

Consciously Manipulating Unconscious Bias: Do Interviewee Responses Impact the Hiring
Decision Through Inhibiting Expression of Implicit Stereotypes?

John D. Varlaro

A Dissertation Submitted to the Faculty of
The Chicago School of Professional Psychology
In Partial Fulfillment of the Requirements
For the Degree of Doctor of Philosophy in Business Psychology

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Dedication

This dissertation is dedicated to my mother, whose love and trust facilitated my learning.

Abstract

In this study, candidate responses to interview questions were manipulated to test whether they had an impact on overall interview decision and perceptions of leadership by inhibiting unconscious stereotype or implicit bias. Based on research within gender-based leadership stereotypes, *coached*, *agentic*, or *take charge* responses were conceptualized as masculine; while *uncoached*, *communal*, or *take care* responses were conceptualized as feminine. A 2x2 between-participants research design was used and participants from a Fortune 100 company were randomly assigned to one of four groups. The manipulations were Gender of Candidate (male or female) and Type of Interview Response (coached or uncoached). The study utilized *Project Implicit's* gender-career Implicit Activation Test (IAT) to measure implicit bias. After completing the IAT and an explicit measure of stereotype, participants listened to interview responses and rated candidates on several scales, including hireability, capability, and femininity. Results did not find a statistical difference between ratings for agentic candidates and communal candidates, nor agentic, female candidates and communal, female candidates. No statistical difference was found between agentic male candidates and agentic female candidates. Further, there was no statistical difference between agentic female and communal female candidates regarding femininity. Finally, IATs did not seem to indicate interviewer ratings of candidates. Limitations; including small sample size; and implications for future research are addressed.

Table of Contents

Chapter 1: Introduction	1
Statement of Problem.....	2
Purpose of Study.....	4
Outline of Remaining Chapters	6
Chapter 2: Review of the Literature.....	7
Interpreting Others Through Categories	10
Impression Management.....	18
Research Structure and Hypotheses.....	27
Chapter 3: Methodology	31
Purpose of the Study	31
Participants.....	32
Design	32
Procedure	33
Independent Manipulations.....	36
Dependent Measures.....	37
Statistical Analysis.....	41
Ethical Considerations	42
Chapter 4: Results.....	43
Sample Population and Demographic Information	43
Scales and Reliability.....	44
Measures of Stereotype.....	44
Hypotheses Testing.....	47

Summary of Results	50
Chapter 5: Discussion	51
Culture – Societal and Organizational	53
Awareness – Training and Demography	55
Limitations	55
Future Research	56
Conclusions.....	56
References.....	58
Appendix A: Invitation Email to Participants.....	69
Appendix B: Consent Agreement	70
Appendix C: Job Description, Vice President of Sales.....	72
Appendix D: Hiring Recommendation Scale	74
Appendix E: Script of Interview Questions and Responses	75
Appendix F: Debrief	77

Chapter 1: Introduction

The current competitive business environment poses remarkable problems for organizations. A significant need exists for leaders who can navigate the tumultuous global economy while energizing a workforce to do more with less. Attributes such as decisive, strong, tenacious, and courageous are often used to describe such a leader—but what about female?

Social cognition is the process of attributing characteristics to people (Macrae & Bodenhausen, 2000). Most often referred to as stereotypical thinking, categorical thinking relies on triggers, or cues, which then lead to attributions by the perceiver. Although categorical thinking assists in social perception, it may also lead to incorrect assumptions of others. This may be argued in the case of gender-based stereotypes for leadership.

The category of gender is socially constructed, and it may be argued that once the gender category is cognitively assigned it is quickly followed with corresponding expectations. Associated with the social category of gender may also be gender-based occupational stereotypes, specific to leadership. The gendered difference in leadership may be characterized by men *take charge*, and women *take care* (Catalyst, 2005).

The statistics regarding women in leadership positions tend to support this assertion. In 2012, while women comprised half of the workforce, they held 14.3% of the executive positions in Fortune 500 companies (Catalyst, 2012). Women earn half of all undergraduate, graduate, and doctoral degrees (Sandberg, 2013; Solman, 2013). Yet, hold about 30% of the total executive/senior level officer and manager positions, and 40% of the first/mid-level officials and manager positions according to the 2011 EEO-1 National Aggregate Report. Moreover, the most

frequently occupied role by women in 2010 was still secretarial or administrative work—the same as in 1950 (Kurtz, 2013).

Both men and women may use this gender-based stereotype (Christakis, 2012; Goldberg, 2013). Sandberg (2013) has written about gender roles in her attempt to encourage women to not succumb to these socially constructed roles. Yet, a recent CNN poll showed that employees tend to prefer a male boss (Wallace, 2013).

It is clear from these two statements that gender stereotypes are a part of contemporary business culture, as even when successful women are lauded for their accomplishments, it may still be couched-in gender-based stereotypes, or the women take care and men take charge dichotomy (Catalyst, 2005). Juxtapose stories in May 12, 2011 and in May16, 2013 Bloomberg Business Week publishes Jamie Dimon depicted as a sun god (Summers & Abelson, 2013) while Sheryl Sandberg is depicted as the mother of Facebook (Stone, 2011).

Statement of Problem

Gender-based stereotypes may permeate the interview process and greatly impact selection decisions. Although the interview is ubiquitous within employee selection, it has been the subject of much empirical investigation concerning its criterion-related validity and measured constructs (Arvey & Campion, 1982; Harris, 1989; Macan, 2009; Posthuma, Morgeson, & Campion, 2002). Currently, organizations are aware of potential bias and poor decisions in the interview process. To counter potential bias, companies use a number of practices, including the structured behavioral interview. Unfortunately, the structured interview has been found to remain susceptible to stereotype-based decisions (Macan, 2009; Pittinsky, Shih, & Ambady, 2000; Steele 2003). This susceptibility may be attributed to the context of the interview, as it may

induce the interviewer to rely upon interviewee cues for quick assessments (Higgins & Judge, 2004), regardless if the interviews are structured or unstructured.

There may also be a lack of understanding regarding the role that candidates' responses play in stereotype activation, and consequently, perceived job-fit. Research investigating interviewee usage of impression management (IM) techniques has demonstrated the impact it can have on the selection decision (Higgins & Judge, 2004; Macan 2009; Kleinmann & Klehe 2011; Swider, Barrick, Harris, & Stoverink, 2011). Yet, research concerning IM techniques has not adequately investigated how specific words and responses can trigger different stereotypes in the interviewer's mind. This study asserts that IM research has failed to recognize the role stereotype-based judgments play in the interview process and intended to provide insight into this dynamic, thus providing additional clarity to a largely inconclusive area of research.

This is important to consider, as interviewees who are aware of the potential for bias may attempt to counter stereotype activation through concerted, or tactical, responses. What is at issue is that under certain circumstances (those where the potential for stereotype bias may exist) an individual could reasonably attempt to minimize the impact of these stereotypes through what Roberts (2005) refers to as "social identity management." Or, what the research refers to as tactical impression management (TIM).

The research empirically investigated if interviewee responses impact the overall hiring recommendation by inhibiting job-incongruent stereotypes. It postulated that a female interviewing for a leadership position is well aware of the potential for gender-based occupational stereotypes and may respond tactically (i.e. provide coached responses) by employing TIM. By answering tactically, the female should be able to inhibit the activation of job-incongruent, female stereotypes while activating the job-congruent male stereotypes. Both

implicit and explicit stereotypes of participants were measured as they evaluated male and female candidates for a leadership position. Coached responses; or a candidate employing TIM; was the agentic, take charge (Catalyst, 2005) male response associated with advocating for one's capability and impact within a situation. Uncoached responses; a candidate not employing TIM; was the take care, (Catalyst, 2005) communal, female responses where the focus is on others' role within the situation.

The findings of this dissertation were expected to demonstrate that a candidate could influence the interview outcome through responses meant to inhibit implicit job-incongruent stereotypes. In doing so, the dissertation attempted to demonstrate that without accounting for *what* the candidate says, IM research has not adequately investigated the role of the interviewee in the activation of implicit stereotypes. Through assimilating stereotype and IM research, this study contributed to the body of knowledge needed to address this problem by empirically investigating how candidate responses effect the hiring decision through stereotype activation. Pragmatically, this may provide organizations with a better understanding of how to control for such problems and provide job candidates a better understanding of how to respond to job interview questions. Organizations may be better able to anticipate stereotype activation and thus institute additional processes to prevent or mitigate the effects of stereotype activation during the interview process. Interviewees, on the other hand, may have a better understanding of how their responses may inadvertently result in an interviewer perceiving a negative quality, and not the positive quality the response was meant to elicit.

Purpose of Study

The research investigated the impact interviewee responses have on the activation of stereotypes and subsequently the results of the interview. To accomplish this, the research

juxtaposed gender and leadership in the scenario of a phone interview. The hypotheses were as follows:

- *H1*: Participants will be more likely to recommend hiring a candidate who provides coached interview responses than a candidate who provides uncoached responses.
- *H2*: Participants will be more likely to recommend hiring a female candidate for a leadership position who provides coached interview responses than a female candidate who does not provide coached interview responses.
- *H3*: Participants will be more likely to recommend hiring a male candidate for a leadership position who provides coached interview responses than a female candidate who provides coached interview responses.
- *H4*: Participants will be less likely to attribute gender-congruent stereotypes to female candidates who provide coached interview responses than to female candidates who provide uncoached interview responses.
- *H5*: Participants who possess implicit stereotypes regarding gender and leadership will be more likely to recommend candidates who provide coached interview responses.

Outline of Remaining Chapters

An introduction, purpose, and hypotheses of the research have been presented in Chapter 1. A literature review is provided in Chapter 2, where research on implicit stereotypic judgment and IM are discussed. Throughout the literature review the argument of how IM research has not considered the interviewees responses within the context of current implicit stereotype research is presented. Chapter 3 discusses the methodology for investigating if interviewee responses impact the hiring decision through inhibiting the expression of implicit stereotypes. Chapter 4 presents the results, hypotheses testing, and statistical analyses. Chapter 5 discusses the findings, limitations, and implications of the research.

Chapter 2: Review of the Literature

Social categories help to make interactions easy (Akrami, Ekehammar, & Araya, 2006). After a few seconds of observation, it becomes clear that the man in the white coat and stethoscope around his neck is a doctor, or the man in the ski mask holding the tire iron is a thief. Given these descriptions, it is easy to classify individuals; however, context may be just as important to these social evaluations. Observing the man in the white coat and stethoscope speaking to the man in the ski mask holding the tire iron in a dark alley presents a very different situation than observing these two individuals speaking together in a room with a banner that reads 'Happy Halloween' in the background. The latter may tempt the observer to join the conversation; the former may compel the observer to run the opposite direction, call for help, or both.

While social categories make interactions easy and efficient (e.g., doctor, thief), categorical thinking does not necessarily lead to accurate evaluations (e.g., actual doctor, actual thief). Just the same, the context in which these categories are interpreted may also be important, facilitating the activation of one category (e.g. professional attire) versus another (e.g. costume) as attentional resources are devoted towards one set of cues or another (Schneider & Shiffrin, 1977). Yet, while some degree of inaccuracy is excusable when safety is a concern, there are other scenarios where categorical or stereotypical thinking may produce a suboptimal result.

One context where accurate and unbiased judgments are paramount is the hiring process of an organization. Hiring decisions based on information other than job-related information can negatively impact organizations at best, or place the organization at legal liability, at worst. For example, there are legal consequences for selection decisions made based on race, sex, or other protected classes (U.S. Equal Employment Opportunity Commission Website, n.d.). While the

legal consequences should not be diminished, equally detrimental to an organization is the systematic selection and placement of less-than-optimal employees, leading to poor organizational performance if such labor market decision-making is not improved.

To prevent both legal and performance ramifications, organizations use practices to mitigate individual bias through collecting multiple points of data about the candidate. While the interview is just one component of this process, some examples of these practices would be structured interviews, panel interviews, or asking behavioral and situational questions during the interview. Each of these practices is meant to create an accurate assessment of the candidate. Current research, however, presents conflicted results as to whether interview results are improved by such practices (Macan, 2009). Further, it may be circumspect to expect an interviewer to accurately assess a candidate's capability within a limited timeframe—especially when the candidate is only discussing, and not demonstrating, their capabilities. Thus, the context of the interview may itself pressure interviewers to rely on triggers and apply broad, categorical judgments.

A stereotype-based hiring decision is also detrimental to the candidate who was not selected for the job. Lost wages, stalled career progression, as well as impacted psyche may all result when a qualified candidate is denied a job due to stereotype bias. While observable at the individual-level, the stigmatized social group may collectively experience what is referred to as the accumulation of disadvantages (Cunningham & Macan, 2007), where multiple individuals belonging to the same social category experience similar difficulties.

Social cognition research may provide insight into the difficulty of eradicating stereotyped judgments and further explain why attempts to improve hiring decisions have yielded mixed results. Steele (2003) demonstrated how an interviewer could interpret the same

candidate differently through experimental manipulation of the candidate's social identity. Similar research has demonstrated that the activation of differing social categories impacted which traits interviewers remembered about the same candidate (Pittinsky et al., 2000). For example, upon evaluating a female-Asian job candidate, participants rated the math capability higher when the Asian category was unconsciously activated.

Automaticity of cognition may permeate daily life. That stated, assumptions or perceptions originating from unconscious stereotypes during organizational hiring decisions might be more nefarious, regardless of equal employment legislation. When reflecting upon social research at the time, Bargh (1999) commented that research had become "overly optimistic about the cognitive monster of automatic stereotype activation" (as cited in Macrae & Bodenhausen, 2000, p. 101). It may be argued that since Bargh's comment, research has demonstrated not only stereotype activation's automaticity, but given the right context, quite possibly its inevitability (Akrami et al., 2006; Schneider & Shiffrin, 1977).

Aside from inaccurate judgments due to stereotyping, the interviewer may also be influenced by interview techniques employed by the candidate. Macan (2009) and Kleinmann and Klehe (2011) indicate that interviewers conducting structured interviews can be influenced by candidate's attempts to positively influence the outcome of the interview through social interactions, or impression management (IM) techniques. Although this influence has been demonstrated, the research seems unable to completely account for how or why (Macan, 2009; Posthuma et al., 2002; Swider et al., 2011).

This dissertation attempted to bridge the gap between social cognition and IM research. It has been suggested that IM research has been inconclusive in accounting for whether IM tactics influence interviewer perception of job-related skills (Posthuma et al., 2002). Yet, current

IM research does not account for either stereotype-based assessment, or the candidate's role in the activation of stereotypes.

The dissertation investigated if coached interview responses meant to highlight job-related skills impact the hiring recommendation through inhibiting the expression of implicit stereotypes. This dissertation posited that the interviewer's perception, and ultimately hiring recommendation, is shaped through a candidate's dynamic presence in the interview process. The interviewer's perception may be influenced through the candidate's decision to hide category-salient information—or, clues, which may trigger the association of a category and its stereotypes—in the interview process, which consequently inhibits stereotype-based judgments.

The findings of this dissertation were expected to demonstrate that a candidate could influence the interview outcome through tactical impression management (TIM)—responses meant to inhibit the expression of implicit job-incongruent stereotypes. A female who emphasizes leadership qualities that are congruent with male-gendered leadership traits will inhibit the expression of female stereotypes and receive higher recommendations for hiring by interviewers. Thus, through emphasizing her capabilities associated with taking charge, (Catalyst, 2005), the candidate is actually impacting unconscious stereotype expression. In doing so, the dissertation attempted to demonstrate that without accounting for *what* the candidate says, IM research has failed to recognize the role stereotype-based judgments play in the interview process, and provide insight as to one possible reason IM research has thus far been inconclusive.

Interpreting Others Through Categories

Social cognition (Operario & Fiske, 1999) or social information processing (Castelli, Macrae, Zogmaister, & Arcuri, 2004) is the process by which humans perceive and then evaluate

others. Although social cognition involves a complicated cognitive task (Macrae & Bodenhausen, 2000), it seems that social categories are employed to simplify the process. A category may be considered a cognitive box, where perceived relevant information pertaining to the category is collected (Macrae & Bodenhausen, 2000). It is through social experiences that an individual collects and stores categorically related information. These categories may then be accessed through recall during future social experiences as they constitute the pre-existing knowledge structures the social perceiver possesses about the target, or person being evaluated (Macrae & Bodenhausen, 2000; Operario & Fiske, 1999; Schwarz, 1998).

To place a target in the appropriate cognitive box, the social perceiver relies upon information collected about the target. The perceiver uses these category triggers or cues to determine which category the target may belong. To illustrate, social categories may be Caucasian, African-American, and the categorical triggers may be fair skin, dark skin. Or, as in the opening narrative, the white coat and stethoscope are categorical triggers for the category 'doctor.'

Social category will be used to reference a descriptive category by which a target may be identified. Integral to this usage is how a social category is a social and malleable construct, contingent upon the social perceiver's experiences. Although the social category may be based on visible demography (Clair, Beatty, & MacLean, 2005; Posthuma et al., 2002), it serves the larger application of grouping the target with other category members who are perceived as similar in the mind of the perceiver. Thus, this may include many other groupings, such as occupation, political, and religious affiliation. This usage is consonant with Kawakami et al. (2012), who found that participants harmonized their self-concept with activated social

categories, which included racial groupings (i.e., Asian, African American) and wider social groupings (i.e., overweight, hippies, jocks).

Once the perceiver places the target into the cognitive box, access to the categorically relevant information is awarded allowing for both comparison to and attribution of the associated categorical characteristics (Bodenhausen & Richeson, 2010; Macrae & Bodenhausen, 2000; Macrae, Bodenhausen, & Milne, 1995). Although simplifying social evaluations, it is this cognitive process, which may lead to judgments not based on individuated information, but information derived from the application of descriptors from the category. Thus, this may be the genesis of stereotypes (Bodenhausen & Richeson, 2010), categorical thinking (Allport, 1954; Fiske, 2004; Fiske & Neuberg, 1990; Macrae & Bodenhausen, 2000) or top-down information processing.

For the purpose of this research, categorical thinking and stereotypical thinking are considered interchangeable. It is argued that both categorical thinking and stereotyping involve the application of broad descriptions to an individual based on a perceived membership to a category or group, and not on individuated evidence. Current research supports this usage, as Akrami et al. (2006) found no difference between category and stereotype priming, instead finding that a strong connection exists between the two. Further, Bukowski, Moya, De Lemus, and Szmajke (2009) seem to have blended category and stereotype in research.

Categorical Triggers and Cognitive Resources

Categorical triggers may be visible, including facial characteristics (Mason, Cloutier, & Macrae 2006) and hair (Brebner, Martin, & Macrae, 2009) but may also be obscured from visible detection, such as disease (Clair et al., 2005). It may be argued that previous research has focused on visible categories (Clair et al., 2005; Roberts & Macan, 2006) and consequently,

visible triggers. Thus race, gender and age have been the dominant categories examined in previous research (Allport, 1954; Arvey & Campion, 1982; Devine, 1989; Harris, 1989; Macrae et al., 1995; Posthuma et al., 2002). Recently, the visible categories of pregnancy (Cunningham & Macan, 2007; Macan, 2009) and disability (Roberts & Macan, 2006) have also been investigated.

Research investigating other social categories, such as occupation (Bukowski et al., 2009; Kawakami et al., 2012; Sinclair & Kunda, 1999), may be difficult, as the occupation and other social categories are not readily ascertained by the perceiver through visible means. Even other social categories, such as disease and disability, do not always manifest into visible traits. Therefore, a discernible shift seems to have occurred in the usage of visible and non visible cues in research, and may parallel the shift in the social information processing model from the cognitive miser to the motivated tactician (Fiske, 2004).

The miserly approach to social cognition. It may be argued that without cognitive methods or systems meant to simplify decision-making, humans would be left constantly interpreting sensory information derived from the external environment (Bargh & Chartrand, 1999; Kahneman 2003), thus depleting cognitive resources (Macrae & Bodenhausen, 2000; Macrae et al., 1995). Indeed, Taylor's (1981 as cited in Fiske, 2004) cognitive miser is one way to conceptualize categorical thinking, and was dominant in the 1970s and 1980s (Operario & Fiske, 1999; Schwartz, 1998). Efficiencies in decision-making, such as categorical thinking preserve this valuable resource. According to the cognitive miser model, the social perceiver will preserve cognitive resources through activation of the category most evident through triggers, and then apply descriptive characteristics associated with the readily available category, while

avoiding the allocation of cognitive resources to individuate the target through other investigative means.

The motivated tactician's approach to social cognition. The cognitive miser construct seemed to reduce the complexity of the social perception process, simultaneously diminishing the importance of other potential variables while emphasizing inherent problems in social cognition (Operario & Fiske, 1999). Yet, it may be difficult to completely eradicate the seemingly apparent usage of judgment heuristics in social perception. Thus, dual-information processing models have been created, with the motivated tactician (Fiske, 2004) becoming especially prominent in later social cognition research.

The motivated tactician accounts for the multiple pathways (Taylor, 1998 as cited in Schwartz, 1998) available to the social perceiver for solving the "cognitive puzzle" (Macrae & Bodenhausen, 2000, p. 100). One pathway operates through automatic processes, which preserve the mental resources, relying upon category cues to make top-down heuristic judgments (Operario & Fiske, 1999; Schwarz, 1999; Macrae & Bodenhausen, 2000). The other employs bottom-up information processing, which requires cognitive resources to accomplish tasks such as individuation (Operario & Fiske, 1999). The perceiver's motivational goals become the determining factor not only to which pathway is followed, but also the resultant category in top-down cognitive processing.

The research concerning the motivated tactician model juxtaposed competing categories within the mind of the individual. Once the category has been deemed important, it affects all subsequent decisions and assessments by the social perceiver. As Kunda and Spencer (2003) have written, one motivational goal leading to category activation may depend on the perceiver's desire for self-enhancement. For example, both Kunda and Spencer (2003) and Sinclair and

Kunda (2000) juxtaposed two categories with either associated negative stereotypes (e.g. female, black) or positive stereotypes (e.g. manager, doctor). The research demonstrated that the categories of manager and doctor were activated when the feedback was positive, while female and African American were the activated categories when the feedback was negative. These activated categories allowed the participant to affirm or deny the received feedback. Said differently, it may be easier for an individual to rationalize disagreement with someone's criticisms when they are female or African American, as the stereotypes of managers and doctors may include authority and comprehensive knowledge.

Multiple Category Competition

The observed shift from single category to multiple category competition may have coincided with the injection of motivational goals in social perception research (Fiske, 2004), as posited by the motivated tactician construct. It would seem that it became necessary to juxtapose a potentially salient category (i.e., race) with a seemingly benign category (i.e., occupation) to determine how motivational goals would impact stereotype activation, and thus which category would win the cognitive attention of the perceiver. That stated, it could be argued that stereotypes may contain both positive and negative features (Bodenhausen & Richeson, 2010). Thus, while it may be argued that stereotypical thinking, or application (Kunda & Spencer, 2003) may lead to faulty evaluations of the target due to misattribution of characteristics (Bargh & Chartrand, 1999), the evaluations may not always be negative. Just as it is possible to attribute undeserved negative characteristics, it is possible to attribute undeserved positive characteristics to an individual due to apparent categorical membership.

Research on competing social categories is relatively new and thus demands further attention (Kulik, Roberson, & Perry, 2007). Yet, many of these benign categories are not visibly

identifiable categories, and may only be manipulated through other signifiers or triggers, such as verbal descriptors. However, it would seem that visible categories alone might be too simplistic to capture the complexities involved in the cognitive evaluation process. In fact, Posthuma et al. (2002) have recognized the limitations that visibly discernible demographics impose on research when discussing previous studies exploring the causal relationship between demographics and interview outcomes. Roberts (2005) further supports this assertion when discussing verbal cues. Collectively, this research demonstrates the “cognitive puzzle” (Macrae & Bodenhausen, 2000).

Solving the Cognitive Puzzle

Given the context, it would seem the solving of the “cognitive puzzle” (Macrae & Bodenhausen, 2000) might be no more complex than when an interviewer assesses a candidate. The decoding of this puzzle may then be referred to as a “preconscious mental race to an attentional threshold or gate” (Macrae et al., 1995, p. 398), where triggers are used to sort through the multitude of possible categories for decision making purposes. Further, this process may be iterative and responsive (Freeman & Ambady, 2011; Roberts, 2005) to both concurrent and asynchronous cues, until one category “wins” the race. Macrae et al. (1995) suggested that research investigate how given the contextual cues, a subdominant category can be triggered, temporally replacing the dominate category further emphasizing the dynamism of this process. Context, then, may help the perceiver determine which cues to utilize, and which cues to not.

Just as the evaluation of the man wearing a ski mask and holding a tire iron will differ depending on if it is in an alley or at a Halloween party, current research has found context impacts which category may be activated in a social interaction (Casper, Rothermund, & Wentura, 2010; Castelli et al., 2004; Kawakami et al., 2012). Further, it would seem that context might also play a role in whether the activation is automatic. Casper et al. (2010) found that

context facilitated the activation of a stereotype, as categorical cues worked in concert with the context. In the research, reaction times were faster when the word for the social group matched the context, creating a compound prime (Casper et al., 2010). As an example, the word Bavarian, in combination with a picture of a crowded hall, led to participants reacting faster to the stereotype beer than when one or the other prime was missing.

The findings of Casper et al. (2010) support Castelli et al's. (2004) assertion that the process of presenting categorical triggers may also impact the automaticity of category activation, as easier-to-process primes facilitated activation versus more complex primes. Further, some category triggers of specific personalities (Ajzen, 2001) as well as categories in general (Macrae & Bodenhausen, 2000) may be more conspicuous than others. Thus, it is possible that given the interview context, an interviewer's reliance on specific traits or requisite role characteristics of ideal candidates may, in fact, present themselves as these easier-to-process primes. Within the research, gender-based leadership traits may be argued as the easier-to-process primes. These may be analogous to Schneider and Shiffrin's (1977) definition of selective attention.

It is asserted that the interview process facilitates an environment where the interviewer may be assisted by focusing on specific cognitive triggers, which determine a specific persona that epitomizes job fit. It would seem that a context, like an interview, might provide an interviewer with no alternative except to rely upon categorical triggers.

This gap demonstrates where the research resides, as previous IM research may not have controlled for all the potential triggers an interviewer may access, or that an interviewee may provide. Yet, given the importance to context and access to social cues, IM research has not thoroughly investigated if interviewee responses influence stereotype activation. It is for these

reasons that previous IM research may be inconclusive. This research attempted to address how the candidate fits into the environment and provides cues to cause automatic stereotype attribution.

Impression Management

IM describes the actions a candidate takes in an interview to ensure the interviewer has a positive impression (Macan, 2009; Posthuma et al., 2002). The research into IM, however, may be inconclusive. In an earlier review of literature, Arvey and Campion (1982) observed that research has shown that IM techniques can influence interview outcomes. This is also supported by Macan's (2009) review, although Posthuma et al. (2002) suggests IM research is inconclusive regarding *how* IM influences interview outcomes. Research has also found IM usage to not always result in the desired outcome (Higgins & Judge, 2004; Swider et al., 2011).

It is believed that a missing component of current IM research is not only how stereotype activation impacts interviewer impressions, but also how interviewee responses—in the effort to create a positive impression—may activate positive, or job-congruent stereotypes. This observation may be consonant with Posthuma et al.'s (2002) critique of IM research. This research argues this point through assimilating research on categorical thinking and IM.

Types of IM

Macan (2009) has observed the need for consistent conceptualization of IM tactics, and this research follows this suggestion through describing Assertive Impression Management (AIM) and Defensive Impression Management (DIM). Within this research it is argued that the difference between the two tactics is whether the interviewer instigated the response.

Assertive impression management (AIM). Assertive IM (AIM) is a proactive tactic where the interviewee attempts to portray a positive image to the interviewer (Higgins & Judge,

2004; Kleinmann & Klehe, 2011; Kristof & Stevens, 1994; Swider et al., 2011; Tsai et al., 2010). AIM may be further subdivided. Self-promotion occurs when the interviewee attempts to highlight the possession of a relevant capability, which may also be referred to as “boasting” (Stevens, 1989). Ingratiation, on the other hand, may be used to promote likability (Kleinmann & Klehe, 2011; Stevens, 1989) and may include responses to enhance perceived similarity between interviewee and interviewer (Higgins & Judge, 2004; Stevens, 1989). Ingratiation may also be referred to as “other-focused” in the IM literature (Macan, 2009), as Stevens (1989) also discusses tactics focusing on praising the target.

Mixed and possibly contradictory results have been found in AIM research. Swider et al. (2011) found that self-promotion tactics had a positive result. Yet, Higgins and Judge (2004) had previously found self-promotion resulted in little impact on the interviewer. Instead, Higgins and Judge (2004) found ingratiation to lead to a perception of job fit, where self-promotion did not.

Defensive impression management (DIM). Defensive IM (DIM), in contrast with AIM, may be referred to as image triage (Kristof & Stevens, 1994). In response to an interviewer’s concern regarding qualifications, accomplishments, or the past in general (Tsai et al., 2010), the interviewee may respond in a manner that diminishes the negative impact the concern has on the interviewer’s overall perception of job fit (Kleinmann & Klehe, 2011).

Both Tsai et al. (2010) and Kleinmann and Klehe (2011) have investigated the usage of justification and excuses by interviewees and seemed to treat both concepts the same. Justification has been conceptualized as the interviewee acknowledging their role, or taking ownership of a previous project failure, shortcoming, or the ilk while simultaneously suggesting there was good reason for their actions. Excuses, on the other hand, have been conceptualized as when interviewees distance themselves by placing blame on another variable, possibly another

employee or circumstance. The third tactic, apology, was investigated only by Tsai et al. (2010) and is conceptualized as the interviewee taking full responsibility for both personal actions and outcomes while providing assurance to the interviewer that the interviewee has been able to learn from the past (Tsai et al., 2010). Within the research, Tsai et al., (2010) found the usage of apology to be the most impactful on the interviewer when candidate integrity was in question (Tsai et al., 2010).

Problems with IM and Interview Research

It would seem research has not addressed whether IM; AIM or DIM; is deceitful (Macan, 2009), or whether it impacts perceived job fit (Posthuma et al., 2002). In the context of stereotype activation research, it may be necessary to investigate whether interviewee employment of IM can trigger categorical thinking, as associated characteristics would impact perceived job fit. It is asserted that the application of stereotypes may account for the inconclusive results in previous research concerning both IM and interviewing, as it was the interviewee responses which triggered categorical thinking and thus heuristic judgments, and not the IM tactics alone.

Researchers' presentation of candidate information. As previously discussed, *how* a categorical trigger is presented within the environment is important to facilitate category activation. Within the interview, it is the candidate who provides the categorical triggers. Previous IM research may have begun to investigate interviewee responses and how a trigger is presented.

For example, Roberts and Macan (2006) researched early disclosure of a non-visible disability and how this act seemed to enhance the perception of characteristics, such as honesty. Late disclosure, on the other hand, negatively impacted how the interviewer rated the candidate.

The research, however, does not investigate the verbiage the interviewee uses in the late-disclosure. What if the late-disclosure is accompanied with an expression of a desire to be honest, illustrating Tsai et al's. (2010) DIM tactic of apology?

Research concerning other stigmatized groups does not seem to fully address the presentation of this information. Cunningham and Macan (2007) found regardless of similar ratings, pregnant interviewees for a computer programmer position received significantly lower hiring recommendations than non-pregnant interviewees. Yet, although the pregnancy category trigger is manipulated, the presentation of other variables is not. For instance, could stronger interview responses meant to trigger the computer programmer category have caused participants to rate the pregnant applicant differently? This question is all the more salient when one considers that Cunningham and Macan (2007) found the pregnant applicant was stereotyped as possibly being more absent.

Cunningham and Macan (2007) also discussed how the pregnant applicant is perceived as more stereotypically female. These results imply that a woman may need to consider these possible stereotypes and determine a way to counteract the effects. Nonetheless, there is no discussion concerning how the interviewee's participation in the interview context impacted stereotype activation. Yet, it is plausible that if the script were controlled, the candidate may have been able to trigger categories with positive, job-congruent characteristics (e.g. computer programmer, dedicated, career-focused). These responses may have been enough to inhibit the manifestation of the implicit stereotypes into actual assessments.

Control for other social categories may also be at issue. Bukowski et al. (2009) juxtaposed the categories female and computer scientist when investigating if a given task would influence which category is activated. However, when introducing the hypothetical target,

Bukowski et al. (2009) used the phrase “female computer engineering student” (p. 319). There are arguably three categories, which may have confounded the results, however the research design only accounted for female and computer scientist and not the possibility of student as a category trigger. Thus, the category of student may have detracted from the capability of the computer engineer. Further, it is plausible that the resultant stereotype activation may have been different if instead of student, descriptors such as “20-year professional” or “award-winning” were used.

The presentation of interviewee qualifications may have also confounded Deprez-Sims and Morris’s (2010) research on the impact of interviewee accent in the interview. After listening to an audio segment of an interview, participants were asked to rate whether they would hire the interviewee for a human resources manager position. Although Deprez-Sims and Morris (2010) do not investigate IM, a significant weakness of the study is the dialogue of the interview, as many of the candidate’s responses do not seem to qualify him for an HR Manager position. Thus while Deprez-Sims and Morris (2010) were investigating the impact of *accentedness* (level of accent held by speaker), by using a script which uses the word “student” they may have inadvertently triggered disqualifying characteristics. For example, the interviewee discussed internship experience, possibly leading to a stereotype of inexperience through categorical thinking.

What is missing in the IM research is investigation concerning *how* the interviewee information is presented. In the case of the stigmatized group, specific words, or phrases may have actually triggered social categories which would lead to stereotypical thinking, and thus the application of characteristics of honesty, or as Tsai et al. (2010) found, perceptions of integrity. In other cases, it is plausible the lack of control for extraneous variables led to other categories

being triggered. Macan (2009) has criticized the dearth of information provided when reporting interview research, and how it may be difficult to completely understand the ramifications of the results without more detail. This criticism may be all the more salient in the context of the previous examples, where scripts are at best not described, or at worst not utilized to control for other variables.

Interview structure, demographics, and cultural expectations. The structure of the interview process in social research may also have led to inadvertent category activation. Swider et al. (2011) had a pre-interview phase, where the interviewer and interviewee were able to converse informally prior to the actual interview. Questions such as “Where are you from?” were asked (p. 1279). Although this stage was meant to build rapport, 16% of the population was non-Caucasian, and it may have been this pre-interview process which led to the findings of participants’ usage of IM as they attempted to construct a qualified persona given they may be experiencing stereotype threat. This assertion is further supported by Posthuma et al.’s (2002) postulation that interview structure may impact the usage of IM. Further still, it may be possible the pre-interview questions solicited automatic stereotyping, impacting the interviewers’ ultimate assessment of the candidate.

The collective culture of the sample population may also impact the research results, as unseen cultural expectations of behavior could play a role. Tsai et al.’s (2010) study consisted of a Taiwanese population. If the population is expecting an apology or has strong sensitivity of an individual who does apologize, then the impact of culture and stereotypes cannot be separated from the research. Further, while all three tactics had the same impact in relation to competence, apologies had the most impact with perception of integrity (Tsai et al., 2010). This observation

adds credence to the research, through further suggesting the plausibility of stereotyping with the introduction of cultural expectations, while exposing a possible weakness of Tsai et al. (2010).

The ability to accurately assess interview information, such as lying, occurs in the midst of stereotype activation and inhibition. Yet, demographics may not only impact behavioral expectations, such as is suggested with Tsai et al. (2010), but may also impact how behavior is interpreted. In research investigating an interviewer's ability to detect lies, Mast, Bangerter, Bulliard, and Aerni (2011) asked participants to detect whether the individual in the taped interview was lying or telling the truth about their personality. Within the research methodology, Mast et al. (2011) does not account for demographic correlations; yet research has demonstrated the same activities performed by people of visibly different categories are perceived differently (Kunda, Sinclair, & Griffin, 1997). One can simply ask would lie detection have been affected if the target's skin color were darker or lighter? However, Mast et al. (2011) did not correlate correct or incorrect assessments with perceived demographics or other markers of stereotypes activation.

“Honest, albeit Tactical” IM and Managing the Social Identity

Higgins and Judge (2004) have asked who may be likely to use IM? This question is interesting when juxtaposed to Macan's (2009) observation that current research has not addressed whether IM is deceitful. It may be suggested that one such person is an individual who identifies with multiple social categories or stigmatized groups due to previous experience with discrimination. The research asserts that in anticipation of stereotype activation, the conscious choice to focus on specific categories may actually be a part of the individual's self-presentational strategies and behavioral patterns in the everyday world. Further, this is not a dishonest act, but instead may be TIM. As asserted earlier, a candidate who is self-aware of

potential stereotypes may engage in social identity presentations (which focus on positive job-congruent stereotypes) while not drawing attention to incongruent stereotypes.

Act of Deceit?

Swider et al. (2011) contrast honest IM and deceitful IM in their methodology. In defining extensive image creation, Swider et al. (2011) have proposed how “minimizing undesirable traits” may constitute deceit (p. 1277). However, the act of minimizing undesirable traits is left undefined. Outright lying about qualifications is not at issue. What is at issue is that under certain circumstances where the potential for stereotype bias may exist, an individual could reasonably attempt to minimize the impact of these stereotypes through what Roberts (2005) refers to as social identity management.

At question, then, is the interviewer’s perception of undesirable traits. Swider et al’s. (2011) usage of “undesirable traits” becomes problematic when the scenario includes stereotype activation. Leary and Allen (2011) may lend support to this criticism of Swider et al. (2011) as their research investigated how people manage multiple personas simultaneously, depending on the target. IM may be used to convey accurate information unknown to others—“Honest, albeit tactical” (as cited by Leary & Allen, 2011, p. 1033). Individuals may attempt to portray characteristics honestly; however, the chosen characteristics and how they are presented may depend on the target (Roberts, 2005).

Self-Awareness and Presentational Personas

To answer Higgins and Judge’s (2004) question of who might engage in IM, one example may be multiracial individuals. Multiracial individuals may be more self-aware than those of monoracial backgrounds due to previous experiences arising from their race in different situations. Shih, Bonam, Sanchez, and Peck (2007) found individuals who identify as multiracial

seem more aware of race as a social construct. This research may support that self-awareness leads to a more tactical presentation of, as Leary and Allen (2011) refer, self-presentational personas. Self-monitoring was positively correlated with IM usage (Higgins and Judge, 2004), and may also support this argument.

Hypersensitivity to specific stereotypes, or stigma consciousness (Pinel, 1999) due to previous discrimination, may lead to a greater awareness of self, and thus a higher level of self-monitoring. This hypersensitivity may also lead to being hyper vigilant of social cues (Clair et al., 2005), which could signal if the potential for stereotyping by the target exists. There seems to be credence that an individual may engage in such behavior to either activate or inhibit possible stereotypes within the interview construct. A candidate may not only have a plan of how to present him or herself, but the plan may be modified depending on the cues given by the interviewer. This process seems consonant with Roberts' (2005) conceptualization of social recategorization, where an individual will intentionally emphasize one set of traits, or category triggers, so that the target will perceive them as belonging to the more positively viewed social category. In the midst of an interview, a female may emphasize traits that would be characterized as masculine. Also included in this behavior could be the choice to not disclose membership to a stigmatized group when there are no visible cues (Clair et al., 2005). Further, this is consonant with how Freeman and Ambady (2011), Roberts (2005), and Macrae et al. (1995) have conceptualized the social perception process from the perceiver's perspective.

It is important to note that the research did not look to change the content of the information, just how it is presented. The tactical presentation of social categories may allow candidates to benevolently impact the perception of an interviewer. In other words, the research posited that self-aware individuals may engage in either: 1) positive self-promotion (meant to

accentuate the job fit characteristics through categorical activation in the face of potentially negative stereotype activation), 2) or avoidance behavior (meant to reduce the impact of membership to a stigmatized group). Even Swider et al. (2011) seem to give credence to this area of research, as it is suggested that future researchers reconcile deceptive self-promotion and dishonesty (p. 1286).

Research Structure and Hypotheses

Higgins and Judge (2004, p. 623) have written “...interviews tend to be rather short, accurate assessments of available information and cues are critical to the success of selection decisions.” Due to the nature of the interview, the interviewer may be placed in a scenario where the most expedient method to determine the quality of a candidate requires the use of categorical cues. This unconscious reliance on cues may then cause the interviewer to rely on top-down, or stereotypical, thinking to arrive at judgments of the candidate. Thus, perception is determined by the presentation or absence of such cues.

Given the short duration of the interaction and the pressure imposed to make an accurate judgment, the interview context may facilitate the usage of categorical triggers and thus stereotypical thinking. Further, even if the interviewer is cognizant of the potential for stereotypical thinking, its unconscious usage may still be inevitable (Akrami et al., 2006; Macrae & Bodenhausen, 2000). Yet, as previously discussed, the interviewee may not simply acquiesce to an interviewer perceiving them through a given category. Instead, a candidate who is aware of the potential for bias due to previous social interactions may make a concerted effort to ensure the interviewer views their qualifications, and not necessarily the potential negative qualities associated with their social category. A female candidate participating in a phone interview for a leadership position may need to overcome the perceived social dichotomy between gender

characteristics and leadership capability in a short-amount of time, and thus served as the context for this investigation.

Phone interviews are a common personnel selection process. Once used mainly for pre-screening, phone interviews are now an accepted step in the interview process for leadership positions due to the expense of face-to-face meetings with each candidate (Needleham, 2009). As many organizations require several stages of interviews with different incumbent managers, stakeholders, and even search committees, the time commitment of individuals involved and the travel expenses for candidates can become monetarily burdensome.

The phone interview context, then, presented itself as an acceptable context for the research. It provided a context analogous with actual organizational usage. In addition, visual cues that may trigger other stereotypes were obscured from the interviewer. Thus, the interviewer needed to focus on the candidate's responses, which served as the capability or characteristic cues, and the candidate's voice served as the gender cue. Doing so allowed for the control of other cues, which may be present in a face-to face interview.

The juxtaposition of gender and leadership also helped to provide a scenario analogous to actual scenarios experienced by female job seekers. While interview questions concerning the candidate's family obligations (including questions regarding pregnancy) are illegal to ask regardless of gender, research demonstrates that the female stereotype may still operate at the subconscious-level in interviewers (Cunningham & Macan, 2007). In addition, female leaders are compared to a leadership standard that is typically masculine (Catalyst, 2007). Thus, an uncoached female candidate, or one who has not received advice on how to present her qualifications effectively in an interview, may be subject to interviewers' stereotypes, both implicit and explicit.

There is good reason to believe, however, female candidates are aware of these potential stereotypes in the interview process (Goudreau, 2011). To prepare, just as it has been argued previously, a female candidate may not only practice responses, but also try to provide interview responses to highlight qualifications. Thus, a female candidate interviewing for a leadership position also seems to be a sound choice, as she may tactically respond to emphasize certain characteristics, while deemphasizing other negative stereotypes. This approach would be to mitigate any explicit sex-based stereotyping, irrespective of the implicit stereotypes held by the interviewer.

Thus, a female candidate interviewing for a leadership position was chosen, as she may tactically respond to emphasize certain characteristics, while deemphasizing other negative stereotypes. The hypotheses for this research were as follows:

- *H1*: Participants will be more likely to recommend hiring a candidate who provides coached interview responses than a candidate who provides uncoached responses.
- *H2*: Participants will be more likely to recommend hiring a female candidate for a leadership position who provides coached interview responses than a female candidate who does not provide coached interview responses.
- *H3*: Participants will be more likely to recommend hiring a male candidate for a leadership position who provides coached interview responses than a female candidate who provides coached interview responses.
- *H4*: Participants will be less likely to attribute gender-congruent stereotypes to female candidates who provide coached interview responses than to female candidates who provide uncoached interview responses.

- *H5*: Participants who possess implicit stereotypes regarding gender and leadership will be more likely to recommend candidates who provide coached interview responses.

Given the short duration of the typical interview, interviewers must rely on specific cues or triggers that match an idealized fit. Yet, if this idealized fit is embedded in implicit stereotypes regarding gender and leadership capability then the associated triggers may also be gender-biased. The research attempted to ascertain if interviewee responses could inhibit the explication of interviewer-held implicit gender stereotypes within an interview setting.

Chapter 3: Methodology

Addressed in this chapter is the methodology used to investigate the research questions. The first section provides a summary of the study and the hypotheses, followed by a description of participants and the sample method. Next, the procedure is provided, including informed consent and confidentiality of data. This section is followed by a discussion of the experimental manipulations and the dependent measures. The chapter closes with the statistical analysis and ethical considerations.

Purpose of the Study

The research investigated the impact interviewee responses have on the activation of stereotypes and subsequently the results of the interview. To accomplish this, the research juxtaposed gender and leadership in the scenario of a phone interview. The hypotheses were as follows:

- *H1*: Participants will be more likely to recommend hiring a candidate who provides coached interview responses than a candidate who provides uncoached responses.
- *H2*: Participants will be more likely to recommend hiring a female candidate for a leadership position who provides coached interview responses than a female candidate who does not provide coached interview responses.
- *H3*: Participants will be more likely to recommend hiring a male candidate for a leadership position who provides coached interview responses than a female candidate who provides coached interview responses.
- *H4*: Participants will be less likely to attribute gender-congruent stereotypes to female candidates who provide coached interview responses than to female candidates who provide uncoached interview responses.

- *H5*: Participants who possess implicit stereotypes regarding gender and leadership will be more likely to recommend candidates who provide coached interview responses.

Participants

The target participant was an individual who possessed interview experience and responsibilities. Employees of a *Fortune 100* company were invited to participate in the study. The organization maintained the email lists, and sent the email requesting participation to targeted employees. It is believed that this approach provided a sample population that possessed experience interviewing, resulting in better generalizability than a student population. The request email may be found in Appendix A.

Approximately 1700 employees were originally invited to participate by email, and were identified because of their work responsibilities. The study was available for about five weeks, with a reminder email sent each week, and a final notice sent the last week of the study. During this time period, one hundred twenty one employees attempted to participate. Due to technical issues regarding the company's web browser, only sixty-two employees were able to attempt completing the entire study.

The final sample was much lower than the intended sample population. A-priori power analysis was considered necessary to ensure adequate preparation for sampling if the target statistical power is to be met (Cohen, 1992). To achieve a power of .80, the sample was intended to be $N = 132$ (Cohen, 1992).

Design

A 2x2 between-participants research design was used. Participants were randomly assigned to one of four groups. The manipulations were Gender of Candidate (male or female) and Type of Interview Response (coached or uncoached). This approach is similar to the design

used by Rudman and Glick (2001) when investigating if women were penalized for displaying agentic characteristics during a job interview.

Procedure

This study used *Project Implicit's* infrastructure to host the research. *Project Implicit* is a non-profit initiative affiliated with Harvard University focused on the “dissemination and application of implicit social cognition” (*Project Implicit*, n.d.). It was contracted for this research as it provides the resources and infrastructure to include implicit-levels of measurement. Using *Project Implicit's* infrastructure also allowed the research to be conducted online, and thus participation from any computer. If participation by computer were not possible, then it would be necessary to invite participants to a specific location, which could lead to more difficulty in recruitment. It is believed that this approach provided the opportunity to sample from a population that may not be able to take the time from work to participate in a laboratory study, resulting in improved external validity. Without this ability, a student population may have been necessary, limiting external validity. Further, the cost of the software or the lack of availability may have prevented the research from being completed.

The invitation email (found in Appendix A) was provided to a contact person at the business organization listed above, who sent the initial invitation and reminder emails. Reminder emails were sent every week until the close of the recruitment period, approximately five weeks from the beginning of the study. Participants participated from their own computer by clicking the link in the invitation email.

The study began with the presentation of the informed consent form. Participants were informed that the purpose of the study was to investigate the interview process. If they consented by clicking the “here” button, they moved onto the next tasks of the research.

Each qualifying participant read a passage explaining the process. They first underwent an Implicit Activation Test (IAT) exercise. After completing the IAT, they responded to the Larsen and Long (1988) Traditional Egalitarian Sex Roles (TESR) survey to measure their attitudes towards women as managers. After completing the TERS (Larsen & Long, 1988), participants were instructed to read a job description and listen to the structured interview of a candidate who was selected after a preliminary screening of the resume.

Prior to listening to the interview audio recordings, the participant listened to a clip of someone saying, “the Grand Canyon.” The participant was then asked to identify what the speaker said. This step provided the participant an opportunity to check their audio, while also providing the researcher the opportunity to screen whether participants were accurately listening, or experiencing technical problems.

The participant listened to the audio recording of a structured phone interview for a VP of Sales position, then provided a recommendation of either hire or do not hire, and assessed the candidate on several scales meant to measure qualification and perceptions of masculinity and femininity. It was suggested they take notes during the interview. As note-taking impacts recall, but does not impact accuracy (Middendorf & Macan, 2002), it is believed this approach did not skew the statistical results. Participants’ data was flagged if they did not listen to a recording in its entirety.

At the close of the study, participants were asked to provide demographic information. The participants were also asked if they had received training in interviewing, and if they had participated in the company’s diversity training. They were also asked to indicate to which affinity groups they belong. Finally, they were debriefed about the study and thanked for their

participation. A debrief was jointly written with researchers at *Project Implicit* and is found in *Appendix F*.

Informed Consent and Confidentiality of Data

Seeking informed consent from each participant preserved voluntary participation and no harm. Informed consent was in accordance with the APA Code of Ethics, and the Chicago School of Professional Psychology and its IRB. Upon clicking the link in the invitation email, participants were brought to the landing page for Consent Agreement (Appendix B). This consent agreement had been modeled after other consent agreements found in research studies hosted by *Project Implicit*. In addition, a link to a page explaining *Project Implicit's* privacy policy is included on the informed consent form. During the research, participants may have been faced with biases that they were otherwise unaware. Each participant was made aware of the possibility of psychological distress through the informed consent form.

It is important to note that for the purpose of the study, anonymity was maintained as user numbers and emails are stored separately, while data is protected by SSL encryption (*Project Implicit*, n.d.). Although IP addresses are recorded, *Project Implicit* maintains confidentiality regarding those addresses, and no identifiers were linked with IP addresses and participation in studies (*Project Implicit*, n.d.). This information was not shared with the researcher.

Confidentiality was addressed through *Project Implicit's* infrastructure, and participants were informed of the study's security. No identifying information was contained in the data that *Project Implicit* provided to the researcher. This mitigated any potential for individual identification by the researcher, or others who may discover the file. The file, however, is now maintained with a password only known by the researcher.

Job Description

The participants read that the candidate is interviewing for Vice President of Sales at a global engineering firm. This position was chosen as both sales and engineering positions have been demonstrated to be stereotypically masculine jobs (Catalyst, 2005; Catalyst, 2006; Patil, 2008; White & White, 2006). Therefore, choosing this job provided an analogous scenario where a female candidate would be applying to a position where both implicit sex-based stereotyping and explicit sex-based stereotyping may occur. Similar job descriptions on online job boards served as the model for the job description. A copy of the job description may be found in Appendix C.

Independent Manipulations

Interview Responses Manipulation

The first variable manipulated was the type of interview response provided. There were two versions of responses. The first version of candidate responses included stereotypical words (i.e. decided) associated with leadership and a focus on their own agency (Rudman & Glick, 2001) in the scenario—analogue with a coached candidate. The second version had the candidate responding to interview questions where minimal focus is placed on their agency, and instead represented a communal (Rudman & Glick, 2001) account of the scenario (i.e. facilitated). The words used in these responses were cross-referenced from two research studies (Bem, 1974; Catalyst, 2005) and were chosen due to the juxtaposition of traditional masculine-leader traits and traditional feminine-care taker traits (see Appendix E for the script of interview responses). Further, Rudman and Glick (2001) juxtapose agency and communal concern in their research regarding gender-stereotypes and interview outcomes. Sandberg (2013) in her recent book also utilized this agentic versus communal verbiage.

Gender Manipulation

The second variable manipulated was candidate gender, and was manipulated through voice and given name. Gender was manipulated by having either a female or male voice provide responses to the interview questions. The two names for the candidates; Matthew and Melissa; were chosen due to their association with gender as used in White and White's (2006) study of occupational gender stereotypes.

Dependent Measures

Implicit Activation Test (IAT) and Implicit Stereotype Measurement

Social cognition research has used differing measures of unconscious, or implicit, stereotype activation. The IAT procedure utilizes a computer to assess subconscious stereotype activation by measuring participants' relative reaction time in a word-pairing activity. Faster reaction times are indicative of implicit stereotypes, as the subject's already established knowledge pathways facilitate faster connections between two stereotype-based words. For example, White and White (2006) used the IAT process in research exploring implicit and explicit stereotypes regarding gender and occupation. Agerstrom and Dan-Olof Rooth (2011) used the IAT to measure implicit stereotypes regarding the obese, and found that IAT scores were able to predict discrimination against the obese in hiring decisions.

It is of interest to mention the growing awareness and prominence of IATs as measures of implicit stereotype outside of social psychology. A recent class action lawsuit against the state of Iowa requested IATs be administered to demonstrate hidden biases against African-Americans (Siek, 2012). In the same article, Siek (2012) observes how IATs were used when exploring stereotyped beliefs in children. IATs may not only be an accepted measure of implicit stereotype activation, but the application to discrimination in labor market decisions may just be beginning.

For this research, the Gender-Career IAT created by *Project Implicit* was used. The participant was able to complete this IAT in less than 10 minutes. They were shown a chart listing categories and the associated words. They were instructed to keep their fingers on the *e* and *i* keys of the keyboard, and to respond as quickly as possible. A word appeared in the middle of the computer screen, and the objective was to match it with the associated word by clicking either the *e* button for the word on the left, or the *i* button for the word on the right. Faster reaction times are associated with stronger possession of the implicit stereotype, as represented by a *D*-score calculated by *Project Implicit's* infrastructure (E. Umansky, personal communication, May 16, 2013).

Hiring Recommendation and Qualifications

Hiring recommendation and qualifications were measured using a modified version of the scale used by Roberts and Macan (2006), where four items were measured on a Likert response scale ranging from 1 (strongly disagree) to 7 (strongly agree). This scale had been selected as Roberts and Macan (2006) investigated disability disclosure during the interview process, a similar study. In addition, the internal consistency reliability (alpha) estimate was .92. Roberts and Macan (2006) structured the interview for an open systems analyst position. The study replaced systems analyst with Vice President of Sales. The items are listed in Appendix D.

Explicit Measures of Stereotype

Three explicit measures of stereotype were used. It is important to measure explicit stereotypes because while implicit stereotypes may demonstrate belief, explicit stereotypes demonstrate behavior, or intent to act upon implicit belief (White & White, 2006). To measure whether the responses inhibited explication of the implicit stereotypes, measures of feminine and

masculine stereotyping were given pre- (Traditional Egalitarian Sex Role Scale) and post- (Feminine and Masculine Stereotype Scale) manipulation.

Traditional egalitarian sex role, or TESR, scale (Larsen and Long, 1988). The TESR was used to assess the explicit stereotypes the participant already possessed prior to the interview prompts. Although it was administered after the IAT, it should be observed that Dambrun and Guimond (2004) found no statistical support for possible confounding when participants performed an IAT prior to measuring explicit levels of stereotype-based attitudes. The TESR is a 20-item scale measuring the participant's view of sex roles. Each of the items is on a 5-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Higher scores demonstrate the participant possessing egalitarian views on gender roles. It was found to possess high content validity and internal reliability as the corrected split-half reliability coefficient is .91 (Larsen & Long, 1988). It is estimated participants spent approximately ten minutes completing this scale.

Feminine stereotype. Explicit feminine stereotype was measured using a scale employed by Cunningham and Macan (2007). These four characteristics are: Feminine, Affectionate, Gentle, and Nurturing. Cunningham and Macan (2007) reported a Cronbach's Alpha of .80 for this measure. Each characteristic was measured on a five-point scale, ranging from 1 (not characteristic) to 5 (very characteristic). A common stereotype of female leaders is that they are seen as caretakers (Catalyst, 2005) and this scale may reveal how the participant perceived the candidate's femininity.

Masculine stereotype. Masculinity was measured by four attributes from items across the Masculinity, Femininity, and Social Desirability Scales of the BSRI (Bem, 1974): Masculine, Dominant, Ambitious, and Self-Reliant. These were chosen because they are not only stereotypic masculine characteristics, but each also seems to be the opposite of the characteristics in the

Cunningham and Macan (2007) Feminine Scale. These were measured on a five-point scale, ranging from 1 (not characteristic) to 5 (very characteristic). Further, an argument may be made that these could be considered characteristic of taking charge, the opposite, masculine dimension of taking care (Catalyst, 2005).

Measures of Candidate Capability

To simulate the interview assessment process, as well as to investigate how implicit stereotypes may be applied, the participant answered several questions regarding candidate capability. This approach is analogous to Cunningham (2011), and Cunningham and Macan, (2007). In addition, Agerstrom and Rooth (2011) asked for general perceptions of capability after assessing hiring managers IATs regarding obese candidates.

Participants rated the candidates on the following dimensions: ability to lead, ability to influence, ability to solve problems. These are not only necessary and legitimate competencies for the position and consonant to how a candidate would be assessed—these are also competencies that according to previous research, men are stereotyped as better than women (Catalyst, 2005). Thus, it was necessary to ask these questions to investigate whether the participant applied the implicit stereotypes. These were measured on a 5-point scale, ranging from 1 (the candidate does not possess) to 5 (the candidate demonstrated exemplary capability), and 3 is average (the candidate possesses the expected-level of ability).

Finally, building on the Catalyst (2005) research, participants assessed the candidate on two additional questions: 1) the candidate is likely to take charge of employees and 2) the candidate is likely to take care of employees. Both questions were measured on a five-point Likert scale, ranging from 1 (not likely) to 5 (very likely).

Statistical Analysis

The hypotheses of the research were as follows:

- *H1*: Participants will be more likely to recommend hiring a candidate who provides coached interview responses than a candidate who provides uncoached responses.
- *H2*: Participants will be more likely to recommend hiring a female candidate for a leadership position who provides coached interview responses than a female candidate who does not provide coached interview responses.
- *H3*: Participants will be more likely to recommend hiring a male candidate for a leadership position who provides coached interview responses than a female candidate who provides coached interview responses.
- *H4*: Participants will be less likely to attribute gender-congruent stereotypes to female candidates who provide coached interview responses than to female candidates who provide uncoached interview responses.
- *H5*: Participants who possess implicit stereotypes regarding gender and leadership will be more likely to recommend candidates who provide coached interview responses.

An independent *t*-test was conducted to test *H1*. The means of the four-item hiring recommendation was compared between participant groups of coached and uncoached. The null hypothesis will be rejected if a significant difference is found between the means, supporting the alternative hypothesis.

An independent *t*-test was conducted to test *H2*. The means of the four-item hiring recommendation was compared between participant groups of female-coached and female-uncoached. *H2*: The null hypothesis will be rejected if a significant difference is found between the means, supporting the alternative hypothesis.

An independent *t*-test was conducted to test *H3*. The means of the four-item hiring recommendation was compared between participant groups of male-coached and female-coached. The null hypothesis will be rejected if a significant difference is found between the means, supporting the alternative hypothesis.

An independent *t*-test was conducted to test *H4*. The means of the female stereotype scale was compared between participant groups of female-coached and female-uncoached. The null hypothesis will be rejected if a significant difference is found between the means, supporting the alternative hypothesis.

An independent *t*-test was conducted to test *H5*. The mean recommendation scores of participants with high IAT scores was compared to the mean recommendation scores of participants with low IAT scores. The null hypothesis will be rejected if a significant difference is found between the means, supporting the alternative hypothesis.

Ethical Considerations

Although minimal, participants may have been faced with biases that they were otherwise unaware. Each participant was made aware of the possibility of psychological distress through the informed consent form. Each participant was debriefed and thanked for their participation as described above. They were also provided the researcher's contact information if they wished to receive more information or have additional questions.

Chapter 4: Results

Addressed in this chapter are the results from the statistical research used to investigate the research questions. Descriptive statistics of the participants are provided. Each hypothesis is then discussed within the context of the statistical research.

Sample Population and Demographic Information

Thirty-eight participants (13 male, 23 female, 2 did not respond) ages 29-58 years were recruited from a *Fortune 100* company and participated without receiving any compensation. Approximately 79% described themselves as White/Caucasian, 11% as Black/African-Americans, 3% as South Asian, 3% as Other/Unknown, 3% as Multi-racial, 3% did not provide a response. When asked to indicate as to whether they participated in the company's resource groups (i.e. affinity groups), 87% indicated they participated in at least one group, 39% indicated they were in two or more groups, and 47% indicated they participated in the company's women-specific resource group. Finally, 95% indicated they had participated in the corporate diversity training modules.

While 1700 employees were invited, only sixty-two were able to complete the study in its entirety due to technical issues. Of these sixty-two participants, seventeen participants' data was flagged and removed as they may not have listened to the recordings in their entirety, or did not pass the audio control. Four participants were removed because they indicated they did not possess interviewing experience, and one participant was excluded due to fast response times ($.22 > .1$) and a high error response ($.46 > .30$) on their IAT results as per suggested protocol (E. Umansky, personal communication, May 28, 2015). Finally, two participants were removed due

to an outlier *D*-Score (-.73) or TESR Score (64) as these scores were greater than two standard deviations away from the mean score for all of the participants.

Scales and Reliability

TESR Scale Reliability

Participants responded to the 20-item scale measuring the participant's view of sex roles (Larsen and Long, 1988). The scale showed strong internal reliability with Cronbach's alpha .747. The 20-items were aggregated into one overall score for each participant.

Hiring Scale Reliability

Participants responded to a 4-item hiring scale as developed by Roberts and Macan (2006). Cronbach's alpha was .935 for scale, demonstrating strong internal reliability. The result also parallel's Roberts and Macan's (2006) Cronbach alpha of .92. The four-items were aggregated into one overall rating for each participant.

Feminine Scale Reliability

Participants responded to the 4-item femininity scale developed by Cunningham and Macan (2007). Cronbach alpha was .674, showing good internal reliability. The four-items were aggregated into one overall rating for each participant.

Measures of Stereotype

Implicit Stereotype and Implicit Association Test Results

D-Scores representing individual participant's results on the IAT were received already calculated from *Project Implicit*. Computed response times represent the measure of implicit attitudes towards gender and career. Positive, higher *D*-Scores are indicative of an individual possessing a stronger associate of male with careers. *D*-Scores close to zero demonstrate no association, while negative scores may indicate the participant possesses a female-career

association. Total *D*-Score ($M = 0.34$, $SD = 0.32$) indicates a moderate male-career association for the entire population ($n = 38$).

Thirty-six participants provided their gender, with thirteen male and twenty-three female participants. An independent-samples *t*-test was run to determine if there were differences in implicit stereotypes between male and female participants. As assessed by Shapiro-Wilk's test ($p > .05$) *D*-Scores were normally distributed. There was homogeneity of variances, as assessed by Levene's test for equality of variances ($p = .122$). While male participants ($M = .28$, $SD = .37$) scored lower than female participants ($M = .40$, $SD = .23$), there was no statistically significant difference between male and female participants, $M = -.13$, 95% CI [-.35 to .10], $t(34) = -1.16$, $p = .122$.

Explicit Stereotype and TESR Results

The TESR Scale (Larsen and Long, 1988) measured explicit feminine stereotype. Higher scores approaching 100 are associated with egalitarian, or equal views towards gender and familial and career roles. Aggregate scores for each participant were calculated. Scores for the entire population indicate a more egalitarian view of women regarding familial and career roles ($n=38$, $M = 84.9$, $SD = 6.52$).

There were 13 male and 23 female participants, and two did not respond to the question. An independent-samples *t*-test was run to determine if there were differences in explicit stereotypes between male and female participants. As assessed by Shapiro-Wilk's test ($p > .05$) *D*-Scores were normally distributed. Homogeneity of variances was not met, as assessed by Levene's test for equality of variances ($p = .011$). A statistically significant difference between male ($M=81.23$, $SD = 8.01$) and female ($M=87$, $SD = 4.72$) participants was found, with male

participants scoring lower than female participants, $M = -5.86$, 95% CI [-10.99 to .72], $t(16.81) = -2.410$, $p = .028$.

Voice Manipulation and Hiring Score

Participants' assessed whether they would hire the interviewee on a four-item hiring scale (Roberts and Macan, 2006). The aggregate score for each participant was calculated, and an independent-samples t -test was run to determine if there were differences in hiring score for male voice and female voice manipulations. As assessed by Shapiro-Wilk's test ($p > .05$) hiring scores approximated a normally distributed. Homogeneity of variances was met, as assessed by Levene's test for equality of variances ($p = .850$). No statistically significant difference between male voice hiring rating ($n = 24$, $M = 16.63$, $SD = 5.42$) and female voice hiring rating ($n = 14$, $M = 19.14$, $SD = 5.02$) participants was found. Hiring ratings for the male voice were lower scores than hiring ratings for the female voice, $M = -2.52$, 95% CI [-6.12 to 1.08], $t(36) = -1.42$, $p = .165$.

Voice Manipulation and Take Care Rating

Participants' assessed how likely the interviewee would take care of future employees as a leader. An independent-samples t -test was run to determine if there were differences in take care ratings given to the male voice and the female voice manipulations. As assessed by Shapiro-Wilk's test ($p > .05$) take care ratings approximated a normally distributed. Homogeneity of variances was met, as assessed by Levene's test for equality of variances ($p = .773$). No statistically significant difference between ratings given to the male voice manipulation ($n = 24$, $M = 3.33$, $SD = 1.13$) and the female voice manipulation ($n = 14$, $M = 3.64$, $SD = 1.08$) was found. Take care ratings for the male voice were lower than take care ratings for the female voice, $M = -.310$, 95% CI [-1.07 to .449], $t(36) = -.827$, $p = .413$.

Voice Manipulation and Take Charge Rating

Participants' assessed how likely the interviewee would take charge of future employees as a leader. A Mann-Whitney U Test was used to determine if there were differences in take charge ratings between the male and female voice manipulation. Take charge ratings for the male voice (mean rank = 16.79) were statistically significantly lower than for female voice (mean rank = 24.14), $U = 233$, $z = 2.071$, $p = .038$.

Hypotheses Testing

Hypothesis 1

H_1 states participants will be more likely to recommend hiring a candidate who provides coached interview responses than a candidate who provides uncoached responses. Support for the first hypothesis was not found. Participants' assessed whether they would hire the interviewee on a four-item hiring scale (Roberts and Macan, 2006). Thirty-eight participants scored the interviewee, with twenty rating the agentic, or coached script and eighteen scoring the communal, or uncoached script.

An independent-samples t -test was run to determine if there were differences in how participant's scored the coached and uncoached interviewee. As assessed by Shapiro-Wilk's test ($p > .05$) hireability scores were normally distributed. Homogeneity of variances was not met, as assessed by Levene's test for equality of variances ($p = .068$). No statistically significant difference between coached ($M = 16.80$, $SD = 6.09$) and uncoached ($M = 18.4$, $SD = 4.41$) interviewees was found, $M = -1.59$, 95% CI [-5.12 to 1.94], $t(36) = -.912$, $p = .368$. The alternative hypothesis must be rejected and the null hypothesis is accepted.

Hypothesis 2

H2 states participants will be more likely to recommend hiring a female candidate for a leadership position who provides coached interview responses than a female candidate who does not provide coached interview responses. Support for the second hypothesis was not found. Fourteen participants assessed the interviewees, with six assessing the agentic, or coached script and eight assessing the communal, or uncoached script.

An independent-samples *t*-test was run to determine if there were differences in how participant's assessed the female-coached and female-uncoached interviewee. As assessed by Shapiro-Wilk's test ($p > .05$) hiring scores approximated a normal distributed. Homogeneity of variances was met, as assessed by Levene's test for equality of variances ($p = .674$). No statistically significant difference between coached ($M=19.50$, $SD = 5.54$) and uncoached ($M=18.88$, $SD = 4.97$) interviewees was found, $M = .625$, 95% CI [-5.51 to 6.76], $t(12) = .222$, $p = .828$. The alternative hypothesis must be rejected and the null hypothesis is accepted.

Hypothesis 3

H3 states participants will be more likely to recommend hiring a male candidate for a leadership position who provides coached interview responses than a female candidate who provides coached interview responses. Support for the third hypothesis was not found. Twenty participants assessed the interviewees, with fourteen assessing the male, coached voice and six assessing the female, coached voice.

An independent-samples *t*-test was run to determine if there were differences in how participant's scored the coached and uncoached interviewee. As assessed by Shapiro-Wilk's test ($p > .05$) hireability scores approximated a normal distributed. Homogeneity of variances was met, as assessed by Levene's test for equality of variances ($p = .646$). No statistically significant difference between male voice ($M=15.64$, $SD = 6.13$) and female voice ($M=19.50$, $SD = 5.54$)

interviewees was found, $M = -3.86$, 95% CI [-9.98 to 2.27], $t(18) = -1.323$, $p = .202$. The alternative hypothesis must be rejected and the null hypothesis is accepted.

Hypothesis 4

H4 states participants will be less likely to attribute gender-congruent stereotypes to female candidates who provide coached interview responses than to female candidates who provide uncoached interview responses. Support for the fourth hypothesis was not found. Fourteen participants assessed the interviewees on the femininity scale. Six assessed the female, coached voice and eight assessed the female, uncoached voice.

An independent-samples *t*-test was run to determine if there were differences in how participant's assessed the female, coached voice and eight assessed the female, uncoached voice. As assessed by Shapiro-Wilk's test ($p > .05$) femininity scores approximated a normal distributed. Homogeneity of variances was not met, as assessed by Levene's test for equality of variances ($p = .010$). No statistically significant difference between coached ($M=7.833$, $SD = 1.94$) and uncoached ($M=9.00$, $SD = 4.62$) interviewees was found, $M = -1.17$, 95% CI [-5.8 to 3.25], $t(12) = -.576$, $p = .575$. The alternative hypothesis must be rejected and the null hypothesis is accepted.

Hypothesis 5

H5 states participants who possess implicit stereotypes regarding gender and leadership will be more likely to recommend candidates who provide coached interview responses. Support for the fifth hypothesis was not found. *D*-Scores of .35 or greater are viewed as indicative of moderate implicit stereotypes (Hahn et al., 2013). Twenty-two participants met this criterion.

An independent-samples *t*-test was run to determine if there were differences in how participant's scored the coached and uncoached interviewee. As assessed by Shapiro-Wilk's test ($p > .05$) hireability scores approximated a normal distributed. Homogeneity of variances was met,

as assessed by Levene's test for equality of variances ($p = .100$). No statistically significant difference between coached ($n = 10, M = 14.40, SD = 6.54$) and uncoached ($n = 12, M = 17.00, SD = 4.61$) interviewees was found, $M = -2.88, 95\% \text{ CI } [-7.57 \text{ to } 2.37], t(20) = -1.092, p = .288$. The alternative hypothesis must be rejected and the null hypothesis is accepted.

Summary of Results

Results of the statistical inquiry testing the hypotheses have been provided. A small sample was obtained from a *Fortune 100* company, constrained by initial issues with technology. This small sample represented a proportionately large Caucasian, female demographic, which seemed to be actively involved in the company's affinity groups. While the scales provided strong internal reliability and comparable results to previous research, there was no statistical support found for the hypotheses.

Chapter 5: Discussion

Current news is rife with examples of disparities among women in leadership, highlighting male-female gender differences. While some articles point out the lack of female representation in leadership (Riley, 2014), other articles expose the potential sexism and treatment women leaders may face (Lowrey, 2015; Tett, 2014). Further, business leaders who lead a male-dominated company such as Sheryl Sandberg are continuing to bring attention to the issue through publications focused on supporting women (Sandberg, 2013), as well as initiatives to eradicate negative stereotypes and support young children when they may face such stereotypes (Sandberg and Chavez, 2014).

It is clear female employees are well aware of the potential for stereotypes during the interview process, and thus may choose to respond in ways that may inhibit the negative stereotypes, while enhancing the potential for positive stereotypes to be associated with their candidacy for the position. As Roberts (2005) discusses professional image construction within the organization, individuals subject to these stereotypes may in fact engage in such behavior during the selection process.

Yet due to unconscious stereotypes, interviewers may or may not be aware of their biased assessments. Once the interviewer is exposed to the categorical trigger, they may begin to solve the “cognitive puzzle” (Macrae & Bodenhausen, 2000) and assess the candidate within the gender-based stereotypic parameters that seem to exist regarding leadership, where women take care, while men take charge (Catalyst, 2005). Further, these assessments may occur at the unconscious-level, leading to biased assessments of which the interviewer is simply unaware (Kunda and Spencer, 2003; Sinclair and Kunda, 2000). Even within higher education there may

be support that unconscious stereotypes can impact the student evaluation process along gender, resulting in higher ratings for perceived male instructors (Mulhere, 2014).

The current research investigated the impact interviewee responses have on the activation of implicit stereotypes, and subsequently the interview results. The research constructed a scenario analogous to a phone interview, where participants were asked to assess candidates responding with two different scripts: agentic, or coached responses and communal, or uncoached responses. This dichotomy aligned with the Catalyst (2005) research suggesting the take care/take charge gender-leadership dichotomy, and considered how previous research had demonstrated how agentic women might receive negative evaluations (Rudman and Glick, 2001). Further, a voice manipulation was employed, where participants either heard a female voice, or a male voice, thus the methodology juxtaposed the gender-leadership stereotypes while measuring both implicit and explicit stereotypes of the interviewers.

The research also intended to extend the IM literature, as the literature seemed to be inconclusive concerning whether IM was effective in eliciting positive interviewer assessments. In doing so, the research recognized that IM research lacked both implicit and explicit measures of interviewer stereotype. The research also attempted to control for categorical triggers, which may occur during the interview. Thus, the visible demographic categorical cue was removed and only the male or female voice and names were the gender cues.

Just as important to the gender cue was the control of the interviewee responses, or script, interviewers heard and by which they assessed the candidates. Previous IM research seemed to not control for this variable, most often assessing interviews within naturally occurring work or collegiate settings. By utilizing a script, this research attempted to control for this variable.

The current research posited that agentic, or the stereotypical take charge (Catalyst, 2005) male-characteristics would lead to higher scores for potential candidates regardless of gender as they would be expressing male-congruent leadership traits. In addition, it was posited male candidates would score higher than female candidates, while female candidates who demonstrated male-congruent leadership characteristics would score higher than females who did not demonstrate such leadership characteristics. However, it also posited agentic female candidates would not be rated as high as the male, agentic candidates.

As expected, IAT scores indicated a slight-to-moderate male/career association for the entire sample. Just as important, no statistically significant difference was detected between male and female participants, indicating the expected societal implicit association of male-gender and careers held by the sample. Yet, no statistically significant difference was detected among any of the hypotheses.

Although not statistically significant, counter to the hypotheses, male candidates were not rated higher than female candidates, and instead female candidates were rated higher on the hiring scale. Further, the ratings for female voice manipulation on the take charge scale was statistically significantly higher than the male scores—an unexpected result potentially contrary to research on gender-based leadership stereotypes. To account for these findings, we may need to consider culture of the sample population; something discussed previously in the literature review; as well as training and demography.

Culture – Societal and Organizational

First, it may be too simplistic to consider how agentic, or male-gendered leadership traits will be received positively without considering the national culture of the population, as well as

the organizational culture. In addition, it may also be ill advised to assume agentic female candidates would also be penalized in all situations. Although along stereotypic-gender lines, given the appropriate context, either agentic or communal leadership traits may be desirable. For instance, Hofstede (2001) discusses the cultural dimension of masculinity and femininity, juxtaposing how a society may value either the agentic, masculine dimensions, or the communal, feminine dimensions. As the feminine dimensions such as nurturing are congruent with the take care paradigm (Catalyst, 2005) presented within this research, it is possible societal culture could account for a similar research result.

Further, corporate or organizational culture may also account for these results. Many organizations emphasize teamwork, employee well-being and other characteristics typically associated with a take care paradigm. A sample population with participants originating from one company could also account for the findings if this culture did in-fact emphasize such cultural values. Yet, this research attempted to control for culture by asking the participant to assess a candidate for a job unrelated to their current company; however, that may not have been enough as participants may have used their own corporate culture as a selection determinate.

Both societal and organizational culture may account for the previously discussed inconsistencies found within the IM literature. While it is important to present oneself positively in an interview, there may need to be an account for context. Higgins and Judge (2004) have written self-promotion was ineffective on hiring recommendations. Yet, within their research perceived fit was shown to have a larger impact on the hiring recommendation than self-promotion. Thus, when engaging in TIM, an interviewee may need to consider culture first; societal and organizational; when determining how to respond to interview questions.

Awareness – Training and Demography

Diversity training and demography might also have impacted the findings. The TESR (Larsen and Long, 1988) scores were high, indicating a more egalitarian approach to gender and social roles. Juxtaposing these scores with the IAT scores, and given the population had overwhelmingly participated in some diversity training, it may be surmised their ability to overcome the potential for unconscious bias regarding male-leadership assessments. It is possible diversity training and awareness may have led to the statistical results.

The sample population was largely composed of female participants with very strong activity within employee affinity groups. This demographic composition could also have led to the results where female candidates are not penalized, nor viewed as unable to take charge in comparison to the male candidate. However, without a larger sample population it is difficult to generalize outside the research.

Limitations

This research is significantly limited due to such a small sample population originating from one company. No statistically significant results were found to support the hypotheses, leading to difficulties to generalize results outside this study. A larger sample population might have been obtained if not for technological difficulties, thus the scope of the results is limited.

Further, while both gender and script were controlled, culture, as discussed may not have been adequately controlled. While it was posited a job description from a disparate industry could prevent participants from superimposing their own organizational culture, the results may indicate otherwise.

Future Research

As previously discussed, future research would benefit from clear control over national culture and organizational culture. For example, either quantitative or qualitative measures could help indicate the culture to which participants associate. The use of qualitative measures may also solicit additional insight as to how culture played a role in interview assessment.

To limit the impact of organizational culture on results, researchers may sample populations from multiple companies instead of one company. Further, researchers may sample populations from within professional organizations, thus increasing chances of obtaining a sample that intersects with multiple companies and industries. If researchers sample from within one specific company, it may be best to use a job from within the company, and then manipulate the desired demographic characteristics.

Although a small sample size, research did not support IATs as an indicator of interview results. While they may measure implicit attitudes or stereotypes, there are many other variables, which may impact the overall hiring recommendation. More research may be needed prior to the implementation of IATs as a tool for organizational assessment, and thus application for any other usage other than awareness may be tenuous.

Conclusions

As the interview process is susceptible to both unconscious bias and impression management, this research attempted to extend the literature by bridging both areas, while proposing how the candidate may impact the interview outcome through tactical impression management (TIM) to inhibit job-incongruent stereotypes. Given the prevalence of the interview within personnel selection, research investigating how implicit biases impact the overall assessment; and the candidate's role in their activation; is vitally important as both organizations

and candidates can only benefit from improved selection processes. While support was not found for the hypotheses, this research contributes to the literature by providing support for the need to control for societal culture, organizational culture as well as diversity training and awareness of the interviewer. Further, this research identified the need to methodologically control for interviewee responses, while utilizing a potential methodology to solve such a problem within research. In following these suggestions, future research may be better able to account for how interviewee responses impact the inhibition of implicit stereotypes, and subsequently the hiring decision.

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Appendix A: Invitation Email to Participants

This email is being sent on behalf of John Varlaro (please note that your email address has not been shared with John):

Hello, my name is John Varlaro and I am a Doctoral candidate in Business Psychology at the Chicago School of Professional Psychology. I am seeking individuals to participate in research concerning the perceptions of capable leadership during the interview process. The results of this study will help organizations make better selection decisions. It will also help those who are interviewing better understand how their responses may impact the overall perception of their capabilities.

Please be aware that you will participate from your computer (a keyboard and sound are necessary). The research is hosted by the Project Implicit, a non-profit and international collaborative of researchers. For more information on Project Implicit, please click [here](http://www.projectimplicit.org) (<http://www.projectimplicit.org>).

The total research will take about 30 minutes. Your responses will be kept confidential. Finally, participation is voluntary, and you may exit the study at any time.

If you are interested in participating, please click [HERE](#)

(<https://implicit.harvard.edu/implicit/Launch?study=/user/emily/clients/varlaro/interview.expt.x>

[ml](https://implicit.harvard.edu/implicit/Launch?study=/user/emily/clients/varlaro/interview.expt.x)). Any questions regarding this study, please contact me at: jdvarlaro@icloud.com

Respectfully,
John D. Varlaro

This research is being supervised by **Michael Stowers, Psy.D.**, and it has been approved by the Institutional Review Board of the Chicago School of Professional Psychology.

Appendix B: Consent Agreement

Title: Leadership Qualifications: An Investigation of Interview Responses for Leadership Positions.

Investigators: *John D. Varlaro*

We are asking you to participate in a research study. Please take your time to read the information below and feel free to ask any questions before signing this document.

Purpose:

The purpose of the study is to investigate the impact interviewee responses have on interviewer and the outcome of the interview process. Specifically, the research is concerning the perceptions of capable leadership during the interview process.

Procedures:

You will be asked to complete a series of activities and tasks. First, you will be asked to complete an Implicit Association Task. You will then be asked a series of questions measuring your attitude towards women in careers. Next, you will be asked to read a job description and then listen to 5 responses to 5 interview questions, after which you will be asked to assess the candidate's qualifications based on their responses. At the close of the study, you will respond to general demographic questions, including your participation in CVS groups and training. No personal identifying information will be collected. The research must be completed from a computer with internet access and a keyboard (no tablets or smartphones). The research is hosted by the Project Implicit, a non-profit and international collaborative of researchers. There is no compensation provided for participation. Approximately 30 minutes should be set aside to complete this study.

Risks to Participation: Because no specific information is collected about the participants, you will be exposed to no more than minimal risk by participating in this study identified as breach of confidentiality.

Benefits to Participants:

You will not directly benefit from this study. However, we hope the information learned from this study may benefit society in our understanding of how interviewee responses impact the overall perception of their capabilities.

Participation in this study is voluntary. You may withdraw from study participation at anytime without any penalty by closing the browser window.

Confidentiality:

As stated above, the research is hosted at Project Implicit. For more information regarding their information security and privacy policy, please visit their website. Other than general demographic information, no personally identifying information will be collected. As per APA guidelines, research materials will be kept for a minimum of 5 years.

Questions/Concerns:

Any questions regarding this study, please contact John D. Varlaro at jdvarlaro@icloud.com, or Mike Stowers, Dissertation Chair, mstowers@thechicagoschool.edu.

If you have questions concerning your rights in this research study you may contact the Institutional Review Board (IRB), which is concerned with the protection of subjects in research project. You may reach the IRB office Monday-Friday by calling 312.467.2343 or writing: Institutional Review Board, The Chicago School of Professional Psychology, 325 N. Wells, Chicago, Illinois, 60654”

Consent**Subject**

The research project and the procedures have been explained to me. **By clicking the button below I am indicating I have read the informed consent statements above, am 18 years of age or older, and agree to participate.** My participation is voluntary and I do not have to sign this form if I do not want to be part of this research project.

Appendix C: Job Description, Vice President of Sales

Job Description

•The Vice President of Sales at ACME global engineering will provide management and direction for the sales function of the company.

The role priorities will include:

Strategic planning

Sales planning and forecasting

Process improvement & quality assurance

Talent Management and Employee Development

Problem Resolution

Responsibilities:

Sales Management

- Manage Sales and Sales Operations functions.
- Develop the strategic sales plan including competitive analysis, positioning, pricing and sales targets.
- Establish all sales department policies, processes and systems including the management and consistent use of the CRM by the sales team.
- Assess the current department infrastructure and implement changes as appropriate to enhance the effectiveness of the sales function.
- Lead continued expansion of the organization to drive broader market awareness of products and services and expand the sales pipeline.

Planning & Financial

- As a member of the senior management team, assist in the development and formulation of long and short-range planning, policies, programs and objectives.
- Oversee sales budget of approximately 3 million dollars to ensure compliance with expenditure requirements.
- Develop and meet the established sales plan

Management & Staffing

- Direct and monitor sales managers to accomplish goals of the sales plan
- Act as liaison between department management/subordinate levels, as well as, executive/department manager levels to inform personnel of communications, decisions, policies and all matters that affect their performance, attitudes and results.
- Leadership and management of staff to ensure clear direction, open communication and effective operational performance to support company goals
- Hire, train, develop and evaluate top-talent staff.
- Manage performance and take corrective action, as necessary, on a timely basis and in accordance with company policy.
- Ensure compliance with current federal, state and local regulations. Consulting with Human Resources Department as appropriate.

Requirements:

- BS in engineering, (industrial or Systems), or a 4-year technical degree in related discipline; Master's degree in related discipline is preferred
- Sales leadership and management experience with 10+ years in engineering management
- Previous senior leadership experience (a minimum of 5 years)
- Proven record of assessing, planning, and implementing strategic sales plans which improves overall performance and ensures competitive positioning.
- Problem analysis and problem resolution skills, at both a strategic and functional level.
- Demonstrated experience with employee performance management, training, and development.
- Recent and proven track record in building a rapid growth operation with a fast-growing organization.

Personal Skills / Attributes:

- Demonstrated leadership in the management of sales, staff development and team building.
- Results-oriented leader with the ability to articulate clearly and manage to results.
- Outstanding capacity to carry the company vision to all areas of responsibility and motivate others to achieve targeted objectives.
- Strong customer orientation with the ability to build accountability, and drive innovation and strategic change while maintaining trust and involvement
 - Demonstrated effectiveness building solid client relationships.
 - Independent, strong work ethic, highly motivated and ability to “think outside the box.”
 - Excellent management, organizational, interpersonal and communication skills.

Appendix D: Hiring Recommendation Scale

1. I would evaluate this applicant's qualifications for the position of Vice President of Sales favorably
2. I feel that this applicant would be well-suited to the job of Vice President of Sales
3. Overall, I would evaluate this applicant favorably based on what was said in the interview
4. Based on all of the information I have about this applicant, I would hire the applicant

Appendix E: Script of Interview Questions and Responses

Taking Charge (seems to elevate self above others and diminish role of others)

Key Words: Direct, Manage, Delegate (what to do)

Taking Care (seems to elevate others and diminish role of self)

Key Words: Helped, Assisted, Communicated, Focus on Relationship

Question Number One (AIM):

Tell me about a time when you succeeded in leading a project.

Agentic: I successfully delegated to each employee what their role was in the project. This ensured each employee understood their role and what they were accountable for delivering. This approach led to an increase in \$2 million a year

Communal: I successfully communicated with and assisted each employee in understanding what their role was in the project. This ensured each employee understood their role and what they were accountable for delivering. This approach led to an increase in \$2 million a year

Question Number Two (DIM; This would reverse for character):

Tell me about a time when you experience failure in leading a project.

Agentic: This would actually relate to the project discussed in the first question, as set backs were experienced in the beginning. There was disagreement in how to begin the project regarding roles and responsibilities. Specifically, there was conflict between two employees they alone were not able to resolve. This is when I became more directive and delegated roles and responsibilities. This helped contribute to the success of the project.

Communal: This would actually relate to the project discussed in the first question, as set backs were experienced in the beginning. There was disagreement in how to begin the project regarding roles and responsibilities. Specifically, there was conflict between two employees that I did not anticipate. It was at this point I became more inclusive and listened to each before determining who would have what roles and responsibilities. This helped contribute to the success of the project.

Question Number Three (AIM):

How do you coach employees?

Agentic: I coach employees through providing guidance and setting a strong leadership example. I further accomplish this through providing direct and frank feedback on a regular basis while explaining how they can improve. It is through this approach I coach employees. In total I have had about 10 employees that have moved forward and advanced their career into senior level positions.

Communal: I coach employees through asking what they wish to learn and understanding their perspective. I further accomplish this through providing examples of how this advice has helped me improve, as well as providing feedback on a regular basis and helping them understand how they can improve. It is through this approach I coach employees. In total I have had about 10 employees that have moved forward and advanced their career into senior level positions.

Question Number Four (AIM):

How do you resolve conflict?

Agentic: I resolve conflict through stepping in and explaining to each side the other perspective. I accomplish this through bringing both parties together to address the conflict directly. For example, a month ago two employees were experiencing conflict regarding a consumer complaint. I have found that my approach was extremely effective in resolving conflict and getting the employees to come to a compromise. I think this best exemplifies my approach to conflict resolution.

Communal: I resolve conflict through bringing both sides together to understand the other perspective. I accomplish this through coordinating a meeting between both sides. For example, a month ago two employees were experiencing conflict regarding a consumer complaint. I have found that my approach was extremely effective in resolving conflict and getting the employees to come to a compromise. I think this best exemplifies my approach to conflict resolution.

Question Number Five (AIM):

How do you influence others?

Agentic: I influence others by asking questions, getting to know what they want and demonstrating the value in my side. This allows me to mitigate any questions and thus influence the final decision.

Communal: I influence others by establishing a relationship. It is through the relationship I can learn what they want and the value they seek. This allows me to mitigate any questions and thus influence the final decision.

Appendix F: Debrief

Thank you very much for your participation!

Your participation and results have contributed to better understanding perceptions regarding leadership qualifications. In this study you assessed a candidate's qualifications for a position based on their responses to five interview questions. Prior to this assessment, we measured your automatic attitudes as well as your explicit attitudes regarding gender and work.

If you would like to find more about automatic attitudes and IATs, please visit the Project Implicit website (www.projectimplicit.com)

If you have any further questions, please email the researcher, John D Varlaro (jdvarlaro@icloud.com).

You may click [here](#) to print this page.

Thank you again for your participation.