2004; Tharenou, 1997). However, at the thematic-level, the addition of organizational and societal factors is perhaps what differentiates the three-legged stool from models of career advancement that do not focus on leaders with disabilities. Although career advancement has certainly been conceptualized as a higher-level phenomenon in past research (e.g., career advancement as sponsorship, contests, and tournaments in Ishida, Su, & Spilerman, 2002; Turner, 1960), the three-legged stool identifies higher-level factors as necessary facilitators. For instance, having a flexible and responsive employer was especially important for many of the leaders from this study. In addition, disability-specific career entry and advancement programs benefited a number of participants and such programs would not have been available to persons without disabilities.

These findings contribute to a nascent body of literature on how persons with disabilities navigate barriers and advance their careers (Kulkarni & Gopakumar, 2014; Baldrige & Kulkarni, 2017). In addition, the present study advances research on the construction of disability identity at work (Baldrige & Kulkarni, 2017; Jammaers et al., 2016) by examining the beneficial influence that external networks had in the development of leaders' positive identities.

External networks were critical to the majority of participants' success. These networks influenced participants' development of career self-management strategies and benefited others through the generation of employment opportunities. The present findings on acquaintances supporting access to employment are related to findings from prior research (e.g., Granovetter, 1973). Yet, the employment prospects that strong ties developed for some participants in light of disability barriers is something new to the nascent literature on disability and social networks. Kulkarni (2012) noted that research on diversity and social networks is missing "the application

of social networks as they influence career advancement of people with disabilities” (p. 139).

Just as Kulkarni (2012) began to address this research gap by theorizing on the influence of internal networks, the present study represents a first step toward understanding the influence of external networks in the career advancement and leadership of persons with disabilities.

Findings on the importance of both internal and external networks contribute to how we understand the relationship between disability and career advancement. Specifically, while social networks were central to participants’ career advancement, cultivating advantageous networks may be particularly difficult for persons with disability who often occupy suboptimal locations in social networks (Kulkarni, 2012). What is required of persons with disabilities is particularly challenging—to benefit from social networks while facing uneven barriers to accessing them. In this research, participants used a variety of career self-management strategies, such as learning communication skills, proving themselves, and taking a positive attitude to surmount those barriers. However, future research should explore what organizations and governments can do to mitigate networking barriers further. For example, organizations could implement training, network audits, and promote an inclusive climate (Kulkarni, 2012) and governments could provide funds for programs that build the social networks of persons with disabilities before they enter the workforce. Such programs could foster the external networks that were important to numerous participants in the present research.

The three-legged stool metaphor has implications for how we conduct research, through its focus on facilitators. All of our current metaphors on disability, career advancement, and leadership emphasize barriers, including the glass ceiling (Braddock & Bachelder, 1994), the glass cliff (Wilson-Kovacs et al., 2008), and glass partitions (Roulstone & Williams, 2014). Of course, it is important that we continue to research the workplace barriers experienced by

persons with disabilities, but our exclusive focus on barriers is problematic. This is because metaphors often guide the research questions that we ask (Cornelissen, 2005). Due to the absolute imagery of impermeable glass barriers, it may be all too easy to become cynical about the career advancement of persons with disabilities. The imagery of these metaphors may contribute to the invisibility of leaders with disabilities in research and organizations (e.g., Boucher, 2017), because these metaphors depict how persons with disabilities either cannot access leadership positions or are unsuccessful in them. However, reflecting on the glass barriers in combination with the three-legged stool, we can more evenly assess the range of barriers that many encounter. The three-legged stool metaphor reminds us that there are ingredients that result in the successful career advancement and leadership of persons with disabilities.

Similarly, metaphors prompt action and have implications for practice (Eagly & Carli, 2007). Applied as a guiding metaphor, the three-legged stool can be used by practitioners to develop initiatives related to disability, career advancement, and leadership. Such initiatives would focus on supporting all three foundations of the stool, rather than attending to only one or two. For instance, a leadership development program for persons with disabilities that focuses on career self-management strategies would not be implemented alone. Instead, such a program would be organized in conjunction with other initiatives that cultivate participants' social networks (e.g., a mentorship program) and increase facilitation at the organization-level (e.g., accommodation policy and manager training). Likewise, policy could be developed with all three pillars of the stool in mind.

However, the present study has limitations that should be reflected on before applying the three-legged stool in practice. To begin, few leaders with mental disabilities and no leaders with intellectual disabilities participated in this research. Mental and intellectual disabilities are often

perceived more negatively than other types of disabilities (Braddock & Bachelder, 1994; Charlton, 1998; Colella & Stone, 2005; Ren et al., 2008; Scior, 2011) and future research on disability and leadership should focus on the experiences of these leaders. Next, the broad inclusion criteria of this study are both a strength and a weakness. Including the voices of participants with a range of impairments, in junior to senior leadership roles, and from a variety of sectors helped produce results that may be applicable to a large number of individuals and organizations. However, what was lost is a more detailed description of specific experience. Disability is certainly not uni-dimensional (Beatty et al., 2018) and a narrower study would have provided more targeted findings, with the opportunity to go deeper into some participants' experiences.

Considering one aspect of those experiences, I plan to examine how leaders conceptualize disability in future research. During interviews for the present study participants often gave rich descriptions of how disability was an asset, when asked whether disability had been of benefit in the workplace. Some leaders described an increased ability to empathize and complete tasks, others recounting stories of myth-busting, and more. Further, leaders explored the relationship between disability and their success in a variety of manners. P6 (manager and executive) described disability as, “my passenger, that's been along for the ride, but never really influenced, too much, if I succeed or not”. Another participant reflected on disability as an independent variable in a regression model of their career trajectory, acknowledging a great deal of uncertainty around how much variance it explained. In these discussions, leaders frequently emphasized that they were only experts in their own lived experience.

Of course, the diverse career advancement and leadership experiences of all participants could not possibly be explored within one paper—or summarized by one metaphor.

Acknowledging this diversity of experience, consider the “leader as butterfly” metaphor, described by P12 (senior advisor):

I would like to share the metaphor of how the butterfly starts its journey of self-determination first in a cocoon where freedom to freely fly is not possible. Struggling to build strength in their wings inside the cocoon, they keep trying to move and they eventually build enough strength to be able to open the cocoon with their wings of strength and fly and soar into a world of possibilities. Facilitators provide endless possibilities for success. And, Leaders with Disabilities may find themselves up against adverse conditions that feel like being restricted in a cocoon. But at the same time, these highly adaptable and inventive leaders are building strength and in time will be able to build strength in others with the aid of facilitators that believe in them and wish for them to soar without limits!

The butterfly metaphor promotes an empowering conceptualization of career progression that focuses our attention on barriers and facilitators of success as well as the positive change that leaders can introduce through the strength that they build. With the majority of our research and metaphors emphasizing barriers, we would surely benefit from more metaphors like the leader as butterfly. After our interview P12 and I began discussing potential directions for context-specific research on disability and leadership, which has resulted in future plans for a collaboration on facilitators of success among public servants with disabilities. See Table 2-2 for a description of the leader as butterfly metaphor.

As mentioned earlier, metaphors influence attention. When a metaphor guides our focus to one aspect of a situation, we run the risk of ignoring something else that may be equally important. The three-legged stool frames facilitators of career advancement and leadership with

three overarching themes, via qualitative analysis of interview data from 21 leaders with disabilities in Canada. Among leaders with disabilities who are not represented in this study, for instance, leaders from countries outside of Canada, the three-legged stool metaphor may not be the most appropriate metaphor. For instance, perhaps in different circumstances the organizational and societal pillar should be separated into two distinct foundations, rather than being categorized together. The same might be true for the internal and external social networks components of the social networks pillar. In these cases, the stool may draw our attention towards the wrong combination of facilitators in some cases. Future research should be alert to this. There is likely a need for additional metaphors on facilitators, extensions of the three-legged stool metaphor, and research on moderating factors.

Last, a future study on the career advancement of persons with disabilities might include a matched pair sample of individuals with disabilities, with half of the sample occupying leadership positions and the other half not. In such a study, present findings would suggest that career self-management strategies, social networks, and organizational and societal factors are all predictive of success. With all three of these elements as foundations of the three-legged stool, we might also expect to find a three-way interaction between them. With a matched pair design, such predictions could be tested to refine the research developed herein.

In this chapter, I synthesized our understanding of career advancement and leadership facilitators among leaders with disabilities via the three-legged stool metaphor. Further, I examined the influence of external networks in the careers of leaders with disabilities. It is my hope that future research will build from the present study and continue to explore the multi-faceted facilitators described herein.

Table 2-1. Participant Information

| Participant | Workplaces | Leadership Positions | Location | Gender | Impairment |
|------------------------|---|--|-----------------|---------------|-----------------------|
| P1 Alvin Marks | Small business | Owner and manager | Canada | Male | Speech |
| P2 Anonymous | University | Professor | Anonymous | Male | Physical and learning |
| P3 Wolfgang Zimmermann | University and research institute | President and executive director | Canada | Male | Physical |
| P4 Steve Mantis | Small business, non-profit, and political party | Owner, manager, executive, board member, electoral candidate | Canada | Male | Physical |
| P5 Anonymous | Government | Senior executive positions | Canada | Female | Physical |
| P6 Max Brault | Government | Manager and executive positions | Canada | Male | Physical |
| P7 Jeff Willbond | Government and non-profit | Executive and consultant positions | Canada | Male | Physical |
| P8 Michael MacDonald | Aviation and insurance corporations | Manager | Canada | Male | Sensory |
| P9 Anonymous | Multi-national corporation | Executive | Canada | Female | Physical and sensory |
| P10 Anonymous | Disability management and healthcare | Manager and director | Canada | Female | Mental |
| P11 Anonymous | Non-profit | Manager | Canada | Female | Sensory |
| P12 Linda Niksic | Government | Senior advisor | Canada | Female | Physical |
| P13 Anthony Frisina | College | Advisor | Canada | Male | Physical |
| P14 Marco Pasqua | Small business, non-profit, gaming industry | Owner, manager, executive, board member | Canada | Male | Physical |
| P15 Luna Bengio | Government | Manager and executive positions | Canada | Female | Sensory |
| P16 Anonymous | Non-profit | Manager | Canada | Male | Sensory |
| P17 Diane Bergeron | Government and non-profit | Manager and executive positions | Canada | Female | Sensory |

| Participant | Workplaces | Leadership Positions | Location | Gender | Impairment |
|-----------------------|---|--|-----------------------|---------------|-------------------|
| P18 Steven Estey | International disability rights organizations | Independent consultant | Canada, international | Male | Sensory |
| P19 Joan Westland Eby | Government, non-profit, international organizations | Mayor, executive, consultant | Canada, international | Female | Physical |
| P20 Ian Manion | Healthcare, international network | Executive positions | Canada, international | Male | Mental |
| P21 David Onley | Government and university | Lieutenant governor, head of independent review, and senior lecturer | Canada | Male | Physical |

Table 2-2. Metaphors on Disability, Career Advancement, and Leadership

| | Glass Ceiling | Glass Cliff | Glass Partitions | Three-Legged Stool | Leader as Butterfly |
|---|---|---|--|---|--|
| Description | An unseen glass barrier that bars entry into the most senior-level positions. | An undetectable cliff that leaders will fall from, having been set up to fail. | Invisible walls that close in from everywhere but below, precluding lateral and upward movement. | A stool requires three legs to be stable; with only one or two legs the individual leader is unlikely to succeed. | The butterfly builds strength in their cocoon and with the support of facilitators will find success |
| Emphasis | Barriers. | Barriers. | Barriers. | Facilitators and barriers. | Facilitators and barriers. |
| Image of Barriers | Glass is impermeable and static. It is impossible to overcome barriers to career advancement because one cannot move through glass. | The point where glass turns into open air is fixed. With an unseen ledge, the leaders' fall from their position is only a matter of time. | Glass is impermeable and static. Glass walls prevent lateral movement making upward movement impossible. | Barriers are expected to have greater influence the less stable the stool is. | Barriers are adverse conditions that may feel similar to being constrained inside a cocoon, they are challengeable with strength and support |
| Image of Facilitators External to the Individual | With absolute barriers, there is no way to facilitate success. | With absolute barriers, there is no way to facilitate success. | Potential facilitators, such as accommodation, become barriers because leaders fear losing acceptance in new settings. | These factors are represented in two legs of the stool: social networks and organizational and societal factors. | Facilitators support the butterfly through its journey to build strength and self-determination |
| Image of Individual-level Facilitators | With absolute barriers, the individual cannot influence their outcome. | With absolute barriers, the individual cannot influence their outcome. | The individual is a part of this metaphor, such that their fears and perceptions build the walls that constrain them. | The individual is an agent capable of enabling their own success. However, external factors are also necessary. | The individual is adaptive and inventive, with the capacity to build strength for their self and others. |

Table 2-3. Foundations of the Three-Legged Stool

| Foundation One: Career Self-Management Strategies | Foundation Two: Social Networks | Foundation Three: Organizational and Societal Factors |
|---|--|--|
| <p>1. Behaviours</p> <ul style="list-style-type: none"> a. Learning communication skills; being a self-advocate b. Proving yourself; giving it 150% c. Using education for credibility d. Resume-ableing e. Self-employment <p>2. Attitudes</p> <ul style="list-style-type: none"> a. Taking a positive attitude b. Perceiving barriers as (contestable) challenges c. Building confidence and self-determination | <p>1. External Networks</p> <ul style="list-style-type: none"> a. Fostering a positive disability identity and motivating success b. Modeling skills c. Recruiting participants for their skillset d. Supporting employment in relation to barriers <p>2. Internal Network</p> <ul style="list-style-type: none"> a. Inclusive managers, colleagues, and employees b. Mentorship | <p>1. Organizational Policy and Procedure</p> <ul style="list-style-type: none"> a. Flexible and responsive employers b. Proactive employers <p>2. Programs and Funding</p> <ul style="list-style-type: none"> a. University scholarships b. Career entry and advancement programs <p>3. Social Systems</p> <ul style="list-style-type: none"> a. Disability-related work b. The status of leadership |

Chapter 3

Does Disability Influence Promotion?

An Empirical Investigation of Disability Status, Disability Type, and Promotion with Data from the National Longitudinal Survey of Youth 1997

3.1 Introduction

The majority of workplace disability research emphasizes the relationship between disability and employment, with few studies examining disability and career advancement (Kulkarni & Gopakumar, 2014; Schur, Kruse, Blasi, & Blanck, 2009). However, promotions are associated with a host of benefits for employees, such as increased pay, training opportunities, and job satisfaction (Yap & Konrad, 2009) and barriers to promotion are a concern for many workers with disabilities (McMahon & Shaw, 2005; Robert & Harlan, 2006; Roessler, Hennessey, Neath, Rumrill, & Nissen, 2011; Sayce, 2010; Roulstone & Williams, 2014; Wilson-Kovacs, Ryan, Haslam, and Rabinovich 2008).¹¹

In this quantitative study, I investigated the relationship between disability and career advancement with two research questions. To begin, I asked, is there a disability status promotion gap, such that persons with disabilities receive fewer promotions than persons without disabilities? Defining disability as “an umbrella term for impairments, activity limitations, and participation restrictions, denoting the negative aspects of the interaction between an individual (with a health condition) and that individual’s contextual factors (environmental and personal factors)” (WHO, 2011, p. 303), I used data from the National Longitudinal Survey of Youth 1997 (NLSY97) (Bureau of Labor Statistics, 2015a) to explore this question. As discussed in my

¹¹ As discussed in Chapter 1, the terms career advancement and promotion are synonymous in this study (e.g., Greenhaus & Parasuraman, 1993).

literature review, the small body of quantitative research that we have on disability and promotion includes mixed results and lacks generalizability due to sample limitations (e.g., Bressler & Lacy, 1980; Luria et al., 2014; Schur et al., 2009). However, the NLSY97 has the potential to contribute further evidence to the literature on disability and promotion, with respondents from varied geographic and organizational contexts across the United States (Moore, Pedlow, Krishnamurty, & Wolter, 2000).¹²

Next, I asked, is there a disability type promotion gap, such that persons with different types of disabilities receive promotions at different rates? I concluded with this question because the literature on disability and promotion primarily examines disability as a homogenous construct, at the aggregate-level (e.g., Schur et al., 2009; Schur et al., 2017), even though disability is multifaceted and complex (Dwertmann, 2016; Stone & Colella, 1996). Drawing from a wealth of literature that illustrates a hierarchy of preference for different types of disabilities (Braddock & Bachelder, 1994; Charlton, 1998; Colella & Stone, 2005; Deal, 2003; Foster-Fishman, Jimenez, Valenti, & Kelley, 2007; Reilly, Bocketti, Maser, & Wennet, 2006; Ren et al., 2008; Sayce, 2010; Roulstone & Barnes, 2005; Tringo, 1970), I hypothesize that when disability is disaggregated by type we will find that this hierarchy relates to promotion rates.¹³

¹² However, the NLSY97 dataset suffers from its own specific set of limitations that should result in a cautious reading of findings. Most importantly, the NLSY97 operationalization of disability includes more persons as having a disability than other, more precise, measures of disability. This limitation results in conservative estimates, or the increased likelihood of statistically non-significant results in this case. I reflect on this further in the discussion sections of this chapter.

¹³ When I use the term disability type, I am referring to the experience of physical, sensory, mental or multiple disabilities. I use these four disability types because the survey items in the NLSY97 allow for disaggregating disability into these commonly accepted groups (see the methods section for more information on specific survey items). As noted in Chapter 1, it is important not to confuse impairment with disability when considering these categories. For instance, remembering that the WHO (2011) definition that I follow includes two components, first, an impairment, and second, a limitation, the term “person with a physical disability” would characterize a person with a physical impairment who experiences a limitation. That limitation need not be a function of the physical impairment itself. Rather, the limitation could be the result of personal and/or environmental factors.

3.2 Literature Review

With minimal research on disability and promotion, I first draw from the literature on women, racial minorities, and promotion (e.g., Allen, French, & Poteet, 2016; Greenhaus, Parasuraman, & Wormley, 1990; Greenhaus & Parasuraman, 1993; Landau, 1995). We can use this literature to shape expectations about the promotion experiences of persons with disabilities, because persons with disabilities, women, and racial minorities often share minority status in the workplace and minority status can impact observer perceptions as well as work outcomes (Kulkarni & Gopakumar, 2014).

Evidence from this literature suggests that discrimination influences rates of promotion, such that women and minority racial group members are less likely to receive promotions in comparison to men and majority racial group members respectively, even when effort level, performance evaluation, mentoring, experience, and social capital are controlled (Yap & Konrad, 2009). Researchers have assessed numerous explanations for these promotion gaps, reporting that observer attributions are critical. Greenhaus and Parasuraman (1993, p. 273) found that when rated by supervisors “the performance of black managers was less likely to be attributed to ability and effort and was more likely to be attributed to help from others than the performance of white managers”. Correspondingly, Biernat and Kobrynowicz (1997, p. 544) reported that raters in their job application study had “lower minimum-competency standards, but higher ability standards, for female than for male and for Black than for White applicants”. As a minority group, I expect that persons with disabilities will experience similar barriers to promotion.

The next literature that this study draws from focuses our attention on barriers to the inclusion of persons with disabilities at work more generally. Global attention to these barriers

has increased in recent decades. For instance, numerous governments have passed legislation with the goal of mitigating social and environmental barriers in the workplace, such as the Americans with Disabilities Act in the United States, the Accessibility for Ontarians with Disabilities Act in the province of Ontario in Canada, the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act in India, the Equal Rights for People with Disabilities Law in Israel, the Disability Discrimination Act in Australia, the Disability Discrimination Act in the United Kingdom, and the Law to Protect Disabled Persons in China. And at the international-level, the United Nations Convention on the Rights of Persons with Disabilities (CRPD) has over 160 national signatories (United Nations, 2006, 2017). These efforts to curb barriers attend to various stages of the employment cycle, such as during hiring and career advancement.

Examining hiring, a large body of field and experimental evidence supports a negative relationship between disability and employment (Baldwin & Johnson, 2000; Bureau of Labor Statistics, 2010; Colella & Bruyère, 2011; Colella & Stone, 2005; Stapleton & Burkhauser, 2003; Stone & Colella, 1996; Yelin & Trupin, 2003). These findings are at least in part due to unfounded employer concerns about cost, legal liability, and safety (Bonaccio, Connelly, Gellatly, Jetha, & Ginis, 2019; Vornholt, Uitdewilligen, & Nijhuis, 2013). Although individual strategies and organizational policies have the potential to curtail the negative effects of hiring biases, barriers to career advancement await many persons with disabilities after being hired (e.g., Araten-Bergman, 2016; Colella & Bruyère, 2011; Hebl & Kleck, 2002; Hebl & Skorinko, 2005; Kulkarni, 2016; Kulkarni & Gopakumar, 2014; Lyons, Volpone, Wessel, & Alonso, 2017; Sayce, 2010).

Few quantitative studies have been conducted on the relationship between disability and career advancement, and in prior literature findings are mixed (see my discussion of quantitative research on promotion rates in Chapter 1 for a detailed review). To begin, Bressler and Lacy (1980) conducted a study on promotion with the United States Air Force Logistics Command and found that persons with orthopedic, visual, and hearing/speech impairments (described in their research as handicaps) averaged .247, .248, and .246 promotions annually in comparison to persons without these conditions, who averaged .251 promotions per year, a difference that is not statistically significant. However, in a different military setting, Luria and colleagues (2014) found that having a learning disability related negatively to leadership emergence and subsequent career advancement in the Israeli military. Further, the United States' Equal Employment Opportunity Commission (EEOC) (2008a) reported that while the total number of promotions in the United States federal workforce decreased from the years 2002 to 2006, the number of promotions received by persons with one of nine conditions referred to as "targeted disabilities" fell by 25.19% in that period, from 2,604 to 1,984 promotions, in comparison to a decline of 3.99% for persons without disabilities, from 273,658 to 262,730 promotion. Although statistical analysis was not provided by the EEOC, this difference of 21.2% is indicative of a growing promotion gap. Next, using survey data from 14 U.S. companies, Schur and colleagues (2009) hypothesized that persons with disabilities would have fewer promotion opportunities than persons without disabilities, but this prediction was not supported. In line with these results, Schur and colleagues (2017) also found no difference in promotion opportunities in their analysis of data from the United States General Social Survey (GSS).

In order to understand these mixed findings and determine next steps for the literature, we must attend to the limitations of the studies reviewed. First, generalizability is a concern across

the studies, because their analyses do not represent the range of organizational settings that persons with disabilities work in. On this subject, Luria and colleagues (2014, p.756) wrote:

...a limitation of this study is the unique sample, of 18 year-old soldiers. As a group from a specific culture and relatively similar background, this homogenous sample makes it possible to control for potential intervening variables but also restricts the generalizability of the findings.

Bressler and Lacy's (1980) and the EEOC's (2008) studies suffer from related issues, with their focus on civil service workers. Yet, we know that persons with disabilities work in a diversity of industries and organizations across geographies (Bureau of Labor Statistics, 2010; Sayce, 2010; Turcotte, 2014).

Although respondents from Schur and colleagues (2017) research worked in various organizations, the authors cautioned readers that power was limited in their sample and that results should be read as conservative. Perhaps the most generalizable of the reviewed studies, with data from manufacturing, service, financial services, and internet-based companies, Schur and colleagues (2009, p. 388) note that their sample was "not representative of U.S. employers, both because of the selection criteria and the refusal of some firms to participate" in the National Bureau of Economic Research (NBER) Shared Capitalism Research Project. With reports of no relationship and a negative relationship between disability and promotion, further research that includes individuals who work in different geographic and organizational contexts is clearly required before we can begin to generalize findings.

Moreover, the reviewed studies do not examine whether there is a relationship between disability type and promotion. To date, the literature has primarily examined one type of disability (e.g., learning disability) or numerous types of disabilities aggregated into a single

disability category in relation to promotion. However, disability can take many distinct forms, such as physical disability, sensory disability, and mental disability (Dwertmann, 2016; Stone & Colella, 1996). Although researchers have not yet examined the effects of disability type on promotion, we know that these categories influence the treatment of persons with disabilities differentially (Baldwin & Johnson, 2006; Braddock & Bachelder, 1994; Colella & Stone, 2005; Vornholt et al., 2013). For instance, employers are reportedly more willing to hire persons with physical disabilities than persons with other disabilities for management positions (Braddock & Bachelder, 1994). Yet, none of the research cited above examines whether this preference for persons with physical disabilities influences promotion rates.

This review calls for two developments in the literature. First, further analysis of the relationship between disability and promotion in different geographic and organizational contexts, to produce more generalizable research findings. And second, examination of disability type in relation to promotion, to explore whether there is a difference in promotion rates between persons with different types of disability, as the literature would suggest. Next, I introduce theory and predictions based on these themes.

3.3 Theoretical Development and Hypotheses

Disability Status and Promotion

Both social and individual factors are expected to negatively influence the career advancement of persons with disabilities (Jones, 1997). Below, I describe how discrimination (social), activity limitations (individual), and self-limiting behaviours (individual) are predicted to effect promotion rates.

First, prejudicial treatment of persons with disabilities, or discrimination, adversely impacts the hiring rates, pay, and job retention of persons with disabilities (Ameri et al., 2015;

Baldwin & Schumacher, 2002; Baldwin & Johnson, 2006; Gunderson & Lee, 2016; Yelin & Trupin, 2003). I expect that discrimination will negatively influence the promotion of persons with disabilities as well, due to the influence of stereotypes and stigma. Considering stereotypes, researchers have reported the prevalence of negative beliefs about persons with disabilities, such as perceptions of persons with disabilities as inferior, helpless, and low in competence (Colella & Bruyère, 2011; Cuddy, Fiske, & Glick, 2008; Fichten & Amsel, 1986; Stone & Colella, 1996).

Similarly, in their meta-analysis Ren and colleagues (2008) reported that observer expectations of future performance were lower for persons with disabilities in comparison to persons without disabilities, even though persons with disabilities generally received higher past performance ratings. I expect that these lower performance expectations adversely bias perception of how persons with disabilities will perform after a potential promotion, reducing rates of promotion for persons with disabilities when competing against persons without disabilities. Simply put, individuals are promoted to engage in future work. If a hiring manager believes that an individual will be a poor performer due to stereotypes, the stereotyped individual will have a lower probability of being promoted. A tangible example of this comes from P5 (senior executive) who participated in the research from Chapter 2 of this dissertation. This participant commented that a hiring manager in her workplace had rescinded a job offer to her because, “He thought that maybe I had only been promoted because of my disability and he wasn't really sure if I was going to be up to the job”.

Further, although the positively biased past performance ratings reported by Ren and colleagues (2008) might be viewed as beneficial at face value, such reviews are associated with the receipt of less constructive feedback, which may limit opportunities for growth and career advancement (Braddock & Bachelder, 1994).

Turning to stigma, disability is often applied as a label, promoting observer reliance on negative stereotypes (Jones et al., 1984). For instance, physical attractiveness is associated with promotion, yet some impairments are commonly perceived as unattractive, causing observers to label and avoid persons with those impairments (Hosoda, Stone-Romeo, & Coats, 2003; Morrow, McElroy, Stamper, & Wilson, 1990; Stone & Colella, 1996). In addition, disabilities that are viewed as uncontrollable or progressive (e.g., cancer, cystic fibrosis, or multiple sclerosis) can also increase feelings of discomfort in observers, as well as the belief that disability will influence “the person’s energy, ability levels, and tenure with the organization” (Stone & Colella, 1996, p. 364).

At the individual-level, persons with disabilities may experience activity limitations, or the negative interaction between impairment and function (WHO, 2011), which reduce access to career advancement opportunities. To illustrate this point, consider a supervisory position in a manufacturing setting that requires the ability to complete the tasks of subordinates. Some of those tasks may require the use of only one hand, whereas others may demand the command of machinery with two hands. When two hands are required, an employee with an upper limb amputation will not meet the organizational requirements set for that supervisory role. If reasonable accommodation is not possible, this employee will not receive a promotion to the role of supervisor, even though they may be otherwise qualified. In the literature on the social model of disability, such limitations would be referred to as “impairment effects” (Thomas, 1999).

Last, some persons with disabilities may avoid career advancement opportunities altogether, engaging in self-limiting behaviours. This is because persons with disabilities may internalize stereotypes and develop low motivation, due to “years of negative and unfair treatment” (Jones, 1997, p. 60). In addition, because persons with disabilities often receive less

challenging work than their counterparts without disabilities, persons with disabilities may acquire a skills deficit that reduces willingness to seek out promotion opportunities (Jones, 1997).

Hypothesis 1. There is a disability status promotion gap, such that persons with disabilities have a lower promotion rate than persons without disabilities.

Disability Type and Promotion

The above hypothesis explores disability as an aggregate construct. However, in reality disability is not unidimensional. There are multiple types of disabilities (Stone & Colella, 1996; WHO, 2011) and researchers across fields have reported a hierarchy of preference based on disability type (Blanck & Adya, 2017; Braddock & Bachelder, 1994; Charlton, 1998; Colella & Stone, 2005; Deal, 2003; Foster-Fishman, Jimenez, Valenti, & Kelley, 2007; Harpur, Connolly, & Blanck, 2017; Reilly, Bocketti, Maser, & Wennet, 2006; Ren et al., 2008; Roulstone & Barnes, 2005; Tringo, 1970). Specifically, persons with physical disabilities are reported to be at the top of the hierarchy, perceived most positively, whereas individuals with mental disabilities are at the bottom (Charlton, 1998; Sayce, 2010; Scior, 2011).

At work, this hierarchy manifests in reports of employers being more willing to hire persons with physical disabilities for managerial positions in comparison to persons with mental disabilities. This is likely due to the heightened level of stigma and discrimination that persons with mental disabilities experience (e.g., Brohan & Thornicroft, 2010). Further, there is more societal acceptance for physical and sensory disabilities in comparison to mental disabilities, because physical and sensory disabilities are often perceived as externally caused, predictable, and legitimate, whereas mental disabilities are more likely to be perceived as internally caused, unpredictable, and illegitimate (Harpur et al., 2017; Perlin, 1993).

Individuals can also experience multiple disability types. In fact, experiencing more than one type of disability, such as a physical disability and a mental disability, is common (Von Korff et al., 2005). I expect that persons with multiple disabilities have a higher likelihood of being labeled, stereotyped, and discriminated against in comparison to persons with only one physical or sensory disability. In addition, with multiple impairments, there is a greater likelihood that the individual will experience activity limitations that influence their career outcomes. Consequently, persons with multiple disabilities should have a lower promotion rate than persons with a physical disability or sensory disability as well.

Hypothesis 2. There is a disability type promotion gap, such that persons with mental and multiple disabilities have lower promotion rates than persons with physical and sensory disabilities.

3.4 Methods

Study Design

In this study I used data from the NLSY97, a longitudinal survey of Americans conducted by the Bureau of Labor Statistics (BLS) in the United States (Bureau of Labor Statistics, 2015a). The NLSY97 includes an array of survey items on employment, health, and disability that are pertinent to the present study. The NLSY97 survey data is collected from the same pool of respondents on an annual basis with the exception of one missed period, from 2012-2013.¹⁴ Survey data is currently available from 1997 to 2016, including 17 rounds of data collection. During the first round of the NLSY97, parents of respondents were administered a survey wherein respondent health and disability data was collected. Subsequent rounds included self-

¹⁴ The NLSY97 recently changed from annual to biennial data collection. This change did not come into effect during the timeframe of the present study and it has no effect on my analysis.

reported health and disability data from respondents themselves. Promotion data was self-reported by respondents and collected during three rounds of the survey, including the years 2006, 2007, and 2008. Only promotion data from 2008 was used for the primary analysis in this chapter. I explain why that is in the measures subsection below.

To ensure an adequate sample of racial minority group members for statistical analysis, the NLSY97 includes two separate samples: one cross-sectional and the other a supplemental sample of Black and Hispanic or Latino respondents (Moore et al., 2000). Selection processes included various stages at the county, enumeration districts, blocks, and sample listing unit levels. Probability of selection was a function of total housing units by geography in the cross-sectional sample, and in the supplemental sample the probability of selection was determined by the number of Black and Hispanic or Latino persons living within an area.

The screening process comprised a sample of over 90,000 households to identify eligible youths born between 1980 and 1984 for the NLSY97 as well as for another survey, the Profile of American Youth (Moore et al., 2000). A central component of this process was determining the usual place of residence for potential respondents so that the final NLSY97 sample would be geographically representative of youth in the United States (Bureau of Labor Statistics, n.d.). A potential respondent was excluded if they were temporarily living in the contacted household and their usual residence was in a different area. Exchange students living in a residence for more than 6 months, youths in a temporary residence within the same geographic area as their usual residence, youths in foreign schools, youths associated with multiple households, and youths who were not associated with other households were all included. In households with multiple eligible siblings, all youths were included, although the NLSY97 dataset is not nationally representative of sibling households (Bureau of Labor Statistics, n.d.).

Sample Characteristics

During the first round of the NLSY97, in 1997-1998, respondents were between the ages of 12 and 18, with 49% of the sample identifying as female (Bureau of Labor Statistics, n.d.). This sample has the potential to provide particularly valuable contributions to research on disability and promotion because it is a national sample of individuals working across regions of the United States (Moore et al., 2000). In addition, the NLSY97 includes respondents working across a wide array of industries and occupations, unlike the narrower focus of many datasets used in prior research on disability and promotion (e.g., Bressler & Lacy, 1980; EEOC, 2008; Luria et al., 2014). However, as will be considered in more detail in the discussion, a caveat of the NLSY97 dataset is that it overrepresents disability via broad survey items that go beyond standard measures for disability.

In its first round the NLSY97 had 8,984 respondents. In 2015-2016, the most recent period of publicly available data, the survey included 7,103 respondents. Demographic characteristics associated with attrition from the NLSY97 include race, age, education and income (such that the highest earners had a higher probability of attrition) (Mann & Honeycutt, 2016). Relevant to this study, experiencing a health condition was not associated strongly with attrition; however, respondents who failed to report their condition in later rounds of the study were more likely than respondents who consistently reported their condition to leave the NLSY97 (Mann & Honeycutt, 2016). Of the NLSY97 sample, 4543 respondents were asked whether they changed positions at work in 2008. Of this group, 518 were removed from analysis due to missing data, making the final sample size of the present study 4025 respondents.

Measures

Disability Status

Disability status was measured as a binary variable. A respondent either had or did not have a disability. Having a disability was operationalized as a reported impairment with a limitation in the NLSY97 (Mann & Honeycutt, 2016). Disability could have been reported by parents of respondents during the first round of the NLSY97, or by respondents themselves in 2002 and 2007. Later items on disability were surveyed, but for the present research I only included disability data that was collected up until 2007, or one year prior to the NLSY97 survey item on promotion from 2008. This was to ensure that disability was present prior to promotion. Disability data from 1997 (parent report), 2002 (self-report) and 2007 (self-report) were all included in the present measure of disability status. Of the 4025 respondents included in subsequent analysis, 764 had a reported disability and 3261 did not.

Note that operationalizations of disability status and disability type used the same survey items that are described next. Disability status was simply an aggregate of the items described below on disability type.

Disability Type

My measure of disability type included four categories: physical, sensory, mental, and multiple disabilities. Responses to the following four questions on impairment were used to determine disability type among those individuals who reported an associated limitation as well. Responses to these questions were collected in 1997, 2002, and 2007. Note that framing of the questions was different in the parent version of the survey in 1997, to retain focus on the child of the parent (the respondent) (Bureau of Labor Statistics, 2015a; Mann & Honeycutt, 2016):

- 1) Have you ever had trouble seeing, hearing or speaking? [**Sensory**]

- 2) Have you ever had a part of your body that was deformed or missing? **[Physical]**
- 3) Have you ever been diagnosed with any other chronic health condition or life threatening disease such [asthma, cardiovascular or heart condition, anemia, diabetes, cancer, epilepsy, HIV/AIDS, sexually transmitted disease other than HIV/AIDS, other]? **[Physical]**
- 4) Have you ever had an eating disorder, a learning or emotional problem or a mental condition that has limited your ability to attend school regularly, do regular school work, or work at a job for pay? **[Mental]**

See Mann & Honeycutt (2014, 2016) for more information on the operationalization of disability type with the NLSY97. Of the 764 respondents with disabilities in subsequent analysis, 266 reported a physical disability, 171 reported sensory disability, 172 reported a mental disability, and 155 reported multiple disabilities.

Promotion

In 2006, 2007, and 2008, respondents who were not self-employed, had a valid and non-military employer, and had a job lasting over 13 weeks were asked about job changes at work, such as whether they had received a promotion. To ensure temporal precedence (Shadish, Cook, & Campbell, 2002) of disability before promotion, only respondents who met these requirements in 2008 were included in the present study. This was because disability was reported last in 2007. Promotion was measured as a binary variable (promotion/no promotion), based on the following two NLSY97 questions:

- 1) ...have you experienced a promotion, a demotion, or any other type of position change?
- 2) “was this a promotion, a demotion, or a position change?”

The framing of these questions did not allow respondents to report more than one promotion unless they held multiple jobs. In 2008, only one respondent reported two promotions. This respondent was categorized in the same manner as participants who received only one promotion. In total, 651 survey respondents reported a promotion and 3374 did not.

Control Variables

The control variables used in the present study included respondent sex, race, age, education, tenure, industry, region, and employer size. These control variables were included due to their influence in prior research on disability and work (e.g., Baldwin & Johnson, 2006; Kidd et al., 2000; Mitra & Kruse, 2016). Sex was a binary variable, with options for male and female. Data on the respondents' sex was collected in the first round of the survey. Also measured in the first round, race was a categorical variable. Respondents could be identified as 1) White, 2) Black or African American, 3) American Indian, Eskimo, or Aleut (I use the term Indigenous for this group in later analysis), 4) Asian or Pacific Islander, or 5) Other. Education was a categorical variable measured in 2008. Respondents were asked what their highest degree was and I grouped those responses into five categories: 1) None, 2) High School, 3) Associate/Junior College, 4) Bachelor's Degree, 5) Graduate/Professional. The final category combines three options from the NLSY97 education question, including Master's degree, PhD, and professional degree. These were combined due to the small number of respondents with PhDs and professional degrees. Respondent tenure was measured as the number of weeks that the respondent had been working at their job in 2008. The industry that a respondent worked in was determined using 2008 self-reports with the Bureau of Labor Statistics 2002 industry codes (Bureau of Labor Statistics, 2015b). The region of the United States where respondents lived was recorded in 2008, with potential regions including: 1) Northeast, 2) North Central, 3) South, and

4) West. Last, employer size was measured as the natural logarithm of the number of employees at the respondent's employer. I transformed this variable due to the raw data being positively skewed and leptokurtotic.

3.5 Results

Descriptive statistics for promotion by disability status and disability type are reported in Table 3-1 and Table 3-2, respectively.

I tested my first hypothesis on disability status and promotion with a logistic regression. Table 3-3 presents the results of that analysis. These results did not support Hypothesis 1, as disability status did not relate to promotion ($b = 0.01$, $OR = 1.01$, $p = 0.945$). I tested my second hypothesis on disability type and promotion with a logistic regression as well. Table 3-4 includes the results of that analysis. Similar to the previous model, results were unsupportive of Hypothesis 2. Physical disability ($b = -0.161$, $OR = 0.85$, $p = 0.387$), sensory disability ($b = 0.16$, $OR = 1.17$, $p = 0.443$), mental disability ($b = 0.21$, $OR = 1.23$, $p = 0.324$), as well as multiple disabilities ($b = -0.22$, $OR = 0.80$, $p = 0.385$) were all unrelated to promotion.¹⁵

3.6 Discussion and Conclusion

I did not find support for my hypotheses in this chapter. Neither disability status nor disability type related to promotion. At face value, these findings might be perceived as the absence of a promotion gap. However, there are three critical limitations of this study that should result in a cautious interpretation of findings.

First, although the NLSY97 is a longitudinal dataset, the data on promotion used in this

¹⁵ Additional analysis was conducted with promotion data from 2006, 2007, and 2008. To conduct this analysis, I used disability status and disability type data from 1997 and 2002 as predictors of promotion in two regression models. These models included the same controls as the primary analysis described earlier. As in the primary analysis, The results of these additional regressions did not support my hypotheses.

study is limited to only one to three years. I cannot reliably claim that reported promotions from such a short timeframe are representative of the career advancement trajectories of respondents from the NLSY97, or persons in the United States more generally. Second, and related to the above, one to three years of promotion data offers less variance from which to find statistical difference, in comparison to alternative continuous variables that can be used to measure career success (e.g., average number of promotions per year across a career, as in Bressler & Lacy, 1980; or income, as in Meyer & Mok, 2019). Third, the NLSY97 survey items on disability are very broad, including whether respondents had “ever had” a disability. This uncommon approach to measuring disability likely overstates the number of persons with disabilities in the sample—identifying persons without disabilities as persons with disabilities. This is compounded by multiple years of independent variable data collection. Indeed, according to the United States Census Bureau, 18.7% of the American population had a disability in 2010 (Brault, 2012). Considering individuals in similar age brackets to the NLSY97 sample, 10.2% of persons aged 15-24 and 11.0% of persons aged 25-44 had a disability in 2010 (Brault, 2012). Yet, 19.0% of the NLSY97 sample, including persons aged 21-27 when disability was last measured for this study, were categorized as having a disability. This near doubling of persons identified with disability is a plausible cause of the results that I have reported.

Considering the first limitation, more complex longitudinal analysis would eliminate concerns associated with using only one to three years of dependent variable data. For instance, analysis could use occupation codes from the NLSY97, rather than the job change survey items used in this study. Respondents were surveyed on their occupation across rounds of the NLSY97 and the Bureau of Labor Statistics occupational codes include categories for executive, administrative and managerial positions, as well as management related jobs (Bureau of Labor

Statistics, 2015b). With these codes, the rate at which NLSY97 respondents with and without disabilities entered management positions could be measured as well as the time it took for them to enter such roles. The same analysis could be conducted for disability type.

I ran these analyses across 13 rounds of NLSY97 occupation code data collection (some rounds are a single year, other rounds are two years). As expected, with a Cox regression, I found support for a relationship between disability and entry into a management position. Further, disability type predicted entry into a management position as well, such that persons with mental or multiple disabilities were less likely to enter a management position in comparison to persons without a disability. However, the difference between persons with physical or sensory disabilities and persons without a disability was not supported. In this more powerful analysis, persons with mental and multiple disabilities are at a disadvantage in comparison to persons with physical and sensory disabilities, in terms of entry into management positions.

Attending to the second limitation described above, I conducted supplemental analysis with income instead of promotion as the dependent variable in my models. The purpose of this analysis was to determine whether a continuous and related outcome to promotion from the NLSY97 dataset would produce results consistent with the theory presented herein. That was the case. For the year 2008, the last year of promotion data collection, disability status was negatively associated with income ($b = -6.14, p = 0.002$). In combination with the findings on promotion presented earlier, these results are similar to the cross-sectional analyses of Schur et al. (2009) and Schur et al. (2017). These researchers reported an association between disability status and income but not promotion.

When disability was disaggregated by type, multiple disabilities ($b = -10.28, p = 0.013$)

and mental disability ($b = -9.17, p = 0.023$) were supported as predictors of income, although physical disability ($b = -3.69, p = 0.23$) and sensory disability ($b = -3.94, p = 0.231$) were not. These results are consistent with the expectation that persons with multiple disabilities and mental disabilities will have worse work outcomes than persons with physical disabilities and sensory disabilities, and they are motivation to conduct future research on disability type as a predictor of work outcomes such as promotion.

Reflecting on the third limitation of this study, an ideal study on disability and career advancement would use a dataset that measures disability differently than the NLSY97. Such a measure would not include whether respondents “ever had” a disability, but instead focus on whether the respondent had a disability at the time of the survey. This would mitigate concerns about persons without disabilities being categorized as persons with disabilities. In addition, this ideal analysis would include longitudinal dependent variable data, with either promotion or occupation codes. Using longitudinal data would ensure that career advancement is more accurately represented in analysis, rather than focusing on one to three years of a career that may not generalize across time. Disappointingly, the NLSY97 does not include my first criterion of an ideal study, with its broad operationalization of disability. Although there are datasets with clearer definitions of disability (e.g., Cloutier, Grondin, Lévesque, 2018), I am not aware of any one dataset that includes high quality disability and promotion data together.

Taking the present study’s limitations into consideration, generating further quantitative research on disability and career advancement remains paramount. Given the value of promotion to employees (Yap & Konrad, 2009), the assortment of statistically significant and not significant findings in the literature (Bressler and Lacy, 1980; Luria et al., 2014; EEOC, 2008; Schur et al., 2009; Schur et al., 2017), as well as qualitative studies that describe daunting

promotion barriers for persons with disabilities (Braddock & Bachelder, 1994; Robert & Harlan, 2006; Roulstone & Williams, 2014; Wilson-Kovacs et al., 2008) more analysis is undoubtedly needed. If the research questions asked in this chapter are to be answered, high quality data on disability and career advancement must be collected first. Such an undertaking is most likely to be accomplished by large, governmental organizations that have the resources and capacity to survey representative samples of national populations, such as Statistics Canada and the Bureau of Labor Statistics. In this pursuit, such organizations should focus on collecting longitudinal career advancement data as well as disability data that uses established operationalizations of disability status and disability type.

Table 3-1. Descriptive Statistics on Disability Status and Promotion

| | Disability Status | | |
|---|-------------------|---------------|------------|
| | Total | No Disability | Disability |
| Number of respondents | 4025 | 3261 | 764 |
| Number of promotions | 651 | 534 | 117 |
| Promotion rate (percent of respondent who received a promotion) | 16.17% | 16.38% | 15.31% |

Table 3-2. Descriptive Statistics on Disability Type and Promotion

| | Disability Type | | | | | |
|---|-----------------|---------------|----------|---------|--------|----------|
| | Total | No Disability | Physical | Sensory | Mental | Multiple |
| Number of respondents | 4025 | 3261 | 266 | 171 | 172 | 155 |
| Number of promotions | 651 | 534 | 37 | 31 | 30 | 19 |
| Promotion rate (percent of respondent who received a promotion) | 16.17% | 16.38% | 13.91% | 18.13% | 17.44% | 12.26% |

Table 3-3. Logistic Regression Analysis of Disability Status and Promotion

| | <i>Dependent Variable:</i> | |
|---|----------------------------|------------|
| | Promotion (2008) | |
| | Coefficient (<i>SE</i>) | Odds Ratio |
| Disability status (0 = no disability; 1 = disability) | -0.01 (0.11) | 0.99 |
| Sex (0 = female; 1 = male) | -0.10 (0.09) | 0.91 |
| Race: | | |
| Asian or Pacific Islander | -0.83 (0.54) | 0.44 |
| Black or African American | -0.71 (0.45) | 0.49 |
| White | -0.52 (0.44) | 0.59 |
| Other | -0.71 (0.46) | 0.49 |
| Age | -0.01 (0.03) | 0.99 |
| Education: | | |
| High School | 0.47* (0.21) | 1.60 |
| Associate/Junior College | 0.45 (0.26) | 1.57 |
| Bachelor's Degree | 0.84*** (0.22) | 2.32 |
| Graduate/Professional | 1.02*** (0.29) | 2.76 |
| Tenure | 0.01 (0.01) | 1.00 |
| Industry: | | |

| | | |
|-------------------------------------|------------------|------|
| Finance, Insurance, and Real Estate | 0.68** (0.23) | 1.98 |
| Professional and Related Services | 0.48* (0.22) | 1.61 |
| Region: | | |
| Northeast | -0.10 (0.14) | 0.91 |
| South | 0.03 (0.12) | 1.03 |
| West | 0.08 (0.13) | 1.09 |
| Employer Size | 0.06** (0.02) | 1.07 |
| <hr/> | | |
| Observations | 4,025 | |
| Log Likelihood | -1,730.92 | |
| Akaike Information Criterion (AIC) | 3,515.84 | |

Note: * $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

Due to the large number of industries in this analysis I have only included the results for those industries that were significant at $p < 0.05$.

Table 3-4. Logistic Regression Analysis of Disability Type and Promotion

| | <i>Dependent Variable:</i> | |
|----------------------------|----------------------------|------------|
| | Promotion (2008) | |
| | Coefficient (<i>SE</i>) | Odds Ratio |
| Disability: | | |
| Physical | -0.16 (0.19) | 0.85 |
| Sensory | 0.16 (0.21) | 1.17 |
| Mental | 0.21 (0.21) | 1.23 |
| Multiple | -0.22 (0.25) | 0.80 |
| Sex (0 = female, 1 = male) | -0.11 (0.09) | 0.90 |
| Race: | | |
| Asian or Pacific Islander | -0.81 (0.54) | 0.44 |
| Black or African American | -0.69 (0.45) | 0.50 |
| White | -0.51 (0.45) | 0.60 |
| Other | -0.69 (0.46) | 0.50 |
| Age | -0.01 (0.03) | 0.99 |
| Education: | | |
| High School | 0.47* (0.21) | 1.60 |
| Associate/Junior College | 0.46 (0.26) | 1.58 |
| Bachelor's Degree | 0.85*** (0.22) | 2.34 |

| | | |
|-------------------------------------|-------------------|------|
| Graduate/Professional | 1.02*** (0.29) | 2.77 |
| Tenure | 0.01 (0.01) | 1.00 |
| Industry: | | |
| Finance, Insurance, and Real Estate | 0.69** (0.23) | 1.99 |
| Professional and Related Services | 0.48* (0.22) | 1.61 |
| Region: | | |
| Northeast | -0.10 (0.14) | 0.91 |
| South | 0.03 (0.12) | 1.04 |
| West | 0.09 (0.13) | 1.09 |
| Employer Size | 0.06** (0.02) | 1.07 |
| <hr/> | | |
| Observations | 4,025 | |
| Log Likelihood | -1,729.29 | |
| Akaike Information Criterion (AIC) | 3,518.58 | |

Note: * p < 0.05 ** p < 0.01 *** p < 0.001

Due to the large number of industries in this analysis I have only included the results for those industries that were significant at p < 0.05

Chapter 4

A Threat to the Three-Legged Stool?

Examining the Interactive Influence of Stereotype-Fit Perceptions and a Mistake on Hiring Expectations of Leaders with and without a Disability

...if there is something that you're not good at, they automatically say, "Well, it's because she's blind". I'm not great at finance. "Oh it's because she's blind". No, it's because I hate finance.

—Diane Bergeron (P17), Executive, Chapter 2 participant

4.1 Introduction

Some persons with disabilities describe the continued experience of disability stereotypes and discrimination after entering leadership positions. For instance, the opening quote of this chapter highlights how stereotypes affected Diane Bergeron (P17, executive), as her co-workers misattributed her weaknesses to her visual impairment. Past research has illuminated related challenges that leaders with disabilities may encounter as well, such as being perceived as a burden by management and co-workers, which can result in suggestions of early retirement and interpersonal conflict in teams (Wilson-Kovacs, Ryan, Haslam, & Rabinovich, 2008). However, the experience of such attitudinal barriers is not universally described among leaders with a disabilities (Sayce, 2010). For example, an anonymous participant (P11, manager) from Chapter 2 noted that "I don't feel any disadvantage doing what I do, and we're speaking specifically about working and being a team leader". Similarly, another participant, Max Brault (P6, manager and executive) commented, "I'm one of those fortunate people who has not really experienced a lot of barriers". Considering the persistence of attitudinal barriers for only some leaders, the purpose of

this chapter is to investigate mechanisms that produce bias—to better understand when stereotypes influence observer perceptions of leaders with disabilities.

We have few studies on observer perceptions of leaders with disabilities, and similar to the quotes above, the literature provides conflicting results. To begin, some have explored observer perceptions experimentally. In those experiments, participants independently rated leaders, with one group receiving information on a leader with a disability and another receiving identical information on a leader without a disability. Using these methods, Bingham (1999) found a negative bias toward leaders with visible disabilities, whereas Adkins (2003) reported a positive bias. Furthermore, Marchioro (2000) reported both negative and positive bias in the two studies of his unpublished doctoral dissertation. Moving to the field, Dwertmann and Boehm (2016) found that leader-member exchange quality was lower in supervisor-subordinate dyads when the supervisor, rather than the subordinate, had a disability. This is suggestive of negative bias. However, Luria, Kalish, and Weinstein (2013) reported no difference between leadership effectiveness ratings for leaders with and without a learning disability in their military study from Israel, suggesting the absence of bias. What are we to make of these reports of positive bias, negative bias, and no bias at all?

Previous research on disability stereotypes may explain part of this puzzle. First, there are many explanations for why observers may stereotype a person with a disability—both positively and negatively. Some examples include the norm to be kind (positive), social desirability bias (positive), low expectations (negative), and stigma (negative) (Colella & Bruyère, 2011). Importantly, the studies on disability and leadership reviewed above are not necessarily comparable, because environmental factors beyond the target leader's disability are essential to understanding whether perceivers rely on positive or negative stereotypes to form impressions.

For instance, interdependence with a target individual with a disability is known to decrease socially desirable responses about the target (Colella, DeNisi, & Varma, 1998). In addition, stereotypes that focus on an individual's disability in relation to their job, called stereotype-fit perceptions, influence bias (Colella et al., 1998; Colella & Varma, 1999).

I know of no research on disability, stereotype-fit perceptions, and leadership. However, the literature on gender and leadership provides context for such investigations. Specifically, the model found in Figure 4-1 builds from Brescoll and colleagues' (2010a) research. In their study, they reasoned that "a gender-congruent leader's competence is assumed, but for a gender-incongruent leader, mistakes create ambiguity and call the leader's competence into question, which, in turn, leads to a loss of status" (Brescoll et al., 2010a, p. 1640). In this chapter, I study similar relationships between stereotype-fit, making a mistake, and subsequent perceptions and expectations of leaders with a disability. Figure 4-2 summarizes my expected findings.¹⁶

I use impression formation theory to study these relationships (Fiske & Neuberg, 1990; Fiske, Lin, & Neuberg, 1999). This theory explains that observers, who are also described as perceivers in this chapter, categorize people immediately after being introduced. These categories are based on easily identifiable characteristics, such as race, gender, or visible disability. If perceivers are motivated to attend to further information about the target person, they will engage in processes that either confirm or change their initial categorization. This process of categorization and potential recategorization is essential to understanding when and why perceivers will rely on stereotypes that are rooted in initial categories.

¹⁶ I refer to the leaders from my experiments as "leaders with a disability" rather than "leaders with disabilities". This is because only one impairment is included in hypothesis testing. That impairment is a stutter.

In this research, I explore how perceivers first categorize leaders with a disability. Further, I examine how access to additional behavioural information about these leaders—whether they had made a mistake or not—results in recategorization or confirmation of the initial category. Such processes are expected to either entrench initial categorization or promote individuation, explaining how a mistake can interact with fit stereotypes to influence perceptions of leaders' competence and, ultimately, expectations of their future success. I assess whether these proposed mechanisms are influential among leaders without a disability as well.

This chapter includes two pilot studies and two main experiments. The purpose of the pilots was to determine combinations of roles and disabilities, or the absence of disability, which were stereotypically perceived as good- and poor-fit. The stereotype-fit conditions were then used in the main experiments for hypothesis testing.

This chapter provides two main contributions to the literature. First, over two decades ago, Stone and Colella (1996) called for research on job-related status in relation to the perception and treatment of persons with disabilities. In their influential theory paper, these authors proposed that leadership status may enhance perceptions of persons with disabilities and minimize observer reliance on detrimental stereotypes. However, few have attempted to empirically examine disability bias as experienced by leaders. I explore mechanisms that drive such bias in this research and offer an explanation for why we see conflicting results in previous research on this subject.

Second, researchers have reported mixed findings on the influence of disability-focused stereotype-fit perceptions (e.g., Colella et al., 1998; Colella & Varma, 1999). I argue that these stereotypes require a catalyst to be activated, as in Brescoll and colleague's (2010a) paper on gender and leadership. I find that behavioural information about a focal leader is critical to

impression formation. Specifically, whether leaders with a disability make a mistake or not moderates the relationship between stereotype-fit perceptions and hiring expectations. This contribution is a reminder that disability is not the only factor influencing perceptions of persons with disabilities, but one of many elements (Meyerson, 1988).

4.2 Theoretical Development and Hypotheses

Impression Formation and Stereotype-Fit Perceptions

Whereas past research has often explored a direct causal relationship between a leader's disability and observer perceptions, the continuum model of impression formation (Fiske & Neuberg, 1990; Fiske et al., 1999) offers a more intricate account of this relationship. In this social-cognitive model, observers use readily available information (e.g., demographic characteristics, social roles, and jobs) to first categorize the target individual. These initial categories are automatic and influence perceiver affect, cognition, and behaviour. However, if the target individual is of personal relevance to the perceiver, whether due to the observer's interdependence with the target, self-presentation, or personal values (Fiske & Neuberg, 1990), attention to attributes beyond the initial category are likely to shape impressions as well. When additional information confirms the original category, that category will continue to influence impressions. However, if new information does not fit the initial category, observers may recategorize the target individual into an entirely new category or a subcategory.

In the context of this study, participants are expected to first categorize the target leader by their disability status when the disability is visible. Next, interdependence with the target should guide observer attention toward interpreting the leader's disability status in light of further information on the leader's performance, with the potential to confirm or alter the initial

category. Such impressions of the congruence, or “fit”, between a target’s disability and role are called stereotype-fit perceptions (Colella et al., 1998; Heilman, 2001; Lyons et al., 2018).¹⁷

Stereotype-fit researchers posit that the perceived suitability of a target individual’s disability and their job guide observer reactions to the target, even when such perceptions are unfounded. For instance, a person with dyslexia may be stereotyped as a less capable journal editor than a person without dyslexia, but this is less likely to be the case for an individual with a spinal cord injury. This is because a spinal cord injury is unlikely to be perceived as negatively influencing an editor’s work (good-fit), whereas dyslexia would be (poor-fit). Importantly, many persons with dyslexia can perform word-related tasks as effectively as persons without dyslexia (e.g., Colella et al., 1998). Therefore, assuming that a journal editor with dyslexia is less capable than a journal editor without dyslexia is a stereotype, rather than a logical conclusion about the relationship between disability and competence. Because the category of disability is often associated with low competence (Cuddy, Fiske, & Glick, 2008), poor-fit combinations of disability and role should confirm observer expectations of low competence. Conversely, additional information that promotes impressions of good-fit should conflict with the disability category. This inconsistency should reduce negative perceptions of disability by individuating the target. Thus, I expect the following.

Hypothesis 1. Leaders with a disability and good stereotype-fit will receive higher competence perception ratings than leaders with a disability and poor stereotype-fit.

However, research on the influence of stereotype-fit perceptions is mixed (Colella et al., 1998; Colella & Varma, 1999), likely because initial impressions do not exist in a vacuum.

¹⁷ Note that the observers are interdependent with the leaders in this study. This is because the observers’ access to a monetary reward is based on their appraisal of the leaders’ competence and future performance.

Specifically, information about a target leader's past behaviour, if available, should be an influential component of observer impressions. Studying gender and leadership, Brescoll and colleagues (2010a) reported that leaders in a poor-fit role (e.g., a female police chief) were perceived as less competent than leaders in a good-fit role (e.g., a female women's college president), but only after making a mistake. Poor-fit perceptions alone did not promote negative bias in their study. Rather, further behavioural information was required to catalyze poor-fit stereotypes. According to these researchers, this was because a mistake sparks ambiguity about the leader's competence, permitting poor-fit stereotypes to dominate in the minds of observers. In this research on disability, I expect to find the same interaction between stereotype-fit, a mistake and perceptions of a target leader's competence, defined as the "perceived capability to enact intent" (Cuddy et al., 2008, p. 63).

Consider the following combinations of stereotype-fit and leader behaviours below. First, among leaders with a disability who do not make a mistake, fit, whether good or poor, should not influence competence perceptions. This is because leaders with good-fit who do not make a mistake simply confirm their good-fit. In addition, leaders with poor-fit provide counterstereotypic evidence when they perform well, resulting in individuation (Fiske & Neuberg, 1990). Individuating processes should cause the observer to recategorize, or subcategorize, the individual as a competent leader, after having displayed clear signs of ability.

However, when leaders with a disability make a mistake, stereotype-fit should be of influence. Specifically, leaders in poor-fit roles who make a mistake should evoke stronger low competence perceptions in comparison to leaders in good-fit roles who make a mistake. This is because a mistake should further reinforce the low competence stereotypes associated with poor-fit and disability. For leaders with good-fit, their fit should partially buffer against the association

between a mistake and low competence. However, as a sign of ability, a mistake should harm competence perceptions regardless of stereotype-fit. Thus, I expect to find the following.

Hypothesis 2. Making a mistake moderates the relationship between stereotype-fit and perceptions of competence, such that stereotype-fit influences competence perceptions only when a leader makes a mistake.

Hiring Expectations

I expect leaders who are perceived as competent to be preferred over leaders who are perceived as incompetent. As an accurate assessment of the target leader's future performance has the potential to provide participants with a valued outcome in this study, I expect to find a hiring preference for leaders who are perceived as capable in their role. Recognizing that impressions influence behaviour (Fiske et al., 1999) and that the purpose of this paper is to examine mechanisms that influence bias, I anticipate that competence perceptions will influence hiring expectations.

However, I only expect stereotype-fit to influence competence perceptions when leaders with a disability make a mistake. Thus, it follows that when leaders with a disability make a mistake, stereotype-fit will influence competence perceptions and subsequent hiring expectations. However, this mediation should not be present when leaders with a disability do not make a mistake, because stereotype-fit perceptions are no longer expected to be at the root of observer impressions in that case.

Hypothesis 3. Perceptions of competence mediate the influence of stereotype-fit on hiring expectations when a leader makes a mistake.

Leaders without a Disability

At this point the reader might ask, do similar factors influence the leadership experiences of persons without a disability? Returning to Brescoll and colleagues (2010a), the interaction of poor-fit and a mistake was reported to not only influence perceptions of women, but also men (e.g., a male women's college president). Although far fewer leadership positions in our society might be identified wherein leaders without a disability are stereotyped as poor-fit due to the absence of disability, I next consider whether the mechanisms of bias described above might reach into the lives of leaders without a disability.

Following stereotype-fit theory (Colella et al., 1998), if observers perceive poor-fit between a target's leadership position and their lack of disability, a mistake could evoke reliance on poor-fit stereotypes. For example, think of a person without a disability leading a committee aimed at tackling issues of accessibility in their organization. After making a mistake, perhaps overseeing an accessibility conference that is inaccessible to many persons with disabilities, observer attention might be drawn toward the target's poor-fit. Observers might begin to wonder whether the same mistake would have occurred if someone with lived experience of accessibility barriers had managed the conference. With poor-fit stereotypes reinforced, we might find negatively biased perceptions of the target's competence.

Counter to the above, it is plausible that leaders without a disability do not experience similar outcomes. For instance, it is likely that poor-fit leaders with a disability evoke comparison to good-fit leaders without a disability. However, the same may not be true for poor-fit leaders without a disability. This is because disability is stereotypically associated with low status work, whereas leadership positions are high status (Stone & Colella, 1996). With this incongruence in mind, observers may assume—often incorrectly—that the only people available

to take on certain leadership positions are persons without a disability. If that is the case, observers may believe that circumstance rather than the individual is the cause of poor-fit, mitigating negative impressions (e.g., Fiske & Neuberg, 1990). Further, poor-fit leaders without a disability may even benefit from their poor-fit, possibly to be viewed as altruistic as they engage in citizenship behaviours (e.g., Organ, Podsakoff, & MacKenzie, 2006; Smith, Organ, & Near, 1983).

Earlier I described that a leader's disability is the factor that drives initial impressions. However, when a leader does not have a disability, impression formation theory would not suggest that the absence of disability results in categorization. No attention would be paid to disability status at all. Therefore, the impression formation mechanisms described above should not influence observer perceptions of leaders without a disability.

Competing Hypothesis 4a. For leaders without a disability, a leader with good stereotype-fit will receive higher competence perception ratings than a leader with poor stereotype-fit.

Competing Hypothesis 4b. For leaders without a disability, a leader with good stereotype-fit will not receive higher competence perception ratings than a leader with poor stereotype-fit.

Competing Hypothesis 5a. For leaders without a disability, making a mistake moderates the relationship between stereotype-fit and perceptions of competence, such that stereotype-fit influences competence perceptions only when a leader makes a mistake.

Competing Hypothesis 5b. For leaders without a disability, a mistake will not moderate the relationship between stereotype-fit and perceptions of competence.

Hypothesis 6a. For leaders without a disability, perceptions of competence mediate the influence of stereotype-fit on hiring expectations when a leader makes a mistake.

Hypothesis 6b. For leaders without a disability, perceptions of competence will not mediate the influence of stereotype-fit on hiring expectations, whether or not a leader makes a mistake.

4.3 Stereotype-Fit Pilot 1: Leaders with a Disability

The objective of this pilot study was to determine good- and poor-fit roles to be used in Study 1. The disabilities included in the pilot were deafness, dyslexia, and a stutter. Following Colella and colleagues (1998), these disabilities were chosen because they are i) realistic for the university setting, ii) visible or easily conveyed, iii) unlikely to be viewed as caused by the individual, iv) not necessarily a barrier to performing well in poor-fit conditions, and v) amenable to study in an experimental setting. All leadership roles were described as “team leader” positions in an MBA group project. The target leaders were described as MBA students to signal achievement, as many MBA students have either been in, or will enter, leadership positions during their career. The specific topics of the project were then manipulated, with each disability having four associated topics.

For instance, in the stutter condition, these four topics included i) accommodations for students with a stutter, ii) communications, iii) operations, and iv) business statistics. These project topics were chosen because they were expected to i) create variance in observer perceptions of good- and poor-fit in relation to disability status, ii) include tasks and responsibilities wherein a mistake could be made by a leader in a clear and concise manner, iii) be believably associated with a group project wherein an MBA student, with or without the focal

disability, could lead a team. Both the disabilities and leadership positions were determined in communication with my supervisors as well as other researchers.

Note that an earlier version of this pilot included 9 disabilities and 12 roles, organized in a matrix as in Colella and Varma (1999). However, this original task resulted in an extremely high rate of attention check failure among Amazon Mechanical Turk participants. For the sake of participant comprehension, the format of the pilot was simplified to its currently described form.¹⁸

Participants

132 Amazon Mechanical Turk participants from the United States were recruited to take part in this pilot. Of the original sample, 19 were removed because they did not complete the survey and a further 41 were removed for failing attention checks. This resulted in a final sample of 72 participants (mean age = 36.35 years, $SD = 9.87$; 31% female, 69% male; 83% employed). G*Power was used to calculate the required a priori sample size of 66 for this study.

Procedures

Participants completed the study online via Amazon Mechanical Turk and Qualtrics. To begin, participants received a letter of information. In this letter, participants read that the purpose of the study was to learn about societal views of disability and performance at the university. Next, they were provided a consent form with the understanding that they can choose to withdraw consent at any point during the study. The letter of information and consent form can be found in Appendix E. This appendix includes all letters of information and consent forms used in this chapter.

¹⁸ All of the studies from this chapter received approval from the Queen's University General Research Ethics Board (GREB) (see Appendix D)

Next, participants were asked to rank-order the expected performance of MBA team leaders with disabilities. As noted above, three disabilities were considered, deafness, dyslexia, and a stutter. Each disability was ranked across four roles. The roles varied by disability in order to develop targeted good- and poor-fit conditions—for example, each disability condition included an “accommodation” role that was specific to the disability, including i) accommodations for deaf students, ii) dyslexia accommodations, and iii) accommodations for students with a stutter. A rank of 1 was described as the role that a leader with a target disability would be best at and a rank of 4 was the role that they would be worst at. See Appendix F for a sample version of this forced-rank task.

Social Desirability

Three elements of the above procedures were included to mitigate social desirability bias, which is a common issue in disability research (Colella et al., 1998; Colella & Bruyère, 2011; Colella & Stone, 2005). First, participants were asked to take the perspective of society when providing their rankings. This was done because I expected that participants would be more willing to share potentially negative views on disability from the perspective of others. Second, participants were explicitly asked to be honest and reminded that their participation was anonymous. Third, the task was forced-rank to ensure that participants focused on differences between the topics.

Measures

Stereotype-Fit Perceptions

Stereotype-fit perceptions were measured on an integer scale from 1 to 4. A score of 1 represented the best possible fit, as the leadership role that a leader with a specific disability was

expected to be best at. A score of 4 represented the worst possible fit, as the role that a leader with a specific disability was expected to be worst at.

Results

A series of paired t-tests were conducted with the different combinations of disabilities and roles to determine which arrangements generated the largest difference between potential good-fit and poor-fit means. Of these permutations, the most variance was found in the team leader with a stutter condition, with the accommodations for students with a stutter task perceived as good-fit ($M = 1.17, SD = 0.47$) and the communications task perceived as poor-fit ($M = 3.78, SD = 0.65$), $t(71) = -23.88, p < .001$. Additionally, these two conditions had similar and small standard deviations, resulting in their use in Study 1.

4.4 Study 1: Leaders with a Disability

Design

This experiment had a 2 (stereotype-fit: good-fit/poor-fit) x 2 (mistake: mistake/no mistake) between-subjects design and included five phases. First, participants received information about the study. Second, participants answered a series of control questions. Third, participants read one of four vignettes written from the perspective of a past team member. Each vignette included a description of a fictitious leader's performance in an MBA team project. All leaders in this study were described as having a stutter. Fourth, participants completed a survey with items on the leader's competence and hiring expectations. This final survey also included additional control variables as well as manipulation and attention checks. Last, participants were thanked, debriefed, and given the option to complete a second consent form.

Participants

In total, 274 Amazon Mechanical Turk participants from the United States were recruited for this study. Of the original sample, 21 participants were removed due to incomplete surveys and 42 additional participants were removed because of failed attention checks. After these exclusions, 212 participants comprised the final sample (mean age = 30.93 years, $SD = 8.84$; 48% female, 50% male, 2% do not identify with gender binary; 76% employed). As the outcome variable of the present study was hiring expectations, I also collected data on whether participants had hiring experience (55% of participants had) and whether participants had ever held a hiring manager position (34% of participants had). There are no established methods to determine a priori sample size for moderated mediation models (specifically, with the index of moderated mediation from Hayes, 2015). Thus, I used the sample sizes of prior research with similar models to my own as a benchmark. I considered sample size calculations for multiple regression with G*Power as well.

Procedures

I ran multiple pilot tests of this study. The first was with graduate students at the Smith School of Business and the remaining versions were with Amazon Mechanical Turk users. These tests were initial manipulation checks for the target leader's disability status and mistake. In addition, I checked for the plausibility of the vignette in the first pilot and used the remaining Mechanical Turk pilots to fine-tune the experimental materials so as to increase the accuracy of attention check responses.¹⁹

¹⁹ This process of fine-tuning included numerous steps that went beyond modifications to experimental materials. For instance, the factor that likely increased attention check accuracy the most was a change in the required parameters for potential participants on Amazon Mechanical Turk. For this study, I only accepted participants who had completed over 100 Human Intelligence Tasks (HITs) on Amazon Mechanical Turk, with a minimum of 99% of

After piloting was complete, participants were recruited via Amazon Mechanical Turk. First, participants received a letter of information and consent form (see Appendix E) as well as a brief description of their task (see Appendix G). During this introduction, participants learned that their first task was to read about the past performance of an MBA team leader from a project competition. Next, they were tasked with rating the expected performance of that team leader in a future competition. Participants were told that if their ratings were similar to those of an expert panel of judges—who were described as making real hiring decisions—they will receive a monetary bonus.

Next, participants were randomly assigned to one of four vignettes about the team leader. These vignettes encompassed all possible manipulation configurations for stereotype-fit and a mistake (four in total). The vignettes were written from the perspective of a fictitious team member who worked with the leader in a previous project competition wherein the team received the second place prize. All vignettes were of comparable length and included a description of the team leader as having a stutter. The vignettes can be found in Appendix H.

In the third phase of the experiment, participants completed a survey with items on the leader's competence and hiring expectations. Participants also received a series of control questions and manipulation and attention check items. Some control questions were included at the end of the survey, rather than earlier on, to ensure that they would not influence participant responses to questions on constructs in the hypothesized model. For instance, participants were asked, "Do you know anyone with a stutter?" If asked earlier in the survey, such a question might prime the participant and influence outcomes artificially.

those HITs accepted by requesters. A HIT is a self-contained task that users complete, including experimental surveys as well as an array of other tasks that can be completed online.

Last, participants were thanked and debriefed. The deceptions used in this study were described and participants were given the opportunity to sign a second consent form. This second and final consent form was provided in case participants no longer wished to have their data included in later analysis.

Deception and Social Desirability

Participants were deceived to believe that the team leader they read about was real and that their ratings of the team leader would influence their ability to earn extra income, based on how similar their ratings were to those of a panel of expert judges. These deceptions were incorporated in the study to introduce consequence for the participant.

Without consequences, experiment participants are known to rate persons with disabilities more positively than persons without disabilities. This is likely due to sympathy effects and the norm to be kind (Colella et al., 1998; Colella & Bruyère, 2011; Colella & Stone, 2005). However, with the prospect of interdependence for a valued reward, or consequence, participant responses are less likely to be determined by these factors. With consequences, participant responses should be more representative of real-world experiences, increasing ecological validity.

Manipulations

The two stereotype-fit conditions were determined in the pilot described earlier. The good-fit role was accommodations for students with a stutter and the poor-fit role was communications. The fit conditions were presented as the topic for the next competition that the team leader was expected to compete in. Along with this description, participants read about how team leaders were tasked with managing group activities as well as presenting and justifying their team's work.

The mistake manipulation included two levels, mistake and no mistake. In the mistake condition, the target leader was portrayed as having difficulty answering a judge's question at the end of the presentation. In the no mistake condition, the leader was portrayed as answering a judge's question well. In both conditions, the team placed second. Scenarios from Brescoll et al. (2010a, 2010b) were used as archetypes for the vignettes in this study.

Measures

Competence Perceptions

Perceptions of the target leader's competence were rated by participants with five items. These items were adapted from Fiske, Cuddy, Glick and Xu (2002). Sample items include, "How competent is this team leader?", "How independent is this team leader?", and "How intelligent is this team leader?" (1 = Not at all; 5 = Extremely). The Cronbach's alpha for this scale was .86.

Hiring Expectations

Four items from Leasher, Miller, and Gooden's (2009) measure of hiring intention were adapted to measure hiring expectations. Sample items include, "To what extent is the team leader qualified for the leader position?", "To what extent do you want to hire this team leader?", and "To what extent would this team leader be a productive leader, if hired?" (1 = Not at all; 5 = Extremely). Herein, these items were described as hiring expectations rather than hiring intentions because participants were asked to predict the performance of participants with these items as rated by a panel of expert judges. The Cronbach's alpha for this scale was .95.

Control Variables

Participants were asked to provide information on their gender, age, race, education, employment status, work experience, hiring experience, hiring manager experience, university project experience, disability status, experience with persons who have a stutter, and social

desirability. All of these controls were single item measures except for social desirability, which was measured with five items, from Paulhus (1991). Specifically, participants were asked to rate the extent to which they agreed with five statements, of which three sample statements include “I sometimes tell lies if I have to”, “There have been occasions where I have taken advantage of someone”, and “I never cover up my mistakes”. The Cronbach’s alpha for this scale was .68. Note that subsequent hypothesis testing did not include controls because they did not have a significant influence on results (at $p < .05$).

Appendix I includes a list of items from this study.

Attention and Manipulation Checks

After participants completed the main survey, they received further attention and manipulation check items. A list of descriptors were presented to participants and they were asked to check each word or phrase that described the target leader. As in Colella et al. (1998), one of those adjectives was the disability manipulation (“Has a stutter”). In addition, participants were asked to choose the topic of the next competition that the leader was expected to compete in. Participants who responded incorrectly to at least one of these items were excluded from the study.

To check the mistake manipulation, participants were asked to what extent the leader made a mistake during the presentation. Data from participants who answered “Not at all” in the mistake conditions or “Moderately”, “Very”, or “Extremely” in the no mistake conditions were removed from the study (1 = Not at all; 2 = Slightly; 3 = Moderately; 4 = Very; 5 = Extremely).

Results

Means, standard deviations, and correlations can be found in Table 4-1. Of note is the high correlation between the competence perceptions and hiring expectations, $r(201) = .76, p <$

.001. This high correlation is expected, because participants were theorized to have a hiring preference for leaders who are seen as capable of leadership, with a monetary reward tied to the participants' ratings.

Turning to the study hypotheses, I first conducted a one-way ANOVA for the relationship between stereotype-fit and competence perceptions. The difference in means between the good-fit condition ($M = 3.45, SD = .71$) and poor-fit condition ($M = 3.13, SD = .81$), $F(1, 210) = 9.65$, $p = .002$, was .32. These findings support Hypothesis 1.²⁰

Next, I conducted a two-way ANOVA and Tukey-Kramer post-hoc analysis to probe the interaction between stereotype-fit and a mistake on competence perceptions, as described in Hypothesis 2a to 2c. ANOVA results supported the influence of stereotype-fit $F(1, 208) = 8.77$, $p < .001$ and a mistake $F(1, 208) = 39.43$, $p < .001$ on competence perceptions. However, I did not find support for the interaction between stereotype-fit and a mistake, $F(1, 208) = .82$, $p = .370$, contrary to the prediction in Hypothesis 2a. However, Tukey-Kramer analysis revealed that competence perceptions varied significantly between participants in the good-fit with mistake group ($M = 3.06, SD = .68$) and the poor-fit with mistake group ($M = 2.70, SD = .74$), $t(208) = 2.96$, $p = .003$, such that leaders with a disability and good-fit who made a mistake received higher competence perception ratings than leaders with a disability and poor-fit who made a mistake, supporting Hypothesis 2b. Further Tukey-Kramer analysis revealed that competence perceptions did not vary significantly between participants in the good-fit with no mistake group

²⁰ The same analysis was conducted with the mistake added as a control variable. This resulted in similar findings on the relationship between stereotype-fit and competence perceptions, $F(1, 209) = 10.63$, $p = .001$.

($M = 3.83$, $SD = .53$) and the poor-fit with no mistake group ($M = 3.62$, $SD = .57$), $t(208) = 1.63$, $p = .100$, supporting Hypothesis 2c. These results are depicted in Figure 4-3.²¹

Notably, making a mistake influenced competence perceptions across stereotype-fit groups. Comparing across the two categories of stereotype-fit, there was a significant difference between the good-fit with no mistake group ($M = 3.83$, $SD = .53$) and the good-fit with mistake group ($M = 3.06$, $SD = .68$), $t(208) = -6.28$, $p < .001$, such that leaders with a disability and good-fit who did not make a mistake received higher competence perception ratings than leaders with a disability and good-fit who did make a mistake. Similarly, a significant difference was found between the poor-fit with no mistake group ($M = 3.62$, $SD = .57$), and the poor-fit with mistake group ($M = 2.70$, $SD = .74$), $t(208) = -7.35$, $p < .001$, such that leaders with a disability and poor-fit who did not make a mistake received higher competence perception ratings than leaders with a disability and poor-fit who did make a mistake.

Next, a series of mediation analyses and Sobel's tests (Baron & Kenny, 1986; Sobel, 1982) were conducted to assess Hypotheses 3a, 3b, and 3c. See Figure 4-4 for an illustration of these different analyses, including coefficients and significance testing results. To test Hypothesis 3a, a Sobel's test was conducted across the entire sample. Stereotype-fit and competence perceptions related to hiring expectations. Competence perceptions predicted hiring expectations in a model with both stereotype-fit and competence perceptions, $b(209) = 1.04$, $p < .001$, while the coefficient for stereotype-fit fell from .33 to .14 and was no longer statistically

²¹ Note that Tukey-Kramer analysis was chosen for pairwise comparison over the more common Tukey honestly significant difference (HSD) due to unbalanced group sizes. Group sizes were unbalanced due to differential attention check rates between conditions. In case the reader has a preference for the Tukey HSD, I also ran post-hoc analysis with the Tukey HSD and found similar results. This outcome is sensible given that the group sizes in this study, although different, are quite similar and the Tukey HSD remains robust when there are only small differences in group size.

significant when competence was included in the model, Sobel's $z = 3.05$, $p = .002$. These findings support Hypothesis 3a.

Turning to Hypothesis 3b, a Sobel's test was run with only the mistake groups. In these groups, stereotype-fit significantly related to competence perceptions. Competence perceptions predicted hiring expectations when both stereotype-fit and competence perceptions were included in the model, $b(105) = .70$, $p < .001$. The overall test of mediation was significant, Sobel's $z = 2.49$, $p = .010$. This is supportive of Hypothesis 3b.

A Sobel's test was not conducted in the no mistake groups because stereotype-fit did not significantly relate to competence perceptions, $b(102) = .20$, $p = .060$. These findings are supportive of Hypothesis 3c.

An alternative approach to testing the above hypotheses is to use bootstrapping procedures. I did so using the PROCESS Macro in SPSS (Hayes, 2015; Preacher, Rucker, & Hayes, 2007), with a model of moderated-mediation. Findings from this analysis did not support Hypothesis 3a, with no overall moderated-mediation (index of moderated mediation = .12, 95% CI [-.139 to .373]). However, a conditional indirect effect of stereotype-fit on hiring expectations through competence perceptions was found in the mistake groups, $b = .27$, 95% CI [.0675 to .4712], supporting Hypothesis 3b, but not in the no mistake groups, $b = .08$, 95% CI [-.002 to .3183], supporting Hypothesis 3c.

Given that the above results were only partially supportive of hypotheses 3a-3b, I also examined the interaction between stereotype-fit and a mistake on hiring expectations (removing the mediator from the analysis). Similar to the analysis for Hypotheses 2a, 2b, and 2c, I began with a two-way ANOVA followed by Tukey-Kramer analysis. ANOVA results indicated a significant interaction between stereotype-fit and a mistake $F(1, 208) = 6.23$, $p = .013$ on hiring

expectations. Post hoc Tukey-Kramer results illustrated that hiring expectations varied between participants in the good-fit with mistake group ($M = 2.80$, $SD = .93$) and the poor-fit with mistake group ($M = 2.14$, $SD = .77$), $t(208) = 4.51$, $p < .001$, but not for participants in the good-fit with no mistake group ($M = 3.97$, $SD = .62$) and the poor-fit with no mistake group ($M = 3.85$, $SD = .69$), $t(208) = .92$, $p = .360$. These findings are in agreement with the theory developed earlier, indicating that stereotype-fit only influences hiring expectations when a mistake is made, such that leaders with a disability and good-fit receive higher hiring expectations scores than leaders with a disability and poor-fit after making a mistake. See Figure 4-5 for a visual representation of this interaction.

4.5 Stereotype-Fit Pilot 2: Leaders without a Disability

This pilot was used to determine whether the stereotype-fit manipulations from the first pilot could also be used as good- and poor-fit conditions for leaders without a disability, but in reverse. The study design was nearly identical to the first. The only difference between the two pilots was that in this version I asked participants to rank the performance of a leader without reference to disability. Note that social desirability bias was not a concern in this study, because disability was not the focus. However, for consistency across pilots, participants were still asked to provide forced-order responses from the perspective of society.

Participants

In total, 131 Amazon Mechanical Turk users were recruited for this survey. Of the recruited individuals, 16 were excluded from analysis due to attrition. Data from a further 47 participants were excluded for failed attention checks. This resulted in a final sample size of 68 participants (mean age = 32.97 years, $SD = 8.49$, 43% female, 56% male, 1% prefer not to

disclose information concerning gender; 82% employed). All participants were from the United States. G*Power was used to calculate the required a priori sample size of 66 for this study.

Procedures

Participants ranked the expected performance of an MBA team leader via Amazon Mechanical Turk and Qualtrics. The target leader was not described as having a disability in this pilot. The roles that the leader was ranked on were i) accommodations for students with a stutter, ii) communications, iii) operations and iv) business statistics. The question that participants received can be found at the end of Appendix F. The letter of information and consent form are in Appendix E.

Measures

Stereotype-Fit Perceptions

Stereotype-fit perceptions were measured on a scale from 1 to 4, as in the previous pilot. One was the highest score (the best fit) and four was the lowest score (the worst fit).

Results

A paired t-test was conducted to determine whether the roles used in Study 1 could also be used as good- and poor-fit conditions for leaders without a disability. As a result of this analysis, communications emerged as the good-fit role for leaders without a disability ($M = 2.32$, $SD = .94$), and accommodations for students with a stutter was the poor-fit role for these leaders ($M = 3.19$, $SD = 1.20$), $t(67) = 4.55$, $p < .001$.

A Caveat Regarding the Interpretation of Results from this Second Pilot

There is an important caveat to note at this point. Impression formation theory would predict that the comparison between disability and the absence of disability is salient when an observer perceives a leader with a disability. Yet, this same comparison should not occur when

an observer perceives a leader without a disability. Thus, the forced-rank task in this pilot may produce an artificial set of good- and poor-fit conditions that could only develop when comparison is obligatory. In other words, in the experiment to follow, these separate conditions may not be perceived as good- or poor-fit by study participants. That is because differences in stereotype-fit for a leader without a disability simply might not exist.

Given the above concern as well as my focus on disability in this dissertation, I made it my primary goal to find stereotype-fit variance for the disability condition. This results in a limitation, making comparison between the with and without disability conditions ill-advised. Comparison is unwise because the disability condition has an unfair advantage of finding stereotype-fit effects, due to the larger difference between stereotype-fit means in the disability condition. In addition, standard deviations are smaller in the disability condition, which is indicative of higher levels of consensus between observers.

Put differently, there is procedural and distributional inequivalence (Cooper & Richardson, 1986) between the with disability and without disability conditions. This is due to a stronger operationalization and wider distribution of means in the disability condition. I cannot know whether inequivalence is function of the absence of stereotype-fit perceptions for leaders without a disability or limitations of my study.

If we assume that such stereotypes do exist for leaders without a disability—but that their strength is less than that of the stereotypes targeting leaders with a disability—fair comparison would include fit categories that reduced the strength of the manipulation in the disability condition to be at the same levels as the without disability condition. Such analysis would result in less power while testing the disability-focused hypotheses of this chapter. I was not willing to make that adjustment. All studies have their limitations and I see this unfair comparison a

limitation of this chapter. Reminding the reader that my primary focus is on the relationship between stereotype-fit, making a mistake, and biased perceptions as experienced by leaders with a disability, I see this limitation as reasonable.

4.6 Study 2: Leaders without a Disability

Design

The design of this study was the same as the design from Study 1. As with the pilots, the only change from Study 1 to Study 2 was that disability was not referenced in this final study. This experiment had a 2 (stereotype-fit: good-fit/poor-fit) x 2 (mistake: mistake/no mistake) between-subjects design.

Participants

First, 285 Amazon Mechanical Turk participants were recruited. Of the original sample, 30 were removed due to attrition and a further 29 were excluded for failed attention or manipulation checks. The final sample included 226 participants (mean age = 32.70 years, $SD = 9.61$; 56% female, 44% male; 78% employed; 63% had experience hiring employees; 36% had held a hiring manager position at some point during their career). These participant characteristics were compared to those of the Study 1 participants with a series of unpaired t-tests and chi-square tests. There was a difference in age between Study 1 ($M = 30.93$, $SD = 8.84$) and Study 2 participants ($M = 32.70$, $SD = 9.61$), $t(435) = -2.01$, $p = .045$, although the actual difference in mean age was only 1.77 years. No differences in gender, $X^2(2, N = 438) = 4.40$, $p = .111$, employment status, $X^2(1, N = 438) = .23$, $p = .633$, hiring experience, $X^2(1, N = 438) = 2.97$, $p = .085$, or hiring manager experience, $X^2(1, N = 438) = .09$, $p = .761$, were found between samples. The sample size of this study was decided a priori using the same approach as in Study 1.

Procedures

As noted, the procedures of this study followed those from Study 1. The only difference was that the vignettes did not include the line from Study 1 that read, “Pat also has a stutter”. See the latter half of Appendix H for the vignettes from this study.

Measures

Competence Perceptions

The same items were used to measure competence as in Study 1. For this study, the Cronbach’s alpha for the scale was .83.

Hiring Expectations

The same items were used to measure hiring expectations as in Study 1. For this study, the Cronbach’s alpha for the scale was .96.

Control Variables

The same control variables were measured as in Study 1, including gender, age, race, education, employment status, work experience, hiring experience, hiring manager experience, university project experience, disability status, experience with persons with a stutter, and social desirability. The Cronbach’s alpha for the social desirability scale was .59. Controls were not included in the subsequent analyses because they did not influence results.

Appendix I includes a list of survey items used in this study.

Attention and Manipulation Checks

Regarding attention checks, participants were again asked to identify leader descriptors. Data from participants who checked that the leader “Has a stutter” were removed from subsequent analysis. Additionally, participants who could not correctly identify the topic of the next competition were also excluded from analysis.

For the mistake manipulation check, participants were asked to what extent the leader made a mistake. Participants who responded “Not at all” in the mistake conditions or “Moderately”, “Very”, or “Extremely” in the no mistake conditions were removed from the study (1 = Not at all; 2 = Slightly; 3 = Moderately; 4 = Very; 5 = Extremely).

Results

Means, standard deviations, and correlations can be found in Table 4-1. Similar to Study 1, there was a high correlation between competence and hiring expectations, $r(224) = .78$ $p < .001$.

To test Competing Hypotheses 4a and 4b, a one-way ANOVA was conducted. I found that the relationship between stereotype-fit and competence perceptions, $F(1, 224) = .33$, $p = .564$, was not supported, with the difference in means between the good-fit condition ($M = 3.17$, $SD = .74$) and poor-fit condition ($M = 3.23$, $SD = .73$) being .06. These results support Competing Hypothesis 4b.²²

Next, turning to Competing Hypotheses 5a and 5b, a two-way ANOVA was conducted to probe the potential interaction between stereotype-fit and a mistake on competence perceptions. ANOVA results revealed an effect of making a mistake, $F(1, 222) = 47.45$, $p < .001$, but not stereotype-fit, $F(1, 222) = .740$, $p = .391$. Further, results do not support an interaction between stereotype-fit and a mistake, $F(1, 222) = .07$, $p = .789$. These results support Competing Hypothesis 5b. I conducted further Tukey-Kramer analysis to explore pairwise comparisons between combinations of stereotype-fit and mistake conditions. Results were supportive of Hypothesis 5b, with no difference in competence perceptions between participants in the good-fit

²² I added the mistake conditions as a control in a separate analysis. Results from that analysis also supported Competing Hypothesis 4b, $F(1, 224) = .87$, $p = .353$.

with mistake group ($M = 2.78, SD = .70$) and the poor-fit with mistake group ($M = 2.88, SD = .69$), $t(222) = -.86, p = .391$. Further, competence perceptions did not vary between participants in the good-fit with no mistake group ($M = 3.59, SD = .52$) and the poor-fit with no mistake group ($M = 3.65, SD = .54$), $t(222) = -.44, p = .659$. See Figure 4-3 for a figure on this statistically non-significant interaction.

As in Study 1, a mistake influenced competence perceptions in both stereotype-fit groups. Focusing on good-fit, I found that competence perceptions from the good-fit with no mistake group ($M = 3.59, SD = .52$) and the good-fit with mistake group ($M = 2.78, SD = .70$), $t(222) = -6.89, p < .001$, varied. Similar results arose in the poor-fit with no mistake group ($M = 3.65, SD = .54$) and the poor-fit with mistake group ($M = 2.88, SD = .69$), $t(222) = -6.55, p < .001$.

With no relationship between stereotype-fit and competence perceptions, mediation analyses were not conducted to test Competing Hypotheses 6a and 6b. This lack of relationship precludes any potential mediation, supporting Competing Hypotheses 6b.

To keep analysis consistent with Study 1, I also ran a two-way ANOVA to assess a potential interaction between stereotype-fit and a mistake on hiring expectations. As the reader might expect, I found support for a mistake influencing hiring expectations, $F(1, 222) = 65.24, p < .001$. I did not find support for the relationship between stereotype-fit and hiring expectations, $F(1, 222) = .05, p = .824$, or the interaction between stereotype-fit and a mistake on hiring expectations, $F(1, 222) = .14, p = .710$. Follow up Tukey-Kramer analysis further confirmed that the predicted influence of stereotype-fit was not supported. Results do not support the influence of stereotype-fit across the good-fit with mistake group ($M = 2.28, SD = .83$) and the poor-fit with mistake group ($M = 2.31, SD = .79$), $t(222) = -.22, p = .824$. This was also the case in the

good-fit with no mistake group ($M = 3.57, SD = .84$) and the poor-fit with no mistake group ($M = 3.69, SD = .91$), $t(222) = -.72, p = .472$. For a visual of these findings see Figure 4-5.

4.7 Discussion and Conclusion

My results provide support for some of my hypotheses on observer perceptions of leaders with and without a disability. In Study 1, on leaders with a disability, a mistake was required for stereotype-fit to have an influence on competence perceptions and hiring expectations. However, effect sizes were quite small. Further, the expected mediation of stereotype-fit through competence perceptions was only partially supported. Turning to Study 2, on leaders without a disability, the results were quite different. The competing hypotheses that predicted no relationship between stereotype-fit and competence perceptions, or hiring expectations, were all supported for these leaders. Only the mistake manipulation influenced competence perceptions and hiring expectations in that study.

Implications for Theory and Practice

Prior research on leadership and disability has included evidence for negative and positive bias toward leaders with a disability, as well as the absence of bias altogether (e.g., Adkins, 2003; Bingham, 1999; Marchioro, 2000). I developed the present chapter with these conflicting findings in mind. Building from research on impression formation (Fiske & Neuberg, 1990; Fiske, Lin, & Neuberg, 1999), stereotype-fit perceptions (Colella et al., 1998; Colella & Varma, 1999), and gender and leadership (Brescoll et al., 2010a), this research advances theory on observer perceptions of leaders with a disability. Specifically, I find that bias is influenced by the interaction between stereotype-fit perceptions and a mistake.

These findings extend research on stereotype-fit as well. As previously noted, researchers have reported that gender-based stereotype-fit perceptions require a catalyst to be activated

(Brescoll et al., 2010a). That is what I found with a focus on disability. This consistency of findings between stereotypes of diverse identities, including gender and disability, illustrates how stereotype-fit perceptions can operate similarly across multiple contexts. These results support researchers' framing of persons with disabilities as a minority group at work, with related experiences to women and other minority groups (e.g., Kulkarni & Gopakumar, 2014).

Whereas previous research has explored the influence of stereotype-fit perceptions on the work outcomes of persons with disabilities (e.g., Colella et al., 1998; Colella & Varma, 1999), I go one step further to include competence perceptions as a mediator of such relationships. Using impression formation theory (Fiske & Neuberg, 1990), this study contributes an examination of how perceptions of competence associated with disability as a social identity can be a mechanism of biased hiring expectations. However, with only partial support for the overall moderated mediation, I consider other potential mediators in the future research section below.

Turning to practical implications, the findings from the present study may suggest that leaders with a disability in stereotypically poor-fit roles would benefit from employing strategies that combat low competence stereotypes. Such strategies could include sensitizing others in the workplace to ability via learning new skills, supporting co-workers, and feedback seeking (Kulkarni & Gopakumar, 2014). Other individual-level strategies can be found in Chapter 2 of this dissertation, such as self-advocacy and using education to build credibility. Further, organizations could employ strategies to combat stereotype-based decision-making as well. In this regard, suggestions from the literature on gender may be beneficial. For instance, Koch, D'Mello, and Sackett (2015) noted that decision makers are less likely to make biased hiring choices when they are expected to explain their decisions and when they are evaluated on those decisions as well. Here, organizations could implement diversity training for hiring managers

and tie hiring decisions to job-relevant criteria that are evaluated by the organization (Lyons et al., 2017).

Limitations and Future Research

The results of this chapter should not be overstated for a number of reasons. First, the effect sizes of findings on perceptions of leaders with a disability were quite small. Although stereotype-fit and a mistake interacted to influence outcomes, the mistake manipulation had the largest effect on the mediator and dependent variable in my model by far. Second, Tukey-Kramer analysis comparing group means by role, instead of by stereotype-fit, revealed no difference in the competence perceptions of leaders with and without a disability when they had made a mistake in the communications role. Specifically, for leaders in the communications role with a disability who made a mistake ($M = 2.70, SD = .74$) and for leaders in the communications role without a disability who made a mistake ($M = 2.78, SD = .70$), $t(111) = -.60, p = .550$, means did not vary. Similar results were found with hiring expectations as the dependent variable.²³

Considering the accommodations for students with a stutter role, I did not find support for a difference in the competence perceptions of leaders with a disability ($M = 3.06, SD = .68$) and without a disability ($M = 2.88, SD = .69$), $t(113) = 1.42, p = .158$, when they had made a mistake. However, when I examined hiring expectations as the dependent variable a difference in means was supported, such that leaders with a disability ($M = 2.80, SD = .93$) received higher hiring expectations than leaders without a disability ($M = 2.31, SD = .79$).

²³ The mean values of competence perceptions and hiring expectations were lower in the disability condition, but those differences were small and not statistically significant.

These additional tests add an extra dimension to this chapter that should be considered in future research. If we see no statistical difference in means for the communications role and a preference for disability in the accommodations for students with a stutter role, perhaps the variance we see between good- and poor-fit in the disability condition is largely a function of positive associations between disability and the good-fit role. As some participants from Chapter 2 noted, they were perceived as credible when working in disability-related fields. This was because their lived experience signaled competence, even when they did not have expertise. Future research might include an open-ended question to participants on why they believed the leader would or would not be successful. Responses could then be used to examine whether lived experience is more commonly cited as advantageous in the good-fit condition for leaders with a disability. Qualitative findings from Chapter 2 certainly suggest that this would be the case.

Third, as noted in the section on the second pilot, the stereotype-fit conditions used are not comparable across disability statuses. To mitigate this issue, future research could either examine other potential stereotype-fit roles for the without disability condition, to determine if there are conditions that increase variance between good- and poor-fit, or weaken the stereotype-fit manipulation in the disability condition to allow for fair comparison.

Fourth, this chapter uses “paper people” to examine observer perceptions. Relying solely on written vignettes has been criticized in the literature for limiting ecological validity (e.g., Gorman, Clover, & Doherty, 1978; Murphy, Herr, Lockhart, & Maguire, 1986). This is because judging a person on paper does not encompass the complexity of real-world interaction. Future research could mitigate this concern with a design that includes a confederate and/or a video manipulation.

Fifth, and related to the previous point, this research is about early impressions. Study participants received minimal information about the focal leaders across studies and that information did not come from the leaders themselves, but from fictitious previous group members. This fifth concern is both a strength and limitation of this research. A focus on first impressions is a strength because impressions formed with limited information and without direct interaction do occur in the workplace. Findings from this research are similar to such circumstances. However, results do not capture the dynamic social interactions that commonly occur at work that are likely to influence hiring decisions in the real-world. For instance, Jones and colleagues (1984) explained that clear communication can mitigate tensions between persons with and without disabilities. The design limitations of the present research do not allow for such communications to unfold.

Last, because there was only partial support in Study 1 for competence as the mechanism connecting stereotype-fit perceptions, a mistake, and hiring expectations, future research should examine other mechanisms of these relationships, such as the emotional reactions of observers. Including a measure of compassion (e.g., Strauss et al., 2016) toward the focal leader would be a good first step in that direction. Similarly, measures of pity and admiration, as in Lyons et al. (2017), could also illuminate how stereotype-fit perceptions and a mistake interact to influence hiring expectations. For instance, perhaps in the poor-fit with mistake condition participants are more prone to pity the focal leader, whereas in the good-fit with mistake condition participants experience higher levels of admiration.

Conclusion

In this chapter, I examined observer perceptions of leaders with and without a disability. I found that stereotype-fit perceptions influenced observers' hiring expectations of leaders with a

disability, but only after those leaders made a mistake. For leaders without a disability, the same relationships were not established. Interestingly, when comparing leaders with and without a disability by role rather than stereotype-fit, it became uncertain whether the influence of stereotype-fit among leaders with a disability was the function of low competence stereotypes in the poor-fit condition, positive associations between lived experience and role in the good-fit condition, or a mixture of the two. Although further examination of these relationships is outside the scope of the present dissertation, it would be a valuable next step for this program of research.

Figure 4-1. Hypothesized Model

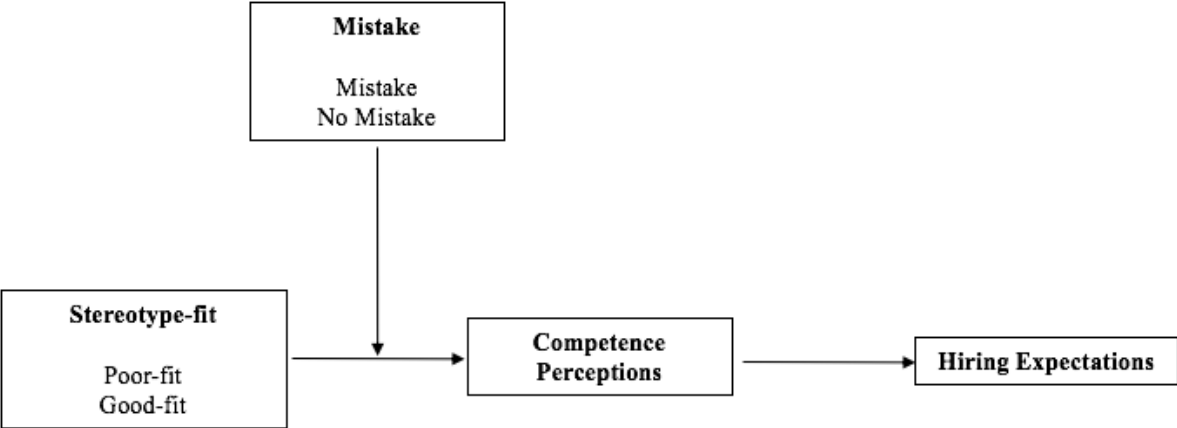
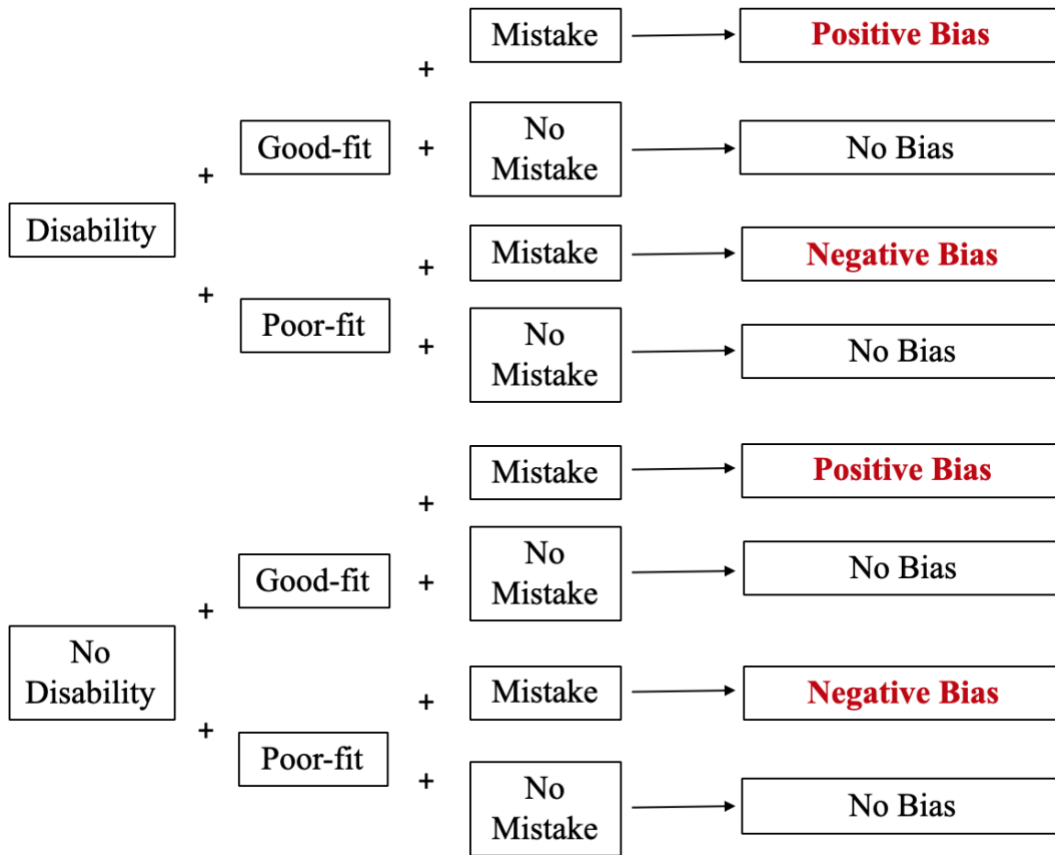


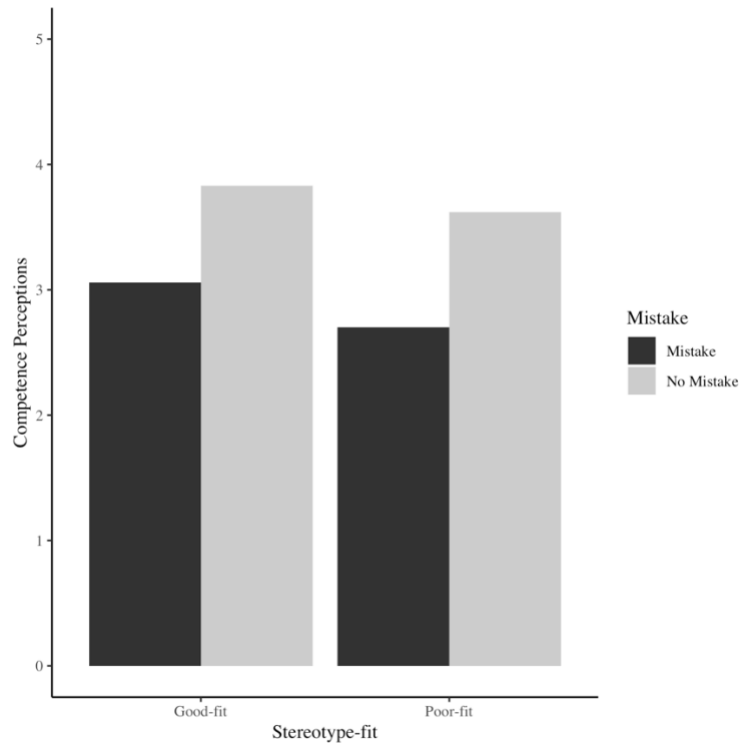
Figure 4-2. Summary of Expected Outcomes



Observer perceptions are expected to be negatively biased when a leader makes a mistake and has poor-fit. This is because observers are expected to associate the mistake with the leader’s lack of fit, reinforcing low competence stereotypes. However, when a leader makes a mistake and has good-fit the opposite is predicted. Observer expectations should be positively biased because good-fit stereotypes associate disability with competence.

Figure 4-3. Interactive Effect of Stereotype-Fit and a Mistake on Competence

Study 1: Leaders with a Disability



Cell sizes:

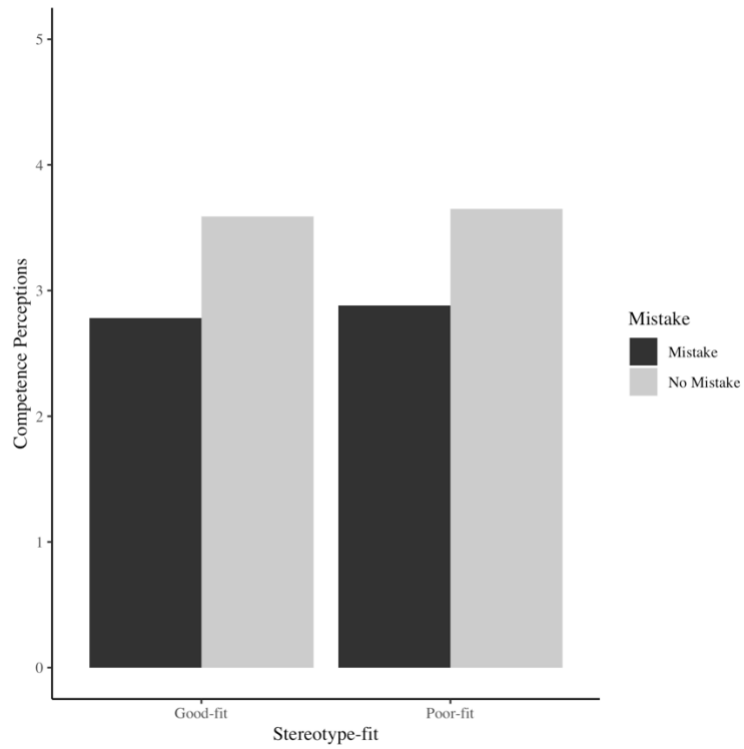
Mistake x Good-fit (N = 53)

Mistake x Poor-fit (N = 55)

No Mistake x Good-fit (N = 56)

No Mistake x Poor-fit (N = 48)

Study 2: Leaders without a Disability



Cell sizes:

Mistake x Good-fit (N = 58)

Mistake x Poor-fit (N = 62)

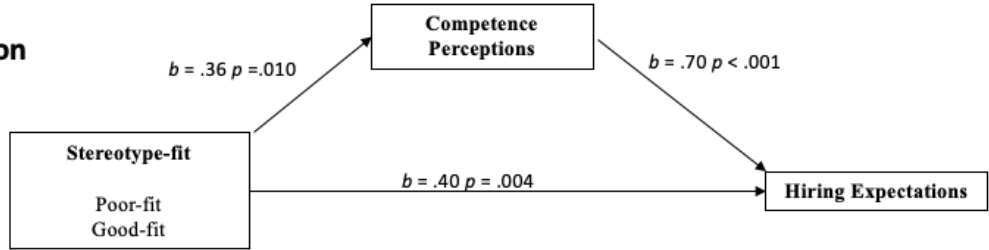
No Mistake x Good-fit (N = 54)

No Mistake x Poor-fit (N = 52)

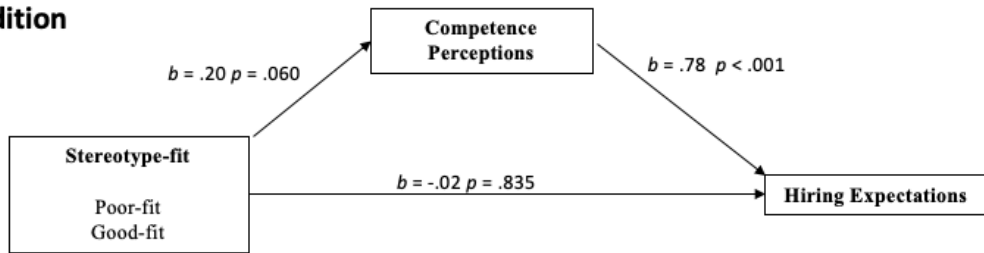
Figure 4-4. Mediation Analyses

Study 1: Leaders with a Disability

1. Mistake Condition



2. No Mistake Condition



3. Overall (Mistake & No Mistake Combined)

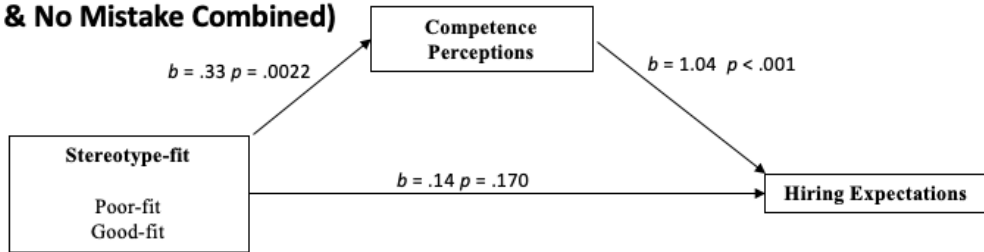
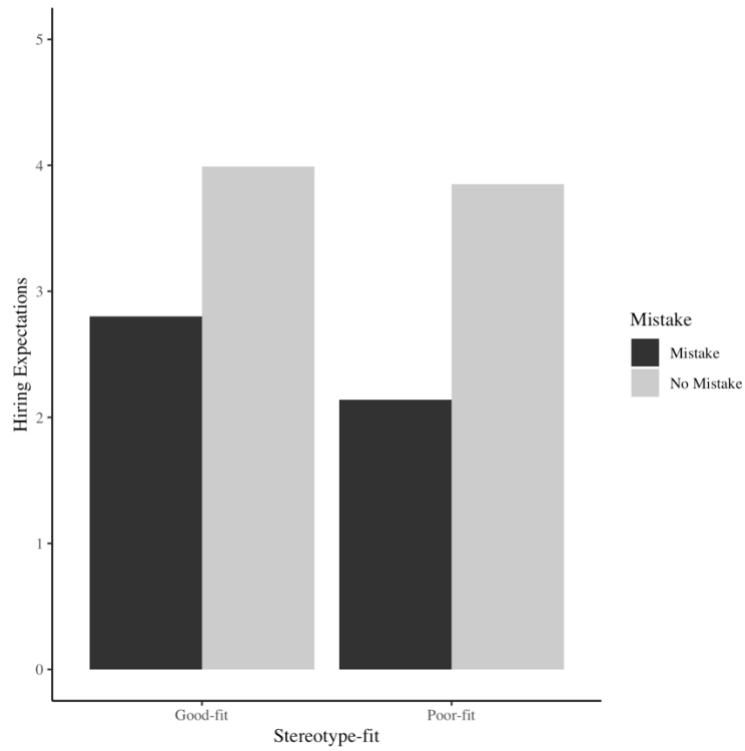


Figure 4-5. Interactive Effect of Stereotype-Fit and a Mistake on Hiring Expectations

Study 1: Leader with a Disability



Cell sizes:

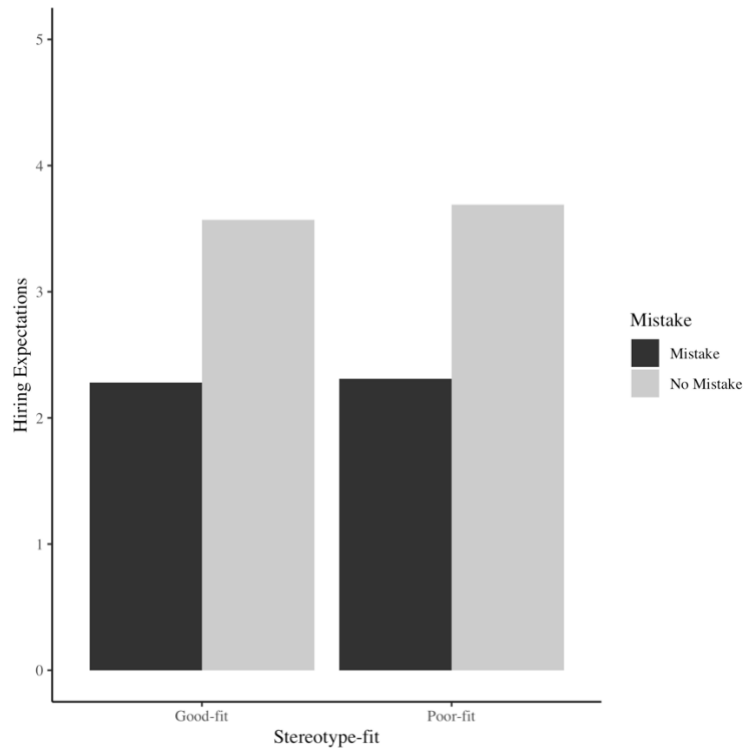
Mistake x Good-fit (N = 53)

Mistake x Poor-fit (N = 55)

No Mistake x Good-fit (N = 56)

No Mistake x Poor-fit (N = 48)

Study 2: Leaders without a Disability



Cell sizes:

Mistake x Good-fit (N = 58)

Mistake x Poor-fit (N = 62)

No Mistake x Good-fit (N = 54)

No Mistake x Poor-fit (N = 52)

Table 4-1. Means, Standard Deviations, and Correlations with Confidence Intervals

Study 1: Leaders with a Disability

| Variable | <i>M</i> | <i>SD</i> | 1 | 2 | 3 | 4 | 5 | 6 |
|----------------------------------|----------|-----------|---------------------|---------------------|------------------------|---------------------|-----------------------|-----------------------|
| 1. Competence perceptions | 3.30 | 0.78 | | | | | | |
| 2. Hiring expectations | 3.18 | 1.08 | .76** [.70, .81] | | | | | |
| 3. Age | 30.93 | 8.84 | .09 [-.04, .23] | .05 [-.08, .19] | | | | |
| 4. Hiring experience | 2.02 | 1.15 | -.01 [-.15, .12] | -.02 [-.16, .11] | .35** [.22, .46] | | | |
| 5. University project experience | 3.07 | 1.24 | .03 [-.11, .16] | .03 [-.11, .16] | -.21** [-.34, -.08] | .10 [-.04, .23] | | |
| 6. Work experience | 11.48 | 8.44 | .09 [-.05, .22] | .03 [-.10, .17] | .87** [.84, .90] | .42** [.30, .53] | -.17* [-.30, -.04] | |
| 7. Social desirability | 2.70 | 0.74 | -.10 [-.23, .04] | -.06 [-.19, .07] | -.10 [-.24, .03] | -.11 [-.24, .03] | .13 [-.00, .26] | -.14* [-.27, -.00] |

Note. *M* and *SD* are used to represent mean and standard deviation, respectively. Values in square brackets indicate the 95% confidence interval for each correlation. The confidence interval is a plausible range of population correlations that could have caused the sample correlation (Cumming, 2014). * indicates $p < .05$. ** indicates $p < .01$.

Study 2: Leaders without a Disability

| Variable | <i>M</i> | <i>SD</i> | 1 | 2 | 3 | 4 | 5 | 6 |
|----------------------------------|----------|-----------|---------------------|---------------------|------------------------|-----------------------|------------------------|---------------------|
| 1. Competence perceptions | 3.20 | 0.74 | | | | | | |
| 2. Hiring expectations | 2.92 | 1.07 | .78** [.72, .82] | | | | | |
| 3. Age | 32.70 | 9.61 | .03 [-.10, .16] | .05 [-.08, .18] | | | | |
| 4. Hiring experience | 2.16 | 1.18 | .02 [-.11, .15] | -.06 [-.19, .08] | .21** [.08, .33] | | | |
| 5. University project experience | 3.28 | 1.31 | .05 [-.08, .18] | -.02 [-.15, .11] | -.32** [-.43, -.20] | .11 [-.02, .24] | | |
| 6. Work experience | 12.78 | 9.49 | .06 [-.07, .19] | .06 [-.08, .18] | .88** [.85, .91] | .21** [.08, .33] | -.31** [-.42, -.19] | |
| 7. Social desirability | 2.68 | 0.69 | -.04 [-.17, .09] | -.04 [-.17, .09] | -.12 [-.25, .01] | -.14* [-.27, -.01] | -.00 [-.13, .13] | -.11 [-.23, .03] |

Note. *M* and *SD* are used to represent mean and standard deviation, respectively. Values in square brackets indicate the 95% confidence interval for each correlation. The confidence interval is a plausible range of population correlations that could have caused the sample correlation (Cumming, 2014). * indicates $p < .05$. ** indicates $p < .01$

Chapter 5

General Discussion and Conclusion

5.1 Introduction

There are over one billion persons with disabilities in the world (WHO, 2011). Although various governments and organizations have implemented policies and practices to mitigate workplace barriers that are unique to these individuals, barriers persist (Schur, Colella, & Adya, 2016). Many of those barriers are directly related to hiring and others are associated with access to career advancement and leadership.

There are many examples of persons with disabilities who have advanced into leadership roles (e.g., Dwertmann & Boehm, 2016; Noonan et al., 2004; Schur, Kruse, Blasi, & Blanck, 2009; Shah, 2005; Turcotte, 2014), yet prior research on disability, career advancement, and leadership has typically focused on barriers. For instance, Wilson-Kovacs, Ryan, Haslam, and Rabinovich (2008) portrayed the barriers that leaders with disabilities face as a precarious “glass cliff”. In their research, leaders with disabilities encountered an array of obstacles, such as paternalism, tokenism, and inadequate constructive feedback in comparison to their peers without disabilities. Roulstone and Williams (2014) further explored the fears that leaders with disabilities had concerning changing roles and being exposed to negative reactions after disclosure in a new environment. Such fears resulted in leaders with disabilities choosing to stay right where they were. They did not seek out lateral or horizontal position changes. Instead, these leaders were trapped by what Roulstone and Williams (2014) called “glass partitions”. The above studies as well as others (e.g., Braddock & Bachelder, 1994; Robert & Harlan, 2006) have contributed vivid descriptions of barriers that many persons with disabilities encounter through

their careers. However, facilitators of career advancement and leadership are often overlooked in the literature, with our attention on barriers.

5.2 Three Empirical Chapters

Chapter 2

Focusing on facilitators of career advancement and leadership, I opened the empirical chapters of this dissertation with a qualitative, interview-based study in Chapter 2. Twenty-one leaders with disabilities participated in this study. Participants came from a variety of industries and organizations and they held a range of leadership positions, from junior to senior roles. Via their insights, I presented a metaphor on career advancement and leadership facilitators called the three-legged stool. This metaphor portrays facilitators in the foreground, but it also reminds us that the barriers described in prior research are real and influential (see Table 2-2). The stool finds stability with three foundations. If one or more of those foundations are unstable, we should expect barriers to become influential.

The three-legged stool is an opportunity to reframe how we think about disability and work. For instance, prior to conducting the experiments in Chapter 4, that chapter was entitled “Disability and the Glass Cliff”. At that time, I had framed this research as a test of the glass cliff metaphor. Michael MacDonald (P8, manager) from Chapter 2 had not yet shared the stool metaphor with me. However, the tone of the title as it reads today, “A Threat to the Three-Legged Stool?”, has a drastically different effect than the original title. Rather than emphasizing barriers as an inevitable conclusion, the second title considers barriers in relation to facilitators.

The three-legged stool metaphor adds to a relatively young stream of research on how persons with disabilities advance their careers (e.g., Kulkarni & Gopakumar, 2014; Baldrige & Kulkarni, 2017), highlighting the value of career self-management strategies, organizational and

societal factors, and social networks. Because metaphors often guide our research (Cornelissen, 2005), it is my hope that the three-legged stool can help to balance how we investigate disability-related career advancement and leadership barriers and facilitators.

Importantly, metaphors also guide action (Eagly & Carli, 2007). The three-legged stool has the potential to be a model for policy and practice that focuses on facilitators, as described in Chapter 2. This metaphor can be of benefit to individuals as well. Remembering that this dissertation began with a series of unanswered, personal questions, the three-legged stool can be a resource for persons with disabilities who want to learn about how others have advanced their careers into leadership positions. Further, disability-focused organizations could use the three-legged stool metaphor in educational materials and help to disseminate the findings of this research to interested persons with disabilities.

This interview-based study is only a first step towards understanding the facilitators required to progress into, and succeed in, leadership positions with a disability. The study included few participants with mental disabilities and persons with intellectual disabilities were not represented at all. Given the stigma that persons with these types of disabilities often experience (e.g., Braddock & Bachelder, 1994; Charlton, 1998; Colella & Stone, 2005; Harpur, Connolly, & Blanck, 2017; Perlin, 1993; Ren et al., 2008; Scior, 2011), we should extend this line of research to explore the facilitators of career advancement and leadership among persons with mental disabilities and intellectual disabilities as well.

An additional next step for this research is quantitative testing of the three-legged stool metaphor with a matched pair research design. In such a study, the three pillars of the stool would be investigated as predictors of leadership among matched leaders and non-leaders with disabilities. Further, a longitudinal research design could be used that follows persons with

disabilities over their careers, assessing career self-management strategies, social networks, and organizational and societal factors as predictors of leader emergence.

Chapter 3

We have little quantitative research measuring the direction and magnitude of the relationship between disability and career advancement. There are mixed findings among the studies that have been conducted, with some researchers reporting a negative relationship and others reporting results that were not statistically significant (e.g., Bressler & Lacy, 1980; EEOC, 2008; Luria, Kalish, & Walsh, 2014; Schur, Han, Kim, Ameri, Blanck, & Kruse, 2017; Schur et al., 2009). In addition, many of these studies are unlikely to generalize to broader society, because they often use data from highly specialized contexts, such as government and military.

I endeavoured to contribute a degree of clarity to this literature with an archival analysis of the National Longitudinal Survey of Youth 1997 (NLSY97) (Bureau of Labor Statistics, 2015a) in Chapter 3. Specifically, I analyzed whether disability status and disability type were predictors of promotion. The results of my analysis were not statistically significant.

However, supplemental analysis demonstrated a negative relationship between disability status and income. These significant findings with income but not promotion echo the results of prior archival studies from the United States (e.g., Schur et al., 2009; Schur et al., 2017). Further, mental disability and multiple disabilities were significant negative predictors of income in my supplemental analysis. Physical disability and sensory disability had negative coefficients but they were not statistically significant predictors of income. These findings on disability type and income are indicative of the hierarchy of disabilities types discussed earlier (e.g., Braddock & Bachelder, 1994; Charlton, 1998; Ren et al., 2008; Tringo, 1970).

As previously noted, a limitation of Chapter 3 was the NLSY97 measurement of disability. Unfortunately, I could not find a dataset with a more precise operationalization of disability that included promotion data as well. This limitation should not entirely discount analysis conducted on disability with the NLSY97. Rather, readers should interpret findings as conservative estimates.

We have a quantitative “data gap” on the subject of disability and promotion. Indeed, a recent Globe and Mail article referred to “Canada’s data hole about the conditions of people with disabilities” more generally as “galling” (Andrew-Gee & Grant, 2019). Considering this gap, we should aim to gather longitudinal disability and promotion data that spans geographic and organizational contexts. Such data could provide much needed information on disability and career advancement, including moderating conditions that we have not yet seen in the literature.

Chapter 4

Similar to the literature reviewed in Chapter 3, research on disability, leadership, and bias is both scarce and mixed. Prior studies include reports of positive bias, negative bias, and no bias (e.g., Adkins, 2003; Bingham, 1999; Luria, Kalish, & Weinstein, 2013; Marchioro, 2000). Moreover, prior experimental studies are primarily uninterpretable, due to a lack of consequence for raters (Colella & Stone, 2005) in those studies.

In Chapter 4, I investigated bias toward leaders with and without a disability using experimental methods. Altogether, 578 Amazon Mechanical Turk users participated in two pilots and two subsequent studies for my final empirical chapter. Hypotheses were developed with impression formation theory (Fiske & Neuberg, 1990) research on stereotype-fit perceptions (Colella et al., 1998) and prior findings on gender and leadership (Brescoll, Dawson, & Uhlmann, 2010a). Many of my hypotheses from this chapter were supported.

Research presented in this chapter contributes a moderator to the literature on stereotype-fit, which includes divergent results on the influence of these stereotypes (e.g., Colella et al., 1998; Colella & Varma, 1999). My findings illustrate how additional behavioural information—whether a leader made a mistake or not—moderates the relationship between stereotype-fit perceptions and observer expectations. Interestingly, this interaction was first described in research on gender and leadership (Brescoll et al., 2010a). These shared findings on the perceptions of both women and persons with disabilities demonstrate how mechanisms of bias can be similar across diverse groups. Future research should continue to explore the ways that biases toward persons with disabilities relate to, as well as differ from, those of women and persons from other minority groups in the workplace.

More research is required to understand whether the reported bias toward leaders with a disability was the function of negative perceptions of poor-fit and/or positive perceptions of good-fit. This line of inquiry has practical implications. For instance, if negative perceptions of poor-fit were influential, the strategies discussed in Chapter 4 are highly relevant. Organizations should consider interventions such as diversity training for managers, formally evaluating hiring manager decisions, and making job-relevant criteria central to hiring decisions in order to mitigate negative bias (Koch, D’Mello, & Sackett, 2015; Lyons et al., 2017). However, if the reported moderation was due to positive perceptions of good-fit, such interventions would be misguided.

5.3 A Puzzle

An unsolved puzzle remains after reading the first four chapters of my dissertation. It is unclear to me why the qualitative studies reviewed in Chapter 1 convey narratives with influential barriers to career advancement and leadership while the quantitative literature is

comprised of mixed results. Beginning with the qualitative study of glass metaphors, I would expect a strong, negative relationship between disability and career advancement in the quantitative literature. Yet, that is not what I find. Why do these qualitative and quantitative findings diverge?

One plausible explanation was discussed in Chapter 3. That explanation being methodological limitations with the quantitative research. According to this argument, the quantitative research underestimates the effect of barriers to career advancement. An alternative argument is that many persons with disabilities encounter the barriers discussed in qualitative research. However, at the group-level, persons with disabilities are navigating barriers at a rate that results in the statistically non-significant differences that we see between persons with and without disabilities in some quantitative studies.

If that is the case, future quantitative research should explore the role that resilience may play in the career advancement of persons with disabilities. Resilience is a process of positive adaptation following adversity (Luthar, Cicchetti, & Becker, 2000). Might employed persons with disabilities be more resilient, on average, than employed persons without disabilities? This resilience would not necessarily be in relation to activity limitations or illness at the individual-level (as in Denz-Penhey & Murdoch, 2008). It could also include experiences with attitudinal and systemic barriers as well.

The qualitative literature certainly suggests that persons with disabilities encounter an array of barriers through their careers. Numerous participants from Chapter 2, though certainly not all participants, shared similar experiences. If persons with disabilities remain employed after

encountering barriers, they will have demonstrated resilience that may be of benefit to their later career advancement.²⁴

A participant from Chapter 2, Steve Mantis (P4, executive and other roles) made a comment that relates to this discussion. He said that companies should be seeking out persons with disabilities, because persons with disabilities are frequently required to adapt to new situations. He discussed this in relation to a conversation that he had with a friend, on the topic of tying shoelaces with one hand:

I had to learn and I figured it out. All the time, we're learning how to do stuff that's not "normal". We're amazing problem-solvers. We're solving problems all the time. In a society where the workforce is changing and we need to think about things in a different way, isn't that an important skill to have?

Participants from Chapter 2 shared a number of facilitators that relate to prior research on resilience as well. For instance, the psychological factors of resilience have been described as a positive personality, motivation, focus, perceived social support, and confidence among Olympic gold medalists (Fletcher & Sarkar, 2012). For Chapter 2 participants, one of the most common career self-management strategies discussed was taking a positive attitude, especially in light of barriers (positive personality). As an anonymous participant (P2, professor) noted, "You embrace the negative and the positive, and you see the positive". Further, many participants commented on their drive to give it "150%" (motivation and focus), the benefits of internal and external

²⁴ This discussion of resilience brings up an important methodological issue. After encountering barriers, persons with disabilities who exit the workforce will not be included in subsequent analyses of career advancement. This results in a "survivorship bias" (e.g., Rohleder, Scholz, & Wilkens, 2011) in research on disability and career advancement. Future research on this subject could mitigate this concern by including persons with and without disabilities who are potential members of the workforce (e.g., seeking employment) as well.

networks (perceived social support), and the value of building confidence and self-determination (confidence).

Chapter 2 participants also described a number of benefits of disability that may be relevant to understanding the gap between qualitative and quantitative findings on career advancement in the literature. For instance, an anonymous participant (P10, manager and director) discussed how her disability facilitated her work and career advancement:

My disability helped me significantly in that role, because it was about multitasking and constantly being pulled in many different directions. With my disability, I'm like that all the time anyway, so I felt [my disability] helped me. [My disability] helped me to pay particular attention to detail. When I was in that position, within a year I became a supervisor.

Steven Estey (P18, consultant) added that his hearing loss motivated his career advancement. This was because the accommodations he required to work were only accessible to individuals in senior roles. For these Chapter 2 participants as well as others, disability had a positive influence on their career advancement. And yet, their narratives are largely overlooked in our research and theory on disability and work.

This oversight is likely because disability research tends to draw from social categorization and stereotyping theories, often implicitly (Beatty, Baldrige, Boehm, Kulkarni, & Colella, 2018). These theories generally predict negative work outcomes for persons with disabilities, as stereotyped, outgroup members. Our focus on theories that predict negative effects may be, in part, because of a problem described by Kenneth Gergen in 1973.

Gergen (1973) explored how social psychological theories often have a prescriptive purpose, in his paper entitled "Social Psychology as History". He explained that value

judgements often underlie these theories with the objective of changing behaviour. If successful, these theories will no longer be predictive, because individuals and/or cultures will have changed. For example, Gergen (1973, p. 311) commented that “women who learn they are more persuasible than men (cf. Janis & Field, 1959) may retaliate, and over time the correlation [between gender and being persuasible] is invalidated or reversed”.

Perhaps the work experiences of persons with disabilities have become more complex than our implicit focus on social categorization and stereotyping. Some of the participants from Chapter 2 certainly believed that perceptions of disability were changing. For instance, Jeff Willbond (P7, executive and consultant) said the following:

Growing up in the '70s, I faced segregation. In the '80s, it was all about integration. When I got into high school in the mid- to late-'80s, the focus was on integration and accessibility, which carried into the '90s. The '90s was really about accessible communities and looking at mainstreaming... I got to see a very unique perspective every decade throughout my life. Now that we're into 2018, it's really about inclusion.

Of course, this is not to say that disability-related barriers no longer exist. There is ample evidence illustrating that they endure, especially on the subject of hiring (Baldwin & Johnson, 2000; Bureau of Labor Statistics, 2010; Colella & Bruyère, 2011; Colella & Stone, 2005; Stapleton & Burkhauser, 2003; Stone & Colella, 1996; WHO, 2011; Yelin & Trupin, 2003). However, studying moderators of the relationship between disability and career advancement may be increasingly important with societal change. Such moderators are likely found at various levels of analysis, such as legislation at the national-level (Stone & Colella, 1996), disability hiring and training policy at the organization-level (Araten-Bergman, 2016), climate for

inclusion at the group-level (Dwertmann & Boehm, 2016), and resilience at the individual-level (Craig, 2012).

This discussion would not be complete without pointing out that cultural change likely varies by characteristics of disability (e.g. Jones et al., 1984; Stone & Colella, 1996). For instance, persons with physical disabilities have often been dominant in disability social movements (Charlton, 1998; Foster-Fishman, Jimenez, Valenti, & Kelley, 2007) and I would expect that changes in social categorization and stereotyping have been larger for this group than for persons with mental disabilities. Certainly, research on the hierarchy of disability types would support this claim (Blanck & Adya, 2017; Braddock & Bachelder, 1994; Colella & Stone, 2005; Deal, 2003; Foster-Fishman, Jimenez, Valenti, & Kelley, 2007; Perlin, 1993; Reilly, Bocketti, Maser, & Wennet, 2006; Ren et al., 2008; Roulstone & Barnes, 2005; Tringo, 1970). However, there are increased efforts to reduce mental disability stigma in society today. These efforts may be indicative of further change to come. For example, the popular Bell Let's Talk initiative that aims to "end the stigma" around mental illness is less than 10 years old (Bell Canada, 2019).

This discussion on cultural change has implications for research on leadership more broadly. Specifically, leadership is often associated with strength and well-being (Barling & Cloutier, 2017; Epitropaki & Martin, 2005) and these attributes are not associated with disability in the literature (e.g., Charlton, 1998; Cuddy, Fiske, & Glick, 2008; Dwertmann & Boehm, 2016). However, what if cultural perceptions of leadership have been shifting as more persons with disabilities enter leadership positions and publicly disclose invisible disabilities? If so, our research and theory on leadership should recognize these changes. Future studies could explore whether perceptions of the prototypical leader have changed to be more inclusive of disability

(e.g., emphasizing strength less over time). One way to test this is a longitudinal content analysis (e.g., Scott, 1986) of promotional materials from leadership courses or MBA programs at business schools. Descriptions of what leadership is, as well as the qualities of a good leader, could be the basis for this analysis. Alternative data sources could be CEO reports to stakeholders from the annual reports of publicly traded companies or news reports and political candidate speeches from federal elections.

Exploring the gap between qualitative and quantitative findings on disability and career advancement will have practical implications. Writing on the topic of diversity, Alice Eagly (2016, p. 199) noted that “in an ideal world, social science research would provide a strong basis for advocacy and social policy”. She discussed how one of the ways that social scientists can do this is through conducting research on the conditions that result in positive and negative effects of diversity. Rather than focusing on sweeping generalizations and ideology, social scientists can support the development of evidence-based policy that recognizes the complex effects of diverse identities on work outcomes.

We do not yet understand the quantitative relationship between disability and career advancement well enough to provide more specific evidence to guide policy. The three-legged stool is a strong foundation, but future quantitative research that disaggregates disability and examines moderators of the relationship between disability and career advancement could ensure that funds are allocated most effectively. When we are able to discern the conditions under which disability has a negative, neutral, or positive influence on career advancement, policy can reflect these insights. Such research could yield educational benefits as well. Specifically, findings could be disseminated to persons with disabilities. With access to robust evidence, persons with disabilities could make more informed decisions with respect to their own careers.

5.4 Conclusion

Using three different methods in three empirical chapters, data from 4624 persons—both with and without disabilities—were analyzed to produce the findings discussed herein. These findings have implications for academics investigating the relationship between disability, career advancement, and leadership, for practitioners aiming to develop more effective policy and practice, and for persons with disabilities interested in advancing into leadership positions. Perhaps most importantly, this dissertation represents a “promissory note” (Soyland, 1994) of future research to come.

References

- Acemoglu, D., & Angrist, J. D. (2001). Consequences of employment protection? The case of the Americans with Disabilities Act. *Journal of Political Economy*, 109(5), 915-957.
- Adkins, G. J. (2003). *A social/cognitive view of leaders with visible disabilities* (Unpublished master's thesis). Marshall University, West Virginia.
- Ailey, S., Lamb, K., Friese, T., & Christopher, B. A. (2015). Educating nursing students in clinical leadership: Sarah Ailey and colleagues show how integrating course work and practice can enable everyone to improve patient care. *Nursing Management*, 21(9), 23-28.
- Allen, S., & Carlson, G. (2003). To conceal or disclose a disabling condition? A dilemma of employment transition. *Journal of Vocational Rehabilitation*, 19(1), 19-30.
- Allen, T. D., French, K. A., & Poteet, M. L. (2016). Women and career advancement. *Organizational Dynamics*, 3(45), 206-216.
- Ameri, M., Schur, L., Adya, M., Bentley, S., McKay, P., & Kruse, D. (2015). *The disability employment puzzle: A field experiment on employer hiring behavior* (Working Paper 21560). Massachusetts: National Bureau of Economic Research.
- Andrew-Gee, E., & Grant, T. (2019, January 26). In the dark: The cost of Canada's data deficit. *The Globe and Mail*, Retrieved from <http://www.theglobeandmail.com>
- Araten-Bergman, T. (2016). Managers' hiring intentions and the actual hiring of qualified workers with disabilities. *The International Journal of Human Resource Management*, 27(14), 1510-1530.
- Areheart, B. A. (2008). When disability isn't "just right": The entrenchment of the medical model of disability and the goldilocks dilemma. *Indiana Law Journal*, 83(1), 181-232.
- Bacharach, S. B. (1989). Organizational theories: Some criteria for evaluation. *Academy of Management Review*, 14(4), 496-515.

- Baldrige, D. C., & Kulkarni, M. (2017). The shaping of sustainable careers post hearing loss: Toward greater understanding of adult onset disability, disability identity, and career transitions. *Human Relations, 70*(10), 1217-1236.
- Baldwin, M. L., & Johnson, W. G. (2006). A critical review of studies of discrimination against workers with disabilities. In W. M. Rodgers (Ed.), *Handbook on the Economics of Discrimination* (pp. 119-160). Northampton, Massachusetts: Edward Elgar Publishing.
- Baldwin, M. L., & Schumacher, E. J. (2002). A note on job mobility among workers with disabilities. *Industrial Relations: A Journal of Economy and Society, 41*(3), 430-441.
- Barling, J., & Cloutier, A. (2017). Leaders' mental health at work: Empirical, methodological, and policy directions. *Journal of Occupational Health Psychology, 22*(3), 1-13.
- Barling, J., Christie, A., & Hopton, A. (2010). Leadership. In S. Zedeck et al. (Eds.) *Handbook of Industrial and Organizational Psychology* (pp. 183-240). Washington, DC: American Psychological Association.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173.
- Bass, B. M., & Stogdill, R. M. (1990). *Bass & Stogdill's Handbook of Leadership: Theory, Research, and Managerial Applications* (3rd edition). New York: Free Press.
- Beatty, J. E., Baldrige, D. C., Boehm, S. A., Kulkarni, M., & Colella, A. J. (2019). On the treatment of persons with disabilities in organizations: A review and research agenda. *Human Resource Management, 58*(2), 119-137.

- Bebbington, D., & Özbilgin, M. (2013). *The paradox of diversity in leadership and leadership for diversity*. London, United Kingdom: Leadership Foundation for Higher Education (LFHE).
- Bell Canada. (2019). *Our initiatives*. Retrieved from <http://letstalk.bell.ca/en/our-initiatives/>
- Bendl, R., & Schmidt, A. (2010). From 'Glass Ceilings' to 'Firewalls'—different metaphors for describing discrimination. *Gender, Work & Organization*, 17(5), 612-634.
- Biernat, M., & Kobrynowicz, D. (1997). Gender- and race-based standards of competence: Lower minimum standards but higher ability standards for devalued groups. *Journal of Personality and Social Psychology*, 72(3), 544-557.
- Bingham, G. E. (1999). *A study of perceived leadership practices of persons with visible disabilities* (Unpublished doctoral dissertation). Virginia Commonwealth University, Virginia.
- Black, M. (1962). *Models and metaphors: Studies in language and philosophy*. Ithaca, New York: Cornell University Press.
- Blanck, P., & Adya, M. (2017). Future directions in employment, occupational rehabilitation, and disability: Introduction the special section. *Journal of Occupational Rehabilitation (online)*. <http://doi.org/10.1007/s10926-017-9741-y>.
- Bolt, D. (2006). Beneficial blindness: Literary representation and the so-called positive stereotyping of people with impaired vision. *New Zealand Journal of Disability Studies*, 12(1), 80-100.
- Bonaccio, S., Connelly, C. E., Gellatly, I. R., Jetha, A., & Ginis, K. A. M. (2019). The Participation of People with Disabilities in the Workplace Across the Employment Cycle: Employer Concerns and Research Evidence. *Journal of Business and Psychology*, 1-24.

- Bordieri, J. E., & Drehmer, D. E. (1997). Work life for employees with disabilities: Recommendations for promotion. *Rehabilitation Counseling Bulletin*, 40(3), 181-190.
- Boucher, C. (2017). The roles of power, passing, and surface acting in the workplace relationships of female leaders with disability. *Business & Society*, 56(7), 1004-1032.
- Bowers, C., Kreutzer, C., Cannon-Bowers, J., & Lamb, J. (2017). Team resilience as a second-order emergent state: A theoretical model and research directions. *Frontiers in Psychology*, 8(1), 1360.
- Braddock, D., & Bachelder, L. (1994). *The glass ceiling and persons with disabilities*. Washington, DC: The Glass Ceiling Commission, U.S. Department of Labor.
- Brault, M. W. (2012). *Americans with disabilities: 2010*. Washington, DC: US Department of Commerce, Economics and Statistics Administration, US Census Bureau.
- Brescoll, V. L., Dawson, E., & Uhlmann, E. L. (2010a). Hard won and easily lost: The fragile status of leaders in gender-stereotype-incongruent occupations. *Psychological Science*, 21(11), 1640-1642.
- Brescoll, V. L., Dawson, E., & Uhlmann, E. L. (2010b). Supplementary Materials: "Hard-won and Easily Lost: The Fragile Status of Leaders in Gender Stereotype-Incongruent Occupations". Sage Publications. Retrieved from <http://pss.sagepub.com/content/by/supplemental-data>.
- Bressler, R. B., & Lacy, A. W. (1980). An analysis of the relative job progression of the perceptibly physically handicapped. *Academy of Management Journal*, 23(1), 132-143.
- Brewster, S., Clifford, A., Duncan, N. Emira, M. Taysum, A., Williams-Findlay B. (2015). *Understanding leadership from a disability perspective*. Retrieved from <https://wlv.openrepository.com/wlv/bitstream/2436/601215/2/BELMAS+postconf+pub+a>

s+submitted.docx.

Brohan, E., & Thornicroft, G. (2010). Stigma and discrimination of mental health problems:

Workplace implications. *Occupational Medicine*, 60(6), 414-415.

Bureau of Labor Statistics. (2010). *Persons with a disability: Labor force characteristics – 2009*

(News Release). Retrieved from

https://www.bls.gov/news.release/archives/disabl_08252010.pdf.

Bureau of Labor Statistics. (2015a). *National Longitudinal Survey of Youth 1997 cohort, 1997-*

2013 (rounds 1-16). Columbus, OH: The National Opinion Research Center, the

University of Chicago and distributed by the Center for Human Resource Research, The

Ohio State University.

Bureau of Labor Statistics. (2015b). *Occupation and Industry Codes in the American Time Use*

Survey. Retrieved from <https://www.bls.gov/tus/iocodes.htm>.

Bureau of Labor Statistics. (n.d.). *National Longitudinal Survey of Youth, 1997: Sampling*

Design and Screening Process. Retrieved from

<https://www.nlsinfo.org/content/cohorts/nlsy97/intro-to-the-sample/sample-design-screening-process#screening>.

Burt, R. S. (1992). *Structural Holes*. Cambridge, MA: Harvard University Press.

Caldwell, J. (2010). Leadership development of individuals with developmental disabilities in

the self-advocacy movement. *Journal of Intellectual Disability Research*, 54(11), 1004-

1014.

Caldwell, J. (2011). Disability identity of leaders in the self-advocacy movement. *Intellectual*

and Developmental Disabilities, 49(5), 315-326.

- Carter, E. W., Swedeen, B., Walter, M. J., Moss, C. K., & Hsin, C. T. (2011). Perspectives of young adults with disabilities on leadership. *Career Development for Exceptional Individuals, 34*(1), 57-67.
- Chandler, D. E., Kram, K. E., & Yip, J. (2011). An ecological systems perspective on mentoring at work: A review and future prospects. *Academy of Management Annals, 5*(1), 519-570.
- Charlton, J. I. (1998). *Nothing about us without us: Disability oppression and empowerment*. Berkeley, CA: University of California Press.
- Charmaz, K. (2006). *Constructing grounded theory*. Thousand Oaks, California: Sage Publications.
- Clair, J. A., Beatty, J. E., & MacLean, T. L. (2005). Out of sight but not out of mind: Managing invisible social identities in the workplace. *Academy of Management Review, 30*(1), 78-95.
- Cloutier, E., Grondin, C., & Lévesque, A. (2018). Canadian survey on disability, 2017: Concepts and methods guide. Retrieved from Statistics Canada: Catalogue no. 89-654-X2018001.
- Colella, A. J., & Bruyère, S. M. (2011). Disability and employment: New directions for industrial and organizational psychology. In S. Zedeck (Ed.), *APA Handbook of Industrial and Organizational Psychology, Volume 1: Building and Developing the Organization* (473-503). Washington: American Psychological Association.
- Colella, A. J., & Stone, D. L. (2005). Workplace discrimination towards persons with disabilities: A call for some new research directions. In R. L. Dipboye & A. J. Colella (Eds.), *Discrimination at Work: The Psychological and Organizational Bases* (227-253). New Jersey: Lawrence Erlbaum Associates, Inc.

- Colella, A. J., & Varma, A. (1999). Disability-job fit stereotypes and the evaluation of persons with disabilities at work. *Journal of Occupational Rehabilitation, 9*(2), 79-95.
- Colella, A. J., DeNisi, A. S., & Varma, A. (1998). The impact of ratee's disability on performance judgments and choice as partner: The role of disability-job fit stereotypes and interdependence of rewards. *Journal of Applied Psychology, 83*(1), 102-111.
- Cooper, W. H., & Richardson, A. J. (1986). Unfair comparisons. *Journal of Applied Psychology, 71*(2), 179-184.
- Cornelissen, J. P. (2002). On the 'organizational identity' metaphor. *British Journal of Management, 13*(3), 259-268.
- Cornelissen, J. P. (2004). What are we playing at? Theatre, organization, and the use of metaphor. *Organization Studies, 25*(5), 705-726.
- Cornelissen, J. P. (2005). Beyond compare: Metaphor in organization theory. *Academy of Management Review, 30*(4), 751-764.
- Craig, A. (2012). Resilience in people with physical disabilities. In P. Kennedy (Ed.), *The Oxford Handbook of Rehabilitation Psychology*. Oxford University Press
- Crenshaw, K. (1991). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review, 43*(6), 1241-1299.
- Cuddy, A. J., Fiske, S. T., & Glick, P. (2008). Warmth and competence as universal dimensions of social perception: The stereotype content model and the BIAS map. *Advances in Experimental Social Psychology, 40*(1), 61-149.
- Daft, R. L., & Wiginton, J. C. (1979). Language and organization. *Academy of Management Review, 4*(2), 179-191.
- Davidson, D. (1978). What metaphors mean. *Critical Inquiry, 5*(1), 31-47.

- Deal, M. (2003). Disabled people's attitudes toward other impairment groups: A hierarchy of impairments. *Disability & Society, 18*(7), 897-910.
- DeLeire, T. (2000). The wage and employment effects of the Americans with Disabilities Act. *Journal of Human Resources, 35*(4), 693-715.
- Denz-Penhey, H., & Murdoch, C. (2008). Personal resiliency: Serious diagnosis and prognosis with unexpected quality outcomes. *Qualitative Health Research, 18*(3), 391-404.
- Disability Rights Commission. (2006). *Statistics: Representations of disable people in senior positions*. London, U.K.: Disability Rights Commission.
- Dwertmann, D. J. (2016). Management research on disabilities: Examining methodological challenges and possible solutions. *The International Journal of Human Resource Management, 27*(14), 1477-1509.
- Dwertmann, D. J., & Boehm, S. A. (2016). Status matters: The asymmetric effects of supervisor–subordinate disability incongruence and climate for inclusion. *Academy of Management Journal, 59*(1), 44-64.
- Eagly, A. H. (2016). When passionate advocates meet research on diversity, does the honest broker stand a chance? *Journal of Social Issues, 72*(1), 199-222.
- Eagly, A. H., & Carli, L. L. (2007). *Through the Labyrinth*. Boston, Massachusetts: Harvard Business School Press.
- Epitropaki, O., & Martin, R. (2005). From ideal to real: A longitudinal study of the role of implicit leadership theories on leader-member exchanges and employee outcomes. *Journal of Applied Psychology, 90*(4), 659-676.
- Equal Employment Opportunity Commission (EEOC). (2008). *Improving the Participation Rate of People with Targeted Disabilities in the Federal Work Force*. Washington, D.C.: U.S.

- Equal Employment Opportunity Commission, Office of Federal Operations.
- Ferris, G. R., Buckley, M. R., & Allen, G. M. (1992). Promotion systems in organizations. *Human Resource Planning, 15*(3), 47-68.
- Fichten, C. S., & Amsel, R. (1986). Trait attributions about college students with a physical disability: Circumplex analyses and methodological issues. *Journal of Applied Social Psychology, 16*(5), 410-427.
- Fiske, S. T., & Neuberg, S. L. (1990). A continuum of impression formation, from category-based to individuating processes: Influences of information and motivation on attention and interpretation. *Advances in Experimental Social Psychology, 23*(1), 1-74.
- Fiske, S. T., Cuddy, A. J., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology, 82*(6), 878-902.
- Fiske, S. T., Lin, M., & Neuberg, S. (1999). The continuum model. In S. Chaiken & Y. Trope (Eds.), *Dual-Process Theories in Social Psychology* (231-254). New York, NY: The Guilford Press.
- Fletcher, D., & Sarkar, M. (2012). A grounded theory of psychological resilience in olympic champions. *Psychology of Sport & Exercise, 13*(5), 669-678.
- Fogg, N. P., Harrington, P. E., & McMahon, B. T. (2010). The impact of the Great Recession upon the unemployment of Americans with disabilities. *Journal of Vocational Rehabilitation, 33*(3), 193-202.
- Foster-Fishman, P., Jimenez, T., Valenti, M., & Kelley, T. (2007). Building the next generation of leaders in the disabilities movement. *Disability & Society, 22*(4), 341-356.

- Gergen, K. J. (1973). Social psychology as history. *Journal of Personality and Social Psychology*, 26(2), 309-320.
- Gersick, C. J., Dutton, J. E., & Bartunek, J. M. (2000). Learning from academia: The importance of relationships in professional life. *Academy of Management Journal*, 43(6), 1026-1044.
- Glaser, B. G., & Strauss, A. L. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. New York, NY: Aldine Publishing Company.
- Gorman, C. D., Clover, W. H., & Doherty, M. E. (1978). Can we learn anything about interviewing real people from “interviews” of paper people? Two studies of the external validity of a paradigm. *Organizational Behavior and Human Performance*, 22(2), 165-192.
- Granovetter, M. (1973). The strength of weak ties. *American Journal of Sociology*, 78(6), 1360-1380.
- Greenhaus, J. H., & Parasuraman, S. (1993). Job performance attributions and career advancement prospects: An examination of gender and race effects. *Organizational Behavior and Human Decision Processes*, 55(2), 273-297.
- Greenhaus, J. H., Parasuraman, S., & Wormley, W. M. (1990). Effects of race on organizational experiences, job performance evaluations, and career outcomes. *Academy of Management Journal*, 33(1), 64-86.
- Grenwelge, C., & Zhang, D. (2012). The effects of the Texas Youth Leadership Forum summer training on the self-advocacy abilities of high school students with disabilities. *Journal of Disability Policy Studies*, 24(3), 158-169.

- Grenwelge, C., Zhang, D., & Landmark, L. (2010). Comprehensive leadership training for youth with disabilities: A new and improved youth leadership forum model. *Teaching Exceptional Children, 42*(4), 62-68.
- Gunderson, M., & Lee, B. Y. (2016). Pay discrimination against persons with disabilities: Canadian evidence from PALS. *The International Journal of Human Resource Management, 27*(14), 1531-1549.
- Harpur, P., Connolly, U., & Blanck, P. (2017). Socially constructed hierarchies of impairments: The case of Australian and Irish workers' access to compensation for injuries. *Journal of Occupational Rehabilitation (online)*. <http://doi.org/10.1007/s10926-017-9745-7>.
- Hayes, A. F. (2015). An index and test of linear moderated mediation. *Multivariate behavioral research, 50*(1), 1-22.
- Hebl, M. R., & Kleck, R. E. (2002). Acknowledging one's stigma in the interview setting: Effective strategy or liability? *Journal of Applied Social Psychology, 32*(2), 223-249.
- Hebl, M. R., & Skorinko, J. L. (2005). Acknowledging one's physical disability in the interview: Does "when" make a difference? *Journal of Applied Social Psychology, 35*(12), 2477-2492.
- 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.
- Hernandez, B., McDonald, K., Divilbiss, M., Horin, E., Velcoff, J., & Donoso, O. (2008). Reflections from employers on the disabled workforce: Focus groups with healthcare, hospitality and retail administrators. *Employee Responsibilities and Rights Journal, 20*(3), 157-164.

- Hosoda, M., Stone-Romero, E. F., & Coats, G. (2003). The effects of physical attractiveness on job-related outcomes: A meta-analysis of experimental studies. *Personnel Psychology*, 56(2), 431-462.
- Hunt, S. D., & Menon, A. (1995). Metaphors and competitive advantage: Evaluating the use of metaphors in theories of competitive strategy. *Journal of Business Research*, 33(2), 81-90.
- Ibarra, H. (1995). Race, opportunity, and diversity of social circles in managerial networks. *Academy of Management Journal*, 38(3), 673-703.
- Inns, D. (2002). Metaphor in the literature of organizational analysis: A preliminary taxonomy and a glimpse at a humanities-based perspective. *Organization*, 9(2), 305-330.
- Ishida, H., Su, K. H., & Spilerman, S. (2002). Models of career advancement in organizations. *European Sociological Review*, 18(2), 179-198.
- Jackson, N., Betsalel, K., & Hellingsworth, K. (n.d.). Restoring youth leadership and advocacy in disability communities. *Journal of Undergraduate Public Service Projects* 1(1), 1-12.
- Jammaers, E., Zanoni, P., & Hardonk, S. (2016). Constructing positive identities in ableist workplaces: Disabled employees' discursive practices engaging with the discourse of lower productivity. *Human Relations*, 69(6), 1365-1386.
- Jones, E. E., Farina, A., Hastorf, A. H., Markus, H., Miller, D. T., Scott, R. A., & French, R. S. (1984). *Social Stigma: The Psychology of Marked Relationships*. New York, NY: W. H. Freeman and Company.
- Jones, G. E. (1997). Advancement opportunity issues for persons with disabilities. *Human Resource Management Review*, 7(1), 55-76.

- Kang, S. K., DeCelles, K. A., Tilcsik, A., & Jun, S. (2016). Whitened resumes: Race and self-presentation in the labor market. *Administrative Science Quarterly*, 61(3), 469-502.
- Kaye, H. S. (2010). The impact of the 2007–09 recession on workers with disabilities. *Monthly Labor Review*, 133(10), 19-30.
- Kidd, M. P., Sloane, P. J., & Ferko, I. (2000). Disability and the labour market: An analysis of British males. *Journal of Health Economics*, 19(6), 961-981.
- King, Z. (2004). Career self-management: Its nature, causes and consequences. *Journal of Vocational Behavior*, 65(1), 112-133.
- Koch, A. J., D'Mello, S. D., & Sackett, P. R. (2015). A meta-analysis of gender stereotypes and bias in experimental simulations of employment decision making. *Journal of Applied Psychology*, 100(1), 128-161.
- Kruse, D., & Schur, L. (2003). Employment of people with disabilities following the ADA. *Industrial Relations: A Journal of Economy and Society*, 42(1), 31-66.
- Kulkarni, M. (2012). Social networks and career advancement of people with disabilities. *Human Resource Development Review*, 11(2), 138-155.
- Kulkarni, M. (2016). Organizational career development initiatives for employees with a disability. *The International Journal of Human Resource Management*, 27(14), 1662-1679.
- Kulkarni, M., & Gopakumar, K. V. (2014). Career management strategies of people with disabilities. *Human Resource Management*, 53(3), 445-466.
- Kulkarni, M., & Lengnick-Hall, M. L. (2014). Obstacles to success in the workplace for people with disabilities: A review and research agenda. *Human Resource Development Review*, 13(2), 158-180.

- Kulkarni, M., Gopakumar, K. V., & Patel, S. (2018). How effective are disability sensitization workshops? *Employee Relations*, 40(1), 58-74.
- Landau, J. (1995). The relationship of race and gender to managers' ratings of promotion potential. *Journal of Organizational Behavior*, 16(4), 391-400.
- Leasher, M. K., Miller, C. E., & Gooden, M. P. (2009). Rater effects and attitudinal barriers affecting people with disabilities in personnel selection. *Journal of Applied Social Psychology*, 39(9), 2236-2274.
- Lengnick-Hall, M. L., Gaunt, P. M., & Kulkarni, M. (2008). Overlooked and underutilized: People with disabilities are an untapped human resource. *Human Resource Management*, 47(2), 255-273.
- Lin, N. (1990). Social resources and social mobility: A structural theory of status attainment. In R. L. Breiger (Ed.), *Social Mobility and Social Structure* (pp. 247-171). New York, NY: Cambridge University Press
- Lin, N. (1999). Social networks and social attainment. *Annual Review of Sociology*, 25(1), 467-487.
- Lin, N., & Dumin, M. (1986). Access to occupations through social ties. *Social Networks*, 8(4), 365-385.
- Luria, G., Kalish, Y., & Weinstein, M. (2014). Learning disability and leadership: Becoming an effective leader. *Journal of Organizational Behavior*, 35(6), 747-761.
- Lyons, B. J., Martinez, L. R., Ruggs, E. N., Hebl, M. R., Ryan, A. M., O'Brien, K. R., & Roebuck, A. (2018). To say or not to say: Different strategies of acknowledging a visible disability. *Journal of Management*, 44(5), 1980-2007.

- Lyons, B. J., Volpone, S. D., Wessel, J. L., & Alonso, N. M. (2017). Disclosing a disability: Do strategy type and onset controllability make a difference? *Journal of Applied Psychology, 102*(9), 1375.
- Majiet, S., & Africa, A. (2015). Women with disabilities in leadership: The challenges of patriarchy. *Agenda, 29*(2), 101-111.
- Mann, D. R., & Honeycutt, T. (2016). Understanding the disability dynamics of youth: Health condition and limitation changes for youth and their influence on longitudinal survey attrition. *Demography, 53*(3), 749-776.
- Mann, D. R., & Honeycutt, T. C. (2014). Is timing everything? Disability onset of youth and their outcomes as young adults. *Journal of Disability Policy Studies, 25*(2), 117-129.
- Marchioro, C. A. (2000). *The effect of leader disability on leadership perceptions* (Unpublished doctoral dissertation). University of Akron, Ohio.
- Marinescu, L. G. (2007). Integrated approach for managing health risks at work—The role of occupational health nurses. *Business and Leadership, 55*(2), 75-87.
- McColl, M. A., & Jongbloed, L. (2006). *Disability and Social Policy in Canada*. Concord, Ontario: Captus University Publication.
- McCracken, G. (1988). *The Long Interview*. Newbury Park, California: Sage Publications.
- McGuire, C., Kristman, V. L., Shaw, W., Williams-Whitt, K., Reguly, P., & Soklaridis, S. (2015). Supervisor autonomy and considerate leadership style are associated with supervisors' likelihood to accommodate back injured workers. *Journal of Occupational Rehabilitation, 25*(3), 589-598.
- McMahon, B. T., & Shaw, L. R. (2005). Workplace discrimination and disability. *Journal of Vocational Rehabilitation, 23*(3), 137-143.

- Meindl, J. R., Ehrlich, S. B., & Dukerich, J. M. (1985). The romance of leadership. *Administrative Science Quarterly*, 30(1), 78-102.
- Meyer, B. D., & Mok, W. K. (2019). Disability, earnings, income and consumption. *Journal of Public Economics*, 171, 51-69.
- Meyerson, L. (1988). The social psychology of physical disability: 1948 and 1988. *Journal of Social Issues*, 44(1), 173-188.
- Miles, M. B., & Huberman, M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook*. Thousand Oaks, California: Sage Publications.
- Mitra, S., & Kruse, D. (2016). Are workers with disabilities more likely to be displaced? *The International Journal of Human Resource Management*, 27(14), 1550-1579.
- Moore, W., Pedlow, S., Krishnamurty, P., & Wolter, K. (2000). *National Longitudinal Survey of Youth 1997 (NLSY97): Technical sampling report*. Chicago, IL: National Opinion Research Center.
- Morgan, G. (1980). Paradigms, metaphors, and puzzle solving in organization theory. *Administrative Science Quarterly*, 25(4), 605-622.
- Morgan, G. (1986). *Images of Organization*. Beverly Hills: Sage Publications.
- Morrow, P. C., McElroy, J. C., Stamper, B. G., & Wilson, M. A. (1990). The effects of physical attractiveness and other demographic characteristics on promotion decisions. *Journal of Management*, 16(4), 723-736.
- Murphy, K. R., Herr, B. M., Lockhart, M. C., & Maguire, E. (1986). Evaluating the performance of paper people. *Journal of Applied Psychology*, 71(4), 654-661.

- Neubert, M. J. (1999). Too much of a good thing or the more the merrier? Exploring the dispersion and gender composition of informal leadership in manufacturing teams. *Small Group Research, 30*(5), 635-646.
- Neubert, M. J., & Taggar, S. (2004). Pathways to informal leadership: The moderating role of gender on the relationship of individual differences and team member network centrality to informal leadership emergence. *The Leadership Quarterly, 15*(2), 175-194.
- Noonan, B. M., Gallor, S. M., Hensler-McGinnis, N. F., Fassinger, R. E., Wang, S., & Goodman, J. (2004). Challenge and success: A Qualitative study of the career development of highly achieving women with physical and sensory disabilities. *Journal of Counseling Psychology, 51*(1), 68-80.
- Office for Disability Issues. (2003). *Defining disability: A complex issue* (Report No. RH37-4/3-2003). Gatineau, Quebec: Human Resources Development Canada.
- Organ, D. W., Podsakoff, P. M., & MacKenzie, S. B. (2006). *Organizational Citizenship Behavior: Its Nature, Antecedents, and Consequences*. Thousand Oaks, CA: Sage Publications.
- Oswick, C., Keenoy, T., & Grant, D. (2002). Metaphor and analogical reasoning in organization theory: Beyond orthodoxy. *Academy of Management Review, 27*(2), 294-303.
- Paulhus, D. L. (1991). Measurement and control of response bias. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of Personality and Social Psychological Attitudes, Vol. 1* (17-59). San Diego, CA: Academic Press.
- Perlin, M. L. (1993). On sanism. *SMU Law Review, 46*(2), 373-407.
- Posner, B. Z., & Kouzes, J. M. (1993). Psychometric properties of the leadership practices inventory-updated. *Educational and Psychological Measurement, 53*(1), 191-199.

- Potgieter, I. L., Coetzee, M., & Ximba, T. (2017). Exploring career advancement challenges people with disabilities are facing in the South African work context. *SA Journal of Human Resource Management, 15*(1), 1-11.
- Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research, 42*(1), 185-227.
- Reilly, N. P., Bocketti, S. P., Maser, S. A., & Wennet, C. L. (2006). Benchmarks affect perceptions of prior disability in a structured interview. *Journal of Business and Psychology, 20*(4), 489-500.
- Ren, L. R., Paetzold, R. L., & Colella, A. (2008). A meta-analysis of experimental studies on the effects of disability on human resource judgments. *Human Resource Management Review, 18*(3), 191-203.
- Robert, P. M., & Harlan, S. L. (2006). Mechanisms of disability discrimination in large bureaucratic organizations: Ascriptive inequalities in the workplace. *The Sociological Quarterly, 47*(4), 599-630.
- Roessler, R., Hennessey, M., Neath, J., Rumrill, P., & Nissen, S. (2011). The employment discrimination experiences of adults with multiple sclerosis. *Journal of Rehabilitation, 77*(1), 20-30.
- Rohleder, M., Scholz, H., & Wilkens, M. (2011). Survivorship bias and mutual fund performance: Relevance, significance, and methodical differences. *Review of Finance, 15*(2), 441-474.
- Roulstone, A., & Barnes, C. (2005). *Working Futures? Disabled People, Policy and Social Inclusion*. Bristol, UK: Policy Press.

- Roulstone, A., & Williams, J. (2014). Being disabled, being a manager: 'glass partitions' and conditional identities in the contemporary workplace. *Disability & Society*, 29(1), 16-29.
- Rouso, H. (2013). *Don't Call Me Inspirational: A Disabled Feminist Talks Back*. Philadelphia: Temple University Press.
- Rovner, L. L. (2004). Disability, Equality and Identity. *Alabama Law Review*, 55(4), 1043-1099.
- Sayce, L. (2010). *Doing seniority differently: A study of high fliers living with ill-health, injury or disability, final report*. London, United Kingdom: RADAR.
- Schur, L., Colella, A., & Adya, M. (2016). Introduction to special issue on people with disabilities in the workplace. *The International Journal of Human Resource Management* 27(14), 1471-1476.
- Schur, L., Han, K., Kim, A., Ameri, M., Blanck, P., Kruse, D. (2017). Disability at work: A look back and forward. *Journal of Occupational Rehabilitation*.
<https://doi.org/10.1007/s10926-0179739-5>
- Schur, L., Kruse, D., & Blanck, P. (2013). *People with disabilities: Sidelined or mainstreamed?* Cambridge: Cambridge University Press.
- Schur, L., Kruse, D., Blasi, J., & Blanck, P. (2009). Is disability disabling in all workplaces? Workplace disparities and corporate culture. *Industrial Relations: A Journal of Economy and Society*, 48(3), 381-410.
- Schur, L., Nishii, L., Adya, M., Kruse, D., Bruyère, S. M., & Blanck, P. (2014). Accommodating employees with and without disabilities. *Human Resource Management*, 53(4), 593-621.
- Scior, K. (2011). Public awareness, attitudes and beliefs regarding intellectual disability: A systematic review. *Research in Developmental Disabilities*, 32(6), 2164-2182.

- Scott, J. E. (1986). An updated longitudinal content analysis of sex references in mass circulation magazines. *The Journal of Sex Research*, 22(3), 385-392.
- Seibert, S. E., Kraimer, M. L., & Liden, R. C. (2001). A social capital theory of career success. *Academy of Management Journal*, 44(2), 219-237.
- Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*. Boston, MA, US: Houghton, Mifflin and Company.
- Shafer, M. S., Rice, M. L., Metzler, H. M., & Haring, M. (1989). A survey of nondisabled employees' attitudes toward supported employees with mental retardation. *Journal of the Association for Persons with Severe Handicaps*, 14(2), 137-146.
- Shah, S. (2005). *Career Success of Disabled High-flyers*. London, UK: Jessica Kingsley Publishers.
- Shah, S., Arnold, J., & Travers, C. (2004). The impact of childhood on disabled professionals. *Children & Society*, 18(3), 194-206.
- Shah, S., Travers, C., & Arnold, J. (2004). Disabled and successful: education in the life stories of disabled high achievers. *Journal of Research in Special Educational Needs*, 4(3), 122-132.
- Shakespeare, T. (2006). The social model of disability. In L. J. Davis (Ed.). *The Disability Studies Reader, Second Edition* (197-204). New York, NY: Routledge.
- Smith, C. A., Organ, D. W., & Near, J. P. (1983). Organizational citizenship behavior: Its nature and antecedents. *Journal of Applied Psychology*, 68(4), 653-663.

- Sobel, M. E. (1982). Asymptotic intervals for indirect effects in structural equations models. In S. Leinhardt (Ed.), *Sociological Methodology 1982* (pp.290-312). San Francisco, CA: Jossey-Bass.
- Soyland, A. J. (1994). *Psychology as Metaphor*. London, UK: Sage.
- Spradley, J. P. (1979). *The Ethnographic Interview*. New York, NY: Holt, Rinehart and Winston.
- Stapleton, D. C., & Burkhauser, R. V. (2003). *The decline and employment of people with disabilities: A policy puzzle*. Kalamazoo, MI: W. E. Upjohn Institute for Employment Research.
- Stevens, G. R. (2002). Employers' perceptions and practice in the employability of disabled people: a survey of companies in south east UK. *Disability & Society, 17*(7), 779-796.
- Stone, D. L., & Colella, A. J. (1996). A model of factors affecting the treatment of disabled individuals in organizations. *Academy of Management Review, 21*(2), 352-401.
- Strauss, C., Taylor, B. L., Gu, J., Kuyken, W., Baer, R., Jones, F., & Cavanagh, K. (2016). What is compassion and how can we measure it? A review of definitions and measures. *Clinical Psychology Review, 47*, 15-27.
- Test, D. W., Fowler, C. H., Wood, W. M., Brewer, D. M., & Eddy, S. (2005). A conceptual framework of self-advocacy for students with disabilities. *Remedial and Special Education, 26*(1), 43-54.
- Tharenou, P. (1997). Explanations of managerial career advancement. *Australian Psychologist, 32*(1), 19-28.
- Thomas, C. (1999). *Female Forms: Experiencing and Understanding Disability*. Philadelphia, PA: Open University Press.

- Tourangeau, R., & Sternberg, R. J. (1981). Aptness in metaphor. *Cognitive Psychology*, *13*(1), 27-55.
- Tringo, J. L. (1970). The hierarchy of preference toward disability groups. *The Journal of Special Education*, *4*(3), 295-306.
- Tsoukas, H. (1991). The missing link: A transformational view of metaphors in organizational science. *Academy of Management Review*, *16*(3), 566-585.
- Turcotte, M. (2014). *Persons with disabilities and employment: Insights on Canadian Society*. Retrieved from Statistics Canada: Catalogue no. 75-006-X.
- Turner, R. H. (1960). Sponsored and contest mobility and the school system. *American Sociological Review*, *25*(6), 855-867.
- United Nations. (2006). *Convention on the rights of persons with disabilities*. New York, NY: United Nations.
- United Nations. (2017, January). *Convention on the Rights of Persons with Disabilities (CRPD)*. Retrieved from <https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html>.
- Von Korff, M., Crane, P., Lane, M., Miglioretti, D. L., Simon, G., Saunders, K., Stang, P., Brandenburg, N., & Kessler, R. (2005). Chronic spinal pain and physical-mental comorbidity in the United States: Results from the national comorbidity survey replication. *Pain*, *113*(3), 331-339.
- Von Schrader, S., Malzer, V., & Bruyère, S. M. (2014). Perspectives on disability disclosure: The importance of employer practices and workplace climate. *Employee Responsibilities and Rights Journal*, *26*(4), 237-255.

- Vornholt, K., Uitdewilligen, S., & Nijhuis, F. J. (2013). Factors affecting the acceptance of people with disabilities at work: A literature review. *Journal of Occupational Rehabilitation, 23*(4), 463-475.
- Weick, K. E. (1989). Theory construction as disciplined imagination. *Academy of Management Review, 14*(4), 516-531.
- Wilson-Kovacs, D., Ryan, M. K., Haslam, S. A., & Rabinovich, A. (2008). 'Just because you can get a wheelchair in the building doesn't necessarily mean that you can still participate': Barriers to the career advancement of disabled professionals. *Disability & Society, 23*(7), 705-717.
- World Health Organization (WHO). (2011). *World report on disabilities*. Geneva: World Health Organization.
- Yap, M., & Konrad, A. M. (2009). Gender and racial differentials in promotions: Is there a sticky floor, a mid-level bottleneck, or a glass ceiling? *Relations Industrielles/Industrial Relations, 64*(4), 593-619.
- Yelin, E. H., & Trupin, L. (2003). Disability and the characteristics of employment. *Monthly Labor Review 126*(5), 20-31.
- Zollers, N. J., and Yu, Y. H. (1998). Leadership in an able-bodied social context: One principal's impact on an inclusive urban school. *Disability & Society, 13*(5), 743-761.

Appendix A

General Research Ethics Board Approval Letter (Chapter 2)



July 26, 2017

Mr. Daniel Samosh
Ph.D. Candidate
Smith School of Business
Queen's University
Goodes Hall
143 Union Street
Kingston, ON, K7L 3N6

GREB Ref #: GBUS-546-17; TRAQ # 6021374
Title: "GBUS-546-17 Leadership and Disability"

Dear Mr. Samosh:

The General Research Ethics Board (GREB), by means of a delegated board review, has cleared your proposal entitled "GBUS-546-17 Leadership and Disability" for ethical compliance with the Tri-Council Guidelines (TCPS 2 (2014)) and Queen's ethics policies. In accordance with the Tri-Council Guidelines (Article 6.14) and Standard Operating Procedures (405.001), your project has been cleared for one year. You are reminded of your obligation to submit an annual renewal form prior to the annual renewal due date (access this form at <http://www.queensu.ca/traq/signon.html>; click on "Events"; under "Create New Event" click on "General Research Ethics Board Annual Renewal/Closure Form for Cleared Studies"). Please note that when your research project is completed, you need to submit an Annual Renewal/Closure Form in Romeo/traq indicating that the project is 'completed' so that the file can be closed. This should be submitted at the time of completion; there is no need to wait until the annual renewal due date.

You are reminded of your obligation to advise the GREB of any adverse event(s) that occur during this one year period (access this form at <http://www.queensu.ca/traq/signon.html>; click on "Events"; under "Create New Event" click on "General Research Ethics Board Adverse Event Form"). An adverse event includes, but is not limited to, a complaint, a change or unexpected event that alters the level of risk for the researcher or participants or situation that requires a substantial change in approach to a participant(s). You are also advised that all adverse events must be reported to the GREB within 48 hours.

You are also reminded that all changes that might affect human participants must be cleared by the GREB. For example, you must report changes to the level of risk, applicant characteristics, and implementation of new procedures. To submit an amendment form, access the application by at <http://www.queensu.ca/traq/signon.html>; click on "Events"; under "Create New Event" click on "General Research Ethics Board Request for the Amendment of Approved Studies". Once submitted, these changes will automatically be sent to the Ethics Coordinator, Ms. Gail Irving, at the Office of Research Services for further review and clearance by the GREB or GREB Chair.

On behalf of the General Research Ethics Board, I wish you continued success in your research.

Sincerely,

A handwritten signature in black ink that reads "Joan Stevenson".

Joan Stevenson, Ph.D.
Interim Chair
General Research Ethics Board

c: Dr. William Cooper, Supervisor
Dr. Matthias Spitzmuller, Collaborator
Dr. Pamela Murphy, Chair, Unit REB
Mrs. Nancy Chase, Dept. Admin.

Appendix B

Disability-Related Challenges (Chapter 2)

Similar to the barriers described in prior research, disability-related challenges are characterized at the attitudinal, systemic, and individual-level herein. These categories are not mutually exclusive. For instance, certain attitudinal challenges, such as assumptions about competence or ability, could be examined at the societal-level and subsequently referred to as systemic. Given that these categories intersect, their purpose is for organization rather than the demarcation of fixed boundaries. Importantly, although many participants experienced a range of disability-related challenges, some expressed that they had encountered few obstacles to career advancement and leadership in the workplace. These accounts contrast much of the literature which highlights limiting barriers (e.g., Wilson-Kovacs et al., 2008).

Attitudinal Challenges

Attitudinal challenges, such as stereotyping and discrimination, are a common focus of research on disability and employment (e.g., Colella & Bruyère, 2011). Considering the leaders from this study, many participants experienced attitudinal barriers throughout their careers. However, some participants expressed that these challenges were most prevalent outside the workplace.

Assumptions about Competence or Ability

Negative assumptions about a leader's competence or ability frequently impacted participants' work. As P2 (professor) described, "people use a heuristic that if I'm disabled I'm also not intelligent". Similarly, P19 (mayor and other roles) explained, "you have some people who don't look at skillset, instead assuming that because disability is involved, we'll be limited". Such negative assumptions manifested early in some participants' lives, influencing their

perceptions of obtainable careers. In certain cases, experts, such as recruiters and health care professionals, conveyed negative assumptions to participants. Experts told these participants to limit the scope of their job search, choose a different career path, or stop working altogether.

Obstacles During Hiring and Application Processes

While actively pursuing work, challenges persisted for several participants. Leaders described interviews being booked at physically inaccessible locations, being asked to prove elementary abilities during interviews, and receiving kind remarks from interviewers without call backs. P5 (senior executive) received a job offer from the federal government that was subsequently rescinded. Later, when this participant entered into a competitive application process for that same position, they lost to “somebody who was at a level below me, a white, able-bodied male, for a job which I was eminently qualified”. P5 later learned that the individual in charge of hiring “thought that maybe I had only been promoted because of my disability and he wasn't really sure if I was going to be up to the job”. Similarly, co-workers of P14 (executive and other roles) made it explicit that they believed he had been promoted to fill a “quota of managers with disabilities”, because his disability was visible.

Social “Segregation”

Some participants experienced a form of social “segregation” at work, especially during informal work events. These leaders explained that colleagues often chose not to invite them to events due to accessibility concerns, rather than choosing an accessible venue or asking the participant about what they required. This practice excluded participants from networking opportunities that could have benefited their advancement and was most common earlier in participants’ careers.

Systemic Challenges

Many of the challenges that participants described reside at the system-level. This category of challenges has been the focus of past research, including physical, social, environmental, educational, and technological elements (Braddock & Bachelder, 1994). Interestingly, the first systemic challenge I will examine includes the concept of “low representation” which to my knowledge has not yet been considered in the literature on disability and leadership. I turn to this challenges and others at the system-level next.

The Precarity of Leadership and Low Representation

Beyond attitudinal challenges, some participants encountered system-level obstacles to career advancement. P16 (manager) recounted a story about one of his role models in the non-profit sector. Due to the limited availability of senior leadership opportunities in this sector as well as high turnover, his role model had to return to front-line work after their tenure as a CEO. For P16, this was a cautionary narrative on the precarity of leadership that led them to question whether he should seek out higher-level leadership positions:

If you look at the Canadian Hearing Society, they did have a Deaf CEO. That person worked for about five years as a CEO, finished their term, and they were let go. That's what happens with CEOs. They were let go and he could not find another equivalent position. Last I heard he'd gone back to front line work. So there is someone who made it up to the level of CEO, lost that position, and was never able to return to it in a different environment. That's something that I think about a lot, as a person who is Deaf. At management levels, you have a lot of turnover and a lot of transition, and I think that's actually healthy. But then, I think that it causes a lot of pressure, especially if you need an accommodation to fill that role. I feel badly, because someone who I looked up to and

respected, who did apply to other positions, was never given that opportunity again. That has had a huge impact on my outlook.

In relation to precarity, the low representation of persons with disabilities in senior leadership roles was perceived as problematic by some participants. P5 (senior executive) explained that having one senior leader with a visible disability was not enough for an organization to build an environment where junior leaders with disabilities feel that they can advance, resulting in junior leaders opting out of competitions for senior-level roles:

People might count themselves out, they might not want to move up. You need a critical mass. Otherwise people think, “Oh well, [they are] the exception”. As opposed to thinking, “This just the way it is. We are an inclusive and diverse workplace, and of course, people with all kinds of disabilities are going to move into leadership positions”.

Inflexible and Discriminatory Organizational Policy

Systemic challenges presented in organizational policy as well. P3 (president and executive director) described a corporate policy that his employer nearly implemented in 1982. The aim of this policy was to terminate all employees with disabilities and it nearly ended this participant’s career:

The argument that was used to terminate us was that we were so much better off collecting a disability pension than a person that happens to be able-bodied and temporarily unemployed. That was the official corporate position that was taken.

Of course, this example comes from a time when there were few legislative controls to combat such discriminatory policy. Nonetheless, policy issues continued to influence participants more recently. For example, P7 (executive and consultant) explained that his employer required a certain level of French language proficiency as a prerequisite for management positions. He was

given the opportunity to access language training, but when he asked for accommodation his employer denied the request. Ultimately, P7 did attain the language prerequisite, but his advancement was considerably delayed due to this obstacle.

Inaccessible Technology

Some participants found that their employer's use of inaccessible technologies was an obstacle to completing their job requirements. For instance, P15's (manager and executive) employer implemented standardized software that was inaccessible for individuals with a visual impairment, making tasks that were previously simple for her to complete impossible without assistance:

Fifteen years ago, it was easier for me to do my work than it is today. As a manager and a leader, you're expected to sustain a really fast pace. But technological barriers have increased with standardization and enterprise-wide solutions, making it difficult for me to do my job.

Difficulty Accessing Employment Unrelated to Disability

Numerous leaders noted that hiring and career advancement obstacles were more prevalent in organizations that did not focus on accessibility, inclusion, or social services. Having worked as an accessibility consultant as well as a manager in the video game industry, P14 (executive and other roles) said, "if I were talking about something that was a little bit less specific to accessibility or inclusion, the disadvantages would start to pile up". These pressures caused some participants, such as P16 (manager), to remain in disability-related work. However, not all participants felt that they were trapped in disability-related workplaces. Many had chosen such work because it was what motivated them most and other participants who were engaged in fields unrelated to disability spoke highly of their employers.

Individual-Level Challenges

Challenges were not exclusively external to participants. The first individual-level challenge I will describe, self-limiting perceptions, have been considered in past research (Jones, 1997) and the second of these challenges, impairment-specific obstacles, are described as “impairment effects” in the social model of disability (Thomas, 1999). This final group of challenges was less frequently discussed by participants in comparison to attitudinal and systemic challenges.

Self-Limiting Perceptions

Some leaders grappled with negative self-perceptions, especially early in their careers. Immediately following his work injury, P4 (executive and other roles) did not seek employment, because he believed that no one would hire a carpenter with one-arm. Referring to this decision, he remarked, “I had my own prejudices!” Similarly, P2 (professor) reflected on their struggle with self-doubt. Comparing their own self-perceptions with the attitudes of others, they commented that they could never know whether they had advanced their career because of merit or adaptation. P2 felt that this questioned the legitimacy of their leadership which, at times, led them to procrastinate at work:

It’s really my perceptions that are more disabling than theirs. I think about the way I have accomplish things in life... people see I've accomplished a lot. And I might have, but I also carry with me the idea that I'll never know if I could have done it the legitimate way. I hate myself for it because it's like I'm delegitimizing my own success. I have my degrees on the wall, but my conundrum is my path. The government would say I got proper adaptation, or at least that's what my supervisor would tell me. But I still had

adaptation. And so, did I really earn the degree? Did I really get the leadership position the way someone else would get the leadership position?

Impairment-Specific Obstacles

Some leaders commented on workplace challenges that related directly to their impairments. Speaking about Tourette syndrome and obsessive compulsive disorder, P10 (manager and director) explained that these conditions can be highly distracting and harm productivity:

Imagine you're sitting in front of a TV and you flick from channel to channel as quickly as you can. That's what it is like in my brain all the time. It can be very, very distracting and frustrating. Whenever I am really tired, overworked, and stressed, I can't control the flashing anymore. I get distracted and it makes it very difficult to get anything done efficiently and well. On top of that, I also have obsessive thoughts and actions, so I have to try to block them out, learning to let things go and not let them impact me and focus on them over and over again. If I'm really, really exhausted, that's just a huge hindrance.

The Experience of Challenges Varied

The occurrence and influence of disability-related challenges varied widely between participants. For instance, although attitudinal challenges influenced P1's (business owner and manager) early career decisions, he never had "any problems with people" at work. The most influential obstacles that he encountered were primarily social and outside the workplace.

Similarly, P11 (manager) explained that barriers did not influence her work:

Most of the time, I live my life forgetting that I have a disability... I don't feel any disadvantage doing what I do, and we're speaking specifically about working and being a team leader. I do have the accommodations that I need, which are pretty straightforward.

The systems we use are accessible and I'm a really good computer user. I know how to troubleshoot when I run into difficulty. When I'm conducting my work activities, I don't even think about the fact that I'm a person who cannot see, because there are really no barriers to all the tasks that I do related to my vision disability.

Other leaders encountered persistent and detrimental workplace challenges. After informing P15 (manager and executive) that disability was not central to some leaders' career advancement, she commented on her personal experience:

You know what? I'd love to say that's the case, because in my head and in my view, that should be the case. But because I am so often confronted with accessibility barriers, they tend to take a bigger place than I would want them to take. I see myself as a person. The disability is not the most central thing in my life, but in a practical sense, there isn't a day that goes by that I won't face some kind of technology challenge. So, it starts to take a big place in your life.

Attributions of Disability

Obstacles were frequently explored in relation to observer attributions of a leader's disability, such as those described in the social stigma research of Jones and colleagues (1984). Participants expressed that the course, perceived severity, visibility, and origin of their impairments influenced their treatment at work. Discussing her progressive disability, P5 (senior executive) indicated that she had encountered more challenges later in her career. Although some have argued that leadership status can mitigate attitudinal barriers (e.g., Stone & Colella, 1996), this was not what was described:

I do believe that it was easier for me when I was younger and I was less disabled than I am now, physically. I think that people make the correlation that if your body is weak

then somehow you don't have what it takes to succeed at the most senior-level. I was very fortunate that most of the jobs that I have had in my career are because people talked me up and said, "Hey, I've got this thing coming up and I've been thinking that this might be a really good fit for you". I can't say with scientific certainty that there's a relation, but certainly as my disability progressed, there was less of that.

Similarly, P15 (manager and executive) noted that the perceived severity of her visual impairment made it difficult for her to change roles. Others' views of what she was capable of were a major obstacle to her accessing career opportunities:

Wanting to change positions has been a challenge, I have tended to stay in one position. For example, I have been in my current position for six years now. I would have perhaps wanted to change positions in the last two years, but it isn't easy. It isn't easy in general and it isn't easy when you have a disability. I would say that people, with some exceptions, tend to look at your disability first, and I don't have any problem saying that because I have lived through it... In general, looking for a position when you have a disability, in particular, what is seen as a seriously limiting disability, it's a challenge.

Visibility was also described as an important element of the attitudinal challenges that participants encountered. P12 (senior advisor), explained how she was treated differently when using a wheelchair in comparison to when she was walking:

And it really struck me hard how people are viewed in a wheelchair versus if they're walking. And I remember thinking, "Wow! Why is it so harsh? Why is there this judgement?" And, I think because I have muscular dystrophy, which means for me, I suffer pain and weakness every day, and unless I tell someone, they won't know I have muscular dystrophy so I'm treated differently than when I was in a wheelchair. Having

these experiences I know firsthand how some people treat you when you are in a wheelchair versus walking.

Having both a visible disability (cerebral palsy) and an invisible disability (dyslexia), P2 (professor) found that others' perceptions of their invisible disability were the most "damaging":

The stuff that's hidden is actually much harder for me to cope with... It's a heuristic, but initially when people see me, they think, "Oh, [they have] got physical disability, so [they] must not be all there". But then when they get to know me, they know that I am "all there". Then that doesn't become a problem. But when the hidden stuff comes out, that trips up how I've proven that I'm "all there".

Further, those participants with invisible disabilities who chose to "pass", or keep their disability concealed, expressed that they did not experience attitudinal challenges at work.

Observer perceptions of acquired and congenital disability impacted participants' work experiences as well. For example, P14 (executive and other roles) described an interaction with a senior-level executive, when the executive learned that his impairment is congenital. The executive remarked that this would influence his approach to management differently than an acquired disability. According to P14, this executive was trying explain that the experience of loss associated with acquired disability would apply to challenges that he would face as a manager, in an advantageous manner. However, for this executive, having a congenital disability meant that P14 would not benefit from that perspective:

Nobody was at work yet, and the head of human resources said to me—and I don't think she was trying to be rude—but she said to me, "Oh, hey, I notice that you use a wheelchair, so when was your accident?" When I explained to her that I wasn't paraplegic or quadriplegic and that I was born with cerebral palsy, I was surprised at what she said

next, which was, “Oh, okay. That’s different then”. And I said, “I’m sorry?” And she responded, “If you were able-bodied before, and then had a physical accident, you would perhaps see the world differently—knowing what it was like to have those abilities and losing them, as opposed to always having a disability. That type of perspective could impact your role as a manager here”. And I was really, really shocked that out of nowhere this sort of statement was being made, that I understood challenge or adversity differently simply because of having cerebral palsy versus being paraplegic, which was coming from somebody who was completely able-bodied.

Furthermore, P7 (executive and consultant) discussed how it is often more difficult for persons with congenital disabilities to advance into leadership positions in comparison to persons with acquired disabilities. He explained that many leaders acquire a disability after they have already entered a leadership position. In that case, the leader had already received the necessary credentials for leadership prior to disability, affording them access to the benefits of being a leader. However, when disability precedes leadership, as with congenital disability, more challenges will be encountered from an early age that can become barriers to leadership.

Intersectionality

Other dimensions of identity were highlighted by some leaders. P9 (executive) noted that she had to work especially hard through her career, as an immigrant, linguistic and visible minority, and woman in a predominately male field. For her, disability had “amplified” the need to work especially hard. P17 (manager and executive) illustrated how disability-related challenges were more pronounced for individuals from lower socioeconomic backgrounds, because of limited access to resources and opportunity:

...if you're raised in a very wealthy family, you've got top notch technology and access to education, whereas if you're living in or around poverty, you've got to deal with how to get funding and how to get access. You might be able to get funding for your equipment, but how do you get money to pay for your education then? You're less likely to be able to get a scholarship based on your marks because you didn't get all of the accommodations you needed in school, whatever the case may be.

Concluding Thoughts on Challenges

Disability-related challenges manifested in others' attitudes, systems, and at the individual-level. Of note is the uniqueness of each participants' story—the array of challenges that they described as well as the degree to which those challenges influenced their work varied significantly between participants. Challenges were confronted daily by some and yet they were virtually non-existent for others. Importantly, many participants' experiences were found somewhere between these two poles.

Appendix C

The Three Foundations of the Stool (Chapter 2)

The First Foundation: Career Self-Management Strategies

This pillar of the stool underscores the role of agency in participants' career development. Similar to findings from Kulkarni and Gopakumar (2014), participants from this study actively engaged in behaviours and attitudes that benefited their careers. Participants did not passively accept barriers as absolute. Instead, they challenged barriers or found alternate paths to achieve their goals. Importantly, the components of this first foundation were described by participants as functional strategies for any person aspiring to have a fulfilling career, irrespective of disability status.

Behaviours

Learning Communication Skills; Being a Self-Advocate

Leaders described the importance of learning communication skills. For P7 (executive and consultant) this meant becoming “articulate and diplomatic” and for P14 (executive and other roles) this meant discovering how he could use his “voice for good”. For many participants this included learning how to use humour to put others at ease. Communication skills were essential because participants often needed to speak up and be vocal about accessibility issues. In this regard, P15 (manager and executive) was a self-advocate at work. She explained how she would often visit the IT department in her workplace, with the aim of preventing the design of inaccessible software. During these interactions, P15 would offer to beta-test new technologies:

You have to explain, you have to speak up... you're constantly advocating for yourself.

It's fine, I don't mind it. I'm not shy, so I say what I think needs to be said in a

constructive manner because the approach I take is, look, I'll explain it to you, I'll work

with you so that you can understand and it's easier next time. In many cases, I've gone to people in IT, to people designing applications, and I've said, "You need somebody to test this before you actually make it available to everybody. I'm happy to do that, I'm happy to tell you whether it works or not. I will give you feedback so that maybe you can do something before you actually go live with it".

While advocating for disability-related issues, some participants strategically framed solutions as "change for the majority as opposed to the minority". This technique was used to increase accessibility for leaders in their own work and also as a broader advocacy strategy. Rather than taking a disability-specific lens, P19 (mayor and other roles) explained that everyone benefits from accessibility:

There's no question that over the years of my involvement in promoting rights for people with disabilities, that the argument is moving away from a disability focus and to pointing out how, whether it's putting a ramp to a building, or wider doorways in your home, all of this makes sense for everybody.

Proving Yourself; Giving it 150%

Due to encounters with attitudinal barriers (see Appendix B), many participants felt the need to prove themselves and work harder than their colleagues without disabilities. It was necessary for many participants to "give it 150%", otherwise they would not be recognized for their skills. Explaining this, P17 (manager and executive) said:

It's not just proving that you're just as good... You have to work harder to be better than, because if there is something that you're not good at, they automatically say, "Well, it's because she's blind". I'm not great at finance. "Oh, it's because she's blind". No, it's because I hate finance. Now, yeah, spreadsheets are difficult, reading, dealing with

financial documents is difficult. But you know what, if I could see, I would still suck at finance... We have to put in a lot of effort. I also think that we need to be careful to not let people think that it's due to our disability, if there's something that we can't do. So, we always put in way more effort to show that we're better than. Not equal, but better than, so that they don't blame it all on the disability.

Using Education for Credibility

Many participants explained how educational credentials benefited their career advancement. For P17 (manager and executive), education was tied directly to career progression. She returned to school multiple times in order to advance her career:

As my career went along, I realized that education was key, right? Because even if you think you know everything—which when we're 20, we do think we know everything—your education becomes more and more important. The progression of my career really went like this, “Here's where my education is at, but this is not where I want to be. I want to be further up this chain”.

Less Frequently Discussed Strategies

Certain strategies were only commented on by one or two leaders. Although less commonly considered, they played an important role in participants' careers and are therefore noteworthy. These facilitators included resume-ableing and self-employment.

First, early in his career, P14 (executive and other roles) experienced the limiting effects of attitudinal barriers. He learned that employers would respond to fewer of his applications when he included reference to disability on his resume. Consequently, he would strategically omit these points to receive more interviews. Similar to resume-whitening strategies, which some racial minority members may use during the hiring process (e.g., Kang, DeCelles, Tilcsik, & Jun,

2016), P14 (executive and other roles) engaged in what might be referred to as resume-ableing. Although he was a “multi-medal recipient at the B.C. Summer and Winter Games for Persons with Disabilities”, he chose to remove these accomplishments from his resume to mitigate attitudinal challenges. Second, P4 (executive and other roles) indicated that he could not find employment after his work injury. Without employment prospects, he chose to start his own construction company. Being self-employed, unaccommodating employers were no longer a barrier.

Attitudes

Taking a Positive Attitude

Similar to the participants in Kulkarni and Gopakumar’s (2014) research, the leaders of this study felt that taking a positive attitude was paramount to their success. Participants retained a positive and pragmatic attitude that embraced duality. Demonstrating this, P3 (president and executive director) said, “Everything has its good and bad side, so we make the most of it”. Similarly, P2 (professor) stated, “You embrace the negative and the positive, and you see the positive”. Numerous participants still had “bad days”, but they would return their focus to the positive. For many participants this was possible because they emphasized the use of self-care strategies such as positive self-talk and exercise.

Perceiving Barriers as (Contestable) Challenges

Although glass barriers emphasize overwhelming constraints, the participants of this study viewed their circumstances somewhat differently. In agreement with a positive attitude, participants perceived barriers as contestable and not to be accepted at face value. In fact, many participants chose not to use the term barrier to describe negative experiences. Instead, words that connote navigability, such as “challenge”, “struggle”, or “issue” were used.

For instance, P4 (executive and other roles) explained that, “it's about seeing the barrier or the shortcoming and saying, ‘Okay, that's a challenge.’ To not accept other's view of me. I'd much rather put out who I think I am”. Similarly, P10 (manager and director) remarked, “nothing that you are experiencing should ever be a barrier”. P17 (manager and executive) used an analogy to depict barriers as navigable, comparing a barrier to a wall:

A barrier is like a wall. You just have to find a way to get over it, under it, around it, through it, dig through, or smash it, whatever the case may be. A barrier shouldn't stop you. It may slow you down, it may cause you to become more creative, to figure out how to get to the other side. But there is, in my opinion, always a way to get to the other side, you just have to broaden your mindset to find it. So, yeah, it is definitely more of a challenge than something that will stop you.

Building Confidence and Self-Determination

Participants described themselves with terms such as “confident”, “determined”, “ambitious”, “bold”, and “tenacious” and these qualities were perceived as necessary to their success. For instance, P11 (manager) illuminated the importance of confidence as a way to mitigate the impact of attitudinal challenges when interacting with employers:

I think confidence is essential for you to project the image of a potential employee who is going to give the employer what they need and beyond. You can maybe move the attention of the employer from focusing on your disability to your abilities, your personality, your confidence.

P12 explained that the challenges of muscular dystrophy were intertwined with her self-determination. Learning to build physical strength taught her to be forward-looking in other aspects of her life and work, which helped her to build resilience in herself and others:

I really believe in being able to look ahead and I think this attitude is due to my experience battling muscular dystrophy—because I suffer pain and weakness all the time, I have to struggle each day to find a way to build strength. And because of that, I think I just have this self-determination that I have to move forward. So I think that it's just ingrained in me.

Concluding Thoughts on Career Self-Management Strategies

The first leg of the stool includes leaders' strategic behaviours and attitudes. Some of these elements were used to directly confront disability-related barriers, such as self-advocacy; however, as participants explained, their strategies would benefit anyone endeavouring to advance their career or navigate challenges. The skills and perspectives that leaders described were learned with effort and over time, often with the support of their social networks.

The Second Foundation: Organizational and Societal Factors

The second foundation of the stool includes organizational and societal factors that supported participants' careers during their education and at work. Some of these elements, such as government supports, were made available proactively. However, others, such as employer flexibility, were often initiated by the participant and were not easily come by. Thus, these higher-level facilitators were frequently accessed because of leaders' self-advocacy. Participants' agency was central to building a robust system-level foundation of their leadership.

Organizational Policy and Procedure

Flexible and Proactive Employers

Participants frequently cited the value of flexible employers who adapted quickly. Technological flexibility was a component of this, as several leaders required accessible technologies that were not always their employer's first choice. P9 (executive) explained that

many employers inadvertently harm their employees' productivity with bureaucratic accommodation processes, but that was not what they encountered:

In most large organizations, in order for you to have a non-standard issue computer, you've got to go through a ream of bureaucracy and approvals. But within a week, I knew that this [work computer] wasn't working for me, because it didn't have the functionality that I have with my personal computer. At most other organizations, in order to get IT to bend the rules, and for you to get a non-standard issue laptop, you'd have to go to your manager, who would have to make a business case for her boss, who would have to go to IT, and then sometimes it would have to get elevated to an executive committee, to get the approval. There's bureaucracy, there's process and procedure, and a long lag time of a lack of productivity. I didn't have to face that with [name of employer]. I immediately told my boss, "I can't see the screen, and I need dictation and read-back functionality". She asked me "Well, what do you need?" "Well, this is what I need". And within probably two business days, my new laptop, with all the functionality that I need, was available to me.

Employer size was cited as a driver of flexibility when accommodation costs were high. P18 (consultant) explained that, "A lot of the accommodations that I require would be considered burdensome by a lot of people, or a lot of organizations". However, because P18 worked with governments and international agencies he had minimal issues with accommodation. Further, P5 (senior executive) noted that flexibility was not always possible for employers, especially in the case of technological standardization. In such situations, employer proactivity was highlighted as essential. P5 explained that employers must engage with their employees with disabilities early and develop technologies, practices, and policies that are accessible from the start.

Programs and Funding

University Scholarships

Some participants commented on how scholarships for students with disabilities provided them with the opportunity to attend university, which was elemental to their subsequent career development. These scholarships paid for tuition fees and accessible technologies. P8 (manager) recalled how a provincial scholarship supported his entry into university:

I remember working with a social worker at the time, and he said, “Well, why don't you just take community services monthly support?” He offered to put me on social assistance, and I said, “I don't really know that I want to do that”. And he said, “If you're willing to do the work, you could possibly do this”, and he said, “There's some funding available through the province to pay for students with disabilities who want to go to university”. And I said, “Okay, I want to do that. I don't want to go on monthly social assistance”, because I saw that as a dead end.

Career Entry and Advancement Programs

Following their post-secondary education, two leaders began their careers via disability-focused hiring initiatives and others commented on the benefits of disability-specific career advancement programs. Career entry programs offered employers a monetary incentive to recruit persons with disabilities. P5 (senior executive) started her work with the federal public service through a program that paid the first six months of her salary:

I actually came into the Canadian Public Service through a program that was designed to bring in more people with disabilities into the Canadian Public Service. I thought that I was going to join the public service, maybe for a year, just to make enough money to pay back my student loans. And this program, it was actually run out of the Public Service

Commission at the time, they would pay the salary for six months. They would cover the cost for the first six months of an employee who has self-identified as having a disability, in the hope that the department at the end of that time would keep the person on. And it worked.

Social Systems

Disability-Related Work

As described in Appendix B, some participants experienced barriers entering fields that were not disability-related. Conversely, these participants explained that working in disability-focused jobs facilitated their careers. These leaders expressed that lived experience gave them “credibility” and “respect”. For instance, P14 (executive and other roles) commented that people would assume his expertise in workplace accessibility before meeting him. P8 (manager) explained that these perceptions of disability were “double-edged”, benefiting him in disability-related work but hindering him elsewhere:

Having a disability became an advantage, because I understood the lived experience. The hiccups in life and the turbulence that you experience as a result of your disability, as society's inability to be responsive to your needs or be receptive to your capabilities in the face of those needs. It's a double-edged kind of thing. If I stayed within the social services realm, I would do quite well. But when I have tried to deviate a little bit that changes.

Disability-focused workplaces were usually cited as being more accommodating and accessible than other environments. However, P11 (manager) warned that such organizations may still require reminders that they “need to walk the talk” regarding accessibility:

Don't assume that if you work for what you call a progressive organization—even one that tries to teach others to follow their mandate—I would not assume necessarily that this is an organization that knows better.

The Status of Leadership

In P17's (manager and executive) view it was "harder to get there", to a leadership position, than it was to be in a leadership position. This was because being a manager mitigated challenges. Delving into the benefits of occupying a leadership role, P6 (manager and executive) noted that his location in the organizational hierarchy signaled his ability. P4 (executive and other roles) commented that the "authority" and "control" associated with management work made barriers "manageable almost all the time". He explained that organizations put trust in their managers and that trust results in more flexibility and accommodation:

You're also seen as more worthy by the organization, so they give you more leeway. They're not looking over your shoulder all the time. For example, flexibility in your workplace if you are a manager is way easier. "Oh, I gotta take off early to go to a doctor's appointment". "No problem. We value you, we see you working late some other night, we see you doing this. No problem". No one's really keeping track of your hours, honestly. But the perception is there, "we trust you and you're a manager, and that's why we hired you, because we trust you..."

Furthermore, P20 (executive) described that it was easier to disclose invisible disability later in his career. This was because he had already proven his ability and was in a position to openly challenge myths about mental disability.

Concluding Thoughts on Organizational and Societal Factors

The second foundation of the stool resides at the organization- and societal-levels. Often elements of this pillar were not made readily available to participants, causing leaders to use career self-management strategies to build and reinforce these higher-level facilitators. Importantly, some leaders described career advancement into leadership positions as a much more difficult task than being a leader, because they were afforded status and authority as a leader that made their work more accessible. This relates to Stone and Colella's (1996) proposition that leadership status mitigates negative bias toward persons with disabilities.

The Third Foundation: Social Networks

Social networks, both external and internal to the workplace, propelled participants' careers. Family, friends and role models played an essential part in the development of leaders' self-perception, motivation, and skills. And family, friends, and acquaintances generated career opportunities for some leaders as well. Throughout leaders' careers, managers, co-workers, and employees who interacted with participants as individuals with skills, rather than as stereotypes, benefited participants' career progression. Such inclusive work environments were essential to leaders' growth, yet they were also described as uncommon by some.

I focus on internal networks in this section. See the finding section of this chapter for an analysis of external networks.

Internal Networks

Inclusive Managers, Colleagues, and Employees

Inclusive managers were frequently cited as essential to participants' career development. These managers enabled participants by seeing them for their "skills" rather than via "the lens of impairment". Their ability to "naturally address barriers as they came up" propelled participants'

careers. Colleagues and employees would often facilitate leaders' work as well. P1 (business owner and manager) explained that his team members "don't hesitate in helping out", P15's (manager and executive) team would help her review images, tables, and charts, and P20's (executive) administrative assistant would book him time off, often without him knowing, to ensure that he did not overuse work as a coping mechanism.

Mentorship

Participants benefited from the mentorship of more senior employees. Some participants actively sought out mentors through formal mentorship opportunities, whereas others engaged with mentors informally. Informal mentors were often participants' supervisors and they taught participants essential leadership and communication skills, such as how to "build a team" and "present information" in a compelling manner. Early in P6's (manager and executive) career, he recognized the importance of learning from mentors:

When I was in my 20's and 30's, I wasn't entitled enough to think that I deserved to be there. I watched what those individuals did. I modeled what I was doing after those individuals. I talked to them about how they got there. I listened to what they were saying, so that I could go and try to repeat what some of those people did myself.

Concluding Thoughts on Social Networks

Social networks were critical to participants' success, both outside and inside the workplace. Many of these network ties influenced the career self-management strategies of participants, illustrating how the foundations of the stool are distinct yet interconnected. For instance, it was mentors who taught some leaders the communication skills that the later used to build their own teams.

Appendix D

General Research Ethics Board Approval Letter (Chapter 4)



August 23, 2018

Mr. Daniel Samosh
Ph.D. Candidate
Smith School of Business
Queen's University
Goodes Hall
143 Union Street
Kingston, ON, K7L 3N6

GREB Ref #: GBUS-589-18; TRAQ # 6024145
Title: "GBUS-589-18 Negative Bias and Leaders with Disabilities"

Dear Mr. Samosh:

The General Research Ethics Board (GREB), by means of a delegated board review, has cleared your proposal entitled "GBUS-589-18 Negative Bias and Leaders with Disabilities" for ethical compliance with the Tri-Council Guidelines (TCPS 2 (2014)) and Queen's ethics policies. In accordance with the Tri-Council Guidelines (Article 6.14) and Standard Operating Procedures (405.001), your project has been cleared for one year. You are reminded of your obligation to submit an annual renewal form prior to the annual renewal due date (access this form at <http://www.queensu.ca/traq/signon.html>; click on "Events;" under "Create New Event" click on "General Research Ethics Board Annual Renewal/Closure Form for Cleared Studies"). Please note that when your research project is completed, you need to submit an Annual Renewal/Closure Form in Romeo/traq indicating that the project is 'completed' so that the file can be closed. This should be submitted at the time of completion; there is no need to wait until the annual renewal due date.

You are reminded of your obligation to advise the GREB of any adverse event(s) that occur during this one-year period (access this form at <http://www.queensu.ca/traq/signon.html>; click on "Events;" under "Create New Event" click on "General Research Ethics Board Adverse Event Form"). An adverse event includes, but is not limited to, a complaint, a change or unexpected event that alters the level of risk for the researcher or participants or situation that requires a substantial change in approach to a participant(s). You are also advised that all adverse events must be reported to the GREB within 48 hours.

You are also reminded that all changes that might affect human participants must be cleared by the GREB. For example, you must report changes to the level of risk, applicant characteristics, and implementation of new procedures. To submit an amendment form, access the application by at <http://www.queensu.ca/traq/signon.html>; click on "Events;" under "Create New Event" click on "General Research Ethics Board Request for the Amendment of Approved Studies." Once submitted, these changes will automatically be sent to the Ethics Coordinator, Ms. Gail Irving, at University Research Services for further review and clearance by the GREB or Chair, GREB.

On behalf of the General Research Ethics Board, I wish you continued success in your research.

Sincerely,

A handwritten signature in blue ink, appearing to read "Dean Tripp".

Dean Tripp, Ph.D.
Chair
General Research Ethics Board

c: Dr. William Cooper and Dr. Matthias Spitzmuller, Supervisors
Dr. Pamela Murphy, Chair, Unit REB
Mrs. Nancy Chase, Dept. Admin.

Appendix E

Letters of Information and Consent Forms (Chapter 4)

Pilot 1: Leaders with a Disability

Letter of Information

Project Title: Societal Views of Performance

Principal Investigator: Daniel Samosh

This study is being conducted by Daniel Samosh, a PhD in Management student who is being supervised by Dr. William Cooper and Dr. Matthias Spitzmuller at the Smith School of Business.

What is this study about? We are conducting research on how society views the performance of persons with disabilities at the university. You will be asked to complete a survey on **how society views** the performance of students with and without disabilities as team leaders in a group project. All of this will be completed on your computer. The experiment should take approximately 10 minutes to complete.

Is my participation voluntary? Yes. Your participation in this experiment is voluntary. You are under no obligation to take part in this study. If you decide to, you may withdraw at any point during the experiment by closing your browser and leaving the survey incomplete. You will not be paid if you withdraw. If you leave your survey incomplete the researcher will destroy all data associated with your survey. Note that you will not be able to withdraw after the completion of this experiment.

Are there any risks to my participation? There are minimal risks to participating in this research project. However, there may be potential psychological risks due to questions about sensitive issues. For instance, some participants may feel uncomfortable rating the performance of persons with different disabilities as a group. Note that the probability and extent of potential harm is no greater than what one might encounter in daily life. If participating in this research causes you to experience distress resources are available. If you are in Canada you can contact Crisis Services Canada at 1-833-456-4566. If you are in the United States you can contact the National Suicide Prevention Lifeline at 1-800-273-8255.

What will happen to my responses? Your responses will be confidential, no one will have access to your identifying information except for the principal investigator. The data will be stored on password-protected computers that can only be accessed by the principal investigator. The results will be submitted to Smith School of Business as part of Daniel Samosh's Ph.D Dissertation and may also result in journal publications. These results will not breach any individual confidentiality as they will be summarized at the aggregate level. You can request a copy of the results by contacting Daniel Samosh once the study is completed. The electronic data will be permanently deleted and the paper surveys will be shredded 10 years after publication of our results. If you withdraw during participation your electronic data will be destroyed.

Will I be compensated for my participation? Yes. In exchange for completing the experiment you will receive \$1.10. If you do not complete the study you will not receive any compensation.

Any questions about participation in this study may be sent to Daniel Samosh, Principal Investigator, Queen's University, Smith School of Business, Email: daniel.samosh@queensu.ca, Telephone: 647-470-6461. This study is under the supervision of Dr. William Cooper, Queen's University, Smith School of Business, Email: wcooper@business.queensu.ca, Telephone: 613-533-2333, and Dr. Matthias Spitzmuller, Queen's University, Smith School of Business, Email: matthias.spitzmuller@queensu.ca, Telephone: 613-533-2333. Any ethical concerns about this study may be directed to the Chair of the General Research Ethics Board at chair.GREB@queensu.ca or 1-844-535-2988.

Thank you very much for your interest in participating in this research, it is greatly appreciated.

You are advised to keep a copy of this Letter of Information form for your records.

Daniel Samosh
HBA, MSc, PhDc

Consent Form

Project Title: Societal Views of Performance

Principal Investigator: Daniel Samosh

1. I have read the letter of information.
2. I understand that I will be participating in the study called “Societal Views of Performance”. I understand that this means that I will be asked to complete a task and brief survey.
3. I understand that my participation in this study is voluntary and that I may withdraw at any time during the study. I understand that if I choose to withdraw I will not receive any payment.
4. I understand that every effort will be made to maintain the confidentiality of my data now and in the future. I understand that data will be stored confidentially.
5. I am aware that if I have any questions or concerns I can contact Daniel Samosh (daniel.samosh@queensu.ca; 647-470-6461) or his supervisors, Dr. William Cooper (william.cooper@business.queensu.ca; 613-533-2333) and Dr. Matthias Spitzmuller (matthias.spitzmuller@queensu.ca). I am aware that if I have any ethical concerns about this study, I can contact the Chair of the General Research Ethics Board (1-844-535-2988, chair.greb@queensu.ca).

I have read the above statements and consent to participate in this research. By clicking through this page, I am consenting to participate in this study.

Pilot 2: Leaders without a Disability

Letter of Information

Project Title: Societal Views of Performance

Principal Investigator: Daniel Samosh

This study is being conducted by Daniel Samosh, a PhD in Management student who is being supervised by Dr. William Cooper and Dr. Matthias Spitzmuller at the Smith School of Business.

What is this study about? We are conducting research on how society views the performance of persons at the university. You will be asked to complete a survey on **how society views** the performance of students as team leaders in a group project. All of this will be completed on your computer. The experiment should take approximately 10 minutes to complete.

Is my participation voluntary? Yes. Your participation in this experiment is voluntary. You are under no obligation to take part in this study. If you decide to, you may withdraw at any point during the experiment by closing your browser and leaving the survey incomplete. You will not be paid if you withdraw. If you leave your survey incomplete the researcher will destroy all data associated with your survey. Note that you will not be able to withdraw after the completion of this experiment.

Are there any risks to my participation? There are minimal risks to participating in this research project. However, there may be potential psychological risks due to questions about sensitive issues. For instance, some participants may feel uncomfortable rating the performance of persons with different abilities as a group. Note that the probability and extent of potential harm is no greater than what one might encounter in daily life. If participating in this research causes you to experience distress resources are available. If you are in Canada you can contact Crisis Services Canada at 1-833-456-4566. If you are in the United States you can contact the National Suicide Prevention Lifeline at 1-800-273-8255.

What will happen to my responses? Your responses will be confidential, no one will have access to your identifying information except for the principal investigator. The data will be stored on password-protected computers that can only be accessed by the principal investigator. The results will be submitted to Smith School of Business as part of Daniel Samosh's Ph.D Dissertation and may also result in journal publications. These results will not breach any individual confidentiality as they will be summarized at the aggregate level. You can request a copy of the results by contacting Daniel Samosh once the study is completed. The electronic data will be permanently deleted and the paper surveys will be shredded 10 years after publication of our results. If you withdraw during participation your electronic data will be destroyed.

Will I be compensated for my participation? Yes. In exchange for completing the experiment you will receive \$1.10. If you do not complete the study you will not receive any compensation.

Any questions about participation in this study may be sent to Daniel Samosh, Principal

Investigator, Queen's University, Smith School of Business, Email: daniel.samosh@queensu.ca, Telephone: 647-470-6461. This study is under the supervision of Dr. William Cooper, Queen's University, Smith School of Business, Email: wcooper@business.queensu.ca, Telephone: 613-533-2333, and Dr. Matthias Spitzmuller, Queen's University, Smith School of Business, Email: matthias.spitzmuller@queensu.ca, Telephone: 613-533-2333. Any ethical concerns about this study may be directed to the Chair of the General Research Ethics Board at chair.GREB@queensu.ca or 1-844-535-2988.

Thank you very much for your interest in participating in this research, it is greatly appreciated.

You are advised to keep a copy of this Letter of Information form for your records.

Daniel Samosh
HBA, MSc, PhDc

Consent Form

Project Title: Societal Views of Performance

Principal Investigator: Daniel Samosh

1. I have read the letter of information.
2. I understand that I will be participating in the study called “Societal Views of Performance”. I understand that this means that I will be asked to complete a task and brief survey.
3. I understand that my participation in this study is voluntary and that I may withdraw at any time during the study. I understand that if I choose to withdraw I will not receive any payment.
4. I understand that every effort will be made to maintain the confidentiality of my data now and in the future. I understand that data will be stored confidentially.
5. I am aware that if I have any questions or concerns I can contact Daniel Samosh (daniel.samosh@queensu.ca; 647-470-6461) or his supervisors, Dr. William Cooper (william.cooper@business.queensu.ca; 613-533-2333) and Dr. Matthias Spitzmuller (matthias.spitzmuller@queensu.ca). I am aware that if I have any ethical concerns about this study, I can contact the Chair of the General Research Ethics Board (1-844-535-2988, chair.greb@queensu.ca).

I have read the above statements and consent to participate in this research. By clicking through this page, I am consenting to participate in this study.

Study 1: Leaders with a Disability

Letter of Information

Project Title: Team Competition Study

Principal Investigator: Daniel Samosh

This study is being conducted by Daniel Samosh, a PhD in Management student who is being supervised by Dr. William Cooper and Dr. Matthias Spitzmuller at the Smith School of Business.

What is this study about? We are conducting research on case competition team dynamics. You will be asked to read reviews of team leaders, answer a series of survey questions about those leaders, and decide whether you want to hire the leaders for a future project.

Is my participation voluntary? Yes. Your participation in this experiment is voluntary. You are under no obligation to take part in this study. If you decide to, you may withdraw at any point during the experiment by closing your browser and leaving the survey incomplete. You will not be paid if you withdraw. If you leave the survey incomplete the researcher will destroy all data associated with your survey. Note that you will not be able to withdraw after the completion of this experiment.

Are there any risks to my participation? There are minimal risks to participating in this research project. However, there may be potential psychological risks due to questions about sensitive issues. For instance, some participants may feel uncomfortable rating the performance of persons with different abilities as a group. Note that the probability and extent of potential harm is no greater than what one might encounter in daily life. If participating in this research causes you to experience distress resources are available. If you are in Canada you can contact Crisis Services Canada at 1-833-456-4566. If you are in the United States you can contact the National Suicide Prevention Lifeline at 1-800-273-8255.

What will happen to my responses? Your responses will be confidential, no one will have access to your identifying information except for the principal investigator. The data will be stored on password-protected computers that can only be accessed by the principal investigator. The results will be submitted to Smith School of Business as part of Daniel Samosh's Ph.D Dissertation and may also result in journal publications. These results will not breach any individual confidentiality as they will be summarized at the aggregate level. You can request a copy of the results by contacting Daniel Samosh once the study is completed. The electronic data will be permanently deleted and the paper surveys will be shredded 10 years after publication of our results. If you withdraw during participation your electronic data will be destroyed.

Will I be compensated for my participation? Yes. In exchange for completing the experiment you will receive \$1.80. If you do not complete the study you will not receive any compensation. Additionally, if your rankings and hiring choices are accurate you will receive an additional \$0.75 as a bonus.

Any questions about participation in this study may be sent to Daniel Samosh, Principal Investigator, Queen's University, Smith School of Business, Email: daniel.samosh@queensu.ca, Telephone: 647-470-6461. This study is under the supervision of Dr. William Cooper, Queen's University, Smith School of Business, Email: wcooper@business.queensu.ca, Telephone: 613-533-2333, and Dr. Matthias Spitzmuller, Queen's University, Smith School of Business, Email: matthias.spitzmuller@queensu.ca, Telephone: 613-533-2333. Any ethical concerns about this study may be directed to the Chair of the General Research Ethics Board at chair.GREB@queensu.ca or 1-844-535-2988.

Thank you very much for your interest in participating in this research, it is greatly appreciated.

You are advised to keep a copy of this Letter of Information form for your records.

Daniel Samosh
HBA, MSc, PhDc

Consent Form

Project Title: Team Competition Study

Principal Investigator: Daniel Samosh

1. I have read the letter of information.
2. I understand that I will be participating in the study called “Team Competition Study”. I understand that this means that I will be asked to complete a task and brief survey.
3. I understand that my participation in this study is voluntary and that I may withdraw at any time during the study. I understand that if I choose to withdraw I will not receive any payment.
4. I understand that every effort will be made to maintain the confidentiality of my data now and in the future. I understand that data will be stored confidentially.
5. I am aware that if I have any questions or concerns I can contact Daniel Samosh (daniel.samosh@queensu.ca; 647-470-6461) or his supervisors, Dr. William Cooper (william.cooper@business.queensu.ca; 613-533-2333) and Dr. Matthias Spitzmuller (matthias.spitzmuller@queensu.ca). I am aware that if I have any ethical concerns about this study, I can contact the Chair of the General Research Ethics Board (1-844-535-2988, chair.greb@queensu.ca).

I have read the above statements and consent to participate in this research. By clicking through this page, I am consenting to participate in this study.

Study 2: Leaders without a Disability

Letter of Information

Project Title: Team Competition Study

Principal Investigator: Daniel Samosh

This study is being conducted by Daniel Samosh, a PhD in Management student who is being supervised by Dr. William Cooper and Dr. Matthias Spitzmuller at the Smith School of Business.

What is this study about? We are conducting research on case competition team dynamics. You will be asked to read reviews of team leaders, answer a series of survey questions about those leaders, and decide whether you want to hire the leaders for a future project.

Is my participation voluntary? Yes. Your participation in this experiment is voluntary. You are under no obligation to take part in this study. If you decide to, you may withdraw at any point during the experiment by closing your browser and leaving the survey incomplete. You will not be paid if you withdraw. If you leave the survey incomplete the researcher will destroy all data associated with your survey. Note that you will not be able to withdraw after the completion of this experiment.

Are there any risks to my participation? There are minimal risks to participating in this research project. However, there may be potential psychological risks due to questions about sensitive issues. For instance, some participants may feel uncomfortable rating the performance of persons with different abilities as a group. Note that the probability and extent of potential harm is no greater than what one might encounter in daily life. If participating in this research causes you to experience distress resources are available. If you are in Canada you can contact Crisis Services Canada at 1-833-456-4566. If you are in the United States you can contact the National Suicide Prevention Lifeline at 1-800-273-8255.

What will happen to my responses? Your responses will be confidential, no one will have access to your identifying information except for the principal investigator. The data will be stored on password-protected computers that can only be accessed by the principal investigator. The results will be submitted to Smith School of Business as part of Daniel Samosh's Ph.D Dissertation and may also result in journal publications. These results will not breach any individual confidentiality as they will be summarized at the aggregate level. You can request a copy of the results by contacting Daniel Samosh once the study is completed. The electronic data will be permanently deleted and the paper surveys will be shredded 10 years after publication of our results. If you withdraw during participation your electronic data will be destroyed.

Will I be compensated for my participation? Yes. In exchange for completing the experiment you will receive \$1.80. If you do not complete the study you will not receive any compensation. Additionally, if your rankings and hiring choices are accurate you will receive an additional \$0.75 as a bonus.

Any questions about participation in this study may be sent to Daniel Samosh, Principal Investigator, Queen's University, Smith School of Business, Email: daniel.samosh@queensu.ca, Telephone: 647-470-6461. This study is under the supervision of Dr. William Cooper, Queen's University, Smith School of Business, Email: wcooper@business.queensu.ca, Telephone: 613-533-2333, and Dr. Matthias Spitzmuller, Queen's University, Smith School of Business, Email: matthias.spitzmuller@queensu.ca, Telephone: 613-533-2333. Any ethical concerns about this study may be directed to the Chair of the General Research Ethics Board at chair.GREB@queensu.ca or 1-844-535-2988.

Thank you very much for your interest in participating in this research, it is greatly appreciated.

You are advised to keep a copy of this Letter of Information form for your records.

Daniel Samosh
HBA, MSc, PhDc

Consent Form

Project Title: Team Competition Study

Principal Investigator: Daniel Samosh

1. I have read the letter of information.
2. I understand that I will be participating in the study called “Team Competition Study”. I understand that this means that I will be asked to complete a task and brief survey.
3. I understand that my participation in this study is voluntary and that I may withdraw at any time during the study. I understand that if I choose to withdraw I will not receive any payment.
4. I understand that every effort will be made to maintain the confidentiality of my data now and in the future. I understand that data will be stored confidentially.
5. I am aware that if I have any questions or concerns I can contact Daniel Samosh (daniel.samosh@queensu.ca; 647-470-6461) or his supervisors, Dr. William Cooper (william.cooper@business.queensu.ca; 613-533-2333) and Dr. Matthias Spitzmuller (matthias.spitzmuller@queensu.ca). I am aware that if I have any ethical concerns about this study, I can contact the Chair of the General Research Ethics Board (1-844-535-2988, chair.greb@queensu.ca).

I have read the above statements and consent to participate in this research. By clicking through this page, I am consenting to participate in this study.

Appendix F

Sample Stereotype-Fit Questions (Chapter 4)

Pilot 1: Leaders with a Disability

Stutter – “Stuttering is characterized by disruptions in the production of speech sounds. Disruptions can impede communication when a person produces many of them”.

Team Project Topics:

1. Accommodations for Students with a Stutter – How to accommodate university students with a stutter at school.
2. Communications – Speech and writing skills necessary to succeed in business.
3. Operations – Day-to-day operations and logistics management.
4. Business Statistics – Complex probability models and statistical inference.

Team Leader Tasks and Responsibilities:

1. Managing group activities.
2. Presenting and justifying the team report to a panel of business school judges.

Rank society's expectations of a team leader who has a stutter for the following team project topics.

1 = The role that they will be **best** at.

4 = The role that they will be **worst** at.

_____ Accommodations for Students with a Stutter
_____ Communications
_____ Operations
_____ Business Statistics

Note: The above definition of a stutter was adapted from the following website: <https://kidscarespeechtherapy.com/stuttering>. Further, these questions were formatted differently in Qualtrics, although the content was identical. This is the case for all of the content in appendices that was also presented to participants online.

Pilot 2: Leaders without a Disability

Team Project Topics:

1. Accommodations for Students with a Stutter – How to accommodate university students with a stutter at school.
2. Communications – Speech and writing skills necessary to succeed in business.
3. Operations – Day-to-day operations and logistics management.
4. Business Statistics – Complex probability models and statistical inference.

Team Leader Tasks and Responsibilities:

1. Managing group activities.
2. Presenting and justifying the team report to a panel of business school judges.

Rank society's expectations of a team leader for the following team project topics.

1 = The role that they will be **best** at.

4 = The role that they will be **worst** at.

_____ Accommodations for Students with a Stutter
_____ Communications
_____ Operations
_____ Business Statistics

Appendix G

Task Instructions for Participants (Chapter 4)

Study 1 and Study 2: Leaders with and without a Disability

Task Instructions

Your task is to read feedback about an MBA project leader from a project competition. Then you will **predict the future performance of the leader** during a new competition running next week.

The leaders will be scored by an expert panel of employers who will be offering jobs to top competitors. If your scores are similar to the expert panel's, after next week's project is complete, you will **receive a \$0.75 bonus** for the accuracy of your responses.

Note: Task instructions for Study 1 and Study 2 are combined because they were identical.

Appendix H

Vignettes (Chapter 4)

Study 1: Leaders with a Disability

1. Good-fit with no mistake group

The Topic of the Next Project Competition is:

Accommodations for Students with a Stutter – How to accommodate university students with a stutter at school.

Team leaders are tasked with:

1. **Managing** group activities.
2. **Presenting and justifying** the team report to a panel of employer judges.

Below is a review of an MBA team leader from past team members. Rate leaders based on these reviews.

Team Leader Review Form

1. *Describe your Team Leader in general.*

Pat worked for a few years before coming back to school. Pat also has a stutter.

2. *Describe your experience with the Team Leader in the project. Please focus on one event/experience with your Team Leader.*

The project was fun but a bit stressful. If I can only write about one event, I'll talk about the presentation. At the end of the presentation Q&A, a judge asked a question that Pat answered very well. It was a really important question to answer right. Pat's answer made it sound like we were prepared for that question, and we were. It was in the research that I did for the group and I made sure to tell Pat to keep it in mind, because a judge was certain to ask. The rest of the presentation went well, and after that one really good response we came second. I was excited that we won second prize after all that hard work. We won, at least in part, because of Pat's last answer.

2. Poor-fit with no mistake group

The Topic of the Next Project Competition is:

Communications – Speech and writing skills necessary to succeed in business.

Team leaders are tasked with:

1. **Managing** group activities.
2. **Presenting and justifying** the team report to a panel of employer judges.

Below is a review of an MBA team leader from past team members. Rate leaders based on these reviews.

Team Leader Review Form

1. *Describe your Team Leader in general.*

Pat worked for a few years before coming back to school. Pat also has a stutter.

2. *Describe your experience with the Team Leader in the project. Please focus on one event/experience with your Team Leader.*

The project was fun but a bit stressful. If I can only write about one event, I'll talk about the presentation. At the end of the presentation Q&A, a judge asked a question that Pat answered very well. It was a really important question to answer right. Pat's answer made it sound like we were prepared for that question, and we were. It was in the research that I did for the group and I made sure to tell Pat to keep it in mind, because a judge was certain to ask. The rest of the presentation went well, and after that one really good response we came second. I was excited that we won second prize after all that hard work. We won, at least in part, because of Pat's last answer.

3. Good-fit with mistake group

The Topic of the Next Project Competition is:

Accommodations for Students with a Stutter – How to accommodate university students with a stutter at school.

Team leaders are tasked with:

1. **Managing** group activities.
2. **Presenting and justifying** the team report to a panel of employer judges.

Below is a review of an MBA team leader from past team members. Rate leaders based on these reviews.

Team Leader Review Form

1. *Describe your Team Leader in general.*

Pat worked for a few years before coming back to school. Pat also has a stutter.

2. *Describe your experience with the Team Leader in the project. Please focus on one event/experience with your Team Leader.*

The project was fun but a bit stressful. If I can only write about one event, I'll talk about the presentation. At the end of the presentation Q&A, a judge asked a question that Pat didn't answer well at all. It was a really important question to answer right. Pat's answer made it sound like we weren't prepared for that question, but we were. It was in the research that I did for the group and I made sure to tell Pat to keep it in mind, because a judge was certain to ask. The rest of the presentation went well, but after that one really bad response we came second. I was annoyed that we received second prize after all that hard work. We lost, at least in part, because of Pat's last answer.

4. Poor-fit with mistake group

The Topic of the Next Project Competition is:

Communications – Speech and writing skills necessary to succeed in business.

Team leaders are tasked with:

1. **Managing** group activities.
2. **Presenting and justifying** the team report to a panel of employer judges.

Below is a review of an MBA team leader from past team members. Rate leaders based on these reviews.

Team Leader Review Form

1. *Describe your Team Leader in general.*

Pat worked for a few years before coming back to school. Pat also has a stutter.

2. *Describe your experience with the Team Leader in the project. Please focus on one event/experience with your Team Leader.*

The project was fun but a bit stressful. If I can only write about one event, I'll talk about the presentation. At the end of the presentation Q&A, a judge asked a question that Pat didn't answer well at all. It was a really important question to answer right. Pat's answer made it sound like we weren't prepared for that question, but we were. It was in the research that I did for the group and I made sure to tell Pat to keep it in mind, because a judge was certain to ask. The rest of the presentation went well, but after that one really bad response we came second. I was annoyed that we received second prize after all that hard work. We lost, at least in part, because of Pat's last answer.

Study 2: Leaders without a Disability

1. Good-fit with no mistake group

The Topic of the Next Project Competition is:

Communications – Speech and writing skills necessary to succeed in business.

Team leaders are tasked with:

1. **Managing** group activities.
2. **Presenting and justifying** the team report to a panel of employer judges.

Below is a review of an MBA team leader from past team members. Rate leaders based on these reviews.

Team Leader Review Form

1. *Describe your Team Leader in general.*

Pat worked for a few years before coming back to school.

2. *Describe your experience with the Team Leader in the project. Please focus on one event/experience with your Team Leader.*

The project was fun but a bit stressful. If I can only write about one event, I'll talk about the presentation. At the end of the presentation Q&A, a judge asked a question that Pat answered very well. It was a really important question to answer right. Pat's answer made it sound like we were prepared for that question, and we were. It was in the research that I did for the group and I made sure to tell Pat to keep it in mind, because a judge was certain to ask. The rest of the presentation went well, and after that one really good response we came second. I was excited that we won second prize after all that hard work. We won, at least in part, because of Pat's last answer.

2. Poor-fit with no mistake group

The Topic of the Next Project Competition is:

Accommodations for Students with a Stutter – How to accommodate university students with a stutter at school.

Team leaders are tasked with:

1. **Managing** group activities.
2. **Presenting and justifying** the team report to a panel of employer judges.

Below is a review of an MBA team leader from past team members. Rate leaders based on these reviews.

Team Leader Review Form

1. *Describe your Team Leader in general.*

Pat worked for a few years before coming back to school.

2. *Describe your experience with the Team Leader in the project. Please focus on one event/experience with your Team Leader.*

The project was fun but a bit stressful. If I can only write about one event, I'll talk about the presentation. At the end of the presentation Q&A, a judge asked a question that Pat answered very well. It was a really important question to answer right. Pat's answer made it sound like we were prepared for that question, and we were. It was in the research that I did for the group and I made sure to tell Pat to keep it in mind, because a judge was certain to ask. The rest of the presentation went well, and after that one really good response we came second. I was excited that we won second prize after all that hard work. We won, at least in part, because of Pat's last answer.

3. Good-fit with mistake group

The Topic of the Next Project Competition is:

Communications – Speech and writing skills necessary to succeed in business.

Team leaders are tasked with:

1. **Managing** group activities.
2. **Presenting and justifying** the team report to a panel of employer judges.

Below is a review of an MBA team leader from past team members. Rate leaders based on these reviews.

Team Leader Review Form

1. *Describe your Team Leader in general.*

Pat worked for a few years before coming back to school.

2. *Describe your experience with the Team Leader in the project. Please focus on one event/experience with your Team Leader.*

The project was fun but a bit stressful. If I can only write about one event, I'll talk about the presentation. At the end of the presentation Q&A, a judge asked a question that Pat didn't answer well at all. It was a really important question to answer right. Pat's answer made it sound like we weren't prepared for that question, but we were. It was in the research that I did for the group and I made sure to tell Pat to keep it in mind, because a judge was certain to ask. The rest of the presentation went well, but after that one really bad response we came second. I was annoyed that we received second prize after all that hard work. We lost, at least in part, because of Pat's last answer.

4. Poor-fit with mistake group

The Topic of the Next Project Competition is:

Accommodations for Students with a Stutter – How to accommodate university students with a stutter at school.

Team leaders are tasked with:

1. **Managing** group activities.
2. **Presenting and justifying** the team report to a panel of employer judges.

Below is a review of an MBA team leader from past team members. Rate leaders based on these reviews.

Team Leader Review Form

1. *Describe your Team Leader in general.*

Pat worked for a few years before coming back to school.

2. *Describe your experience with the Team Leader in the project. Please focus on one event/experience with your Team Leader.*

The project was fun but a bit stressful. If I can only write about one event, I'll talk about the presentation. At the end of the presentation Q&A, a judge asked a question that Pat didn't answer well at all. It was a really important question to answer right. Pat's answer made it sound like we weren't prepared for that question, but we were. It was in the research that I did for the group and I made sure to tell Pat to keep it in mind, because a judge was certain to ask. The rest of the presentation went well, but after that one really bad response we came second. I was annoyed that we received second prize after all that hard work. We lost, at least in part, because of Pat's last answer.

Appendix I

Survey Items (Chapter 4)

Study 1 and Study 2: Leaders with and without a Disability

| Competence | Scale | Notes |
|--|---|---------------------------|
| How competent is this team leader? | 1 = not at all; 5 = extremely | |
| How confident is this team leader? | 1 = not at all; 5 = extremely | |
| How independent is this team leader? | 1 = not at all; 5 = extremely | |
| How competitive is this team leader? | 1 = not at all; 5 = extremely | |
| How intelligent is this team leader? | 1 = not at all; 5 = extremely | |
| From the perspective of other judges, how competent is this team leader? | 1 = not at all; 5 = extremely | social desirability check |
| | | |
| | | |
| Hiring Expectations | | |
| To what extent... | | |
| ...is the team leader qualified for the leader position? | 1 = not at all; 5 = extremely | |
| ...do you want to hire this team leader? | 1 = not at all; 5 = extremely | |
| ...would this team leader be a productive leader, if hired? | 1 = not at all; 5 = extremely | |
| ...would this team leader be an effective leader, if hired? | 1 = not at all; 5 = extremely | |
| | | |
| | | |
| Control Variables | | |
| How do you self-identify in terms of gender? | Man; Woman; I do not identify with the gender binary; I prefer not to disclose information concerning my gender | |
| What is your age? | Numeric entry | |
| How do you identify in terms of race/ethnicity? | Asian; Black/African; Hispanic or Latino; Indigenous; White; Other (including text-entry option) | |
| What is the highest level of school that you have completed? | Elementary school; High school; Bachelor's degree; Master's degree; Doctoral degree | |
| Are you currently employed? | Yes; No | |

| | | |
|--|--|--------------|
| How many years work experience do you have? | Numeric entry | |
| How much experience do you have with hiring employees at work? | 1 = none; 5 = a great deal | |
| Are you, or have you ever been, a manager with hiring responsibilities? | Yes; No | |
| How much experience do you have with university projects? | 1 = none; 5 = a great deal | |
| Do you have a disability? | Yes; No; Prefer not to specify (including text-entry option to identify the disability) | |
| Do you know anyone with a stutter? | Yes; No; Prefer not to specify (including text entry option to identify the participant's relationship with the identified individual) | |
| | | |
| Social Desirability | | |
| The following statements represent behaviours you may have conducted in general (at work and outside work or school). Please rate the extent to which you agree with the following statements. | | |
| I sometimes tell lies if I have to. | 1 = disagree strongly; 5 = agree strongly | |
| There have been occasions where I have taken advantage of someone. | 1 = disagree strongly; 5 = agree strongly | |
| I sometimes try to get even rather than forgive and forget | 1 = disagree strongly; 5 = agree strongly | |
| I never cover up my mistakes. | 1 = disagree strongly; 5 = agree strongly | reverse code |
| I don't gossip about other peoples' business | 1 = disagree strongly; 5 = agree strongly | reverse code |
| | | |
| Attention and Manipulation Checks | | |
| Please check all words or phrases that describe the team leader you have just rated. | List of descriptors provided | |
| Does your ability to earn extra income depend on the scores about the team leader that you provided earlier? | 1 = not at all; 5 = extremely | |

| | | |
|---|--|--|
| What is the topic of the next project that the team leader will participate in? | Accommodations for Students with a Stutter; Communications | |
| To what extent did the leader make a mistake during the presentation? | 1 = not at all; 5 = extremely | |