RATING LEADERSHIP POTENTIAL FROM ABOVE:
THE EFFECTS OF IMPLICIT THEORIES ON
SUPERVISORS’ RATINGS OF LEADERSHIP POTENTIAL

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RATING LEADERSHIP POTENTIAL FROM ABOVE:
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ABSTRACT

Although supervisors are increasingly being asked to rate the leadership potential of their subordinates for use in various talent management practices, it is unclear what these ratings are based upon. Based on social categorization theory and leadership identity construction theory, it was proposed that supervisors will tend to use implicit followership theories (IFTs) in addition to implicit leadership theories (ILTs) to evaluate the leadership potential of their subordinates. Additionally, it was proposed that subordinates’ traits influence their perceived match to IFTs and ILTs. Results demonstrated that the degree to which supervisors perceive a match to IFTs predicts ratings of leadership potential, even when accounting for matches to ILTs and liking. However, the direction of this relationship was opposite of that anticipated. Additionally, both proactive personality and Machiavellianism were found to influence the social categorization process. These results may help inform future theory regarding IFTs and high potential practices.
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CHAPTER I
INTRODUCTION

Supervisors often must assess various aspects of their subordinates’ job performance, including their current performance and their potential for growth (Feldman, 1981; Silzer & Church, 2009). As organizations increasingly focus on identifying and developing internal talent as part of their talent management strategy, it is becoming more common for supervisors to be held accountable for evaluating the leadership potential of their workforce (Hiltrop, 1999; Silzer & Church, 2009). For example, a survey of managers by Slan-Jerusalim and Hausdorf (2007) found that more than a third of companies reported having a high potential identification program, and that these programs typically identify high potentials based on a combination of information including personal experiences with that individual as well as the individual’s performance appraisals and performance results.

Ratings of potential are often used to determine how to allocate developmental resources and to make promotion decisions for leadership positions. Employees who are identified as having high leadership potential are often given additional resources and support by their leaders, including more and/or higher quality coaching, mentoring, developmental opportunities, feedback, meet-and-greets with senior leaders, and promotions (Silzer & Church, 2009). For instance, in a survey of 758 organizations, 60% of respondents said that their organization has a talent management program. Of those
respondents who have a talent management program, 50% focused talent management solely on employees designated as being high potentials (Assessment Circle Europe, 2011). Thus, supervisors’ judgments regarding their workforce’s potential can have no effects on the organization’s performance.

However, not everyone who is labeled as a high potential within an organization is successful. For instance, Kaiser and Craig (2004) noted that the success rate for promotions is low. Roughly 50% of managers fail in a new position, and about a third of high potentials derail. They speculated that high potentials often fail because the differences between level transitions in the organization are often underappreciated. For example, promotions may be based on past performance in previous or current roles rather than on potential in the new role. As I will argue in more detail later, this may be because supervisors do not encode subordinates’ behaviors in terms of potential leadership, but rather in terms of followership. Thus, although identifying and leveraging potential seems to be an important goal for many organizations, it may be hard for organizations to understand the criteria used to identify potential (Silzer & Church, 2009).

In part, this may be due to the relative newness of programs based on identifying potential. For instance, Weik (2004) found that 57% of all companies that were surveyed had been formally identifying and developing high potentials for less than three years. Thus, although ratings of leadership potential can influence several organizational outcomes, it is not clear why these ratings are not always successful at predicting future performance.

Whereas researchers have developed a fairly thorough understanding of the nature of typical performance appraisals and upward leadership ratings (that is, ratings of
leadership by followers or subordinates), less is known about how supervisors’ ratings of subordinate leadership potential are construed. However, research on performance appraisals suggests that the perspective of the rater should not be ignored. For example, Lance, Hoffman, Gentry, and Baranik (2008) have contended that *rater source effects* in multisource ratings, in which there is greater rating convergence within a rater source than across rater sources, reflect the complementary perspectives of different rater groups rather than simply being unwanted systematic bias. Because raters use their unique perspectives when providing ratings, raters at different levels in the organization’s hierarchy likely base their ratings on different criteria. As a result, the decision process that is involved in deciding whether an individual exhibits leadership potential is likely different depending on whether the rater is hierarchically above or below the ratee within the organization.

In response to these issues, the current research aims to build upon existing theories and will outline a framework of the mechanisms affecting a supervisor’s ratings of subordinate leadership potential. Although my argument will be more explicitly detailed in the following sections, a brief overview will be given now. Using leader and follower categorization theories (Carsten, Uhl-Bien, West, Patera, & McGregor, 2010; Lord, Foti, & Phillips, 1982; Lord & Maher, 1991; Shondrick & Lord, 2010) as well as leadership identity construction theories (e.g., DeRue & Ashford, 2010) and Adaptive Resonance Theory (Grossberg, 1999), I argue that downward ratings of leadership potential rely on social categorizations in which the person being rated must be granted potential leadership status by the rater in order to be rated favorably.
During their day-to-day interactions with subordinates, supervisors automatically develop impressions of their subordinates based on how well their subordinates’ traits and behaviors match the supervisor’s implicit followership theories (IFTs; Sy, 2010; Tate, Lindsay, & Hunter, 2010; Shondrick & Lord, 2010). IFTs are followership schemas that reflect the perceiver’s assumptions regarding the traits and behaviors of followers (Sy, 2010). If the supervisor implicitly categorizes the subordinate as a follower, then the subordinate’s behaviors will become closely tied to the follower schema in long-term memory such that it will later be difficult for the supervisor to retrieve the subordinate’s behaviors independent of the follower schema. As a result, when supervisors are later asked to provide overall ratings of their subordinates’ leadership potential, I expect that they will have a tendency to resist creating a new schema for leadership. Instead, they will rely on judgments of how well their subordinates match their IFTs as a substitute for the missing or less accessible leadership information.

As I will discuss shortly, this process is the result of how people typically encode and store social information in terms of on-line judgments, which are judgments that are formed as information enters working memory (Hastie & Park, 1986). Thus, when supervisors are asked to rate the leadership potential of their subordinates, I expect their ratings to be influenced by previous judgments of followership. As a result, the effects of subordinates’ personality traits on their supervisors’ leadership potential ratings are expected to be mediated by how their supervisors classify them in terms of followership. When the subordinate is matched to a followership schema that is associated with positively valenced traits, a more favorable evaluation of leadership potential is expected.
In contrast, when the subordinate is matched to a followership schema that is associated with negatively valenced traits, a less favorable evaluation is expected.

In the current study, I examined this rating process with a field study using supervisor-subordinate dyads within a multinational organization. Specifically, I surveyed subordinates regarding their self-reported personality. Using structural equation modeling, I investigated the relationship between these constructs and others using information collected from direct supervisors, including their perceptions of the subordinate’s match to leadership and followership schemas and their previous ratings of the subordinate’s leadership potential gathered from company records.

The Influence of Social Categorization on Ratings

A great deal of research on leadership categorization theory has addressed the issue of how perceptions of leadership are formed based on social categorization (e.g., Lord, 1985; Lord, Foti, & de Vader, 1984; Lord et al., 1982; Lord & Maher, 1991). However, I anticipate that ratings of leadership potential—compared to ratings of existing leadership—will be influenced by how supervisors categorize their subordinates as followers as well as how they categorize their subordinates as leaders. The following section will introduce followership categorization processes. A more detailed overview of leadership categorization research is covered in Chapter II.

Followership categorization theory. Although researchers have accepted that workers have different assumptions regarding the personal attributes of followers (or subordinates) for many years (e.g., Borman, 1997; Eden, 1990; Engle & Lord, 1997; Lord & Maher, 1991; McGregor, 1960; Wernimont, Toren, & Kapell, 1970; Wofford & Goodwin, 1994), a closer examination of followership categorization—meaning the
process by which individuals are categorized and perceived as followers—has only recently begun. Shondrick et al. (2010) offered a theoretical argument for the social construction of followership that occurs when a group of individuals is viewed as followers. Central to their argument was a reconceptualization of followers as potentially being active participants in a leadership exchange who are able to shape their interactions with their leader and their goals. This argument is consistent with recent calls to abandon passive views of followership (Uhl-Bien & Pillai, 2007) and with Rost’s (2008) contention that followers are active, intelligent, responsible, and involved in the interests that are shared with the leader. Although research supports the notion that some followers are positive and active members of a group (e.g., Chaleff, 1998; Hollander, 1992; Kelley, 1992), followers may also play a more passive or negative role within a group (e.g., Kelley, 1992; Kelley, 2008).

Followership schemas are thought to affect cognition and behavior in a similar fashion as to how leadership schemas affect cognition and behavior. For instance, followership categorization may influence social interactions, performance ratings, inferences, and memory (Tate et al., 2010; Shondrick et al., 2010). However, there is some variance in the literature regarding the content of IFTs. Several recent studies using different methods have investigated the content of IFTs. For instance, Carsten et al.’s (2010) qualitative study concluded that self-perceptions of followership vary across individuals. Their research suggested that some subordinates view their own followership as a passive role, whereas others view their role as being more active or even proactive. Other recent research has investigated whether individuals in non-followership roles hold IFTs. For instance, Tate et al. (2010) conducted a series of studies on IFTs that resulted
in a confirmatory factor analysis on follower characteristics that were perceived by
undergraduates and community/business leaders. Tate et al.’s (2010) factor analyses
found support for a submissive followership, dedicated followership, and dynamic
followership schema.

Additionally, Sy (2010) also recently conducted an independent study of the
nature of prototypes for typical, effective, and ineffective followers. His research found
evidence for six prototypical follower traits, which may be subsumed by two higher order
factors. Prototypical followership is characterized by industry, enthusiasm, and good
citizen traits, and antiprototypical followership is characterized by incompetence,
conformity, and insubordination. Interestingly, all of these studies suggest that
followership schemas vary in proactivity. Whereas some individuals hold a passive view
of followership (e.g., expecting subordinates to do as they are told and to agree with the
leader), others seem to hold a more proactive view (e.g., expecting subordinates to
provide constructive criticisms and to propose their own solutions to problems).

Using IFTs to Judge Leadership Potential

As noted previously, a variety of studies using different methods and different
types of samples have converged on the conclusion that there are multiple IFTs that vary
in their proactivity. As will be discussed in more detail in Chapter 2, whereas some
people seem to endorse a view of followers as being very passive and submissive, others
view followers as being very active or even proactive members of the group. I contend
that supervisors’ tendency to make sense of social interactions with their subordinates in
terms of IFTs (over ILTs) may result in an unintended and automatic dependency upon
IFTs for leadership potential ratings, in which the use of IFTs will mediate the effects of
subordinates’ traits on their leadership potential ratings. In short, my argument is that supervisors may have a difficult time retrieving their subordinates’ leader-like behaviors because they were initially encoded and stored in terms of followership.

As previously mentioned, during their daily interactions, supervisors spontaneously develop impressions of their subordinates based on how consistent their subordinates’ behaviors are with an IFT (Sy, 2010; Tate et al., 2010; Shondrick & Lord, 2010). During this process, the encoded behaviors become strongly associated with the resulting followership categorization, such that it becomes difficult to retrieve the subordinate’s behaviors independently of the followership impression.

This difficulty is the result of how people encode and store social information. In most situations, raters immediately form an on-line judgment as information enters working memory (Hastie & Park, 1986). This is especially the case when the rater expects the judgment to be useful in the future. Supervisors are thus likely to form spontaneous judgments of their subordinates’ followership because their hierarchical position in the organization (relative to their subordinates’ positions) causes them to be especially attuned to the subordinate’s followership behaviors (Lance et al., 2008). Later on, when the organization asks the supervisor to provide ratings of their subordinates’ leadership potential, they may not be likely to spontaneously re-organize the subordinate’s behaviors in terms of leadership (instead of followership). Hastie and Park (1986) noted that when raters have not previously made the judgment requested of them, they are often reluctant or unable to search long-term memory for behaviors that could be relevant to the new judgment. Instead, they typically use their old judgments as a basis for their new judgments. As a result, supervisors’ ILTs may not influence the leadership
potential ratings of their subordinates as much as one might initially expect. The tendency to rely on previous judgments is likely to apply to situations in which supervisors are asked to rate the leadership potential of their subordinates, and would result in leadership potential ratings that are heavily reliant on previous followership categorization, and not on leadership categorization.

Additionally, as Rosch’s (1977; 1978) work contends, humans have a strong tendency to be cognitively economical, and they will only differentiate between stimuli to the extent that the distinction is required and the individual’s purpose warrants it. Within the context of multiple high-priority goals and pressing time demands, supervisors routinely interact with numerous employees and thus may have a strong reason to rely on as few schemas as needed to quickly develop employee impressions, and these impressions may be what is later accessed to develop ratings of potential (Hastie & Park, 1986). This context may also cause them to rely on followership schemas instead of developing an additional schema for leadership.

Some extant research supports the position that there may be a reliance on followership traits in order to make inferences about leadership abilities. For instance, Agho’s (2009) survey found that roughly three-fourths of top-level leaders agreed with the statement that effective followership skills are a prerequisite to be an effective leader. Additionally, this survey found that top-level executives expected there to be two traits that are equally important for both leaders and followers (being honest and competent), and several additional traits that were important to some degree for both roles (being intelligent, broadminded, straightforward, ambitious, determined, and independent). However, despite these similarities, it is expected that most individuals will have vastly
different concepts of leadership and followership overall. Indeed, most respondents (56.3%) in Agho’s (2009) study disagreed that the qualities of effective followership are the same as those of effective leadership.

Basing Leadership Potential on Follower Proactivity

Based on Hastie and Park’s (1986) argument that perceivers will rely on judgments previously formed on-line to serve as a basis for new judgments that have not been previously generated, I expect that IFTs will be used by supervisors to judge the leadership potential of their subordinates. In addition to Carsten et al.’s (2010) study, which found that IFTs are based on proactivity (Carsten et al., 2010), Crant and Bateman (2000) found that managers’ self-reported proactive personality was positively related to their supervisors’ ratings of the manager’s charismatic leadership, even controlling for the Big Five personality traits. This result suggests that proactivity is perceived to be an integral component of leadership (in addition to being a component of followership, as outlined above). I contend that followers who are perceived to be proactive, rather than passive or negative, will be more likely to be judged as having high leadership potential. As a result, I expect that subordinates who are perceived to possess the largest degree of prototypic (or positively valenced) follower attributes, and the smallest degree of antiprototypic (or negatively valenced) follower attributes, will be rated the highest on leadership potential.

Model Summary and Study Design

In short, I have argued that supervisors are likely to use IFTs when rating subordinates’ leadership potential. The four competing theoretical models being considered in the current study are shown in Figure 1.1. It is possible that subordinate
Figure 1.1. Four Competing Theoretical Models of the Influence of Subordinate Characteristics on Supervisors’ Ratings of Subordinate Leadership Potential
characteristics directly influence supervisors’ leadership potential ratings (Model A),
such that matches to leadership and followership do not influence ratings. Additionally, it
is possible that only matches to leadership (Model B) or only matches to followership
(Model C) mediates the effects of subordinate characteristics on leadership potential
ratings. However, for most supervisors, it is hypothesized that subordinate characteristics
will indirectly influence leadership potential ratings through matches to followership,
even when accounting for matches to leadership (Model D).

In summary, it is known that raters partially rely on schemas when developing
impressions and ratings of others. However, a framework has yet to be developed that
details how supervisors evaluate subordinates’ leadership potential. It is proposed that
leadership potential ratings will depend on whether the subordinate is matched to a
followership schema, even when accounting for matches to leadership schemas. The
highest ratings of leadership potential are expected when the subordinate possesses many
attributes associated with a positively-valenced IFT, and the lowest ratings are anticipated
when he or she possesses many attributes associated with a negatively-valenced IFT.
Matches to IFTs are expected to mediate the relationship between subordinate personality
characteristics and leadership potential ratings.

Because I contend that it is difficult for supervisors to re-organize previously
stored subordinate behaviors in terms of leadership rather than followership, I expect
matches to IFTs to mediate the effect of subordinate traits on leadership potential ratings
even when investigating subordinate personality characteristics that would otherwise be
expected to activate leadership schemas, and that this relationship will continue to hold
even when controlling for matches to ILTs. Moreover, matches to IFTs are expected to
more strongly influence leadership potential ratings than matches to ILTs because it is expected that IFTs will be much more accessible and salient to supervisors than ILTs at the time of encoding.

To explore the comparative roles of matches to leadership and followership in this context, this study looked at the effect of several personality characteristics that have been found in previous studies to be strongly related to leadership as antecedent variables, including proactive personality, charisma, the motivation to lead, and Machiavellianism. These antecedent variables were selected in order to create a conservative test of the mediating role of followership categorization. Because these variables are highly correlated with leadership, it should be very difficult to find an effect of matches to followership if matches to leadership are truly driving supervisors’ ratings of leadership potential. In the following chapter, the selected personality variables are discussed in detail.

The expectation that matches to followership will mediate the effects of subordinate characteristics on leadership potential ratings is important for several reasons. Overall, supervisors’ reliance on IFTs to guide leadership potential evaluations may limit an organization’s ability to effectively identify, develop, and leverage their human capital. One implication of followership categorization is that subordinate characteristics will not have a direct effect on leadership potential ratings. Because these characteristics are likely to be encoded and stored online in terms of followership judgments (Hastie & Park, 1986), the pattern of subordinate characteristics becomes stored as a chunk following IFT categorization. As a result, subordinate characteristics are not likely to be able to be retrieved independently of each other. This relates back to the argument that perceivers
store and use social information in parallel in terms of the pattern of traits that are available to them, as described by Foti and colleagues (Foti & Hauenstein, 2007; Gershonoff & Foti, 2003; Smith & Foti, 1998). Thus, subordinate characteristics are expected to only indirectly affect leadership potential ratings through followership categorization.

From a practical perspective, this process of mediation is important because it would suggest that supervisors base their evaluations of leadership potential on whether they believe their subordinates are good followers. Unless there is a valid, job-specific reason to expect that followership is predictive of future leadership performance for a specific role, this effect may suggest that supervisors are erroneously using irrelevant information, or are not considering the full breadth of relevant information, to make decisions that can ultimately have several important organizational consequences, such as misused development opportunities or misguided promotions. However, because followership categorization is typically an unconscious process, supervisors may not even be aware that they are basing their decisions on something that is not valid. Because of these practical issues, the mediating effect of followership categorization is a critical component of the current study.

As previously mentioned, the proposed model was tested with a field study using supervisor-subordinate dyads within a multinational organization. Using intact supervisor-subordinate relationships rather than an experimental design involving college students provides an opportunity to develop an understanding of the rating process and its social context that is more applicable to real organizations.
CHAPTER II
LITERATURE REVIEW

In Chapter 1, I noted that understanding how supervisors categorize their subordinates may be able to inform talent management practices, because these categorization practices are likely to influence ratings of subordinates’ leadership potential. In order to better understand the criteria and processes used to identify potential, this study will investigate the types of information that supervisors consider when rating their subordinates’ potential. Generally speaking, potential refers to the inference that “an individual has the qualities (e.g., characteristics, motivation, skills, abilities, and experiences) to effectively perform and contribute in broader or different roles in the organization at some point in the future” (Silzer & Church, 2009, p. 380). Practically speaking, organizations typically operationalize potential as being the ability to either effectively move up into a top management role or into a position that is above the current position, or the ability to take on a broader scope of work and leadership roles (Silzer & Church, 2009).

Like other types of potential, rating an employee’s leadership potential is likely to be difficult, because the skills of the employee are not yet developed at the time of the rating. Because of this, McCall (1996) has argued that assessing leadership potential requires raters to rely on the potential (future) characteristics of an employee, rather than on the end-state behaviors and traits that would be found in established executives. For
example, raters may want to consider whether employees take advantage of available developmental opportunities when determining their level of potential. However, in addition to rating potential based on the observable behaviors and interests of the employee, raters may also have a tendency to rely on implicit models of potential, thus unconsciously rating employees based on their own unique beliefs regarding what potential “looks like” (Silzer & Church, 2009). Additionally, if managers are not held accountable for developing and managing their workforce’s potential, they may make unwarranted assumptions about their employees’ ambition (e.g., based on marital status or on the number of children). Alternatively, they may make decisions about potential based on whether they believe they will be penalized for “giving away” their high potentials (Henson, 2009).

Previous research has identified some of the antecedents and consequences of leadership potential ratings. For instance, past research has demonstrated that some aspects of the target’s emotional intelligence predict assessment center ratings of leadership potential (Higgs & Aitken, 2003). Additionally, the target’s extraversion and openness have been found to predict assessment center ratings of overall managerial potential (Craik, Ware, Kamp, O’Reilly, & Zedeck, 2002). Craik et al. (2002) also found that overall ratings of managerial potential were predicted by peer ratings of effective performance in a leaderless group discussion, a work and professional field interview, and with scores on the Graduate Management Aptitude Test (GMAT; which were reviewed by the assessors prior to creating overall ratings of managerial potential). Another study recently explored the effects of the expression of creative ideas on ratings of leadership potential. This study found that ratings of leadership potential were lower
when a target expressed creative ideas, unless they were first primed with a charismatic leader (instead of regular leader) prototype (Mueller, Goncalo, & Kamdar, 2011). Thus, this study provides initial evidence that leadership categorization mediates the effect of a target’s behaviors on leadership potential ratings.

Additionally, De Meuse, Dai, and Hallenbeck recently argued that learning agility should be used to assess future leadership potential, because the ability to be successful in a future leadership role requires the ability to be flexible and adapt one’s behaviors as situations change. Other studies have explored the impact of managerial potential on important outcomes. For instance, Anseel and Lievens (2007) examined factors that influence participants’ interest in feedback regarding their managerial potential after completing an in-basket exercise. They found that participants were more interested in feedback concerning competencies described as being important compared to competencies described as being unimportant, and they were more interested in feedback about competencies that were described as being nonmodifiable as opposed to competencies described as being modifiable. Additionally, Young, Arthur, and Finch (2000) examined the discriminate validity of several factors thought to influence overall managerial performance (including cognitive ability, fear of negative evaluation, interaction anxiousness, and audience anxiousness), and found that managerial potential was the best predictor of overall managerial performance.

Although ratings of leadership potential can have important organizational outcomes, there is a lack of research concerning how supervisors may determine their ratings of subordinates’ potential. In order to explore this issue, the current study examined how matches to leadership and followership schemas may inform supervisors’
ratings of leadership potential. As a result, the following section discusses the role of social categorization of leadership and followership in creating these ratings.

Social Categorization and Its Influence on Ratings of Potential

DeRue and Ashford (2010) have argued that, in part due to their ambiguous nature, leadership and followership are dynamic mutual influence processes that are co-constructed by both leaders and followers. Within organizations, individuals create reciprocal and mutually influencing identities as leaders or followers in a dynamic fashion. According to leadership identity construction theory, this process is reciprocal and mutually influencing because leadership and followership identity construction require that individuals must both claim an identity and also be granted that identity by others. Specifically, individuals must internalize the leader or follower identity as part of their self-concept.

Although sometimes the individual may internalize a leader identity quickly, it is also possible that the individual does not view himself or herself as a leader, but is motivated to “try out” a leader role because the role is highly valued in that context or because they want to determine whether the role fits them. This is similar to Ibarra’s (1999) argument that people publically experiment with provisional selves at work in order to evaluate possible, but not fully-developed, professional identities using internal and external feedback. After an identity is adopted, it is strengthened if others recognize this identity by adopting a reciprocal role identity (e.g., if one individual claims a leadership identity, the other claims a followership identity). Additionally, a stronger identity is also formed when the individual is collectively endorsed as being a member of the group of “leaders” (or “followers”) by others. There are several factors that are
thought to influence whether grants and claims promote reciprocal grants and claims, including whether they are clear, credible, and visible within the broader context, as well as the individual’s prior history of claims and grants. However, as time passes and situations change, these identities can shift among individuals within a group.

Importantly, DeRue and Ashford (2010) argue that the likelihood of an individual claiming or granting leadership or followership status is influenced by implicit theories of leadership and followership. With greater consistencies between an individual’s attributes and an implicit theory of leadership (or followership), the greater the likelihood that claiming or granting of leadership (or followership) will occur. As the following sections will describe, other research has demonstrated that raters attribute leadership or followership to others depending on how closely they match the rater’s implicit assumptions about leadership or followership. This research suggests that a supervisor’s likelihood of granting potential leadership status to a subordinate may be influenced by the supervisor’s implicit assumptions regarding how leaders and followers look and behave.

*Categorization Theory*

Research on the social perception of personality theories such as leadership and followership is based upon Rosch’s (1978) categorization theory. According to this theory, perceivers actively organize stimulus characteristics into meaningful categories that are developed through experience, rather than simply passively receiving stimulus information. Rosch (1978) argues that organisms classify stimuli into categories in order to be cognitively economical, because using cognitive categories allows for the simplification of information processing. However, this process typically occurs
unconsciously, such that perceivers likely have little insight into their categorizations of stimuli.

These categories are used to treat multiple, non-identical stimuli similarly. For example, apples, bananas, and oranges can all be categorized as fruits and thus treated similarly. Prototypical members of a particular category share several features with other members of that category (called family resemblance) and do not share many features with members of unrelated categories (Rosch & Mervis, 1975). Thus, a prototype is an abstract representation of the most representative characteristics of category members. Prototypes are focal constructs in categorization theory because they provide a clear center to a category that has fuzzy boundaries. For example, there may be no critical features that separate leaders from non-leaders, yet these contrasting categories are still meaningful because their prototypes are quite different.

Categories are organized vertically around levels of abstraction (i.e., levels of specificity) and horizontally around differentiations of categories at the same level of specificity (e.g., a leader versus a follower; Rosch, 1978). Organisms construct categories based on information that is environmentally useful for them. Thus, the organism’s biological, social, and cultural needs shape the content and structure of its schemas (Rosch, 1978). As a result, cognitive categories are constrained by the organism’s perceptual, motor, and introspective systems, and are situated in a specific context (Shondrick & Lord, 2010).

After encoding stimulus information, organisms engage in a limited search through long-term memory for a category that adequately matches the stimulus’ characteristics (Rosch, 1978). If a match occurs, the stimulus is labeled in memory as a
member of that category. Thus, cognitive categorization simplifies information processing, and influences how information is encoded, stored, and retrieved from memory (Rosch & Mervis, 1975).

Grossberg’s (1990) Adaptive Resonance Theory (ART) models of information processing in the brain further inform the categorization process. According to ART, conscious experiences are the result of a process by which top-down experiences that have been learned over time interact with patterns of bottom-up inputs from the external world. When bottom-up data resonates with top-down expectations, emergent interpretive structures enable information to be categorized and consciously experienced. Only with this resonance does the information gain the sustained activation required for the information to be consciously perceived and manipulated in working and long-term memory. However, when matches are not found, parallel searches continue to look for an alternative match. This match-based learning process provides a mechanism that explains how information is categorized and stored within schemas, such as leadership or followership. It also explains why information that is unrelated to currently available categories may not be noticed or encoded.

Looking specifically at person perception, Cantor and Mischel (1979) argued that people determine whether an individual’s behavior is prototypical of a particular personality type based on the breadth and variety of behaviors associated with that personality type, the breadth and variety of behaviors associated with opposing personality types, and the consistency of those behaviors across different situations. They demonstrated that the consistency of a target’s personality (as compared to an implicit personality theory) influences the perceiver’s recall and impressions of that target, such
that greater personality consistency led to greater recall, more accurate recollected information, more behaviorally-consistent trait inferences, greater consistencies in trait inferences, and greater consistency with the personality prototype. The following sections will explain how categorization theory has been applied to leadership and followership perception.

Leadership Categorization Theory

Although the primary focus of the current study is the influence of followership categorization processes, I will provide an overview of the research on leadership categorization theory first because the extensive research on leadership may be able to inform the relatively new field of followership research. According to leadership categorization theory (Lord, 1985; Lord, Foti, & de Vader, 1984; Lord et al., 1982; Lord & Maher, 1991; Lord & Shondrick, 2011), ratings of leadership are the product of a series of stages beginning with the encoding of relevant behaviors and person characteristics within an embodied context, followed by the assimilation or accommodation of the encoded information into existing leadership schemas, the retrieval of the resulting categorization, and finally the application of this retrieved impression to an evaluation medium (Hastie & Park, 1986; Shondrick, Dinh, & Lord, 2010).

Leadership categorization theory describes the role of social categorization in developing perceptions of existing leadership. According to this theory, it is the categorical impressions that are formed early on in social interactions that guide how one rates another’s leadership. Thus, during social interactions we unconsciously attempt to match encoded stimuli regarding a person that is especially salient or vivid with
previously acquired person schema held in long-term memory, such as a leadership schema (also called an *implicit leadership theory*, or *ILT*). Lord et al. (1982) argue that ILTs reflect the structure and content of cognitive categories of leadership that are used to determine who is a leader.

The content of ILTs can vary within individuals (Foti, Knee, & Backert, 2008; Medvedeff & Lord, 2007) and across individuals (Ensari & Murphy, 2003; Sessa, Kabacoff, Deal, & Brown, 2007). However, in general, there are eight dimensions of perceived leadership, which are relatively sacross situations: sensitivity, dedication, tyranny, charisma, attractiveness, intelligence, strength, and masculinity (Offermann, Kennedy, & Wirtz, 1994). In a study that was in part aimed at cross-validating Offermann et al.’s (1994) scale and providing a shorter scale of ILTs, support was found for the positively valenced attributes of sensitivity (e.g., being understanding and sincere), intelligence (e.g., being clever and knowledgeable), dedication (e.g., being motivated and hard-working), and dynamism (e.g., being energetic and dynamic), and the negatively-valenced attributes of tyranny (e.g., being manipulative and selfish) and masculinity (Epitropaki & Martin, 2004). In addition to influencing ratings of leadership, categorizations of leadership also influence memory for leader characteristics and behavior and future interactions with the target individual, coloring the perceiver’s interpretations of behaviors, communications, and organizational outcomes (e.g., Gioia & Manz, 1985; Phillips & Lord, 1982; Phillips, 1984; Rush, Phillips, & Lord, 1981).

Thus, in order to be viewed as a leader, others must unconsciously compare that person to their ILTs. If the characteristics of the person and the ILT become mutually activated, the perceiver will ultimately view that individual as a leader. ART theory
(Grossberg, 1999) provides a framework for understanding how leadership perceptions are formed. For instance, Medvedeff and Lord (2007) argue that individuals are labeled as leaders when incoming pattern of behaviors and traits regarding the individual successfully resonate with a leadership schema that is retrieved from a parallel search process. Importantly, Grossberg’s (1999) framework contends that the incoming behavioral and trait-based information is often not enough by itself to be consciously perceived unless it is coupled with sustained activation by a schema such as for leadership. Because supervisors often face many subordinate traits, behaviors, and interpretations that fight for their attention, only those traits and behaviors that match a salient schema such as leadership will receive supervisors’ attention. If an encoded stimulus does not resonate with top-down expectancies, it will simply be ignored.

As previously mentioned, leadership identity development is an inherently social process in which not only must one person claim leadership, but other people also have to grant that individual leadership status as well (DeRue & Ashford, 2010). Alternatively, the development of a followership identity is also a social process in which the role must not only be claimed by the potential follower, but also granted by others. Within the context of having supervisors rate their subordinates’ leadership potential, it thus follows that supervisors must grant the subordinate potential leadership status in order for the subordinate to receive favorable ratings of potential for future roles that require greater leadership responsibilities. This granting process is theorized to be typically based on the leadership categorization process described above.

The process of being granted leadership and/or followership status is important from a social perspective. However, it is possible that granting subordinates followership
status may conflict with granting them potential leadership status at a later time. For some subordinates, it may be hard for them to gain acceptance as a potential leader by their own supervisor, who typically sees them in a subordinate role. The ease with which subordinates are granted potential leadership status likely depends on what type of follower they are perceived to be. Followers who are perceived to possess a large number of positively valenced, proactive traits may be more likely to be granted leadership status compared to those who possess some negatively valenced, passive or negative traits. However, Agho’s (2009) survey found that the majority of top-level leaders believe that effective followership skills are a prerequisite to be an effective leader. This result suggests that supervisors are willing to extend leadership status to at least some of those who have previously granted followership status.

Nonetheless, instead of (or in addition to) comparing the target to a leadership prototype, it is also possible that raters will compare the target to themselves. For instance, Dunning and Hayes (1996) found that across three studies, raters had a tendency to consider their own traits and behaviors as norms when making social judgments about others’ performance. They argue that people may be more likely to rely on self-comparisons when they fail to have standards in mind already about the specific judgments. Because potential is likely to be an ambiguous criterion to rate, it also is possible that supervisors may rely on self-comparisons for their ratings. This possibility was controlled for in the current study. Additionally, it is possible that supervisors may be more likely to use a schema as the basis for evaluations if they are self-schematic. This possibility was also explored in the current study.
Although leadership categorization theory has been supported through nearly 30 years of research, a potential gap in this area is that nearly all of the studies involve participants who rate the leadership of an individual who is in a position of higher power than themselves. Whereas the study of upward ratings of leadership certainly has merit in itself, it cannot fully inform research on how leadership potential ratings from “above” are formed, especially when the target does not currently hold a leadership position. As Crant and Bateman (2000) have argued, an individual’s behaviors may be interpreted very differently by someone who is hierarchically above, as compared to below, the target. For example, an individual’s actions may be viewed as being politically motivated by colleagues but as being friendly by a flattered supervisor. Because subordinates hold positions of low power relative to their supervisors when their leadership potential is rated, it would be useful to understand how supervisors shift their judgments of subordinates from a perspective based on followership to one based on potential leadership.

Indeed, Kipnis’ (1976) work shows that perceptions of the social world are influenced by one’s position of power. In his studies, individuals who held a position of high power and who exerted strong, controlling means of influence were more likely to believe that they had caused a follower’s behaviors and they were more likely to rate themselves favorably rather than the target follower. They were also more likely to maintain a larger social distance from the target follower. Moreover, Eaton, Visser, Krosnick, and Anand’s (2009) research demonstrates that social power can influence attitudes as well. Their studies demonstrated that the roles occupied by middle-aged
adults influence their resistance to persuasion, causing them to be more resistant to attitude change compared to younger and older adults. This research suggests that one’s role in terms of power can shape one’s identity, which in turn influences one’s attitudes. Hence, the relative position of power of the rater compared to the ratee is potentially very important.

Other research has also supported the notion that raters’ hierarchical perspectives can influence the ratings that they provide. For instance, as mentioned earlier, Lance et al. (2008) argued that systematic rater source effects in multisource performance ratings reflect the complementary perspectives of raters at various levels in the organization, and thus do not reflect measurement error. Hoffman, Lance, Bynum, and Gentry (2010) argue that a critical assumption underlying multisource ratings is that different rater sources provide unique performance-relevant information that would not be obtained by solely using traditional supervisor ratings—thus, multisource ratings provide a fuller picture of an employee’s performance because different rater sources are expected to disagree. In their study, they performed a confirmatory factor analysis on multisource ratings from two samples that differentiated between general performance (i.e., variance common to all raters that is thought to reflect general performance), idiosyncratic rater effects (i.e., variance between individual raters that is thought to reflect individual rater bias), and rater source effects (i.e., variance shared across rater groups) as higher-order factors. Results supported the idea that all three factors explain variance in multisource ratings. This suggests that raters from different perspectives are providing unique, but meaningful, information about the target’s performance. Additionally, their results suggested that rater source effects account for 22% of the variance in multisource ratings,
suggesting that rater source effects are practically meaningful and are larger than previously thought.

Despite the support for rater source effects, it is still not clear why they occur. Several theories have been put forth. Lance et al. (2008) suggest that different sources have different perspectives because their interactions with the target have different goals. Additionally, Borman (1974) argued that raters at different levels within the organization see different aspects of performance. Also, Woehr, Sheehan, and Bennett (2005) argue that different rater sources may interact with targets in different ways and some sources may be more or less knowledgeable about a performance dimension than other rater sources (for instance, subordinates may be better at rating delegation skills than other raters). Because of this, Hoffman et al. (2010) called for future research that examines how rater impressions are formed.

Such research supports my thesis that due to their hierarchical level in the organization and the way that they interact with subordinates, supervisors may be more likely to classify their subordinates in terms of followership rather than leadership. As Engle and Lord (1997) argued, supervisors are more likely to consider their subordinate’s in-role performance than their leadership qualities, because in-role performance is more likely to be considered effective and important for subordinates. Thus, the next section will review the research on perceptions of followership and then discuss how supervisors’ implicit beliefs about followers may influence their ratings of leadership potential.

**Followership Categorization Theory**

Both theoretical contributions (e.g., Lord & Maher, 1991; Shondrick & Lord, 2010) and empirical studies (e.g., Tate et al., 2010; Kruse & Sy, 2011) have recently
examined whether individuals hold schemas for followership in addition to schemas for leadership. Kruse and Sy (2011) argue that individuals hold implicit theories about workers which define who are the leaders and who are the followers in an organization. Thus, ILTs are not the only type of schema that individuals use to make sense of their organizational surroundings. As Engle and Lord (1997) noted, the schemas that subordinates use may differ from the schemas that supervisors use. Whereas subordinates are likely to make sense of their supervisor’s behavior in terms of leadership, supervisors may be more likely to make sense of their subordinates’ behavior in terms of how good of a worker or follower that person is. The follower role is thought to be salient enough that individuals automatically develop an implicit schema about followership, and this schema is expected to be beneficial in that it will allow people to quickly figure out how to classify and interact with other individuals and to determine whether peers should be considered to be competition for a leadership position (Tate et al., 2010). The following sections will discuss the content of prototypes regarding effective workers and followers.

*Implicit theories about workers.* Several studies have examined the characteristics that are thought to be associated with workers, although they did not specifically look at followership. For instance, Lord and Maher (1991) contend that supervisors develop prototypes of effective subordinates and then compare their subordinates to this prototype. These prototypes have been called implicit performance theories, and they describe the work-related behaviors that are needed to effectively perform one’s job. Using these prototypes, supervisors label and evaluate their subordinates as being either effective or ineffective. However, some subordinates who are aware of their supervisor’s beliefs may be able to be evaluated more favorably by behaving consistently with their supervisor’s
implicit performance theory. Additionally, Swee’s (2010) study demonstrated that subordinates who have an implicit performance theory that is similar to their manager’s prototype are more likely to have self-ratings of performance that agree with their manager’s ratings of their performance. Swee’s (2010) study also found that the development of a shared implicit performance theory between managers and their subordinates was influenced by their similarity in age, perceived system knowledge, and role clarity.

Thus, this work on implicit performance theories shows that general prototypes about employees exist and are practically important. In another study, Engle and Lord (1997) provided further evidence of the existence of prototypes regarding effective workers. Using a set of traits and behaviors that Wernimont (1971) previously identified as being associated with followers, they asked supervisors and subordinates at an electric company to rate the extent to which the traits were characteristic of a good worker. Traits and behaviors that were thought to be prototypical of a good performer included: interested in work, conscientious, gives suggestions, hard-working, honest, thorough, independent thinker, takes suggestions, qualified for job, communicates effectively, reliable, punctual in meeting deadlines, self-motivated, follows through on tasks, enthusiastic, cooperative, and competent.

In another study, Borman (1987) surveyed U.S. Army officers in order to examine the traits they believed were characteristic of effective and ineffective subordinates. His study focused on the job of a noncommissioned officer (a first-line supervisor) for the target role. Using factor analysis, he determined that there were six traits that distinguish between effective and ineffective noncommissioned officers, including initiative/hard
work, maturity/responsibility, organization, technical proficiency, assertive leadership, and supportive leadership.

Additionally, other research suggests that prototypes about leaders are distinguishable from prototypes about followers. For instance, Lord et al.’s (1984) studies examined traits that individuals use to define leaders and non-leaders. They found that while there were similarities in terms of the traits that are thought to be characteristic of leaders and non-leaders, there were important differences as well. The traits thought to be characteristic of leaders and non-leaders had moderately-sized positive correlations, suggesting that there is some overlap between the two constructs. Lord et al. (1984) reasoned that this overlap might have occurred because the non-leader category is not well defined, and thus participants may not have been sure about which traits are characteristic of non-leaders. However, some traits were more strongly associated with leaders than non-leaders, including being intelligent, having strong verbal skills, and being determined.

Implicit theories about followers. Recent research has more directly investigated the nature of implicit followership theories (rather than implicit theories about good workers). For instance, Wofford and Goodwin (1994) argued that the type of follower schemas that leaders hold depends on whether the leader emphasizes transformational or transactional leader behaviors. They held that transactional leaders expect followers to have attributes such as commitment to goals, expectancy of goal attainment, expectancy of rewards, and need for role clarity. In addition to some of these traits, transformational leaders expect their followers to have attributes such as self-reliance, innovativeness, and initiative. Wofford and Goodwin (1994) also argued that leaders’ expectations of these
behaviors will influence the likelihood that they are elicited from followers, and that these schemas will also influence how leaders react to their followers.

Kelley’s (1992; 2008) work sought to investigate the existence of different styles of followership. He has argued that the stereotype of followers as passive “sheep” and “yes people” is often mistakenly applied to all followers. Based on interviews and focus groups regarding the characteristics of the best and worst followers, his typology of followers was based on two dimensions: one that varied from passive to active followership and one that varied from independent, critical thinking to dependent, uncritical thinking (Kelley, 1992). These two dimensions describe five general types of followers (four of the types characterize followers at who are represented at the extreme ends of the continuums, whereas the fifth type describes followers who are moderate on both dimensions). *Alienated followers* are passive and independent thinkers and are described as being capable but cynical followers. *Exemplary followers* are active and independent thinkers and are described as being highly engaged followers who think for themselves. *Conformist followers* are eager to take order, defer to the leader’s authority, and yield to the leader’s views or judgments. They are active but dependent, uncritical thinkers. *Passive followers* are unenthusiastic and look to their leader to do their thinking for them, and they are passive and dependent, uncritical thinkers. Finally, *pragmatist followers* question their leader’s decisions occasionally, but not in an overly critically manner. They score moderately on both of Kelley’s dimensions. Kelley (2008) believes that followers have a duty to keep leaders and peers ethically and legally in line.

Kelley’s typology of followership styles fits with Rost’s (2008) contention that there has been a shift in research from viewing followers as subordinate, submissive, and
passive members of a group to viewing followers as active, intelligent collaborators. Chaleff (2009) has also highlighted the potentially active role of followers. According to his initial model, there are five dimensions of courageous follower behavior: the courage to assume responsibility, to serve, to challenge, to participate in transformation, and to take moral action. Chaleff (2009) also later added an additional courageous follower behavior that is needed in large, global organizations: the courage to speak to the hierarchy when one is not in direct contact with the leader. Hollander (1992) also argued that the follower role is more active than it was initially considered. He felt that followers actively influence the leader-follower relationship, including the leader’s behavior. Additionally, Hollander and Offermann (1990) discussed how followers’ expectations and perceptions can influence the leadership process through the follower’s relationship with the leader. They argued that effective leadership depends on mutual influence and the sharing of power between followers and leaders.

Based on Meindl’s (1995) argument that there has been a romantic view of leadership, in that people are preoccupied with what leaders do and how they influence followers, several researchers have more actively begun to investigate the potentially active role that followers may assume. For instance, Uhl-Bien and Pillai (2007) argue that there has been a “subordination of followership” in the social construction of followership. This perspective of affording followers a more active role can be seen in some of the studies just discussed (e.g., Kelley, 1992; Chaleff, 1998; Hollander, 1992), as well as in some of the studies discussed below. Additionally, Collinson (2006) argued that followers can take up multiple identities which vary in terms of their proactivity.
(based on conformity, resistance, or impression management), and that these identities can be shaped by leaders.

Although the studies discussed above regarding the content of worker and follower schemas provide important insight, more recent empirical research has taken a closer look at the content of implicit followership theories (IFTs). As Tate et al. (2010) noted, studies on implicit assumptions about workers and their performance were not intended to directly address the content of IFTs. However, more recent research has been conducted that does investigate explicit content of IFTs. This work is discussed below.

*Direct investigations of IFT content.* Tate et al. (2010) argued that the follower role is a salient enough role that individuals will develop implicit cognitive categories of followership that can be used to classify and evaluate others as followers. They held that followership categorization can guide social interactions (e.g., determining whether to delegate tasks or whether someone is competing for a leadership role) and can influence performance ratings of an individual. In this sense, IFTs may aid sensemaking such that supervisors perceive and interpret their subordinates’ behaviors in terms of the supervisor’s IFT (Weick, 1993). In addition to guiding social interactions, Shondrick et al. (2010) contended that the social categorization of followers also likely influences memory and inferences. Evidence supports the notion that implicit theories can influence how raters interpret their subordinates’ behaviors. For instance, as discussed previously, Swee (2010) found that the similarity between supervisors’ and subordinates’ implicit performance theories (one’s implicit beliefs regarding the behaviors needed to effectively perform a job) influences the level of self-other agreement in performance ratings.
Recently, Carsten et al. (2010) provided some initial qualitative evidence of the content of followership schema, although they only looked at self-perceptions of followership. They explored individuals’ beliefs about their own roles of followership by interviewing employees who were at different hierarchical levels within various industries. Their results suggest that the content of followership self-schemas varies across individuals. Some subordinates viewed followership as a passive role, contending that followers were expected to defer to their leader and exhibit unquestioning obedience. Others believed that followership described a more active role in which subordinates were expected to take ownership of organizational outcomes, offer their opinions to their leaders when it was solicited, and be a team player. A third group of subordinates felt that followership meant taking a proactive role, which included taking initiative, voicing their concerns, offering unsolicited feedback to leaders, going out of their way to divert any crises that occurred, and taking ownership. This group rarely suggested that followership meant obedience and deferring to a leader, in contrast to the other two groups.

Interestingly, the proportions of subordinates who self-identified with the passive, active, or proactive followership schemas were roughly equal (with slightly more individuals identifying with a passive role), suggesting that each of these socially constructed roles may be fairly ubiquitous. This notion is consistent with recent work on shared leadership (e.g., Pearce, Conger, & Locke, 2008), which involves a dynamic, interactive influence process among individuals within a group who are trying to achieve some organizational goal. Shared leadership often involves peer influence as well as upward and downward influences. This work suggests that followers may often have to
take on different roles, shifting between more passive and more proactive roles as the context warrants.

Carsten et al.’s (2010) study lends initial support to the existence of multiple followership self-schemas amongst subordinates. However, their research does not address whether perceivers in other roles (e.g., supervisors or observers) hold similar IFTs. Agho (2009) recently surveyed top-level executives’ opinions regarding which traits characterize effective followership. Their results suggested that the top traits that characterized effective followers were being honest, competent, dependable, cooperative, and loyal. Additionally, 96% of those surveyed disagreed that "good followership is simply doing what one is told to do." At face value, these results appear to lend some initial support that there may be commonalities in the content of IFTs across subordinates and top-level executives, and these results show that followership is not believed to be a purely passive role.

In addition, Tate et al. (2010) recently identified traits held within IFTs using a multistage process by surveying subject matter experts (undergraduates and community/business leaders) regarding prototypical effective follower characteristics and then conducting an exploratory and confirmatory factor analysis. The results of their three studies provided further evidence that multiple followership schemas exist. Their factor analyses suggested that one IFT, labeled submissive followership, included being introverted, meek, quiet, and submissive. At face value, this appears similar to Carsten et al.’s (2010) passive followership schema. Another IFT, labeled dedicated followership, characterizes followers who are adaptive, flexible, loyal, patient, supportive, trusting, diligent, prompt, punctual and task-focused. Finally, the last IFT identified was labeled
dynamic followership and included being analytical, assertive, brave, charismatic, big-picture oriented, extraverted, inquisitive, inspirational, and self-aware. These last two IFTs are similar to Carsten et al.’s (2010) active and proactive followership schemas, respectively. It is not that although the studies conducted by Agho (2009), Carsten et al. (2010), and Tate et al. (2010) used very different methods, their results appear to converge on the existence of multiple IFTs that vary in terms of their proactivity.

Finally, Sy (2010) also recently used a multistage process to investigate the nature of prototypes for typical, effective, and ineffective followers. Sy’s (2010) studies found evidence for six prototypical follower traits, including (1) industry (hardworking, productive, and goes above and beyond), (2) enthusiasm (excited, outgoing, and happy), (3) good citizen (loyal, reliable, and team player), (4) incompetence (uneducated, slow, inexperienced), (5) conformity (easily influenced, follows trends, and soft-spoken), and (6) insubordination (arrogant, rude, and bad-tempered). Their confirmatory factor analysis (CFA) provided some support that two higher order factors may also exist: prototypical followership (characterized by industry, enthusiasm, and good citizen traits) and antiprototypical followership (characterized by incompetence, conformity, and insubordination). The two higher-order factor model is more parsimonious, yet it did not statistically provide a significantly better fit compared to the six-factor model.

Although the terms prototypical and antiprototypical have come to have multiple meanings, Sy (2010) uses the term prototypical to refer to a positively valenced followership factor, and antiprototypical to refer to a negatively valenced followership factor (thus, both higher-order factors are perceived to be typical of followers). Notably, this research found moderate correlations between IFT traits and ILT traits. Between the
two higher-order dimensions of Sy’s (2010) IFT scale and Epitropaki and Martin’s (2004) ILT scale, correlations ranged from -.01 to .32. Between the individual traits that comprise the IFT and ILT scales, correlations ranged from .01 to .30. Additionally, Sy’s (2010) fifth study found that supervisors’ endorsement of IFTs predicted several subordinate outcomes, including liking, relationship quality, trust, and job satisfaction, suggesting that these IFTs are practically meaningful. Sy (2010) did not test for the possibility of more than two higher-order followership factors; however, his results are consistent with the long-standing perspective that there are two general perspectives of followers (McGregor, 1960).

Although Sy’s (2010) IFTs seem to suggest two higher-order factors rather than the three suggested by Tate et al.’s (2010) work, it is still notable that the higher-order factors for both studies seem to vary in their proactivity. Sy’s (2010) prototypical followership construct seems to reflect a more active or proactive IFT, whereas the antiprototypical followership construct seems to reflect a mixture of passive and even negative IFTs. Table 2.1 compares the content of followership schema that were identified by Carsten et al. (2010), Tate et al. (2010), and Sy (2010).

The influence of affect on IFTs. Kruse and Sy (2011) investigated the influence of affect on IFT activation, hypothesizing that experienced positive or negative affect will activate schemas that represent positive or negative valences, respectively. This argument was based on a connectionist explanation of knowledge representation, which argues that knowledge is stored within networks of neural-like processing units that are connected by weights (Shondrick & Lord, 2010). Information flows through the network in parallel based on the excitatory and inhibitory weights that connect individual units, and these
Table 2.1. Comparison of the Followership Schemas Identified in Three Recent Studies

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<tr>
<td>Proactive Followership</td>
<td>Dynamic Followership</td>
<td>Prototypical Followership</td>
<td></td>
</tr>
<tr>
<td>1. Taking initiative</td>
<td>1. Analytical</td>
<td>1. Industry</td>
<td></td>
</tr>
<tr>
<td>2. Voicing concerns</td>
<td>2. Assertive</td>
<td>2. Enthusiasm</td>
<td></td>
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<tr>
<td>4. Diverting crises</td>
<td>4. Charismatic</td>
<td></td>
<td></td>
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<tr>
<td>5. Taking ownership</td>
<td>5. Big picture oriented</td>
<td></td>
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<tr>
<td>Dynamic Followership</td>
<td>6. Extraverted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Analytical</td>
<td>7. Inquisitive</td>
<td></td>
<td></td>
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<tr>
<td>8. Assertive</td>
<td>8. Inspirational</td>
<td></td>
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<tr>
<td>10. Charismatic</td>
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<tr>
<th>Active Schemas</th>
<th>Active Followership</th>
<th>Dedicated Followership</th>
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<tbody>
<tr>
<td>1. Taking ownership of outcomes</td>
<td>1. Adaptive</td>
<td>1. Industry</td>
</tr>
<tr>
<td>2. Offering solicited feedback</td>
<td>2. Flexible</td>
<td>2. Enthusiasm</td>
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<tr>
<td>4. Trusting</td>
<td>4. Patient</td>
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<tr>
<td>5. Supportive</td>
<td>5. Prompt</td>
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<tr>
<td>6. Diligent</td>
<td>6. Punctual</td>
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<tr>
<td>7. Trusting</td>
<td>7. Task-focused</td>
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<tr>
<td>8. Diligent</td>
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<tr>
<td>9. Punctual</td>
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<tr>
<td>10. Task-focused</td>
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<tr>
<th>Passive Schemas</th>
<th>Passive Followership</th>
<th>Submissive Followership</th>
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<tbody>
<tr>
<td>1. Deferring to the leader</td>
<td>1. Introverted</td>
<td>Antiprototypical Followership</td>
</tr>
<tr>
<td></td>
<td>2. Meek</td>
<td>1. Incompetence</td>
</tr>
<tr>
<td>2. Exhibiting unquestioning obedience</td>
<td>3. Quiet</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Submissive</td>
<td></td>
</tr>
<tr>
<td>Negative Schemas</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>2. Conformity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Insubordination</td>
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</tbody>
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39
weights are based on the relatedness of the cognitive constructs that the units represent. Thus, when one construct is activated (such as affect), spreading activation can cause related constructs to also become activated due to the weights connecting related knowledge. Because IFTs and affect are both bidimensional, valenced, and contain largely orthogonal dimensions, Kruse and Sy (2011) argued that the activation of affect will increase access to and report of prototypical (or antiprototypical) IFTs. In several studies, they found that positive affect increased the reporting of prototypic IFTs, and that negative affect increased the reporting of antiprototypic IFTs. Additionally, affect also influenced the rating of a coworker’s followership, such that positive (negative) affect led to higher prototypic (antiprototypic) IFT ratings.

The Consequences of IFTs

Recent work has also begun to investigate some of the effects of the IFTs that are held by leaders and followers. For instance, Sy (2010) found that leaders’ IFTs (as measured by the second-order Prototype and Antiprototype factors from his IFT measure) are related to several interpersonal organizational outcomes, including followers’ trust, liking, job satisfaction, and relationship quality, as well as leaders’ liking and relationship quality. In general, the leader’s prototypical IFT traits were positively related to interpersonal outcomes, whereas the leader’s antiprototypical traits were negatively related to interpersonal outcomes. Additionally, most of these relationships continued to exist even when controlling for ILTs and implicit performance theories, with the exception of followers’ trust in leaders.
Peer-rated follower performance and self-fulfilling prophecies. Additionally, Sy (in progress) argued that leaders’ IFTs will shape their expectations and treatment of followers, which may result in a self-fulfilling prophecy in which followers act in a way that is consistent with leaders’ expectations (i.e., the Pygmalion effect; Eden, 1990). Thus, Sy argues that leader IFTs influence follower behavior. Also, IFTs are thought to bias what leaders perceive, and how they interpret followers’ behaviors. For instance, leaders with favorable (or prototypic) IFTs may be biased toward positive evaluations of followers because they are more likely to notice when followers perform well versus when followers perform poorly. Additionally, leaders with prototypic IFTs may be more likely to make internal attributions for good follower performance and external attributions for poor follower performance.

These interpretations are also thought to influence follower performance and relationship quality because the leader’s expectations of the follower are expected to result in changes in the follower’s self-efficacy. Moreover, followers’ IFTs are also thought to influence their own performance and the quality of the relationship they have with their leader as well, such that followers will have a tendency to act in a manner consistent with the content of their IFTs. Sy (in progress) tested these hypotheses using existing leader-follower dyads from a variety of industries by obtaining leaders’ and followers’ prototypic IFTs (he did not examine antiprototypic IFTs). He found that both leaders’ and followers’ prototypic IFTs were positively related to followers’ relationship quality with their leader and followers’ performance (which was rated by two peers of the follower, and not by the leader). Furthermore, leaders’ and followers’ IFTs interacted to predict followers’ relationship quality and performance, such that the benefits of a
leader’s prototypic IFT on performance were reduced when followers also had a prototypic IFT (due to the ceiling effect), and the effects of a leader’s prototypic IFT on relationship quality were enhanced when followers also had a prototypic IFT. Additionally, Sy found that relationship quality partially mediated the effects of IFTs on performance.

The Influence of IFTs on Ratings of Potential

A variety of extant research has demonstrated that person categorization and prototypicality influence judgments and ratings of relevant constructs. Wyer and Srull (1986) contend that when perceivers have an impression formation goal (rather than a memory goal), they tend to spontaneously encode others’ behaviors in terms of traits and categorize the information in terms of person categories that are salient in that context (at least in western cultures). Based on these spontaneous trait inferences, general evaluative inferences regarding the likeability of the person are made, and general liking may then be used as a basis for making social judgments. Thus, on-line judgments of the individual are typically used for sensemaking (Hastie & Park, 1986), and the encoded behaviors themselves are rarely retrieved for rating or judgment purposes. Subsequently, the individual’s future behaviors are interpreted in terms of this on-line categorization (Srull & Wyer, 1989). However, when behaviors are inconsistent with the perceiver’s general conception of the target, the perceiver thinks about the behavior more carefully in order to try to determine why the inconsistency occurred.

As discussed previously, Srull and Wyer (1989)’s work contends that judgments about targets initiate a limited search through long-term memory for a relevant general trait or evaluative schema. Evaluations are made based on a matching schema, without
carefully considering the specific behaviors on which the schema inference is based. Because of this process, behavioral ratings often reflect the schema that the rater applied to the target individual, and only indirectly reflect the individual’s behavior (Shondrick & Lord, 2010). Additionally, Grossberg’s (1999) work suggests that schema use will also influence the encoded information that is remembered, as attention will only be gained for encoded information that matches a salient schema. Thus, traits and behaviors that were not interpreted in terms of a schema are not likely to be recalled.

Research on implicit leadership theories has found that leadership evaluations are often influenced by the perceiver’s sensemaking schema, such that leaders are rated more favorably when their behaviors are consistent with a leadership prototype (Cronshaw & Lord, 1987; Epitropaki & Martin, 2005; Lord & Maher 1991). For example, Lord et al. (1984) manipulated the prototypicality of a leader’s behaviors, which were described in a vignette. They found that the leader’s prototypicality influenced leadership ratings, leadership behavioral expectations, and causal ascriptions regarding the leader’s responsibility and accountability for a new product’s success. Phillips and Lord’s (1982) work also demonstrates that judgments about leadership are highly dependent on leadership categorization. They found that the activation of a leader schema causes people to selectively attend to, encode, and retrieve information that is consistent with the leadership categorization, and that leadership categorization also leads to gap-filling, in which the person falsely recalls leader traits or behaviors that were not actually displayed by the target.

Moreover, Cantor and Mischel’s (1979) work demonstrates that the degree of a person’s prototypicality (in terms of a personality type) influences the ease with which
raters are able to encode, retrieve, and elaborate on information about that person. Additionally, Swee’s (2010) study on implicit performance, described earlier, also supports the influence of prototypes on evaluations. His study showed that subordinates are able to receive more favorable performance ratings from their supervisors by acting in a manner that is consistent with their supervisor’s implicit theory. Moreover, Grossberg’s (1999) ART framework contends that behaviors are more likely to get noticed and be remembered if they match a salient schema such as leadership. Thus, a variety of research demonstrates that prototypicality strongly influences impression formation and person evaluation.

Johnson, Murphy, Zewdie, and Reichard (2008) provided another example of the effects of implicit theories on evaluations of leadership. Johnson et al. (2008) explored the effects of gender role expectations on evaluations of leadership for men and women. Whereas the social role expectations for males generally overlap with the expectations for leaders, female’s social role expectations can clash with the expectations for leadership. These social roles can cause people to generally expect that women do not possess the skills required to be a leader, and they can also cause people to negatively interpret a woman’s adoption of a leadership role because this conflicts with their gender role expectations. In a series of several studies, Johnson et al. (2008) found that people’s social role expectations influenced their evaluations of male and female leaders. Agentic prototype dimensions were perceived as being more characteristic of male than female leaders, and communal prototype dimensions were perceived as being more characteristic of female than male leaders. Additionally, male and female leaders were evaluated more favorably when they matched the raters’ prototypes for leadership. Whereas male leaders
were expected to be strong; female leaders were expected to be both strong and sensitive. Thus, these studies also demonstrate that leaders who match perceivers’ prototype of a leader tend to be rated more favorably.

However, as briefly mentioned, it is important to note that person prototypicality effects typically require the rater to make dispositional attributions. Ensari and Murphy (2003) demonstrated that manipulations of prototypicality, as well as performance-cue effects (in which the leader’s behavior is rated as being more prototypical when favorable performance information about the group is provided), only occur when raters made dispositional instead of situational attributions. Thus, the effects of a target’s schema prototypicality will only influence evaluations to the extent that the rater processes the target’s behavior in terms of dispositional inferences (see also Foti & Lord, 1987).

The Use of IFTs For Construing Ratings of Potential

Based on this work, it is expected that raters will rely on their online judgments of followership when they rate a direct report’s potential. As discussed previously, followership is a highly salient schema for supervisors when they interact with, or think about, a subordinate due to the nature of their relationship (Sy, in progress). This contention is also supported by Rosch’s (1977, 1978) work, which posits that the functional needs of an individual determine the way a target will be perceived by that individual. This is because perceivers automatically categorize objects based on what the object provides or offers the perceiver. For supervisors, a highly salient quality of subordinates may be the support and resources they provide to the supervisor by being a follower and helping the supervisor execute organizational goals. In support of this, Engle and Lord (1997; see also Lord & Maher, 1991) found that supervisors evaluate
subordinates based on their performance (although as discussed previously, this work does not directly provide evidence for the use of IFTs).

In sum, IFTs may be readily available to supervisors when they think about their subordinates. Additionally, Hastie and Park’s (1986) work indicates that the online encoding of a subordinate as a follower may strongly influence later evaluations of the subordinate. They argue that in most cases, people immediately and spontaneously form trait judgments of others as evidence is encountered. As a result, behavioral evidence becomes tied to the applied person schema. These online judgments are most likely to be formed when the perceiver is chronically concerned with making inferences regarding that trait, when the exhibited trait is especially salient or distinctive, and when one’s social goals involve impression formation. Subsequently, these online judgments can bias later encoding or retrieval of trait-relevant behaviors. During encoding, the online judgment influences memory because information is immediately assimilated into the applied schema. During retrieval, the judgment influences access to evidence that has been stored in long-term memory, such that evidence that fits with the judgment may be more easily retrieved. Because the evidence was coupled to the schema during encoding, it becomes difficult to retrieve behaviors independent of the applied schema. Additionally, online impression formation can even affect new judgments that the rater has not spontaneously formed during encoding. Instead of searching long-term memory for evidence on which to base the new judgment, people instead typically form the new judgment on the basis of judgments formed earlier.
Hypothesis Development

Based on Hastie and Park’s (1986) work, I expect that supervisors will form online judgments of their subordinate’s followership during their daily interactions because followership is a highly salient aspect of their interactions and because follower schema facilitate attentional processes. Followership categorization is expected to subsequently bias memory at the time of retrieval, such that supervisors will be reluctant or unable to retrieve the subordinates’ behaviors independent of the followership schema. Thus, when supervisors are later asked to rate their subordinates’ leadership potential, I expect they will base the ratings of leadership potential on the subordinates’ followership prototypicality. Because supervisors may not form an online judgment of subordinates’ leadership potential due to the lack of social relevance of this construct for their immediate day-to-day interactions, I expect that supervisors will base the leadership potential rating on their previously formed judgment of followership.

In sum, I expect that matches to IFTs will influence the ratings of potential that supervisors provide regarding their subordinates. Recent research (Sy, 2010) suggests that IFTs are bidimensional and contain a Prototypical (or positively valenced) and Antiprototypical (or negatively valenced) higher-order factor. Thus, these two higher order factors of IFTs may differentially predict ratings of subordinate potential. As Sy (2010) has also argued, for the purpose of developing and testing hypotheses, these two higher-order IFT factors will be the focus of my hypotheses rather than the first-order followership traits found in IFTs. This focus is due to the notion of bandwidth-fidelity, whereas the breadth of a measure’s coverage influences its predictive validity (Cronbach & Gleser, 1965). This issue suggests that the nature of the criterion should determine the
predictors that are used. Additionally, focusing on the higher-order factors is more appropriate for the current study because the criterion, ratings of potential, is broad in scope, and because existing theories suggest that leaders have two broad perspectives of followers that guide their sensemaking and behavior (e.g., McGregor, 1960). This approach of focusing on the bidimensional, higher-order facets of implicit theories has also been used within the leadership domain (e.g., Epitropaki & Martin, 2005).

Based on Lord and Maher’s (1991; see also Epitropaki & Martin, 2005) argument that employees compare their managers’ behavior to a leadership prototype to make judgments, I expect that a similar process will guide how managers form impressions of their subordinates using IFTs. As a result, I expect that the perceived match of the followers to the supervisor’s IFT will drive supervisors’ ratings of subordinate potential. Specifically, better matches to the Prototypical IFT are expected to result in higher ratings of potential, whereas higher matches to the Antiprototypical IFT are expected to result in lower ratings of potential.

Managers are expected to make inferences regarding potential based on the Prototypical and Antiprototypical IFT factors. This is because these two factors categorize subordinates’ behavior based on the valence of that behavior, and the valence of these factors is expected to inform judgments of potential. Thus, when subordinates are perceived to display a lot of favorable followership behaviors and few unfavorable followership behaviors, supervisors are generally expected to provide more favorable ratings. Additionally, Crant and Bateman’s (2000) study demonstrated that subordinates who rate themselves higher on proactive personality are also more likely to be rated by their supervisors as being higher on charismatic leadership. This suggests that people
who take action to influence their environment are thought to be good leaders by their supervisors.

It is possible that supervisors consider proactivity to be an important trait for subordinates to possess if they are going to take on leadership responsibilities and roles. As a result, perceptions of proactivity (which would be captured by IFT inferences) may result in higher ratings of leadership potential. Importantly, research on IFTs demonstrates that proactivity may be an important component of IFTs. In particular, Carsten et al.’s (2010) work suggests that IFTs vary, with some individuals possessing more passive IFTs whereas others have more proactive IFTs. As was seen in 2.1, Sy’s (2010) Prototype and Antiprototype factors also show some overlap with this distinction, such that the Prototype dimension is associated with more proactive or active behaviors, whereas the Antiprototype dimension is associated with more passive or negative behaviors.

Thus, matches to followership schemas, based on these two higher-order dimensions of IFTs, are expected to directly influence ratings of subordinates’ leadership potential. Overall, I expect that subordinate traits will indirectly influence potential ratings through matches to IFTs, even when accounting for matches to ILTs. Although I anticipate that some leaders may make sense of some of their subordinates’ behaviors in terms of ILTs, due to the saliency of the followership role at the time of encoding, matches to IFTs are expected to drive ratings of leadership potential. In summary, my primary hypotheses are as follows:

H1. Matches to IFTs will mediate the influence of subordinate traits on supervisors’ leadership potential ratings, even when accounting for matches to ILTs.
H2. Subordinates’ leadership potential ratings will be negatively predicted by the extent to which supervisors perceive a match to an (a) antiprototypical IFT and (b) antiprototypical ILT.

H3. Subordinates’ leadership potential ratings will be positively predicted by the extent to which supervisors perceive a match to (a) prototypical IFT and (b) prototypical ILT.

Analyses of Antecedent Traits

In order to provide a conservative test of the role of followership categorization on supervisors’ ratings of subordinate potential, this study will explore several subordinate traits that are typically associated with leadership, including proactive personality, charisma, the motivation to lead, and Machiavellianism. Using traits typically associated with leadership will result in a conservative test of the model, because leadership categorization rather than followership categorization would typically be expected to mediate the effects of leader traits on leadership potential ratings. Thus, it should be difficult to find an effect of followership categorization unless it truly is a critical mediating variable. These four leadership traits are described in the following sections.

*Proactive personality.* According to Bateman and Crant (1993), proactive personality reflects a relatively dispositional tendency to influence one’s situation and actively produce change. People who are proactive identify opportunities, take initiative, and persevere through challenges to accomplish goals. Seibert, Crant, and Kraimer (1999) argued that having a proactive personality may lead to better job performance because proactive people have a tendency to shape their environments in a manner that is conducive to high performance. Individuals high in proactivity have a tendency to seek
information, develop their skills, engage in sensemaking, negotiate, gather needed resources, sell issues, socialize, and restructure roles (Crant, 2000). Thus, it seems likely that people who exhibit high proactivity will be judged to be good leaders, or have high leadership potential. In accordance with this expectation, proactivity has been found to predict organizational success using a plethora of organizational criteria, including job performance (Thomas et al., 2010), supervisor’s perceptions of charismatic leadership (Crant & Bateman, 2000), self-development (Orvis & Leffler, 2011), organizational citizenship behaviors (Trifiletti, Capozza, Pasin, & Falvo, 2011), the motivation to learn (Major, Turner, & Fletcher, 2006), employee life satisfaction (Gregurus & Diefendorff, 2010), observed leadership potential of teams (Hirschfield, Jordan, Thomas, & Field, 2008), and innovation, political knowledge, and career initiative (Seibert, Kraimer, & Crant, 2001).

Recently, Herschfeld, Thomas, and Berneth (2011) argued that proactivity is a valued skill for potential leaders, but that proactivity that looks out for the collective good will be more likely to predict observed advancement potential rather than the autonomous form of proactivity described above. In accordance with this argument, they found that autonomous proactivity was negatively related to peer and self-ratings of observed leadership potential, whereas team-oriented proactivity positively predicted observed leadership potential. However, they examined peer ratings of potential, rather than supervisors’ ratings of potential. It is possible that an employee’s peers are more concerned about whether his or her actions support peers compared to his or her supervisor, and thus, these relationships might differ when ratings are provided by one’s supervisor. It is expected that subordinates who are proactive will be perceived to match
IFTs (or potentially ILTs) which are associated with favorable followership behaviors and which are not associated with unfavorable followership behaviors. As such, the following hypothesis is put forth:

H4. Proactive personality will be (a) positively related to matches to prototypical IFTs, (b) negatively related to matches to antiprototypical IFTs, (c) positively related to matches to prototypical ILTs, and (d) negatively related to matches to antiprototypical ILTs.

Charisma. According to Conger and Kanungo (1998), charismatic individuals differ from other types of leaders in terms of their ability to create and articulate an inspirational vision and by their behaviors and actions, which cultivate support for them. These individuals have a desire to change the status quo, have a heightened sensitivity to environmental opportunities, challenges, and the needs of others, and engage in behaviors that are perceived to involve self-sacrifice. These behaviors help charismatic leaders to empower others and build trust and effect change (Conger, Kanungo, & Menon, 2000). In light of this work, subordinates who perceive themselves to be charismatic are expected to fit with their supervisor’s image of a positively-valenced follower and leader, and to clash with their supervisor’s image of a negatively-valenced follower and leader. Thus, it is expected that:

H5. Charisma will be (a) positively related to matches to prototypical IFTs, (b) negatively related to matches to antiprototypical IFTs, (c) positively related to matches to prototypical ILTs, and (d) negatively related to matches to antiprototypical ILTs.

Motivation to lead. Motivation to lead refers to “an individual differences construct that affects a leader’s or leader-to-be’s decisions to assume leadership training, roles, and responsibilities and that affect his or her intensity of effort at leading and persistence as a leader” (Chan & Drasgow, 2001, p. 482). People’s motivation to lead is
thought to interact with their vocational abilities and interests to influence their leadership behaviors, such as participation in leadership roles and training. This is thought to be a learned trait that can be developed over time. Chan and Drasgow (2001) found that motivation to lead predicted assessment center ratings of leadership potential and end-of-basic military training ratings of leadership potential. Additionally, recent work has demonstrated that one’s motivation to lead influences their leadership behaviors and effectiveness. For instance, Hong, Catano, and Liao (2011) found that the motivation to lead predicts leader emergence in leaderless discussions (for individuals high in affective-identity motivation to lead) and long-term project teams (for individuals high in social-normative motivation to lead). Additionally, Van Iddekinge, Ferris, and Heffner (2009) found that the motivation to lead influenced leader performance through the knowledge, skills, and abilities to lead, and that several Big 5 personality traits influenced leader performance through the motivation to lead. Based on this research, it is expected that an employee’s motivation to lead will influence how his or her supervisor categorizes him or her in terms of followership and leadership status. As such:

H6. Motivation to lead will be (a) positively related to matches to prototypical IFTs, (b) negatively related to matches to antiprototypical IFTs, (c) positively related to matches to prototypical ILTs, and (d) negatively related to matches to antiprototypical ILTs.

Machiavellianism. Machiavellianism entails a complex set of characteristics that were modeled based on the historical accounts of Machiavelli. It involves a tendency to distrust others, to engage in amoral manipulations, to accumulate high status, and to maintain interpersonal control (Dahling et al., 2009). Machiavellianism has been found to predict a variety of organizational outcomes, including leadership behaviors,
counterproductive work behaviors, defection, job satisfaction, occupational choice, and helping behavior (see Dahling et al., 2009 for a review). After developing a more psychometrically sound measure of this construct, Dahling et al. (2009) found that Machiavellianism predicts job satisfaction, work-related stress, counterproductive work behaviors, and task performance. Regarding leadership, past evidence suggests that Machiavellianism is associated with a very directive leadership style and a lack of genuine consideration for interpersonal concerns (Drory & Glusinkos, 1980). Based on this work, it is expected that individuals higher in Machiavellianism will be more likely to be perceived by others as being negatively valenced followers or leaders, as follows:

H7. Machiavellianism will be (a) negatively related to matches to prototypical IFTs, (b) positively related to matches to antiprototypical IFTs, (c) negatively related to matches to prototypical ILTs, and (d) positively related to matches to antiprototypical ILTs.

Thus, overall it is expected that matches to IFTs will mediate the effects of a number of subordinate personality traits on supervisors’ ratings of their leadership potential, even when accounting for the effects of matches to ILTs. A visual summary of the hypotheses and of the anticipated structural model for the current study can be viewed in Figure 2.1.

**Exploratory Analyses**

Using a pattern approach to analyze subordinates’ traits may aid in predicting supervisors’ ratings of leadership potential, such that the proposed model may yield different path coefficients for different subordinates based on the pattern of traits that characterize them. In order to examine the possible effects of the pattern of subordinates’ traits on leadership potential ratings, I will consider a pattern approach in an exploratory
Figure 2.1. The Anticipated Structural Model of the Antecedents of Leadership Potential Ratings.

Note. Machiavelli. = Machiavellianism. Proto = Prototypical. Anti = Antiprototypical. Anticipated correlations among the exogenous variables and among the mediating variables are not depicted for visual clarity. Covariates included in the model are: time in position, time at the company, age, race/ethnicity, gender, education, time with the supervisor, frequency of interactions with the supervisor, and perceptions of the feedback environment.
fashion. According to Foti and Hauenstein (2007), variable approaches consider the influence of a variable on other variables, often in terms of the variance accounted for by that variable, controlling for other predictors. Although this approach can be useful, and is widely used by individual difference researchers, it has several limitations. The most nolimitation is that it conceptualizes individuals as the sum of their traits (or other individual difference variables) rather than considering the importance of the profile of variables.

In contrast, the pattern approach is based on the idea that the whole can be greater than the sum of its parts. This approach considers the person and his or her Gestalt, rather than the variable, as the basic unit of observation (Foti, Thompson, & Allgood, 2011). Individuals are classified into groups based on their combined scores on a number of variables, and then group membership is used as the predictor variable. In the leadership domain, Foti and her colleagues have used the pattern approach to predict leadership emergence and effectiveness in several studies based on the target’s personality traits (Foti & Hauenstein, 2007; Gershonoff & Foti, 2003; Smith & Foti, 1998). Additionally, Coyle, Foti, Snead, & Thompson (2013) recently used a pattern approach to predict the types of behaviors engaged in by uninhibited, disengaged, and productive followers using IFTs. However, this approach has yet to be used to investigate supervisor ratings of leadership potential based on the rater’s traits.

To test the utility of the pattern approach for the current study, patterns of subordinates’ traits were created based on pattern analysis and used to explore the anticipated structural model in an exploratory fashion. Because the profile patterns were empirically driven without any a priori expectations, no formal predictions were offered
regarding the trait profile patterns. The proposed structural model for the exploratory analysis is shown in Figure 2.2.

![Diagram of the Anticipated Structural Model](image)

**Figure 2.2.** The Anticipated Structural Model of the Exploratory Model.

*Note.* Proto = Prototypical. Anti = Antiprototypical. Anticipated correlations among the mediating variables are not depicted for visual clarity. Covariates included in the model are: time in position, time at the company, age, race/ethnicity, gender, education, time with the supervisor, frequency of interactions with the supervisor, and perceptions of the feedback environment.
CHAPTER III

METHODOLOGY

This chapter describes the methodology that was used to test the hypotheses in the proposed models. An overview is provided of the participants, procedure, measures, and analytic strategy.

Participants

Survey data were collected at a large multinational manufacturing organization with a two-phased approach in order to collect from (1) subordinates and then (2) their supervisors. Data from both subordinates and supervisors were collected using online surveys that were tailored to the two groups. Self-reported data from subordinates was collected prior to the collection of self-reported data from supervisors.

First, 384 U.S. English-speaking individual contributors, who had no formal management responsibilities, were randomly selected to participate in the study. Individual contributors were selected as the “subordinates” for the current study, because a promotion into the next highest role would place them into a people and/or project management role. This distinction is important in terms of how supervisors’ ratings of subordinates’ potential can be interpreted, as discussed shortly. In order to avoid having nested data, each of these individual contributors had a unique supervisor. Of this pool, 150 (39%) completed the survey. Next, the immediate supervisors of all 150 subordinates were recruited to participate in a separate survey. Of these supervisors, 90 (60%)

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completed the survey in reference to the correct subordinate. The final pool of subordinates and supervisors are described in more detail below.

The final pool of 90 subordinates included predominately White males (64% were male and 95% identified themselves as White). These participants were drawn across a variety of functions within the organization (e.g., finance, engineering, manufacturing, supply chain, quality, sales, human resources, marketing, government affairs, customer service). Subordinates had been at the organization for 14.36 years on average (SD = 1.81), and had been working with their manager for an average of 2.33 years (SD = 2.75).

These subordinates’ immediate supervisors also participated in the study (66% were male and 96% identified themselves as White). Managers had an average tenure of 18.28 years (SD = 9.34) at the organization. For both subordinates and supervisors, these demographics are representative of the larger population within this organization.

At this organization, supervisors provide an overall rating of their subordinates’ leadership potential and performance using an online system on an annual basis. These two ratings were accessed from organizational records.

Procedure for Subordinates

At the beginning of the survey, it was explained to participants that they would be completing a voluntary survey designed to inform career-planning purposes at their organization. It was emphasized that the information provided by participants would be kept strictly confidential, and that only the researcher would have access to the information provided within the surveys. Next, participants were informed that, following their participation, their immediate supervisor would be asked to complete a confidential survey about their interactions with the participant. Additionally, participants were told
that if they volunteered for the study, the experimenter would later access overall ratings from their previous performance/potential career planning assessments. Participants were instructed that participating in the survey would serve as their informed consent. The confidentiality of the information collected from subordinates and supervisors was emphasized. The directions given to all subordinates can be found in Appendix A.

Following this explanation, participants completed the survey at their own pace. The first portion of the survey instructed participants to think about how they typically are at work, and to fill out the following scales accordingly. This section contained scales measuring self-reported individual difference variables, including a measure of proactivity personality, charisma, motivation to lead, and Machiavellianism. Next, subordinates completed a scale that asked them about their perceptions of the feedback environment created by their supervisors. The following portion of the survey included demographics information and items regarding their supervisor and organization, including the name of the individual that they directly report to, and whether they work in the same location as this supervisor.

After participants completed the survey, they were thanked for their participation and debriefed. Table 3.1 outlines the sequence of procedures used for subordinates.

Procedure For Supervisors

After the survey window for subordinates closed, the experimenter sent a survey link to the participating subordinates’ immediate supervisors. Supervisors were surveyed after subordinates in order to avoid needlessly sampling supervisors whose subordinates did not complete the survey. The introduction of the online survey explained to supervisors that they would be completing a voluntary survey designed to inform career-
Table 3.1. Sequence of Procedures for Subordinates

1. Introduction, Consent Form, and Survey Distribution
2. Individual Difference Variable Measures (Proactive Personality; Charisma; Motivation to Lead; and Machiavellianism)
3. Perceptions of the Feedback Environment
4. Demographics and General Questions about Supervisor
5. Debriefing

planning practices at their organization. Again, it was emphasized that the information provided by participants would be kept strictly confidential, and that only the researcher would have access to the information provided within the surveys. The instructions given to supervisors can be viewed in Appendix B. Participants were informed that their subordinates had already completed a confidential survey about themselves, and that the experimenter was now interested in acquiring additional information about the subordinates from the supervisor. Next, the directions outlined the entire survey procedure and asked participants to consent to participating in the study.

Following this explanation, the survey was completed at the supervisor’s own pace. The first portion of the survey contained brief scales regarding the subordinate’s match to followership and leadership qualities. The last portion of the survey included demographics information about the supervisor. After supervisors completed the survey, they were thanked for their participation. Afterward, supervisor ratings of leadership performance and potential for each subordinate were collected from organizational records. However, it is worth noting that all supervisors had already completed their annual ratings as part of the organization’s career-planning assessment before being
surveyed for this study. Collecting data from supervisors after the performance/potential assessments had already been completed is advantageous because it ensures that simply asking the supervisor questions about followership and leadership did not influence their ratings of the subordinate. Table 3.2 outlines the sequence of procedures used for supervisors.

Table 3.2. Sequence of Procedures for Supervisors

<table>
<thead>
<tr>
<th>Time 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Introduction, Consent Form, and Survey Distribution</td>
</tr>
<tr>
<td>2. Leadership and Followership Ratings (Subordinate Match to Followership Traits; Subordinate Match to Leadership Traits; Supervisor’s Leadership Schematicity, Supervisor’s Followership Schematicity, Subordinate Liking)</td>
</tr>
<tr>
<td>3. Demographics</td>
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<table>
<thead>
<tr>
<th>Time 2</th>
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</thead>
<tbody>
<tr>
<td>1. Measure of Leadership Performance and Potential (Obtained from Organizational Records)</td>
</tr>
<tr>
<td>2. Debriefing</td>
</tr>
</tbody>
</table>

Selected Variables for the Current Study

The dependent variable, leadership potential, was accessed using data from the organization’s online career-planning assessment following the completion after both survey windows were closed. Using this tool, supervisors rate their subordinates’ performance and potential based on the subordinate’s competencies and goal attainment every year. The instrument directs supervisors to use the subordinates’ competency scores along with their managerial judgment when providing the overall potential rating. Potential is measured using a 3-point ordinal scale. A score of 1 indicates that the
employee demonstrates the capability to perform the same kind of work currently being done (23.3% of participants received this score). A score of 2 indicates that the employee demonstrates the capability to take on increased responsibilities at the same organizational level within the next two years (61.1% of participants received this score). Lastly, a score of 3 indicates that the employee demonstrates the capability to do the work at the next organizational level within the next two years (15.6% of participants received this score).

Supervisors are asked to consider the employee’s capabilities as well as their aspirations (as indicated in the employee’s resume) when determining the potential rating. These ratings are used for career planning purposes at the organization. For the purposes of this study, scores of 1 and 2 were collapsed together, because both scores indicate that the employee does not have the potential to take on a formal leadership role within the next two years (because only subordinates who were at the individual contributor level were included in the study—thus, any promotions they received would involve formal leadership responsibilities that included people and/or project management). Thus, collapsing scores of 1 and 2 to create a dichotomous variable better fit with the overall leadership potential construct. However, as discussed in greater detail in Chapter IV, similar overall results were found when scores of 1 and 2 were not collapsed.

**Predictor Variable Measures—Collected from Subordinates**

The following variables were collected from subordinates prior to the collection of data from supervisors.

**Proactive personality.** Proactive personality was measured using the Proactive Personality Scale (Bateman & Crant, 1993). This 17-item scale is measured on a 5-point
Likert scale anchored from *strongly agree* to *strongly disagree*, with items such as, “I am always looking for better ways to do things” and “I am constantly on the lookout for new ways to improve my life” \((\alpha = .85)\). See Appendix C for the scale.

**Charisma.** Agle and Sonnenfeld’s (1994) charisma scale was used to assess subordinates’ self-reported charisma. This 6-item scale is based on a longer scale developed by Podsakoff, MacKenzie, Moorman, & Fetter (1990) and is anchored from *strongly disagree* to *strongly agree* \((\alpha = .86)\). The scale includes items such as, “I have the ability to excite a group of people.” See Appendix D.

**Motivation to Lead.** Motivation to lead (MTL) was measured using Chan and Drasgow’s (2001) 27-item scale. The scale is composed of three factors, including *affective-identity*, *social-normative*, and *noncalculative MTL*. Affective-identity MTL refers to affectively-based MTL (i.e., whether a person just likes to lead; \(\alpha = .86\)). Social-normative MTL refers to MTL based on a sense of duty or responsibility \((\alpha = .78)\). Finally, noncalculative MTL refers to MTL that is *not* based on a calculative weighing of the risks and benefits associative with leading \((\alpha = .80)\). During scale development performed by Chan and Drasgow (2001), multi-sample confirmatory factor analyses demonstrated that the three-factor model was invariant across the three samples used and also provided a better fit compared to a one-factor model. In the current study, the *social-normative* subscale was positively correlated with the *non-calculate MTL* subscale \((r = .42, p < .01)\) and the *affective-identity MTL* subscale \((r = .30, p < .05)\). The scale is available in Appendix E.

**Machiavellianism.** Dahling, Whitaker, and Levy’s (2009) Machiavellian Personality Scale was used to assess self-reported Machiavellianism. The 16-item scale is
composed of four dimensions, including *amorality* ($\alpha = .80$), *desire for control* ($\alpha = .81$), *desire for status* ($\alpha = .73$), and *distrust of others* ($\alpha = .79$). These four dimensions comprise the higher-order Machiavellianism factor. Dahling et al. (2009) found that the scale was found to have evidence for validity, reliability, and its proposed factor structure. See Appendix F.

*Supervisor Feedback Environment.* Subordinates were also asked to complete an abbreviated version of Steelman, Levy, and Snell’s (2004) Supervisor Feedback Environment Scale (Rosen, 2006) to assess their perceptions of the feedback provided by their supervisors. This 21-item scale has seven subscales: (1) source credibility ($\alpha = .89$), (2) feedback quality ($\alpha = .95$), (3) feedback delivery ($\alpha = .88$), (4) favorable feedback ($\alpha = .90$), (5) unfavorable feedback ($\alpha = .89$), (6) source availability ($\alpha = .73$), and (7) promotes feedback seeking ($\alpha = .82$). This scale was included as a covariate. See Appendix G.

*Demographics.* After completing all of the other scales, subordinates were asked to provide basic information about themselves and their immediate supervisor. This included items asking them to identify who their supervisor is and how long they have worked under this supervisor, as well as basic demographic information about the subordinate. See Appendix H for these items.

*Predictor Variable Measures—Collected from Supervisors*

The following predictors were collected from supervisors after subordinate data were collected: overall job performance, subordinates’ match to an IFT, subordinates’ match to an ILT, supervisors’ leadership schematicity, supervisors’ followership
schematicity, and liking. Demographics were also collected from supervisors. These variables are described in more detail below.

*Overall job performance.* Overall performance was measured using an overall rating collected from the organization’s performance/potential tool (which assesses potential and performance separately) described above. Performance ratings on this tool are made using a 3-point ordinal scale, which have the following categories: (a) inadequate performance (which characterized 16.7% of the sample), (b) acceptable performance (characterizing 63.3% of the sample), and (c) exceptional performance (comprising 20% of the sample). This information was collected for exploratory purposes.

*Subordinates’ Match to an IFT.* Sy’s (2010) IFT scale was used to measure the supervisor’s perceptions of the subordinate’s match to followership traits. This scale consists of six first-order factors and two second-order factors that were found to have acceptable fit. Together, *industry* ($\alpha = .92$), *good citizen* ($\alpha = .91$), and *enthusiasm* ($\alpha = .90$) comprise the second-order factor of *Followership Prototype* (referred to as prototypical IFT in this study) whereas *incompetence* ($\alpha = .74$), *conformity* ($\alpha = .83$), and *insubordination* ($\alpha = .94$) comprise the second-order factor of *Followership Anti-Prototype* (called antiprototypical IFT in this study).

For the current study, the directions to Sy’s (2010) scale were modified such that supervisors were asked to first think of a typical follower. Then, supervisors were instructed to use this image to rate the extent to which their subordinate matches a typical follower using the listed traits. Ratings were based on a 5-point scale from “1” (does not match a typical follower) to “5” (completely matches a typical follower).
Thus, this measure follows the *molar* approach to measuring the perceived match between two stimuli. Research examining fit, or matches, between two stimuli has demonstrated that there are several ways to measure fit, and that these approaches are not interchangeable (Edwards, Cable, Williamson, Lambert, & Shipp, 2006). The *atomistic* approach is adopted when the two constructs (e.g., subordinate traits and a supervisor’s IFT) are measured separately and then statistically combined in order to represent a match. This approach assumes that people cognitively compare the two constructs, but it does not directly assess the results of the comparison. In contrast, the *molecular* approach is adopted when the perceived discrepancy between traits and IFTs is measured, and the direction of the discrepancy is retained. This construct is thought to directly assess the outcome of the comparison between the two constructs, and may be useful when one is interested in the direction of the resultant discrepancy. However, it does not directly assess fit or matches. In contrast, the *molar* approach involves directly measuring the perceived match, fit, or similarity between the subordinate’s traits and the supervisor’s IFT (thus, the direction of any discrepancy is not relevant).

Although these three measures of fit or match are conceptually related, Edwards et al. (2006)’s research demonstrates that these approaches yield very different information overall and should thus be considered as distinct constructs. The molar approach matches two basic assumptions of person categorization: (1) the perceived match between a person’s traits and a schema are greatest when the perceived traits and the schema are equal, and (2) the perceived match decreases as the difference between the person’s traits and the schema increases in either direction. Thus, even positive discrepancies (e.g., a subordinate is perceived to be more outgoing than a typical
follower) can result in a reduced perceived match to an IFT, because this positive discrepancy can weaken the overall pattern of activation for the IFT.

These assumptions also fit with a connectionist approach to knowledge representation (Lord & Shondrick, 2010). Connectionist views contend that schemas for leadership and followership are represented via a network of highly connected neural-like processing units that process information in parallel. These units are able to excite and inhibit other units through spreading activation processes. Importantly, schemas are activated only when the entire network of relevant units becomes activated through spreading activation, not just when individual units are activated or partially activated (Rumelhart & McClelland, 1986). Because of this, the activation of a schema is more dependent on the overall degree of the perceived match, rather than being dependent on whether a discrepancy is positive or negative for a specific trait within that schema.

This research suggests that a molar approach may be more useful than a molecular approach when the goal is to assess the perceived match to an IFT, because ultimately, schema use is dependent upon whether the entire schema is activated (and thus, a match to the IFT is perceived). Thus, the direction of any resulting discrepancies between the schema and the perceived followership traits is not as important as whether a perceived match exists. Because I argue that ultimately, the perceived match to an IFT is what predicts supervisors’ leadership potential ratings, rather than the direction of the discrepancy, a molar approach most appropriately captures the construct of interest (i.e., the perceived match to an IFT). The adapted measure can be found in Appendix I.

Subordinate’s Match to an ILT. Epitropaki and Martin’s (2004) 21-item measure was adapted to assess the supervisor’s perceptions of the extent to which the subordinate
matches leadership traits. First, after being instructed to think about the typical leader, supervisors provided ratings of each trait on a scale from 1 (not at all uncharacteristic) to 5 (extremely characteristic) for the typical leader. The Epitropaki and Martin (2004) scale is a shortened version of Offermann, Kennedy, and Wirtz’s (1994) original ILT scale and consists of six first-order dimensions, including sensitivity ($\alpha = .77$), intelligence ($\alpha = .88$), dedicated ($\alpha = .90$), dynamism ($\alpha = .84$), tyranny ($\alpha = .95$), and masculinity ($\alpha = .84$). The first four factors comprised a second-order factor called Leadership Prototype (called prototypical ILT in this study). The final two factors comprised a second-order factor called Leadership Antiprototype (called antiprototypical ILT in this study). This scale has been found to be reliable and to be highly correlated with Offerman et al.’s (1994) original scale (Epitropaki & Martin, 2004). This measure is included for exploratory purposes.

Similar to the IFT scale, the directions and rating scale for the Epitropaki and Martin (2004) ILT measure were then modified to directly assess the perceived match between subordinate traits and typical leadership traits. Again, supervisors were asked to first think of a typical leader. Then, they were instructed to use this image to rate the extent to which their subordinate matches a typical leader, using the listed traits. Thus, this measure also adopts the molar approach to the measurement of fit or matches. Ratings were again based on a 5-point scale from 1 (does not match a typical leader) to 5 (completely matches a typical leader). See Appendix J for this scale.

*Supervisor’s Leadership Schematicity.* Cronshaw and Lord’s (1987) General Leadership Impression scale was used to generate items that measure leadership self-schematicity. The original 5-item scale asks the rater to indicate (1) the amount of
leadership the ratee exhibited, (2) how willing the rater would be to choose the rater as a formal leader, (3) how typical the ratee was of a leader, (4) to what extent the ratee engaged in leader behavior, and (5) the degree to which the ratee fits their image of a leader. The original scale was found to be reliable at the time of its development ($\alpha = .87$; Cronshaw & Lord, 1987). The original scale was adapted to measure the supervisor’s leadership schematicity. Adapting the original 5 items, supervisors were asked to form an image of a typical leader and then to rate the extent to which they personally fit their own image of a typical leader using a 5-point scale from “1” (does not match a typical leader) to “5” (completely matches a typical leader; $\alpha = .82$). This construct was included for exploratory purposes in order to explore its potential as a moderator of the effects of ILT schema match on leadership potential ratings. See Appendix K for this scale.

Supervisor’s Followership Schematicity. Cronshaw and Lord’s (1987) original scale was also modified to assess followership instead of leadership. Supervisors were instructed to form an image of a typical follower and then to rate the extent to which they personally fit their own image of a typical follower using a 5-point scale from 1 (does not match a typical follower) to 5 (completely matches a typical follower; $\alpha = .93$). This construct was also included for exploratory purposes as a potential moderating variable. See Appendix L for this scale.

Subordinate liking. Three items measured the supervisor’s liking of the subordinate (Wayne, Shore, & Liden, 1997). A sample item is “I like this person very much.” Items were rated on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree; $\alpha = .96$). Supervisors completed this scale for each participating
subordinate. This scale was included for exploratory purposes. See Appendix M for this scale.

Demographics. Following the completion of the previous scales, supervisors were asked a series of basic demographic information such as their gender, age, height, ethnic background, and tenure at the organization. The questions used can be found in Appendix N.
CHAPTER IV

RESULTS

Before conducting the proposed analyses, all data were screened for potential outliers and careless responding (e.g., choosing the same responses across multiple scales). There did not appear to be any instances where outliers affected any of the results, nor where participants responded carelessly across various scales. Additionally, all supervisors’ responses were examined to ensure that supervisors provided ratings for the subordinate whom they were asked to rate. In cases where supervisors rated the wrong direct report, their responses were removed from analysis. This process resulted in 90 pairs of supervisor-subordinate data.

Additionally, because leadership potential was measured as categorical data with a small number of categories, it was necessary to examine whether the data were multivariate normal. To examine this issue, skew and kurtosis were examined following Finney and DiStefano’s (2006) and Kline’s (2005) standards. Generally speaking, skewness values greater than 2 and kurtosis values greater than 7 indicate potential problems. Additionally, possible multivariate outliers were examined using Mahalanobis distance (with p-values below .001 indicating multivariate abnormalities; Kline, 2005). These screenings did not yield any problematic cases. Thus, the following analyses were conducted as planned.
Hypothesis Testing

The previous model was tested using structural equation modeling (SEM). All SEM analyses were conducted using Mplus 6.0 (Muthén & Muthén, 2010). Data analysis involved two overall stages. During the first stage, the measurement models were estimated and determined based on extant research, as described above. During the second stage, the structural models were tested.

Categorical data analyzed using the standard maximum likelihood approach can create underestimated $\chi^2$ and standard error estimates as well as inflated fit indices, resulting in a greater likelihood of falsely rejecting a good model (Finney & DiStefano, 2006). Because of these possibilities, the covariance matrix for the structural model (which included categorical data as the dependent variable) was analyzed using mean- and variance-adjusted weighted least squares (WLSMV) estimation unless otherwise noted. The WLSMV estimation is advantageous with categorical data because it avoids the necessity of a large sample size and it accounts for the categorical nature of the dependent variable, thus avoiding inverting a large asymptotic covariance matrix (Finney & DiStefano, 2006). WLSMV creates a mean- and variance-adjusted $\chi^2$ value and estimates the degrees of freedom in the model.

For overall model evaluation, I examined the $\chi^2$ statistic (whereas non-significant estimates indicate good model fit), the Confirmatory Fit Index (CFI), the root-mean-square error of approximation (RMSEA), and the Weighted Root Mean Square Residual (WRMR; with estimates below 1.0 indicating good fit; Yu & Muthén, 2002). One problem with the $\chi^2$ statistic is that it is sensitive to sample size, such that larger samples are more likely to result in misfit. Because of this, all four fit statistics were considered
together in order to evaluate model fit. In general, CFI values that exceed .90, SRMR values below .05, and RMSEA values below .06 suggest good fit (Kline, 2005). For the structural model, when discrepancies were found for different model fit indices, RMSEA and WRMR were relied on to make model fit inferences, as these fit indices are the most appropriate for WLSMV estimation methods (Finney & DiStefano, 2006). Parameter estimates, residuals, and effect sizes were also considered to evaluate overall model fit, because it is possible to have nonsignificant parameter estimates, large residuals, and/or weak effects even with good overall model fit (Tomarken & Waller, 2003).

After estimating the overall model fit and adding any necessary parameters, modification indices greater than 10 were examined to determine if any modifications to the model made theoretical sense. However, because type-I error rates are inflated when modification indices are used to adjust the model, a conservative \( p \)-value of \(< .01 \) was employed to evaluate possible model modifications (MacCallum, 1986). When modification indices were examined, a \( \chi^2 \) difference test was conducted on the nested models to examine whether the modification significantly improved the model fit. Only changes that resulted in a statistically significant improvement in model fit were retained.

Consistent with a SEM approach, it was expected that the hypothesized structural model would fit better than models in which fewer variables were allowed to covary, but as well as models in which more variables were allowed to covary. To examine whether the hypothesized model fit better than either more relaxed or more constrained versions of the model (i.e., models in which more paths were freed or in which more paths were added to the model), several possible nested models were compared by examining the change in \( \chi^2 \) (Kline, 2005). However, because the WLSMV estimation method was used
to test the structural models due to having a categorical dependent variable (i.e., leadership potential ratings), the chi-square value cannot be used for chi-square difference testing in the normal fashion. Instead, model fit comparisons for WLSMV-estimated models were conducted by saving the derivatives from the less restrictive model in order to compute a chi-square difference value for the nested model (Muthén & Muthén, 1998-2010). Although the fit of the models reported below were compared to more constrained versions of the model, this study reports all hypothesized paths in the models in order to fully investigate the selected hypotheses. In contrast, improvements between measurement models could be examined using the normal chi-square difference test because these models did not include any categorical variables and were thus estimated using the maximum likelihood method.

In the following analyses, specific hypotheses were tested by examining overall model fit and the statistical significance of the appropriate path coefficient(s) in the final model. Because the final models retained nonsignificant but hypothesized paths, some of the models did not demonstrate acceptability of overall fit. In these cases, the statistical significance of the appropriate path coefficients were explored in order to interpret the hypotheses. An alpha level of .05 was employed.

Scale Composition and Scoring

Before the structural model was examined, scale scores were created for all independent and exploratory variables as described in Chapter III. Where multi-factor models were anticipated based on extant research, the subscales comprising the established measures were submitted to confirmatory factor analyses using Mplus 6.0 with a maximum likelihood estimation method (Muthén & Muthén, 2010). Confirmatory
factor analyses were performed at the subscale, rather than item, level in order to obtain a more optimal ratio of indicators to sample size (Bagozzi & Edwards, 1998). Subscales were determined based on the previously established measurement model obtained during scale development. The specific procedures used to create these models are described below.

**Motivation to Lead.** Based on Chan and Drasgow’s (2001) expected factor structure, confirmatory factor analyses were conducted on the 3 subscales comprising this construct in order to explore whether the subscales could be modeled to fit a single higher-order construct. However, a higher-order motivation to lead model suggested a poor fit to the data: $\chi^2 (1) = 7.65, p < .01; \text{RMSEA} = .27; \text{CFI} = .72; \text{and SRMR} = .15$. Whereas social-normative motivation to lead was moderately correlated with affective-identity motivation to lead ($r = .30, p < .05$) and non-calculative motivation to lead ($r = .42, p < .05$), non-calculative motivation to lead was not correlated with affective-identity motivation to lead ($r = .05, ns$). Overall, the results of several CFA models suggested that each subscale should be considered separately. The following analyses thus treated each subscale as a separate construct.

**Machiavellianism.** Based on Dahling et al.’s (2009) research and anticipated factor structure, confirmatory factor analyses were conducted on the 4 subscales comprising this scale. Fit statistics for the final model were as follows: $\chi^2 (1) = .004, p > .05; \text{RMSEA} < .001; \text{CFI} = 1.00; \text{and SRMR} = .001$. Based on modification indices, an additional path was added to the original model to allow the *Desire for Status* subscale to correlate with the *Desire for Control* subscale ($\Delta \chi^2 (1) = 12.186, p < .05$). Although three of the four factors (*Amorality, Desire for Control, and Desire for Status*) did not account
for a statistically significant amount of variance in Machiavellianism, this model seemed to provide the best fit to the data. The final model is shown in Figure 4.1.

_Supervisor Feedback Environment._ Based on Steelman et al.’s (2004) expected factor structure, confirmatory factor analyses were conducted on the 7 subscales that comprise the Supervisor Feedback Environment. Fit statistics for the final model were as follows: \( \chi^2 (14) = 29.35, p < .01; \) RMSEA = .11; CFI = .97; and SRMR = .03. Overall, strong factor loadings (ranging from .71 to .92), mostly small-to-moderate residual values (ranging from .15 to .50), and no large modification indices values suggested that this model provided the best fit to the data. The final model is shown in Figure 4.2.

_Match to IFT._ Based on Sy’s (2010) expected factor structure, confirmatory factor analyses were conducted on the six subscales to model a two-factor higher-order model (with prototypical IFT and antiprototypical IFT). Results supported the higher-order factor model. Fit statistics for the final model were as follows: \( \chi^2 (8) = 10.59, p > .05; \) RMSEA = .06; CFI = .99; and SRMR = .05. The two higher-order factors were allowed to covary based on extant literature and modification indices. Strong factor loadings (ranging from .71 to .92) suggested that this model provided the best fit to the data. The final model is shown in Figure 4.3. This model is theoretically consistent with past research (Sy, 2010).

_Match to ILT._ Based on Epitropaki and Martin’s (2004) expected factor structure, confirmatory factor analyses were conducted on the six subscales to model a two-factor second-order model (with prototypical ILT and antiprototypical ILT). Results suggested that this model provided the best fit to the data. Fit statistics for the final model were as follows: \( \chi^2 (8) = 5.30, p > .05; \) RMSEA < .001; CFI = 1.00; and SRMR = .03. Once again,
Figure 4.1. Results of the Confirmatory Factor Analysis for Machiavellianism.

Note. Standardized estimates are reported with standard errors in parentheses. All coefficients are significant at $p < .05$. $R^2 = .31$, $p = .06$ for Amorality; $R^2 = .13$, $p = .16$ for Desire for Control; $R^2 = .10$, $p = .21$ for Desire for Status; $R^2 = .57$, $p < .05$ for Distrust of Others.
Supervisor Feedback Environment

Source Credibility

Feedback Quality

Feedback Delivery

Favorable Feedback

Unfavorable Feedback

Source Availability

Promotes Feedback Seeking

.92 (.02)

.91 (.02)

.81 (.04)

.71 (.05)

.71 (.06)

.75 (.05)

.78 (.05)

Source Credibility

Feedback Quality

Feedback Delivery

Favorable Feedback

Unfavorable Feedback

Source Availability

Promotes Feedback Seeking

.15*

.18*

.34*

.40*

.50*

.44*

.39*

Figure 4.2. Results of the Confirmatory Factor Analysis for Supervisor Feedback Environment.

Note. Standardized estimates are reported with standard errors in parentheses. All coefficients are significant at $p < .001$. $R^2 = .85$, $p < .001$ for Source Credibility; $R^2 = .82$, $p < .001$ for Feedback Quality; $R^2 = .66$, $p < .001$ for Feedback Delivery; $R^2 = .60$, $p < .001$ for Favorable Feedback; $R^2 = .50$, $p < .001$ for Unfavorable Feedback; $R^2 = .56$, $p < .001$ for Source Availability; $R^2 = .61$, $p < .001$ for Promotes Feedback Seeking.
Figure 4.3. Results of the Confirmatory Factor Analysis for Match to IFT.

*Note.* Standardized estimates are reported with standard errors in parentheses. All coefficients are significant at \( p < .01 \).  \( R^2 = .75, p < .001 \) for Industry; \( R^2 = .60, p < .001 \) for Enthusiasm; \( R^2 = .84, p < .001 \) for Good Citizen; \( R^2 = .78, p < .001 \) for Incompetence; \( R^2 = .51, p < .001 \) for Conformity; \( R^2 = .57, p < .001 \) for Insubordination.
predominately strong factor loadings (with the exception of masculinity; $\beta = .42$, all factor loadings were above .70) and a lack of modification indices values suggested that this model provided the best fit to the data. The final model is shown in Figure 4.4.

Descriptive Information

Tables 4.1 and 4.2 contain descriptive statistics and correlations among the primary variables of interest using data collected from subordinates (Table 4.1) and supervisors (Table 4.2). The included means and standard deviations in this table reflect unstandardized composites. However, standardized scores were used in all other statistical analyses unless otherwise noted. Scale reliabilities are reported on the diagonal.

These two tables highlight several interesting correlations. For example, supervisor’s ratings of subordinates’ potential tend to be higher if they perceive their subordinate to match a prototypical ILT ($r = .22, p < .05$) and tend to be lower if they perceive their subordinate to match a prototypical IFT ($r = -.25, p < .05$). Additionally, supervisors are more likely to rate themselves as being high on followership schematicity if they are female rather than male ($r = -.24, p < .05$). Moreover, several subordinate self-reported traits were correlated. For instance, proactive personality was positively correlated with both charisma ($r = .62, p < .05$) and affective-identity motivation to lead ($r = .43, p < .05$) and negatively correlated with Machiavellianism ($r = -.31, p < .05$). Additionally, subordinates’ perceptions of the supervisor feedback environment tend to be more favorable the more frequently they report working in the same physical location as their supervisor ($r = .22, p < .05$) and the more frequently they report interacting with their supervisor ($r = .38, p < .05$).
Figure 4.4. Results of the Confirmatory Factor Analysis for Match to ILT.

Note. Standardized estimates are reported with standard errors in parentheses. All coefficients are significant at $p < .05$. $R^2 = .63, p < .001$ for Sensitivity; $R^2 = .63, p < .001$ for Intelligence; $R^2 = .70, p < .001$ for Dedicated; $R^2 = .58, p < .001$ for Dynamism; $R^2 = .49, p > .05$ for Tyranny; $R^2 = .18, p > .05$ for Masculinity.
Table 4.1. Means, SDs, Correlations, and Scale Reliabilities among Analyzed Variables Collected from Subordinates

| Variable                      | M   | SD  | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13   | 14   | 15   | 16   | 17   | 18   |
|-------------------------------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1. Proactive Personality      | 4.00| .42 | .85  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 2. Charisma                   | 3.52| .65 | .62  | .86  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 3. Aff.-Identity MOT          | 3.57| .68 | .43  | .42  | .86  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 4. Non-Calcitative MOT        | 4.09| .57 | .19  | .07  | .05  | .78  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 5. Social-Norm. MOT           | 3.63| .59 | .20  | .28  | .30  | .42  | .80  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 6. Machiavellianism           | 1.84| .46 | -.31 | -.21 | .08  | -.47 | -.14 | .83  |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 7. SFE                        | 4.13| .70 | .06  | .05  | -.03 | .16  | .09  | -.10 | .96  |      |      |      |      |      |      |      |      |      |      |      |      |
| 8. Frequency Physical         | 3.21| 1.15| .06  | .03  | -.06 | .10  | -.15 | -.21 | .22  |      |      |      |      |      |      |      |      |      |      |      |      |
| 10. Position Tenure           | 4.26| 4.24| -.10 | -.13 | -.15 | .08  | .12  | -.13 | -.08 | -.09 | -.17 |      |      |      |      |      |      |      |      |      |      |
| 11. Company Tenure            | 14.36| 1.81| -.34 | -.36 | -.36 | .06  | .02  | -.06 | -.14 | -.02 | -.30 | .42  |      |      |      |      |      |      |      |      |      |
| 12. Years with Supervisor     | 2.33| 2.75| -.04 | -.09 | -.29 | .08  | .12  | -.19 | -.06 | .03  | .04  | .65  | .34  |      |      |      |      |      |      |      |      |
| 13. Gender                    | 1.36| .48 | -.05 | -.03 | -.02 | .17  | .08  | -.26 | -.05 | -.04 | -.00 | -.05 | -.09 | -.07 |      |      |      |      |      |      |      |
| 14. Height (in inches)        | 68.89| 3.55| .11  | .05  | -.11 | -.04 | .25  | -.02 | -.13 | .03  | .16  | .04  | .14  | -.71 |      |      |      |      |      |      |      |
| 15. Education                 | 5.05| 1.47| -.00 | -.23 | .09  | .05  | .09  | .02  | .06  | -.20 | -.01 | -.23 | -.06 | -.25 | -.04 | .05  |      |      |      |      |      |
| 16. Age                       | 43.25| 9.66| -.08 | -.09 | -.18 | .32  | .26  | -.27 | -.01 | -.07 | .14  | .38  | .66  | .22  | .05  | -.01 | -.08 |      |      |      |      |
| 17. Race                      | 1.06| .23 | .12  | .12  | -.10 | .07  | -.07 | -.12 | .13  | .04  | .16  | -.04 | -.06 | -.01 | .12  | .01  | -.01 | .11  |      |      |      |
| 18. Performance               | 1.92| .62 | .01  | .06  | .07  | -.19 | .00  | -.02 | .15  | .01  | .13  | .02  | -.11 | -.02 | .11  | -.07 | .11  | -.14 | -.09 |      |      |
| 19. Potential                 | 1.20| .40 | .05  | -.10 | -.18 | -.01 | .04  | -.02 | -.04 | .06  | -.03 | .00  | -.09 | .09  | -.02 | .20  | -.11 | -.12 | .15  |      |      |

Note. Reliabilities are indicated in parentheses where appropriate. Correlations in bold are significant at $p < .05$. **Aff.-Identity MOT** = Affective Identity Motivation to Lead. **Non-Calcitative MOT** = Non-Calcitative Motivation to Lead. **Social-Norm. MOT** = Social-Normative Motivation to Lead. **SFE** = Supervisor Feedback Environment. **Frequency Physical** indicates the frequency with which subordinates report working in the same physical location as their supervisor. **Frequency Interact** indicates the frequency with which subordinates report interacting with their supervisor. Gender was coded as 1 = Male; 2 = Female. Race/Ethnicity was coded as 1 = White; 2 = Black or African American (no other options were selected). Education was coded as 1 = Some high school; 2 = High school degree; 3 = Associate’s degree; 4 = Some college; 5 = College degree; 6 = Some graduate school; 7 = Graduate degree. Performance and potential were obtained from organizational records but are included in the present table for ease of reference.
Table 4.2. Means, SDs, Correlations, and Scale Reliabilities among Analyzed Variables Collected from Supervisors

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*Note.* Reliabilities are indicated in parentheses where appropriate. Correlations in **bold** are significant at \( p < .05 \). Gender was coded as 1 = Male; 2 = Female. Race/Ethnicity was coded as 1 = White; 2 = Black or African American (no other options were selected). Education was coded as 1 = Some high school; 2 = High school degree; 3 = Associate’s degree; 4 = Some college; 5 = College degree; 6 = Some graduate school; 7 = Graduate degree. Performance and potential were obtained from organizational records but are included in the present table for ease of reference.
Additionally, these tables highlight correlations that suggest the need to include several control variables. For instance, supervisors are more likely to rate their subordinate as matching a prototypical or antiprototypical ILT if they are high on followership schematicity \( (r = .28, p < .05 \text{ and } r = .12, p < .05 \) respectively), and are more likely to rate their subordinate as matching a prototypical or antiprototypical IFT if they are high on leadership schematicity \( (r = .30, p < .05 \text{ and } r = .26, p < .05, \) respectively). Additionally, the supervisors’ tenure, both at the company \( (r = .24, p < .05) \) and within the current position \( (r = .28, p < .05) \), tended to correlate positively with perceived matches to prototypical IFTs. Moreover, subordinates’ self-reported Machiavellianism was positively correlated with subordinates’ height \( (r = .25, p < .05) \) and was negatively correlated with age \( (r = -.27, p < .05) \), the frequency with which they report working in the same physical location as their supervisor \( (r = -.21, p < .05) \), and subordinates’ gender \( (r = -.26, p < .05) \)—based on the way this variable was coded, this indicates that males tend to score higher on Machiavellianism). Additionally, subordinates’ tenure at the company was negatively correlated with self-reported proactive personality \( (r = -.34, p < .05) \), charisma \( (r = -.36, p < .05) \), and affective-identity motivation to lead \( (r = -.36, p < .05) \).

As a result, several control variables were examined in the following analyses for their possible influence on the dependent variable in the hypothesized models (e.g., performance ratings, the supervisor feedback environment, subordinates’ tenure, gender, height, education, age, race, and frequency of interactions with their supervisor; supervisors’ followership schematicity, leadership schematicity, and tenure). Control variables that had no effect on the model and no predictive utility were removed from the
final model. Although all of these covariates were considered for each structural model tested, none significantly predicted the dependent variable and thus all were omitted from the final models. Additionally, whether subordinates’ gender influenced supervisors’ perceptions of the extent to which the subordinate matched an ILT or IFT. However, gender did not predict or interact with matches and was thus removed from the final models.

Further Data Exploration

Before testing the proposed hypotheses, several additional questions concerning the relationships among the variables of interest were also addressed. Specifically, because IFTs (and ILTs) must predict the dependent variable in order for mediation to occur, whether matches to IFTs and ILTs predict leadership potential ratings or other ratings (i.e., overall performance ratings) was examined. Additional analyses examined the interpretation of matches to IFTs and ILTs and whether supervisor’s schematicity influences matches to IFTs and ILTs. These results are described next.

As a precursor to testing for the mediational relationships specified in Hypothesis 1, whether matches to IFTs and ILTs predict leadership potential ratings was investigated. The model, shown in Figure 4.5, demonstrated acceptable overall fit ($\chi^2 = 64.61$, $df = 58$, $p > .05$; CFI = .96; RMSEA = .04; WRMR = .63) but suggested that the antiprototypical components of IFTs and ILTs did not predict leadership potential ratings. Matches to a prototypical IFT negatively predicted leadership potential ratings and matches to a prototypical ILT positively predicted leadership potential ratings. Interestingly, the path estimates indicated notably larger relationships when this “full model” was considered
Figure 4.5. The Overall Effect of Matches to IFTs and ILTs on Ratings of Leadership Potential.

Note. Standardized estimates are reported with standard errors in parentheses. * Estimates are significant at $p < .05$. Zero-order correlations are indicated in bold. $R^2$ for leadership potential ratings = .42, $p = .05$. 
and compared to the zero-order correlations (which are included in bold in path model figures). This large increase compared to zero order correlations is indicative of mutual suppression. Importantly, this result indicates that tests of the effects of IFTs or ILTs may be misspecified unless both IFTs and ILTs are included in the model, as omitting either can result in underestimated effect sizes.

As noted in Chapter 3, the primary models used to test the hypotheses were also examined using a trichotomous variable for leadership potential ratings instead of a dichotomous construct. These analyses resulted in largely the same overall conclusions as those reported in this chapter. The results for the current model, tested using the trichotomous DV, are depicted in Appendix P and generally reflect very similar interpretations as those reported above, although antiprototypical IFTs significantly predicted leadership potential ratings in this model ($\beta = .39, SE = .19, p = .05$). However, once again, prototypical ILTs positively predicted leadership potential, prototypical IFTs negatively predicted leadership potential, and antiprototypical ILTs did not predict the dependent variable.

Next, the IFT and ILT measures were examined in order to further explore the meaning of matches to IFTs and ILTs. Because the instructions for both variables asked supervisors to rate the extent to which the subordinate matches a typical follower (or leader) on a 1 to 5 scale from *Does Not Match a Typical Follower/Leader* to *Completely Matches a Typical Follower/Leader*, these variables do not clarify whether supervisors considered typical leaders/followers to be effective and/or ideal. Thus, it is possible that different groups of supervisors interpreted these scales differently.
For instance, it is possible that some supervisors provide high ratings of leadership potential when the subordinate does not match a typical follower, because they perceive typical followers to be ineffective. In contrast, other supervisors may provide high ratings of potential when the subordinate matches a typical follower. The same may apply to the ILT measure. Although it is difficult to directly identify how supervisors interpreted these scales, one might find that the patterns of relationships between matches to IFTs and matches to ILTs vary when leadership potential is ascribed compared to when it is not. In order to investigate this issue, scatterplots and correlations comparing matches to IFTs with matches to ILTs, split by leadership potential rating, were examined. These investigations did not find evidence for the IFT and ILT scales being interpreted differently depending on the leadership potential rating assigned, as a positive relationship was found between prototypical IFTs and ILTs ($r = .36, r < .05$ when leadership potential was not ascribed; $r = .10, ns$ when leadership potential was ascribed) and antiprototypical IFTs and ILTs ($r = .34, p < .05$ when leadership potential was not ascribed; $r = .39, p < .05$ when leadership potential was ascribed) across both groups of supervisors.

In order to examine whether outliers may influence the relationships between matches to IFTs/ILTs and leadership potential, the relationship between ILTs and IFTs was further examined to identify potential multivariate outliers. Grouping all subordinates together, scatterplots and regression analyses that regressed matches to ILT on matches to IFT revealed that for the majority of participants, there was a positive relationship between matches to IFTs and matches to ILTs. However, a few subordinates were perceived to highly match a prototypical ILT but not match a prototypical IFT.
Based on Tabachnik and Fidell’s (2007) recommendations, cases which have Mahalanobis distance values greater than critical $\chi^2 = 10.828$ (based on 1 degree of freedom and an alpha level of $< .001$) should be removed. This criterion did not identify any outliers. Additionally, standardized residuals greater than $\pm 3.3$ also suggest cases that should be removed (Tabachnik and Fidell, 2007). This criterion identified one possible outlier that had a standardized residual value of -3.38. This outlier was excluded in order to retest the model that was depicted in Figure 4.5 as a way of determining whether it substantially influenced the effects of IFTs and ILTs on leadership potential.

Retesting this model with this case excluded resulted in a model very similar to what was shown in Figure 4.5. Again, prototypical IFTs negatively predicted leadership potential ($\beta = -.65$, SE = .20, $p < .05$) and prototypical ILTs positively predicted leadership potential ($\beta = .63$, SE = .30, $p < .05$). Additionally, neither antiprototypical IFTs ($\beta = .42$, SE = .26, $ns$) nor antiprototypical ILTs ($\beta = -.35$, SE = .31, $ns$) predicted leadership potential. These results suggest that the outlier had little effect on the overall model. Overall, these investigations provide some evidence that the IFT and ILT measures are being interpreted consistently across all supervisors and that outliers on these measures do not influence the results reported in this study. Thus, all 90 cases are included in the remaining results.

Next, it was examined whether the correlations found above in the “full model” were reduced when the effects of supervisors’ liking of subordinates was controlled. This model was based on Wyer and Srull’s (1986) argument that people form spontaneous trait inferences that result in inferences regarding the likeability of the person, and that liking may then be used as a basis for making social judgments. This model added liking
to the full model tested above and specified that liking would predict the antiprototypical
and prototypical components of both IFTs and ILTs, which would then predict leadership
potential. However, the results of this model ($\chi^2 = 73.57$, $df = 66$, $p > .05$; CFI = .95;
RMSEA = .04; WRMR = .62) showed that liking did not significantly predict any
components of IFTs or ILTs. This general finding was also replicated when examining a
3-point measure of leadership potential ratings. Liking was thus removed from further
analyses.

To examine whether IFTs and ILTs account for variance in other dependent
variables, the effects of matches to IFTs and ILTs on supervisors’ ratings of overall
performance were also examined. This model ($\chi^2 = 64.60$, $df = 58$, $p > .05$; CFI = .96;
RMSEA = .04; WRMR = .62) demonstrated several nonsignificant paths between
matches to ILTs and IFTs with performance and did not account for a significant amount
of variance in performance ($R^2 = .13$, $p = .87$). However, this model demonstrated that
matches to prototypical ILTs positively predicted ratings of performance, but that none of
the other predictors accounted for a significant amount of variance, as shown in Figure
4.6.

At this point, it was also examined whether matches to IFTs and ILTs interact to
predict leadership potential ratings. In order to improve statistical power, this issue was
examined using two models. The first model tested for an interaction between matches to
prototypical IFTs and ILTs, above and beyond the variance accounted for by the direct
effects of each predictor. This model (and the next) were estimated using a maximum
likelihood estimator with robust standard errors using a numerical integration algorithm,
as recommended by Muthen and Muthen (1998-2010) and Klein and Moosbrugger
Figure 4.6. The Overall Effect of Matches to IFTs and ILTs on Ratings of Overall Performance.

*Note.* Standardized estimates are reported with standard errors in parentheses. *Estimates are significant at* \( p < .05. \) Zero-order correlations are indicated in bold. \( R^2 \) for overall performance ratings = .13, \( p > .05. \)
(2000) when both direct effects are estimated using latent variables. Using this method, standard model fit indices (such as chi-square values) are not estimated, nor are standardized path estimates available. Because of this limitation, Klein & Moosbrugger (2000) recommend first estimating the model using maximum likelihood without including the interaction term in order to evaluate overall fit. Once an acceptable fitting model is obtained, the interaction term should be added to the model and then the significance of this interaction term should be interpreted (Muthen, 2012).

This first model showed that matches to prototypical IFTs and ILTs did not interact to predict leadership potential ratings ($b$-weight = -.20, SE = .52, $p = .71$) when the direct effects of prototypical IFTs ($b$-weight = -.81, SE = .36, $p < .05$) and prototypical ILTs ($b$-weight = 1.52, SE = .69, $p < .05$) were included in the model (AIC = 1418.58; BIC = 1483.57). The next model tested for an interaction between matches to antiprototypical IFTs and ILTs, above and beyond the variance accounted for by the direct effects of both predictors. This model indicated that matches to antiprototypical IFTs and ILTs did not interact to predict leadership potential ratings ($b$-weight = .61, SE = .54, $p = .25$) when the direct effects of antiprototypical IFTs ($b$-weight = -.48, SE = .86, $p = .58$) and antiprototypical ILTs ($b$-weight = .49, SE = .89, $p = .59$) were included in the model (AIC = 1336.71; BIC = 1386.70). These interactions were also not significant when examined using a trichotomous version of leadership potential. Thus, these interaction effects were not explored further.

Next, whether supervisors’ schematicity for followership (or leadership) influences the relationships between matches to IFT (or ILT) and leadership potential ratings was investigated. These potential interactions seemed likely because people who
are self-schematic tend to be more aware of themselves in relation to a given schema and are more likely to process events and behaviors through a lens colored by that schema (Markus, Cross, & Wurf, 1990). Consequently, supervisors may give greater weight to matches to IFTs (or ILTs) if they are self-schematic on followership (or leadership).

To examine this issue, two models were tested in order to compare the interaction of supervisors’ followership and leadership schematicity with matches to IFTs and ILTs on leadership potential ratings. The first model (AIC = 1420.54; BIC = 1493.04) examined this relationship using matches to prototypical IFTs and ILTs. Results showed that supervisors’ followership schematicity (b-weight = -.09, SE = .40, p = .81) did not interact with matches to prototypical IFTs (b-weight = -2.34, SE = 1.11, p < .05) to predict leadership potential ratings (b-weight for the interaction term = .60, SE = .37, p = .10). Additionally, supervisors’ leadership schematicity (b-weight = -.34, SE = .81, p = .67) did not interact with matches to prototypical ILTs (b-weight = 6.47, SE = 5.21, p = .21) to predict leadership potential ratings (b-weight for the interaction term = -1.23, SE = 1.40, p = .38).

The next model (AIC = 1342.20; BIC = 1399.70) examined this relationship using matches to antiprototypical IFTs and ILTs. Results showed that supervisors’ followership schematicity (b-weight = -.19, SE = .46, p = .68) did not interact with matches to antiprototypical IFTs (b-weight = -2.61, SE = 3.29, p = .43) to predict leadership potential ratings (b-weight for the interaction term = .59, SE = .51, p = .24). Additionally, supervisors’ leadership schematicity (b-weight = -.66, SE = .81, p = .41) did not interact with matches to antiprototypical ILTs (b-weight = -4.63, SE = 5.24, p = .38) to predict leadership potential ratings (b-weight for the interaction term = 1.73, SE = 1.48, p = .24).
Testing these models using a trichotomous dependent variable produced similar results: it was again found that neither the interactions nor the direct effects of followership or leadership schematicity predicted leadership potential ratings. Thus, these models did not indicate that self-schematicity influenced leadership potential ratings either directly or via an interaction with matches to IFTs/ILTs.

Tests of the Hypotheses—Mediation of IFT Match

Having addressed these many preliminary issues, the mediational relationships specified by Hypothesis 1 can now be addressed. The above tests of leadership potential predictors suggested that there were direct effects of prototypical matches to IFTs (and antiprototypical IFTs when examining a 3-point measure of leadership potential) and prototypical matches to ILTs on leadership potential ratings. Hypothesis 1 was tested in order to examine whether matches to IFTs mediate the influence of subordinate traits on leadership potential ratings, even when accounting for the effects of matches to ILTs.

As discussed below, support was not found for Hypothesis 1 for the majority of models, as matches to IFTs (or ILTs) did not mediate the effects of subordinate traits on ratings of leadership potential. The single exception to this was that the total indirect effect of matches to prototypical ILTs and IFTs on the relationship between proactive personality and leadership potential ratings was significant when both mediational paths were considered. Overall results from the models testing Hypothesis 1 can be found in Tables 4.3 to 4.5, including the indirect effects and other path estimates. An overview of these tests is discussed below. Results of these models using a trichotomous version of leadership potential ratings are shown in Appendices Q, R, and S. Unless noted otherwise,
results were generally very similar regardless of whether the dichotomized or trichotomous measure of leadership potential.

Several subordinate traits were examined in regards to Hypothesis 1: proactive personality, charisma, affective-identity motivation to lead, non-calculative motivation to lead, social-normative motivation to lead, and Machiavellianism. To test this hypothesis, the indirect effects of subordinate traits on leadership potential ratings through matches to IFT were examined while controlling for the indirect effects of subordinate traits on leadership potential ratings through matches to ILT. Although bootstrapped estimates are generally less biased than those obtained from Sobel tests for large samples, bootstrapped estimates for samples of n = 100 have relatively large standard errors and can result in unusable results due to problems such as non-positive definite covariance matrices (Kline, 2005). As a result, the estimates resulting from Sobel tests were used to test for mediation (whereby the product of the direct effects was used to calculate the indirect effect, and the total effect reflects the sum of all direct and indirect effects of the exogenous variable on the dependent variable, Baron & Kenny, 1986; Kline, 2005). In order to improve statistical power, several different simplified versions of the structural model that was depicted in Figure 2.1 were modeled to test these relationships in which only one trait and only prototypical IFTs and ILTs or antiprototypical IFTs and ILTs were tested at a time.

In order to fully examine the hypotheses, nonsignificant paths were retained in the models, even when doing so resulted in poor overall model fit.

Proactive personality. The first model examined the effects of proactive personality on leadership potential ratings through matches to prototypical IFT, controlling for the effects of matches to prototypical ILT. The model ($\chi^2 = 37.37, df = 23$,
Overall, these results demonstrated that proactive personality predicted matches to prototypical ILTs but not prototypical IFTs. Additionally, there was a significant total indirect effect of proactive personality on leadership potential ratings when mediation through both prototypical IFTs and prototypical ILTs were considered collectively ($\beta = .14, SE = .10, p < .05$), even though neither of the indirect effects were significant when examined by themselves ($\beta = .03, SE = .13, p = .60$ for mediation via prototypical IFTs; $\beta = .11, SE = .16, p = .09$ for mediation via prototypical ILTs). This provides some evidence that proactive personality indirectly affects leadership potential ratings when both matches to prototypical ILTs and prototypical IFTs are considered together, thus partially supporting Hypothesis 1.

Next, the effects of proactive personality on leadership potential ratings through matches to antiprototypical IFT were examined while controlling for the effects of matches to antiprototypical ILT, as shown in Figure 4.8 ($\chi^2 = 14.47, df = 10, p > .05$; CFI = .90; RMSEA = .07; WRMR = .47). These results demonstrated that proactive personality did not predict antiprototypical matches or leadership potential ratings.

Charisma. The next model examined the effects of charisma on leadership potential ratings through matches to prototypical IFT, controlling for the effects of matches to prototypical ILT. Results indicated that charisma did not predict matches to ILTs or IFTs or leadership potential ratings, as shown in Figure 4.9 ($\chi^2 = 56.25, df = 23, p < .001$; CFI = .90; RMSEA = .13; WRMR = .67). Examining the effects of charisma on leadership potential ratings through matches to antiprototypical IFTs, it was again
Figure 4.7. Proactive Personality’s Effect on Ratings of Leadership Potential Through Matches to Prototypical IFTs and Prototypical ILTs.

Note. Standardized estimates are reported with standard errors in parentheses. * Estimates are significant at $p < .05$. Zero-order correlations are indicated in parentheses. $R^2$ for leadership potential ratings = .33, $p < .05$. 
Figure 4.8. Proactive Personality’s Effect on Ratings of Leadership Potential Through Matches to Antiprototypical IFTs and Antiprototypical ILTs.

Note. Standardized estimates are reported with standard errors in parentheses. * Estimates are significant at $p < .05$. Zero-order correlations are indicated in bold. $R^2$ for leadership potential ratings = .02, $ns$. 
Figure 4.9. Charisma’s Effect on Ratings of Leadership Potential Through Matches to Prototypical IFTs and Prototypical ILTs.

*Note.* Standardized estimates are reported with standard errors in parentheses. * Estimates are significant at *p* < .05. Zero-order correlations are indicated in parentheses. $R^2$ for leadership potential ratings = .35, *p* < .05.
found that charisma did not predict any of the endogenous variables in the model, as shown in Figure 4.10 \( (\chi^2 = 15.97, df = 10, p > .05; \text{CFI} = .86; \text{RMSEA} = .08; \text{WRMR} = .49) \).

**Affective-identity motivation to lead.** The next model examined the effects of affective-identity motivation to lead on leadership potential ratings through matches to prototypical IFTs, controlling for the effects of matches to prototypical ILTs. Results indicated that affective-identity motivation to lead was not significantly related to any other variable in the model, as shown in Figure 4.11 \( (\chi^2 = 39.35, df = 23, p < .05; \text{CFI} = .87; \text{RMSEA} = .09; \text{WRMR} = .54) \). Additional analyses revealed that affective-identity motivation to lead also did not offer predictive validity when matches to antiprototypical IFTs and ILTs were examined, as shown in Figure 4.12 \( (\chi^2 = 14.37, df = 10, p > .05; \text{CFI} = .90; \text{RMSEA} = .07; \text{WRMR} = .46) \).

**Non-calculative motivation to lead.** The next model examined the effects of non-calculative motivation to lead on leadership potential ratings through matches to prototypical IFT, controlling for the effects of matches to prototypical ILT. Results indicated that non-calculative motivation to lead was not significantly related to matches to prototypical ILT or IFT and that there was no support for mediation, as shown in Figure 4.13 \( (\chi^2 = 34.87, df = 23, p = .05; \text{CFI} = .91; \text{RMSEA} = .08; \text{WRMR} = .53) \). Next, the effects of non-calculative motivation to lead on leadership potential ratings through matches to antiprototypical IFT and ILT were examined. Results of the final model \( (\chi^2 = 15.63, df = 10, p > .05; \text{CFI} = .88; \text{RMSEA} = .08; \text{WRMR} = .51) \) demonstrated that non-calculative motivation to lead had a borderline statistically significant relationship with leadership potential ratings \((\beta = -.25, p = .08)\), but that this relationship was not mediated by matches to antiprototypical IFTs or ILTs, as shown in Figure 4.14.
Figure 4.10. Charisma’s Effect on Ratings of Leadership Potential Through Matches to Antiprototypical IFTs and Antiprototypical ILTs.

Note. Standardized estimates are reported with standard errors in parentheses. * Estimates are significant at $p < .05$. Zero-order correlations are indicated in parentheses. $R^2$ for leadership potential ratings = .02, ns.
Figure 4.11. Affective-Identity Motivation to Lead’s Effect on Ratings of Leadership Potential Through Matches to Prototypical IFTs and Prototypical ILTs.

*Note.* Standardized estimates are reported with standard errors in parentheses. * Estimates are significant at $p < .05$. Zero-order correlations are indicated in parentheses. $R^2$ for leadership potential ratings = .31, $p < .05$. 
Figure 4.12. Affective-Identity Motivation to Lead’s Effect on Ratings of Leadership Potential Through Matches to Antiprototypical IFTs and Antiprototypical ILTs.

Note. Standardized estimates are reported with standard errors in parentheses. * Estimates are significant at $p < .05$. Zero-order correlations are indicated in parentheses. $R^2$ for leadership potential ratings = .03, $ns$. 
Figure 4.13. Non-Calculative Motivation to Lead’s Effect on Ratings of Leadership Potential Through Matches to Prototypical IFTs and Prototypical ILTs.

*Note.* Standardized estimates are reported with standard errors in parentheses. * Estimates are significant at $p < .05$. Zero-order correlations are indicated in parentheses. $R^2$ for leadership potential ratings = .36, $p < .05$. 
Figure 4.14. Non-Calculative Motivation to Lead’s Effect on Ratings of Leadership Potential Through Matches to Antiprototypical IFTs and Antiprototypical ILTs.

Note. Standardized estimates are reported with standard errors in parentheses. * Estimates are significant at $p < .05$. Zero-order correlations are indicated in parentheses. $R^2$ for leadership potential ratings = .07, $ns$. 
Social-normative motivation to lead. The next two models examined the effects of social-normative motivation to lead on leadership potential ratings through matches to prototypical (or antiprototypical) IFT, controlling for the effects of matches to prototypical (or antiprototypical) ILT. Results indicated that social-normative motivation to lead did not predict any other variable in either model. Parameter estimates for the final model testing prototypical relationships ($\chi^2 = 40.35, df = 23, p < .05; \text{CFI} = .86; \text{RMSEA} = .09; \text{WRMR} = .55$) can be found in Figure 4.15, and estimates for the final model testing antiprototypical relationships ($\chi^2 = 14.11, df = 10, p > .05; \text{CFI} = .91; \text{RMSEA} = .07; \text{WRMR} = .46$) can be found in Figure 4.16. These results suggest that social-normative motivation to lead does not predict ratings of leadership potential, either directly or indirectly through matches to IFTs or ILTs.

Machiavellianism. Examining the effects of Machiavellianism on leadership potential ratings through matches to prototypical IFT, it was found that Machiavellianism only predicted matches to prototypical IFTs ($\beta = -.25, p < .05$), as shown in Figure 4.17 ($\chi^2 = 66.37, df = 49, p < .05; \text{CFI} = .90; \text{RMSEA} = .06; \text{WRMR} = .71$). Note that because the original model would not converge even after increasing the total number of iterations substantially, it was necessary to remove the path between Machiavellianism and leadership potential ratings, which was expected to be small and nonsignificant based on the correlation matrix ($r = -.01, p = .88$). As a result, the mediational model could not be directly tested and was inferred to be unsupported. Machiavellianism also did not predict matches to antiprototypical IFTs or ILTs, as shown in Figure 4.18 ($\chi^2 = 27.59, df = 30, p > .05; \text{CFI} = 1.00; \text{RMSEA} < .001; \text{WRMR} = .55$). Again, the path between Machiavellianism and leadership potential ratings was removed in order to obtain a model that would converge.
Figure 4.15. Social-Normative Motivation to Lead’s Effect on Ratings of Leadership Potential Through Matches to Prototypical IFTs and Prototypical ILTs.

Note. Standardized estimates are reported with standard errors in parentheses. * Estimates are significant at $p < .05$. Zero-order correlations are indicated in parentheses. $R^2$ for leadership potential ratings = .33, $p < .05$. 
Figure 4.16. Social-Normative Motivation to Lead’s Effect on Ratings of Leadership Potential Through Matches to Antiprototypical IFTs and Antiprototypical ILTs.

Note. Standardized estimates are reported with standard errors in parentheses. * Estimates are significant at $p < .05$. Zero-order correlations are indicated in parentheses. $R^2$ for leadership potential ratings = .01, $ns$. 
Figure 4.17. Machiavellianism’s Effect on Ratings of Leadership Potential Through Matches to Prototypical IFTs and Prototypical ILTs.

Note. Standardized estimates are reported with standard errors in parentheses. * Estimates are significant at $p < .05$. Zero-order correlations are indicated in parentheses. $R^2$ for leadership potential ratings = .33, $p < .05$. 
Figure 4.18. Machiavellianism’s Effect on Ratings of Leadership Potential Through Matches to Antiprototypical IFTs and Antiprototypical ILTs.

*Note.* Standardized estimates are reported with standard errors in parentheses. * Estimates are significant at $p < .05$. Zero-order correlations are indicated in parentheses. $R^2$ for leadership potential ratings = .01, $ns$. 
As noted above, almost all tests of Hypothesis 1 indicated that the traits selected for this study did not influence leadership potential ratings indirectly through matches to IFTs or ILTs. The one exception to this was that the total indirect effect of matches to prototypical ILTs and IFTs mediated the effects of proactive personality on leadership potential, even though neither mediational path by itself was significant. Because matches to prototypical IFTs had to be included with matches to prototypical ILTs in order to reveal the indirect effect of proactive personality on leadership potential ratings, this finding partially supports Hypothesis 1. For all other models, Hypothesis 1 was not supported, in that IFTs did not mediate the influence of any of the other traits on leadership potential ratings when ILTs were considered. A summary of these results is available in Table 4.3. Next, the models tested above are further explored in terms of Hypotheses 2 through 7.

Tests of the Hypotheses—Prediction of Leadership Potential Ratings

Hypothesis 2 predicted that leadership potential ratings would be influenced by the type of implicit theory that subordinates are perceived to match, such that leadership potential ratings would be negatively predicted by a match to an (a) antiprototypical IFT and (b) antiprototypical ILT. To test this hypothesis, the path coefficients connecting matches to antiprototypical IFT and antiprototypical ILT with leadership potential ratings that were shown in Figures 4.5, 4.8, 4.10, 4.12, 4.14, 4.16, and 4.18 were investigated for significance. A summary of these results is shown in Table 4.4. These results show that neither matches to an antiprototypical IFT nor matches to an antiprototypical ILT predicted leadership potential ratings. Thus, these results do not support Hypothesis 2.
Table 4.3. Prediction of Leadership Potential Ratings By Traits Across Several Models

<table>
<thead>
<tr>
<th>Model Tested</th>
<th>Direct Effect of Trait on Leadership Potential β-weight</th>
<th>Indirect Effect of Trait Through Match to IFT</th>
<th>Indirect Effect of Trait Through Match to ILT</th>
<th>Total Indirect Effect of Trait on Leadership Potential β-weight</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proactive Personality</td>
<td>-0.06 (.30)</td>
<td>0.09 (.30)</td>
<td>0.03 (.13)</td>
<td>0.00 (.01)</td>
<td>.11 (.27)</td>
</tr>
<tr>
<td>Charisma</td>
<td>-0.14 (.23)</td>
<td>-0.13 (.22)</td>
<td>0.03 (.08)</td>
<td>0.00 (.00)</td>
<td>-0.01 (.09)</td>
</tr>
<tr>
<td>Affective-Identity</td>
<td>0.04 (.26)</td>
<td>0.15 (.24)</td>
<td>0.04 (.09)</td>
<td>0.00 (.03)</td>
<td>0.06 (.10)</td>
</tr>
<tr>
<td>Motivation to Lead</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Calculative</td>
<td>-0.15 (.10)</td>
<td>-0.25 (.25)</td>
<td>-0.08 (.10)</td>
<td>0.00 (.01)</td>
<td>-0.03 (.10)</td>
</tr>
<tr>
<td>Motivation to Lead</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social-Normative</td>
<td>0.04 (.25)</td>
<td>0.00 (.26)</td>
<td>-0.01 (.09)</td>
<td>0.00 (.00)</td>
<td>-0.04 (.10)</td>
</tr>
<tr>
<td>Motivation to Lead</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Machiavellianism</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note. Standardized estimates are reported with standard errors in parentheses and were derived from Figures 4.5 – 4.17. * p < .05. Anti. = Antiprototypical. Proto. = Prototypical. Anti. = Antiprototypical. Proto. = Prototypical. For the Machiavellianism model, the mediational relationship could not be tested due to model non-convergence.
Table 4.4. Prediction of Leadership Potential Ratings by Matches to IFTs and ILTs Across Several Models

<table>
<thead>
<tr>
<th>Model Tested</th>
<th>Hypothesis 2</th>
<th>Hypothesis 3</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(a)</td>
<td>(b)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$\beta$-weight of Anti. IFT on Leadership Potential</td>
<td>$\beta$-weight of Anti. ILT on Leadership Potential</td>
<td></td>
</tr>
<tr>
<td>Proactive Personality</td>
<td>.08 (.17)</td>
<td>.01 (.16)</td>
<td>-.47* (.15)</td>
</tr>
<tr>
<td>Charisma</td>
<td>.01 (.18)</td>
<td>.08 (.15)</td>
<td>-.47* (.28)</td>
</tr>
<tr>
<td>Affective-Identity</td>
<td>-.01 (.18)</td>
<td>.09 (.18)</td>
<td>-.45* (.16)</td>
</tr>
<tr>
<td>Motivation to Lead</td>
<td>.01 (.14)</td>
<td>.06 (.18)</td>
<td>-.44* (.30)</td>
</tr>
<tr>
<td>Non-Calculative</td>
<td>.01 (.16)</td>
<td>.09 (.19)</td>
<td>-.47* (.14)</td>
</tr>
<tr>
<td>Motivation to Lead</td>
<td>.01 (.15)</td>
<td>.09 (.17)</td>
<td>-.47* (.13)</td>
</tr>
<tr>
<td>Machiavellism</td>
<td>.01 (.15)</td>
<td>.09 (.17)</td>
<td>-.47* (.13)</td>
</tr>
<tr>
<td><strong>Full Model (Anti. IFT + Anti. ILT + Proto. IFT + Proto. ILT)</strong></td>
<td>.35 (.23)</td>
<td>-.30 (.28)</td>
<td>-.62* (.18)</td>
</tr>
</tbody>
</table>

*Note. Standardized estimates are reported with standard errors in parentheses and were derived from Figures 4.6 – 4.18. * $p < .05$. Anti. = Antiprototypical. Proto. = Prototypical. Results in bold supported the relevant hypothesis. Anti. = Antiprototypical. Proto. = Prototypical.*
Hypothesis 3 predicted that leadership potential ratings would be influenced by the type of implicit theory that subordinates are perceived to match, such that leadership potential ratings would be positively predicted by a match to a (a) prototypical IFT and (b) prototypical ILT. To test this hypothesis, the path coefficients between matches to IFT and ILT and leadership potential ratings in Figures 4.5, 4.7, 4.9, 4.11, 4.13, 4.15, and 4.17 were investigated for significance. A summary of these results was also shown in Table 4.4. Results indicated that matches to a prototypical IFT negatively predicted leadership potential ratings and that matches to a prototypical ILT positively predicted leadership potential ratings. Thus, these results support Hypothesis 3b (for prototypical ILTs) but not 3a (for prototypical IFTs), in that the direction of the sign for the relationship between matches to a prototypical IFT and leadership potential ratings was in the opposite direction.

Tests of the Hypotheses—Impact of Subordinate Traits on Matches to IFT

Hypotheses 4 through 7 predicted that subordinate traits would influence the type of IFT that subordinates are perceived to match. Hypotheses 4 (regarding proactive personality), 5 (regarding charisma), and 6 (regarding motivation to lead) predicted that the subordinate trait under investigation would (a) positively predict matches to prototypical IFT, (b) negatively predict matches to antiprototypical IFT, (c) positively predict matches to prototypical ILT, and (d) negatively predict matches to antiprototypical ILT. Hypothesis 7 predicted that Machiavellianism would (a) negatively predict matches to prototypical IFT, (b) positively predict matches to antiprototypical IFT, (c) negatively predict matches to prototypical ILT, and (d) positively predict matches to antiprototypical ILT.
The results of these tests are shown in Table 4.5 (see Appendix S for the same results tested using the trichotomous dependent variable). As shown, proactive personality positively predicted matches to prototypical ILT ($\beta = .23, p < .05$), as predicted by Hypothesis 4c, although it was unrelated to matches to prototypical IFT, antiprototypical IFT, or antiprototypical ILT. These results partially support Hypothesis 4. However, charisma was unrelated to any of the proposed variables. These results do not support Hypothesis 5. Hypothesis 6, which was tested using three measures of motivation to lead, did not find any support. Lastly, Machiavellianism negatively predicted matches to prototypical IFT ($\beta = -.25, p < .05$), as predicted by Hypothesis 7a, but it was unrelated to matches to antiprototypical IFT, prototypical ILT, or antiprototypical ILT. These results partially support Hypothesis 7.

**Exploratory Pattern Analysis**

In order explore a pattern approach to subordinates’ traits, a cluster analysis was performed in order to identify distinct patterns of personality profiles. A cluster analysis (versus alternative approaches, such as a latent class analysis, which adopts a confirmatory approach to cluster solutions) is well suited for the current exploratory research question because there were no a priori predictions regarding the expected profiles (Moran, Diefendorff, Kim, & Liu, 2012). For the cluster analysis, unstandardized variables were used because all included trait variables were measured on the same 5-point scale. Once personality profiles were identified, it was examined whether these profiles predict leadership potential ratings through matches to IFTs and ILTs.

The six traits (proactive personality, charisma, three types of motivation to lead, and Machiavellianism) were subjected to agglomerative, hierarchical cluster analysis
### Table 4.5. Prediction of Matches to IFTs and ILTs By Various Individual Traits

<table>
<thead>
<tr>
<th>Model Tested</th>
<th>(a) β-weight for Trait on Prototypical IFT</th>
<th>(b) β-weight for Trait on Antiprototypical IFT</th>
<th>(c) β-weight for Trait on Prototypical ILT</th>
<th>(d) β-weight for Trait on Antiprototypical ILT</th>
</tr>
</thead>
<tbody>
<tr>
<td>H4. Proactive Personality</td>
<td>-.06 (.25)</td>
<td>-.03 (.25)</td>
<td>.23* (.16)</td>
<td>.08 (.29)</td>
</tr>
<tr>
<td>H5. Charisma</td>
<td>-.05 (.16)</td>
<td>.01 (.16)</td>
<td>-.03 (.12)</td>
<td>-.01 (.18)</td>
</tr>
<tr>
<td>H6. Affective-Identity Motivation to Lead</td>
<td>-.10 (.17)</td>
<td>.11 (.17)</td>
<td>.14 (.12)</td>
<td>.03 (.20)</td>
</tr>
<tr>
<td>H6. Non-Calculative Motivation to Lead</td>
<td>.18 (.19)</td>
<td>.04 (.19)</td>
<td>-.06 (.12)</td>
<td>-.10 (.24)</td>
</tr>
<tr>
<td>H6. Social-Normative Motivation to Lead</td>
<td>.02 (.19)</td>
<td>-.02 (.19)</td>
<td>-.09 (.12)</td>
<td>-.14 (.23)</td>
</tr>
<tr>
<td>H7. Machiavellianism</td>
<td>-.25* (.12)</td>
<td>-.07 (.12)</td>
<td>-.16 (.12)</td>
<td>.03 (.17)</td>
</tr>
</tbody>
</table>

*Note.* Standardized estimates are reported with standard errors in parentheses and were derived from Figures 4.5 – 4.17. *p < .05. Anti. = Antiprototypical. Proto. = Prototypical. Results in **bold** supported the relevant hypothesis. Anti. = Antiprototypical. Proto. = Prototypical.
using Ward’s (1963) approach and the squared Euclidean distance measure (Burns & Burns, 2008). The squared Euclidean distance represents the sum of the squared differences of all variables. With agglomerative cluster analysis, every case is initially fitted to its own cluster. Then, with successive steps, clusters are merged together until finally all cases are amalgamated into one cluster. Thus, with this approach, the results must be examined in order to identify the appropriate number of clusters that are needed to sufficiently describe the data while still being parsimonious.

A 2-factor solution was selected as the most parsimonious and descriptive model based on the results of the agglomeration schedule and dendogram (Burns & Burns, 2008). The agglomeration schedule, which shows the coefficient at which clusters are joined and can be plotted and interpreted similar to a scree plot, demonstrated that a drop off in change occurred after more than two (up to perhaps four) clusters were formed. The dendogram, which visually demonstrates the distance at which clusters are combined, also supported a two-cluster solution. The two-factor solution was also the most interpretable.

Next, the analysis was conducted again to force a two-cluster solution, as supported by the above analysis (Burns & Burns, 2008). This solution placed 35 participants (39%) into the first cluster and 55 participants (61%) into the second cluster. A description of these two clusters is shown in Table 4.6. As shown, the first cluster (“Motivated and Charismatic”) represents employees who score relatively higher on proactive personality, the three types of motivation to lead, and charisma, and very slightly lower on Machiavellianism. The second cluster (“Less Charismatic and Less Motivated to Lead”) represents employees who score relatively lower on proactive
Table 4.6. Description of Trait Pattern Clusters

<table>
<thead>
<tr>
<th></th>
<th>Group 1 – Motivated to Lead and Charismatic (n = 35)</th>
<th>Group 2 – Less Charismatic and Less Motivated to Lead (n = 55)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proactive Personality*</td>
<td>4.30</td>
<td>3.80</td>
</tr>
<tr>
<td>Affective-Identity Motivation to Lead*</td>
<td>3.97</td>
<td>3.32</td>
</tr>
<tr>
<td>Non-Calculative Motivation to Lead</td>
<td>4.23</td>
<td>4.01</td>
</tr>
<tr>
<td>Social-Normative Motivation to Lead*</td>
<td>4.03</td>
<td>3.37</td>
</tr>
<tr>
<td>Machiavellianism</td>
<td>1.78</td>
<td>1.88</td>
</tr>
<tr>
<td>Charisma*</td>
<td>4.04</td>
<td>3.18</td>
</tr>
</tbody>
</table>

Note. Clusters were formed based on a hierarchical cluster analysis. Means are shown for each trait. * Mean differences between groups were statistically significant at $p < .05$.

personality, the three types of motivation to lead, and charisma, and very slightly higher on Machiavellianism. In order to identify which traits were driving the clusters, a one-way ANOVA was conducted using the cluster variable as the factor. These results show that meaningful differences in average scores for the clusters were found for proactive personality, $F(1, 88) = 44.15, p < .001$, affective-identity motivation to lead, $F(1, 88) = 24.67, p < .001$, social-normative motivation to lead, $F(1, 88) = 37.56, p < .001$, and charisma, $F(1, 88) = 44.15, p < .001$. In contrast, the two groups did not significantly differ in terms of non-calculative motivation to lead, $F(1, 88) = 3.2, p = .08$, or Machiavellianism, $F(1, 88) = 1.07, p = .30$. Group means are also shown in Table 4.6.

The first model explored the possible indirect effects of one’s trait pattern on leadership potential ratings through matches to prototypical IFTs and ILTs. Results of the model provided poor overall fit ($\chi^2 = 46.24, df = 23, p < .01$; CFI = .81; RMSEA = .11;
nonsignificant path coefficients, and large residual variances. This model suggested that pattern designations did not predict matches to prototypical IFTs or ILTs, and also that there was no support for mediation. The mediational analysis demonstrated that the indirect paths through match to prototypical IFT ($\beta = -.04$, SE = .10, $p = .41$) and match to prototypical ILT ($\beta = .00$, SE = .11, $p = .91$) were not significant, nor was the total indirect effect ($\beta = -.04$, SE = .13, $p = .57$). This model is portrayed in Figure 4.19.

Overall, this model does not support the contention that one’s overall pattern of traits influence the degree to which supervisors perceive a match to a prototypical IFT or ILT, nor that matches to prototypical IFTs and ILTs mediates the influence of trait patterns on leadership potential ratings. When this model was tested using a trichotomous version of leadership potential ($\chi^2 = 44.74$, $df = 23$, $p < .01$; CFI = .82; RMSEA = .10; WRMR = .55), pattern designations also did not predict prototypical IFTs ($\beta = .09$, SE = .21, $p = .40$), prototypical ILTs ($\beta = .01$, SE = .14, $p = .90$), or leadership potential ratings ($\beta = -.18$, SE = .23, $p = .22$).

The next model, portrayed in Figure 4.20, explored the possible indirect effects of one’s trait pattern on leadership potential ratings through matches to antiprototypical IFTs and ILTs. Results of the model fit poorly ($\chi^2 = 17.25$, $df = 10$, $p > .05$; CFI = .84; RMSEA = .09; WRMR = .50) and suggested that pattern designations did not predict matches to antiprototypical IFTs or ILTs, and also that antiprototypical IFTs and ILTs did not predict leadership potential. The mediational analysis demonstrated that neither the indirect paths through match to antiprototypical IFT ($\beta = .00$, SE = .01, $p = .97$) nor match to antiprototypical ILT ($\beta = .00$, SE = .02, $p = .99$) were significant, nor was the
Figure 4.19. Trait Pattern Designation’s Effect on Ratings of Leadership Potential Through Matches to Prototypical IFTs and Prototypical ILTs.

Note. Standardized estimates are reported with standard errors in parentheses. * Estimates are significant at p < .05. Zero-order correlations are indicated in bold. $R^2$ for leadership potential ratings = .34, $p < .05$. Trait Pattern was coded as 1 = Motivated to Lead and Charismatic and 2 = Less Motivation to Lead and Less Charismatic.
Figure 4.20. Trait Pattern’s Effect on Ratings of Leadership Potential Through Matches to Antiprototypical IFTs and Antiprototypical ILTs.

*Note. Standardized estimates are reported with standard errors in parentheses. * Estimates are significant at $p < .05$. Zero-order correlations are indicated in bold. $R^2$ for leadership potential ratings = .03, ns. Trait Pattern was coded as 1 = Motivated to Lead and Charismatic and 2 = Less Motivation to Lead and Less Charismatic.
total indirect effect ($\beta = .00$, $SE = .02$, $p = .99$). Overall, this model does not support the contention that one’s overall pattern of traits will influence the degree to which supervisors perceive a match to an antiprototypical IFT or ILT, nor that matches to antiprototypical IFTs and ILTs mediates the influence of trait patterns on leadership potential ratings. When this model was tested using a trichotomous version of leadership potential ($\chi^2 = 18.96$, $df = 10$, $p < .05$; CFI = .81; RMSEA = .10; WRMR = .52), pattern designations again did not predict antiprototypical IFTs ($\beta = -.02$, $SE = .21$, $p = .85$), antiprototypical ILTs ($\beta = -.01$, $SE = .24$, $p = .96$), or leadership potential ratings ($\beta = -.11$, $SE = .24$, $p = .31$).

**Summary**

Hypothesis 1, which contended that various subordinate traits would influence leadership potential ratings through matches to IFTs, even when controlling for ILTs found no support in 5 out of 6 tested models. Indeed, the mediational component of this hypothesis was not supported when examining charisma, three types of motivation to lead, or Machiavellianism. Interestingly, however, the total indirect effect of matches to prototypical IFTs and ILTs was significant ($\beta = .14$, $p < .05$) when examining the effect of proactive personality on leadership potential ratings, even though neither indirect effect (i.e., through prototypical IFTs or prototypical ILTs) was significant when examined by itself.

These models did not support Hypothesis 2, which held that matches to antiprototypical IFTs or ILTs would negatively predict leadership potential ratings. In reality, these models found that both types of matches were unrelated to leadership potential ratings. In contrast, Hypothesis 3 found partial support in that matches to a
prototypical ILT were positively related to leadership potential ratings (thus supporting Hypothesis 3b). Hypothesis 3a was not supported in that matches to a prototypical IFT were negatively related to leadership potential ratings. Interestingly, evidence was found for a mutual suppression effect by which prototypical IFTs and ILTs had a larger effect on leadership potential ratings when the effects of both were specified in the model.

Hypothesis 4-7 held that subordinate traits would influence one’s perceived match to an IFT and an ILT. Hypothesis 4 investigated the influence of proactive personality on matches to IFTs and ILTs. Results demonstrated that proactive personality was positively related to matches to prototypical ILTs, providing partial support to this hypothesis. Hypothesis 5, which looked at charisma, and 6, examining types of motivation to lead, found no support. Hypothesis 7 found that Machiavellianism negatively predicted matches to prototypical IFTs, as expected. Thus, some of the expected relationships were supported by these tests.

Several exploratory analyses were also conducted. An analysis was conducted to determine whether subordinates’ pattern of traits influenced their leadership potential ratings through matches to IFTs and ILTs. After empirically grouping traits into one of two patterns (Motivated to Lead and Charismatic and Less Motivated to Lead and Less Charismatic), these analyses found that patterns did not significantly predict matches to IFTs, matches to ILTs, or leadership potential ratings. Interestingly, there was a somewhat notable negative but non-significant relationship between one’s pattern of traits and their leadership potential ratings. This relationship suggested that leadership potential was more likely to be perceived for those fitting the Motivated to Lead and Charismatic profile compared to those fitting the other profile ($\beta = -0.12$ for the
prototypical model and $\beta = -0.16$ for the antiprototypical model). This finding, while nonsignificant, suggests that trait schemas (as described by a pattern of traits) may be used by supervisors to some extent to evaluate subordinates’ leadership potential. However, these analyses did not find support for matches to IFTs or ILTs mediating the relationship between subordinate trait patterns and leadership potential ratings.

Additional analyses were also conducted in order to determine whether leadership potential ratings were influenced by other variables. These variables included one’s performance ratings, the supervisor feedback environment, the supervisor’s leadership and followership schematicity, the frequency with which one interacted with their supervisor, gender, and also whether matches to IFTs and ILTs interacted with each other or with supervisor schematicity for leadership and followership to predict leadership potential ratings. Interestingly, none of these variables significantly or practically predicted leadership potential ratings when matches to IFTs and ILTs were included in the model.

Several models were also compared to determine whether dichotomizing leadership potential drastically changed the inferences that would be drawn compared to if leadership potential ratings were left as a trichotomous variable. Interestingly, the majority of the interpretations drawn from these models did not vary significantly. Lastly, an additional model explored whether liking influenced the degree to which subordinates are perceived to match IFTs and ILTs. However, liking was not related to perceived matches to IFTs and ILTs and thus also did not influence the intercorrelations among matches to IFTs and ILTs.
CHAPTER V
DISCUSSION

The purpose of this study was to examine the factors that impact supervisors’ ratings of their subordinates’ leadership potential. Whereas much research has studied upward ratings of leadership, less is known regarding the types of information that supervisors consider when evaluating the leadership potential of those they typically associate with a subordinate role. However, past research suggests that raters’ perspectives influence the factors that they consider when determining ratings (Lance et al., 2008). As a result, the current study proposed that ratings of leadership potential are based on unique factors when the evaluator is hierarchically above (versus below) the ratee. In particular, the current study’s theoretical framework was based on the assumption that because supervisors will have a tendency to automatically encode subordinates’ behavior in terms of IFTs (Sy, 2010; Tate et al., 2010; Shondrick & Lord, 2010), it will be difficult for supervisors to later retrieve memories of the subordinates’ behavior independent of the followership impression. As a result, it was expected that matches to an IFT would mediate the effect of subordinate self-reported traits on supervisors’ leadership potential ratings, even when accounting for matches to an ILT. Because a large body of research suggests that leadership categorization processes would also likely influence supervisors’ ratings of leadership potential (e.g., Cronshaw & Lord,
1987; Epitropaki & Martin, 2005; Foti & Lord, 1987; Lord & Maher, 1991; Mueller et al., 2011), it was expected that matches to an ILT would also mediate the effect of subordinate traits on supervisors’ leadership potential ratings.

Summary of Results and Implications

Overall, results supported the contention that supervisors consider both matches to prototypical IFTs and ILTs when evaluating the leadership potential of their subordinates. However, the hypothesis that matches to prototypical IFTs would positively predict leadership potential ratings was not supported, as the direction of this relationship was negative. Matches to prototypical IFTs were negatively related to ratings of leadership potential, even when controlling for gender, liking, supervisor self-schematicity, and the positive relationship between matches to prototypical ILTs and leadership potential ratings. Although the direction of this relationship was unexpected, the significance of this relationship supports the contention that the differences between level transitions in an organization are underappreciated and that supervisors may evaluate potential based on past performance within subordinate roles rather than only on the future potential for leadership roles (Kaiser & Craig, 2004).

Although it was expected and confirmed that leadership potential ratings would be positively predicted by matches to prototypical ILTs, an unexpected negative relationship was found between prototypical IFTs and leadership potential ratings. As discussed in greater detail below, effects for matches to IFTs (or ILTs) using the current study’s measures should be interpreted carefully, as they measure whether the subordinate was perceived to closely match a typical follower (or leader) in terms of a set of traits, but do not necessarily measure whether the subordinate is perceived to
exemplify those traits or whether the supervisor perceives those traits to be characteristic of typical followers (or leaders). These measures of match are also likely distinct from measures regarding how well a subordinate matches an ideal follower (or leader).

The relationship between matches to prototypical IFTs with leadership potential ratings may be explained by leadership identity construction theory (DeRue & Ashford, 2010). This theory argues that leadership and followership identities are the product of a social process by which identities must be both granted and claimed in order to be accepted. If a subordinate is granted prototypical followership status (e.g., because they are perceived to match typical followers in terms of being hardworking, excited, loyal, etc.), supervisors may grant them a followership role and may consequently cease exploring alternative identities that may also fit the subordinate. As a result, those who fit with a prototypical IFT may have a harder time being granted potential leadership status compared to those who do not fit this schema, because matching a follower prototype may inhibit one’s ability to be granted another identity. This result fits with the contention that people have a limited memory capacity (Lord & Maher, 1990) and tend to rely on existing social categories if the existing category fulfills the perceiver’s need, especially in cognitively demanding situations.

This result also fits with research on retrieval-induced forgetting. This research (e.g., Bjork, Bjork, & Anderson, 1998; Anderson, Bjork, & Bjork, 1994) demonstrates that during searches for appropriate schemas, information that is related to the correct schema but inaccurate is inhibited in order to decrease its activation and facilitate the retrieval of the appropriate category. However, this retrieval-induced forgetting only occurs when the competing categories are perceived to be related to the correct category.
Thus, assuming that supervisors perceive leadership to be related to followership, this research implies that being categorized as a follower would inhibit ILTs.

Interestingly, this study did not find that leadership potential ratings were predicted by antiprototypical IFTs or ILTs for the majority of models. Although antiprototypical IFTs did positively predict leadership potential when antiprototypical components were considered in tandem with prototypical components, this relationship was in the opposite direction of that anticipated and also disappeared once the nonsignificant path between antiprototypical ILT and leadership potential was removed (this more constrained model was examined but is not reported herein). Although it was expected that antiprototypical components would predict leadership potential, the null findings found for majority of these antiprototypical models are consistent with the results of Epitropaki and Martin’s (2005) research. Epitropaki and Martin (2005) studied leadership schemas and found that only prototypical (and not antiprototypical) ILTs predicted the quality of leader-member exchange.

One possibly reason for why the majority of models investigated did not find effects for antiprototypical schemas may be that these schemas are not as widely held or used as are prototypical schemas. In other words, people may be less likely to associate leadership with negative traits than with positive traits. A variety of research demonstrates that the content of one’s schemas, such as for leadership and followership, varies based on the context and one’s social needs (Can & Aktas, 2012; Coyle, Thompson, Foti, Snead, Moshier, & Collura, 2012; Ensari & Murphy, 2003; Rosch, 1978; Sessa et al., 2007). For instance, Coyle et al.’s (2007) work suggests that the content of IFTs varies depending on the context of the follower, such that, for example, a
different composition of traits may be perceived to be prototypic for political versus business followers. Because the current study used participants from the same organization (although locations varied throughout the United States), it is possible that the company’s culture fosters a perception of typical leaders that does not tend to emphasize antiprototypic traits. It is also possible that supervisors simply may not draw a connection between antiprototypical schemas and leadership potential. As a result, they may be motivated to continue searching for alternative social categories in order to infer leadership potential status.

Another interesting finding was that a positive relationship was found between matches to IFTs and ILTs for both prototypical and antiprototypical schemas, even when accounting for liking. Although causality cannot be determined based on the current study’s design, this finding fits with expectations and past research findings (Sy, 2010; Kruse & Sy, 2011). Because people have a tendency to be cognitively economical, they tend to differentiate different stimuli only to the extent that is warranted by the individual’s purpose (Rosch, 1977). Assuming that supervisors are likely to first consider their subordinate in terms of a followership role rather than a leadership role, this effect may cause supervisors to rely on followership schemas for sensemaking rather than forming an additional and separate categorization based on leadership for each subordinate that they manage. As discussed earlier, this also fits with some of Agho’s (2009) survey research, which found that people view followership and leadership as being related. For instance, this survey found that several traits were considered to be equally important for both effective leadership and effective followership. Additionally,
roughly 75% of the sample felt that effective followership skills are a prerequisite for effective leadership.

Moreover, the correlation between IFTs and ILTs for prototypical and antiprototypical components may also be explained by the underlying affective content of these schemas. Because prototypical (antiprototypical) IFTs and ILTs share a similar underlying affective component due to the valence of these schemas (Kruse & Sy, 2011), one would expect that the activation of affect would cause related types of prototypical (antiprototypical) schemas to become activated through spreading activation.

Interestingly, however, these correlations were not affected when the supervisor’s liking of the subordinate was controlled. Additionally, it is interesting to note that despite the common underlying affective orientation of prototypical ILTs and IFTs, both were found to uniquely predict leadership potential ratings in the current study. This suggests that although they are related, supervisors do make a meaningful distinction between IFTs and ILTs.

This study also examined the role of subordinates’ self-reported personality traits as indirect predictors of leadership potential ratings through matches to IFTs and ILTs (Hypothesis 1). Contrary to expectations, support for mediation was not found for the traits measured, with the exception of proactive personality. It is also interesting to note that matches to IFTs and ILTs were only found to mediate the effects of proactive personality on leadership potential ratings when both types of matches were considered together. This suggests that the mediational role of matches to IFTs and ILTs may be misspecified, leading to biased parameter estimates (Preacher & Hayes, 2008), unless both variables are included in models.
Although unexpected, one explanation for why mediation is not more widespread in these trait models may be that social categorization overrides encoded behaviors when perceivers make judgments about others. Srull and Wyer (1989)’s framework argues that perceivers make limited searches through long-term memory for a relevant schema when tasked with the need to make an evaluative judgment. However, once a relevant schema is found, evaluations tend to be based on the schema, without carefully considering the specific traits and behaviors on which the schema inference was based and even when conflicting information is presented (Lord & Maher, 1993). Still, there are likely to be individual differences in schema use, such that schema use is dependent upon variables such as self-schemas, affect, and conscientiousness.

As Phillips and Lord’s (1982) research demonstrates, schema activation can cause people to selectively attend to, encode, and retrieve information that is consistent with the activated schema. Additionally, their research demonstrates that schema activation can also lead to gap filling, whereby traits that were not encoded can be falsely recalled due to being consistent with the activated schema. As a result, it may make sense that matches to IFTs and ILTs did not mediate the influence of most of the selected traits on leadership potential ratings. Although traits likely influenced the schema that was ultimately used for categorization, once a match was made, it was likely that gap filling caused prototype-consistent information to drive leadership potential evaluations. This explanation also fits with a connectionist approach to knowledge representation, which posits that spreading activation can cause highly interconnected nodes that were not activated by external stimuli to become activated based on their associations with activated nodes (Rumelhart & McClelland, 1986).
In addition, the null effects may also be partially due to the study’s design, particularly in regard to the lack of power in the current study. Although the sample size was sufficient to test the basic relationships included in the model using the WLSMV estimation method (Finney & DiStefano, 2006), it is generally preferable to have a larger sample size when using SEM (Kline, 2005), especially for mediational models. Indeed, more complex models generally require a larger sample size. Additionally, recall that the current study’s traits were selected based on the expectation that they would be highly related to leadership. Thus, it was expected that these traits would provide a conservative test of the potential mediating role of matches to IFTs, since it was expected that ILTs would be highly correlated with these variables. As such, it is possible that other traits that are more strongly related to matches to IFTs would provide a better test of the expected relationship between individual traits and leadership potential ratings through matches to IFTs. Additionally, as discussed in greater detail below, the measures of match to IFT or ILT included in the current study do not necessary indicate whether a subordinate is perceived to be high on the traits that comprise a schema. As a result, future research may wish to further explore the potential mediating role of IFT and ILT match on the relationship between traits and leadership potential ratings before completely ruling out these possibilities.

A test of Hypotheses 4-7 found some support for the relationship between subordinates’ self-reported traits and their perceived match to IFTs and ILTs. Unexpectedly, charisma and the three measured types of motivation to lead were unrelated to matches to IFTs or ILTs. One possibility for why this may have occurred is because the subordinates included in this survey were all at the individual contributor
level. As a result, their supervisors may be generally unfamiliar with their motivation to lead or their charisma, given that they may not be typically assigned projects that allow these traits to shine. Another possibility for these null effects may simply be that subordinates were motivated to respond in a socially desirable manner because they were surveyed at work and asked to explicitly identify themselves.

Despite these possibilities, proactive personality positively predicted matches to a prototypical ILT, consistent with Hypothesis 4c. This was expected, given that people who have a proactive personality tend to identify opportunities, take initiative, and persevere through challenges in order to accomplish their goals (Bateman & Crant, 1993) and that past research has found that proactive personality is correlated with supervisor’s perceptions of charismatic leadership (Crant & Bateman, 2000). Additionally, Machiavellianism negatively predicted perceived matches to a prototypical IFT, consistent with Hypothesis 7a. This is also consistent with expectations, as people who score high on Machiavellianism tend to engage in amoral manipulations, dominate interpersonal control, and have a lack of genuine consideration for others (Dahling et al., 2009; Drory & Glusinkos, 1980).

Overall, several important findings emerged from this study that extend our current thinking of IFTs and leadership potential research. Specifically, the present study was one of the first to examine the influence of followership categorization on organizational outcomes. Although extant research has examined the influence of several other types of implicit theories on organizational outcomes (e.g., Cronshaw & Lord, 1987; Johnson et al., 2008; Swee, 2010), there has not been much emphasis on perceptions of followers (with the exception of Sy, 2010), particularly in regarding to
subordinate evaluations. A lack of research on this topic is especially notable given that IFTs may be one of the most common types of implicit theories that supervisors use to make sense of and evaluate their subordinates, given the hierarchical nature of their relationship and their day-to-day interactions.

Second, this study was the first to offer a straightforward measure of the degree of match to IFTs and ILTs that does not require the use of a difference score. Because the use of difference scores is controversial as a result of several problems associated with them (e.g., low reliability; Edwards, 2001), research on social perceptions may benefit from adopting alternative approaches to assess the degree to which someone is perceived to match a social category.

Third, this study was one of the first to examine how subordinates’ traits influence the degree to which their supervisors perceive a match to IFTs and how traits may indirectly affect leadership potential ratings. Support was found for the effects of proactive personality and Machiavellianism on perceived matches to IFTs and ILTs and for the indirect effect of proactive personality on leadership potential through matches to IFTs and ILTs. Notably, this study tested these relationships using self-reported traits from subordinates as predictors of supervisor-rated perceived matches to IFTs and ILTs, which avoids some of the issues caused by common method bias as a result of a common rater effect (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Lastly, the mutual suppression found for ILTs and IFTs suggests that researchers should measure both ILTs and IFTs because they may operate together to influence information processing, and because models may be misspecified if only one is used.
Study Limitations and Future Research

Although the current study made several contributions to this field of research, there were several limitations to the current study’s design worth noting. Most importantly, causality cannot be determined based on the nature of data collection. In order to avoid unintentionally influencing the leadership potential ratings that supervisors provided, survey responses were collected only after the company’s annual leadership potential ratings were provided. Although this decision was necessary from an ethical standpoint, it prohibits the ability to infer causality. However, the advantage of the current study’s design is that it is more likely to have strong external validity compared to an experimental design. Because the study used actual organizational ratings from existing supervisor-subordinate dyads, the results are more likely to generalize to the real world compared to a laboratory study. Regardless, the current study’s results should be replicated and further explored in the future using longitudinal research and experimental designs in order to infer causality.

An additional limitation of the current study concerns the study’s sample size. Generally speaking, n-sizes of 100-200 reflect moderate sample sizes for SEM analyses, because small sample sizes are more likely to result in unstable estimates and model under-identification (Kline, 2005). The sample size for the current study may partially explain why some of the measurement models (e.g., motivation to lead) resulted in poor fit when specified based on extant research. Although the current study’s use of the WLSMV estimation method mitigates the need for large sample sizes (Finney & DiStefano, 2006), future studies should seek to replicate and extend these findings using much larger sample sizes. Additionally, the use of a larger sample size would also enable
the mediational relationships to be estimated using bootstrapping methods, which generally result in less biased estimates than those obtained from Sobel tests. As discussed in Chapter IV, the current study could not estimate the confidence intervals for the parameter estimates using bootstrapping techniques because bootstrapped estimates for samples of \( n = 100 \) have relatively large standard errors and can result in unusable results due to problems such as non-positive definite covariance matrices (Kline, 2005). Thus, future research within this area should be based on larger sample sizes.

Another possible limitation concerns the use of the adapted measures of perceived matches to IFTs (Appendix I) and ILTs (Appendix J). Although both measures were based on existing validated measures (i.e., Sy, 2010 and Epitropaki & Martin, 2004), they were adapted to provide a measure of match relative to the prototype that the perceiver holds. This method provides an alternative to the controversial use of difference scores. However, one limitation of the new measures is that they do not explicitly assess what type of content the perceiver considers to be prototypical (or antiprototypical). As a result, the current measures by themselves do not allow one to infer whether the supervisor considers, for example, most followers to exemplify primarily prototypical traits or primarily antiprototypical traits.

This limitation should also be considered relative to the interpretation of the parameter estimates between matches to IFTs and ILTs and the other variables in the tested models. For instance, it was found that the extent to which one is perceived to match antiprototypical IFTs is positively related to leadership potential ratings. However, the current measure of \textit{Match to IFTs} simply asked supervisors to rate the extent to which the supervisor matches a typical follower for each statement. As a result, if a supervisor
indicates that their subordinate completely matches a typical follower in terms of Arrogance, this does not necessarily indicate that the subordinate is arrogant or that the supervisor considers typical followers to be arrogant. It simply means that the subordinate matches the supervisors’ notions regarding the arrogance of typical followers.

Thus, one’s interpretations of the overall model must be done with caution. Considering the negative relationship between matches to prototypical IFTs and leadership potential ratings, we can only infer that lower leadership potential ratings are more likely to be provided when subordinates are perceived to match a typical follower in terms of several traits that are associated with a prototypical follower, and not, for example, that subordinates that are perceived to be highly productive, outgoing, and reliable are provided lower leadership potential ratings. This limitation may also explain why many of the selected traits did not predict matches to IFTs or ILTs, as the chosen measures for matches to IFTs and ILTs makes an assumption regarding the content of these schemas that may not accurately reflect each individual supervisor.

Additionally, a further limitation of these measures is that they do not measure a perceived match to an ideal follower (or leader). It is unclear whether supervisors may be more likely to evaluate a subordinates’ leadership potential relative to ideal followers and leaders or typical followers and leaders—or whether they would evaluate potential based on some combination of both. It is possible that different relationships may have been found had matches to ideal followers and leaders been considered.

Despite this limitation, the newly adapted measures provide a simplified measure of match that is useful when the study is not primarily concerned with the content of one’s IFT (or ILT), but rather with the degree of match. Because the current study was
primarily concerned with determining whether matches to IFTs influenced leadership potential ratings, using a measure of overall match was more desirable and practical than using several different measures in order to calculate a difference score. One possible solution for future research which seeks to measure both matches and the content of supervisors’ IFTs is to assess both the adapted measure included in the current study, as well as Sy’s (2010) original measure (which requested participants to simply indicate the extent to which each trait listed is characteristic of a typical follower). However, in doing so, one would necessarily increase the complexity of their hypothesized model. Future research should also consider using measures of the degree of match to an ideal schema.

Additionally, future research should further explore whether IFTs (and ILTs) mediate the effects of individual traits on leadership potential ratings. Beyond further exploring the traits selected for this study with larger samples, several traits that may be more strongly associated with followership (e.g., conscientiousness, introversion/extroversion, initiative, innovativeness, obedience, dependability, loyalty, and honesty) should also be explored. The five-factor model of personality may provide an effective framework for this research, as previous meta-analyses have found that the five-factor model successfully predicts leadership perceptions (based on leader emergence and leader effectiveness). For instance, Judge, Bono, Ilies, and Gerhardt (2002) found that neuroticism, extraversion, openness to experience, and conscientiousness all had a .20 or larger correlation with leadership.

Additionally, future research should also examine whether the relationships found in the current study hold when other levels of subordinates (e.g., managers and above) are included in the sample. In order to simplify the interpretation of leadership potential
ratings, it was decided to only include participants in the current study who do not currently hold a leadership role. However, it is expected that supervisors will tend to use IFTs to make sense of their subordinates’ behaviors even when the subordinate currently holds a leadership role within the organization.

Additionally, future research may wish to explore whether leader-member exchange (LMX) mediates the effects of matches to IFTs on leadership potential ratings. Epitropaki and Martin (2005) found that supervisors’ match to their employees’ ILTs indirectly influenced employee attitudes and well-being through LMX. The mechanism for this finding was hypothesized to be that ILTs were used as an interpretative schema in order to predict a partners’ behaviors and also to generate one’s own behaviors, thus reducing uncertainty in the relationship (Epitropaki & Martin, 2005; Lord & Maher, 1993). In a related fashion, it is possible that the ability of supervisors to match their subordinates to an IFT increases their LMX, which can then influence leadership potential ratings through the additional support and attention that is provided to the subordinate (Graen & Uhl-Bien, 1995).

Lastly, future research should also consider other important organizational outcomes that may be influenced by the IFTs held by supervisors, subordinates, peers, customers, clients, dyads, and teams. The results of the present study and Sy’s (2010) study, which examined organizational commitment and job satisfaction, clearly suggest that IFTs are an important tool for sensemaking in organizations. However, many important and potentially relevant organizational outcomes have not been examined in relation to the use of IFTs, such as the amount of supervisory support offered to the subordinate, other types of evaluations (e.g., annual job performance ratings, assessment
center performance, ratings of technical knowledge, evaluations of motivation or readiness for various types of projects), relationship quality (including both dyadic and team-based relationships), the style of leadership that is preferred and enacted, how one copes with uncertainty or morally ambiguous situations, and countless other potentially relevant outcomes. Additionally, future research should also examine whether supervisors’ prediction of leadership potential, as influenced by matches to IFTs (and ILTs), accurately predicts future leadership success using a longitudinal design in an organizational setting. Thus, it would be interesting to examine the extent to which leadership potential ratings are valid indicators of potential in order to fully understand the implications of the current study’s results.

Thus, although this study offered several valuable insights regarding the use of IFTs and the types of information that supervisors consider when evaluating the leadership potential of their subordinates, the study also suggests several possible directions for future research on these topics. These possibilities include replicating the results with alternative study designs, using larger samples that include subordinates at a variety of leadership levels, examining alternative traits as predictors of matches to IFTs, examining possible variables such as LMX which may mediate the influence of the degree of IFT match on leadership potential ratings, and the use of other important dependent variables.

Summary

Taken together, the results of this study clearly demonstrate the importance of perceived matches to IFTs as a mechanism by which supervisors determine ratings of their subordinates’ leadership potential, even when controlling for the effects of
perceived matches to ILTs. This study applied frameworks based on social categorization theories (Lord et al., 1982; Rosch, 1978; Shondrick & Lord, 2010; Tate et al., 2010) and leadership identity theory construction (DeRue & Ashford, 2010) to predict the factors that supervisors consider when evaluating subordinates’ leadership potential. This study confirmed that the degree to which supervisors perceive subordinates to match both prototypical IFTs and prototypical ILTs influences their overall ratings of leadership potential. However, the unexpected finding that stronger matches to prototypical IFTs lead to lower leadership potential ratings was not supported and should be further investigated, as I predicted a positive relationship. Regardless, this study also confirmed that some of subordinates’ self-reported traits predict the degree to which their supervisors will perceive a match to an IFT or an IFT, and that matches to IFTs and ILTs need to be jointly considered.

These findings paint a rich picture of how supervisors’ assumptions regarding followership (and leadership) may affect their subordinates. The findings support the argument that supervisors tend to base their ratings of leadership potential on the extent to which subordinates are believed to be typical followers. Although IFTs can be beneficial in that they allow people to quickly understand and interact with others (Tate et al., 2010), they may also result in rating errors. Organizations may be able to use this research in order to train their supervisors to become more aware of biases and potential rating errors in order to potentially improve the validity of their ratings. For instance, calibration meetings, in which managers discuss, evaluate, and agree upon the leadership potential in their teams, can be a powerful way to improve ratings, particularly when
managers are provided with clear definitions and criteria for high potential and a facilitated process to encourage objectivity and honesty (Henson, 2009).

As organizations continue to focus on developing their high potential employees, it will become increasingly important to understand who is being nominated for leadership and developmental opportunities and why. Although high potential programs can cost companies a considerable chunk of change, history shows that a substantial number of employees labeled as high potentials ultimately fail (Kaiser & Craig, 2004). Despite the need to consider subordinates’ potential for future leadership roles when evaluating potential, the current study demonstrates that supervisors evaluate their subordinates in terms of their current role as followers. Looking forward, developing a better understanding of the effects of IFTs may ultimately be able to improve the effectiveness of high potential programs.
REFERENCES


  


APPENDIX A

INSTRUCTIONS USED FOR SUBORDINATES

Career Planning Survey

The survey that you are about to complete will help provide direction to future career planning initiatives at [COMPANY NAME]. We thank you in advance for completing the survey and for providing your honest input. In this survey, you will be asked a number of different questions about yourself.

At the end of the survey, you will be asked to provide the name of your primary supervisor or manager. Your supervisor/manager will be contacted and also asked to complete a confidential survey about their interactions with you.

If you agree to participate in this survey, the overall ratings from your previous performance/potential appraisals will be obtained for use as a variable in this study.

Please note that all data obtained from this study, including your responses to this survey, your supervisor’s responses to his/her survey, and your performance/potential ratings, will be confidential. Data from the survey will only be reported in aggregate form. In other words, we are not interested in your individual responses, but rather in overall average responses from all survey participants. Only those responsible for analyzing the data will have access to your data. No one else at [COMPANY NAME] will ever have access to this data.

In addition to [COMPANY NAME]’s career planning research, data from this survey will also be used for dissertation research by Sara Shondrick, a PhD student in Industrial/Organizational Psychology at The University of Akron in Akron, Ohio.

If you have questions about this survey or would like additional information, please contact Sara Shondrick at sjs34@zips.uakron.edu.

This survey will take you approximately 20-25 minutes to complete. Please respond to all items and answer honestly.

Informed Consent: By clicking the “Begin Survey” link at the bottom of this page, you are agreeing to the following:

156
By participating in this study, I give consent for the researcher to contact my immediate supervisor/manager and to ask him or her to complete a confidential survey.

By participating in this study, I agree to have my performance/potential ratings be accessed and used as a variable for this study.

I have read the information provided and all of my questions have been answered. I voluntarily agree to participate in this study.
APPENDIX B

INSTRUCTIONS USED FOR SUPERVISORS

Career Planning Survey

The survey that you are about to complete will help provide direction to future career planning initiatives at [COMPANY NAME]. We thank you in advance for completing the survey and for providing your honest input. In this survey, you will be asked a number of different questions about yourself and about one of your direct reports, who completed an earlier confidential survey.

Please note that all data obtained from this study, including your responses to this survey and your direct report’s responses to their surveys will be confidential. Data from the survey will only be reported in aggregate form. In other words, we are not interested in your individual responses, but rather in overall average responses from all survey participants. Only those responsible for analyzing the data will have access to your data. No one else at [COMPANY NAME] will ever have access to this data.

In addition to [COMPANY NAME]’s career planning research, data from this survey will also be used for dissertation research by Sara Shondrick, a PhD student in Industrial/Organizational Psychology at The University of Akron in Akron, Ohio.

If you have questions about this survey or would like additional information, please contact Sara Shondrick at sjs34@zips.uakron.edu.

This survey will take you approximately 10-15 minutes to complete. Please respond to all items and answer honestly.

**Informed Consent:** By clicking the “Begin Survey” link at the bottom of this page, you are agreeing to the following:

I have read the information provided and all of my questions have been answered. I voluntarily agree to participate in this study.
## APPENDIX C

PROACTIVE PERSONALITY – BATEMAN & CRANT (1993)

COMPLETED BY SUBORDINATES

**Instructions:** This scale consists of a number of statements. Please use the rating scale below to describe how accurately each statement describes you:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>Somewhat Disagree</td>
<td>Neither Agree nor Disagree</td>
<td>Somewhat Agree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

1. I am constantly on the lookout for new ways to improve my life.
2. I feel driven to make a difference in my community, and maybe the world.
3. I tend to let others take the initiative to start new projects.*
4. Wherever I have been, I have been a powerful force for constructive change.
5. I enjoy facing and overcoming obstacles to my ideas.
6. Nothing is more exciting than seeing my ideas turn into reality.
7. If I see something I don’t like, I fix it.
8. No matter what the odds, if I believe in something I will make it happen.
9. I love being a champion for my ideas, even without others’ opposition.
10. I excel at identifying opportunities.
11. I am always looking for better ways to do things.
12. If I believe in an idea, no obstacle will prevent me from making it happen.
13. I love to challenge the status quo.
14. When I have a problem, I tackle it head-on.
15. I am great at turning problems into opportunities.
16. I can spot a good opportunity long before others can.
17. If I see someone in trouble, I help out in any way I can.

*Note.* *Reverse-scored item.*
APPENDIX D

CHARISMA – AGLE & SONNENFELD (1994)

COMPLETED BY SUBORDINATES

Instructions: This scale consists of a number of statements. Please use the rating scale below to describe how accurately each statement describes you:

1. Strongly Disagree
2. Somewhat Disagree
3. Neither Agree nor Disagree
4. Somewhat Agree
5. Strongly Agree

1. I am dynamic.
2. I have the ability to excite a group of people.
3. I am charismatic.
4. When communicating, I drive to motivate with every word, story, and inflection.
5. I communicate an exciting vision of the future of the organization.
6. I paint an exciting picture of the future of the organization.
APPENDIX E

MOTIVATION TO LEAD – CHAN & DRASGOW (2001)

COMPLETED BY SUBORDINATES

Instructions: This scale consists of a number of statements. Please use the rating scale below to describe how accurately each statement describes you:

1. Strongly Disagree
2. Somewhat Disagree
3. Neither Agree nor Disagree
4. Somewhat Agree
5. Strongly Agree

Affective-Identity Motivation to Lead

1. Most of the time, I prefer being a leader rather than a follower when working in a group.
2. I am the type of person who is not interested in leading others.*
3. I am definitely not a leader by nature.*
4. I am the type of person who likes to be in charge of others.
5. I believe I can contribute more to a group if I am a follower rather than a leader.*
6. I usually want to be the leader in the groups that I work in.
7. I am the type who would actively support a leader but prefers not to be appointed as a leader.*
8. I have a tendency to take charge in most groups or teams that I work in.
9. I am seldom reluctant to be the leader of a group.

Noncalculative Motivation to Lead

10. I am only interested in leading a group if there are clear advantages for me.*
11. I will never agree to lead if I cannot see any benefits from accepting that role.*
12. I would only agree to be a group leader if I know I can benefit from that role.*
13. I would agree to lead others even if there are no special rewards or benefits with that role.
14. I would want to know “what’s in it for me” if I am going to agree to lead a group.*
15. I never expect to get more privileges if I agree to lead a group.
16. If I agree to lead a group, I would never expect any advantages or special privileges.
17. I have more of my own problems to worry about than to be concerned about the rest of the group.*
18. Leading others is really more of a dirty job rather than an honorable one.*

Social-Normative Motivation to Lead

19. I feel that I have a duty to lead others if I am asked.
20. I agree to lead whenever I am asked or nominated by the other members.
21. I was taught to believe in the value of leading others.
22. It is appropriate for people to accept leadership roles or positions when they are asked.
23. I have been taught that I should always volunteer to lead others if I can.
24. It is not right to decline leadership roles.
25. It is an honor and privilege to be asked to lead.
26. People should volunteer to lead rather than wait for others to ask or vote for them.
27. I would never agree to lead just because others voted for me.*

Note. * Reverse-scored item.
APPENDIX F

MACHIAVELLIANISM – DAHLING, WHITAKER, & LEVY (2009)

COMPLETED BY SUBORDINATES

Instructions: This scale consists of a number of statements. Please use the rating scale below to describe how accurately each statement describes you:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Somewhat Disagree</td>
<td>Neither Agree nor Disagree</td>
<td>Somewhat Agree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

Amorality

1. I am willing to be unethical if I believe it will help me succeed.
2. I am willing to sabotage the efforts of other people if they threaten my own goals.
3. I would cheat if there was a low chance of getting caught.
4. I believe that lying is necessary to maintain a competitive advantage over others.
5. The only good reason to talk to others is to get information that I can use to my benefit.

Desire for Control

6. I like to give the orders in interpersonal situations.
7. I enjoy being able to control the situation.
8. I enjoy having control over other people.

Desire for Status

9. Status is a good sign of success in life.
10. Accumulating wealth is an important goal for me.
11. I want to be rich and powerful someday.

Distrust of Others

12. People are only motivated by personal gain.
13. I dislike committing to groups because I don’t trust others.
14. Team members backstab each other all the time to get ahead.
15. If I show any weakness at work, other people will take advantage of it.
16. Other people are always planning ways to take advantage of the situation at my expense.
APPENDIX G

SUPERVISOR FEEDBACK ENVIRONMENT – ROSEN (2006)

COMPLETED BY SUBORDINATES

Instructions: This scale consists of a number of statements. Please use the rating scale below to describe how accurately each statement describes YOUR SUPERVISOR:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>Somewhat Disagree</td>
<td>Neither Agree nor Disagree</td>
<td>Somewhat Agree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

Source Credibility
1. My supervisor is generally familiar with my performance on the job.
2. My supervisor is fair when evaluating my performance.
3. I have confidence in the feedback my supervisor gives me.

Feedback Quality
4. My supervisor gives me useful feedback about my job performance.
5. The performance feedback I receive from my supervisor is helpful.
6. I value the feedback I receive from my supervisor.

Feedback Delivery
7. My supervisor is supportive when giving me feedback about my job performance.
8. When my supervisor gives me performance feedback, he or she is considerate of my feelings.
9. My supervisor is tactful when giving me performance feedback.

Favorable Feedback
10. When I do a good job at work, my supervisor praises my performance.
11. My supervisor generally lets me know when I do a good job at work.
12. I frequently receive positive feedback from my supervisor.

Unfavorable Feedback
13. My supervisor tells me when my work performance does not meet organizational standards.
14. On those occasions when my job performance falls below what is expected, my supervisor lets me know.
15. On those occasions when I make a mistake at work, my supervisor tells me.

Source Availability
16. My supervisor is usually available when I want performance information.
17. I interact with my supervisor on a daily basis.
18. The only time I receive performance feedback from my supervisor is during my performance review (R).

Promotes Feedback Seeking
19. My supervisor is often annoyed when I directly ask for performance feedback. (R)
20. When I ask for performance feedback, my supervisor generally does not give me the information right away. (R)
21. My supervisor encourages me to ask for feedback whenever I am uncertain about my job performance.
APPENDIX H
SUBORDINATE DEMOGRAPHICS
COMPLETED BY SUBORDINATES

1. Please provide your full name. ____________________________

2. Please provide the full name of your primary supervisor.
________________________

3. Please indicate your plant: _________

4. Please indicate your business unit
   B&PT
   Steel
   Corporate
   Other (please specify)

5. Please indicate your function
   Communications
   Community Relations
   Environmental, Health, & Safety
   Ethics & Compliance
   Finance
   Engineering
   Information Technology
   Legal
   Manufacturing
   OA/Human Resources
   Strategy
   Supply Chain
   Quality
   Other (please specify)
6. Consider a **typical month** at work. Please indicate how frequently do you work in the same physical location as your immediate supervisor?

- Less than 1 week per month
- 1-2 weeks per month
- 2-3 weeks per month
- 3-4 weeks per month

7. Consider a **typical month** at work. On average, how frequently do you interact with your supervisor?

- Monthly or less frequently
- Several times per month
- Weekly
- Several times per week
- Daily

8. Approximately how long has this individual been your supervisor? _______

9. How long have you been in your current position at [this company]? _______

10. How long have you been an employee at [this company]? _______

11. Please indicate your gender: ______ Male ______ Female

12. Please indicate your height: _______

13. Please indicate your highest level of education

- Some high school
- High school degree
- Associates degree
- Some college
- College degree
- Some graduate school
- Graduate degree (MA/MS, PhD, JD, MD, etc.)

14. Please indicate your age: ______

15. Please indicate your race/ethnicity (*Please select all that apply*)
American Indian or Alaska Native
Asian
Black or African American
Native Hawaiian or Other Pacific Islander
White
Hispanic or Latino
Other (please specify): ________________________
APPENDIX I
MATCH TO IFT – ADAPTED FROM SY (2010)
COMPLETED BY SUPERVISORS

Directions: Visualize a TYPICAL FOLLOWER. Using this image, please use the scale below to rate the extent to which your subordinate, ___________________________, matches a typical follower for each statement.

<table>
<thead>
<tr>
<th></th>
<th>Does Not Match</th>
<th>Barely Matches</th>
<th>Somewhat Matches</th>
<th>Mostly Matches</th>
<th>Completely Matches</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>a Typical Follower</td>
<td>a Typical Follower</td>
<td>a Typical Follower</td>
<td>a Typical Follower</td>
<td>a Typical Follower</td>
</tr>
</tbody>
</table>

Industry*
1. Hardworking
2. Productive
3. Goes above & beyond

Enthusiasm*
4. Excited
5. Outgoing
6. Happy

Good citizen*
7. Loyal
8. Reliable
9. Team Player

Incompetence**
10. Uneducated
11. Slow
12. Inexperienced

Conformity**
13. Easily influenced
14. Follows trends
15. Soft spoken

_Insubordination**_
16. Arrogant
17. Rude
18. Bad temper

* This factor is a component of the second-order _Follower Prototype_ factor.
** This factor is a component of the second-order _Follower Anti-Prototype_ factor.
APPENDIX J


COMPLETED BY SUPERVISORS

**Directions:** Visualize a TYPICAL LEADER. Using this image, please use the scale below to rate the extent to which your subordinate, ___________________________, matches a typical leader for each statement.

<table>
<thead>
<tr>
<th></th>
<th>1 Does Not Match a Typical Leader</th>
<th>2 Barely Matches a Typical Leader</th>
<th>3 Somewhat Matches a Typical Leader</th>
<th>4 Mostly Matches a Typical Leader</th>
<th>5 Completely Matches a Typical Leader</th>
</tr>
</thead>
</table>

*Sensitivity* *
1. Understanding
2. Sincere
3. Helpful

*Intelligence* *
4. Intelligent
5. Knowledgeable
6. Educated
7. Clever

*Dedicated* *
8. Motivated
9. Dedicated
10. Hard-working

*Dynamism* *
11. Energetic
12. Strong
13. Dynamic
Tyrranny**
14. Domineering
15. Pushy
16. Manipulative
17. Loud
18. Conceited
19. Selfish

Masculinity**
20. Masculine
21. Male

* This factor is a component of the second-order Leader Prototype factor.
** This factor is a component of the second-order Leader Anti-Prototype factor.
APPENDIX K

LEADERSHIP SCHEMATICITY – ADAPTED FROM CRONSHOW & LORD (1987)

COMPLETED BY SUPERVISORS

**Directions:** Visualize a TYPICAL LEADER. Using this image, please use the scale below to rate the extent to which YOU match a typical leader for each statement.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does Not Match</td>
<td>Barely Matches</td>
<td>Somewhat Matches</td>
<td>Mostly Matches</td>
<td>Completely Matches</td>
</tr>
<tr>
<td>a Typical Leader</td>
<td>a Typical Leader</td>
<td>a Typical Leader</td>
<td>a Typical Leader</td>
<td>a Typical Leader</td>
</tr>
</tbody>
</table>

1. The amount of leadership you exhibit
2. Your willingness to be a formal leader
3. How typical you are of a leader
4. The extent of which your engage in leader behaviors
5. The extent of which you fit your image of a leader
APPENDIX L

FOLLOWERSHIP SCHEMATICITY – ADAPTED FROM CRONSHAW & LORD

(1987)

COMPLETED BY SUPERVISORS

**Directions:** Visualize a TYPICAL FOLLOWER. Using this image, please use the scale below to rate the extent to which YOU match a typical follower for each statement.

<table>
<thead>
<tr>
<th></th>
<th>1 Does Not Match a Typical Follower</th>
<th>2 Barely Matches a Typical Follower</th>
<th>3 Somewhat Matches a Typical Follower</th>
<th>4 Mostly Matches a Typical Follower</th>
<th>5 Completely Matches a Typical Follower</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The amount of followership you exhibit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Your willingness to be a formal follower</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>How typical you are of a follower</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>The extent of which your engage in follower behaviors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>The extent of which you fit your image of a follower</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX M

SUBORDINATE LIKING – WAYNE, SHORE, & LIDEN (1997)

COMPLETED BY SUPERVISORS

Directions: Using the following scale, please the extent to which you agree with each statement about YOUR SUBORDINATE, ________________________:

1. Strongly Disagree
2. Somewhat Disagree
3. Neither Agree nor Disagree
4. Somewhat Agree
5. Strongly Agree

1. I think this person would make a good friend.
2. I get along well with this person.
3. I like this person very much.
APPENDIX N

SUPERVISOR DEMOGRAPHICS

COMPLETED BY SUPERVISORS

1. Please indicate your full name: ________________________

2. Please indicate your plant: __________

3. Please indicate your business unit
   B&PT
   Steel
   Corporate
   Other (please specify)

4. Please indicate your function
   Communications
   Community Relations
   Environmental, Health, & Safety
   Ethics & Compliance
   Finance
   Engineering
   Information Technology
   Legal
   Manufacturing
   OA/Human Resources
   Strategy
   Supply Chain
   Quality
   Other (please specify)

5. How long have you been an employee at (this organization)?: _______

6. How long you have been a supervisor at (this organization)?: _______

7. How many direct reports do you currently manage? _______
8. Please indicate your gender: ______ Male ______ Female
9. Please indicate your height: _______
10. Please indicate your age: ______
11. Please indicate your highest level of education
   Some high school
   High school degree
   Associates degree
   Some college
   College degree
   Some graduate school
   Graduate degree (MA/MS, PhD, JD, MD, etc.)
12. Please indicate your race/ethnicity (Please select all that apply)
   American Indian or Alaska Native
   Asian
   Black or African American
   Native Hawaiian or Other Pacific Islander
   White
   Hispanic or Latino
   Other (please specify): ________________________
APPENDIX O

IRB APPROVAL

May 11, 2012

Sara Shondroch
618 Myrtle Avenue
Cuyahoga Falls, Ohio 44221

From: Sharon McWhorter, IRB Administrator

Re: IRB Number 20120505 "Career Planning Survey"

Thank you for submitting your Exemption Request for the referenced study. Your request was approved on May 10, 2012. The protocol represents minimal risk to subjects and matches the following federal category for exemption:

- **Exemption 1** - Research conducted in established or commonly accepted educational settings, involving normal educational practices.

- **Exemption 2** - Research involving the use of educational tests, survey procedures, interview procedures, or observation of public behavior.

- **Exemption 3** - Research involving the use of educational tests, survey procedures, interview procedures, or observation of public behavior not exempt under category 2, but subjects are elected or appointed public officials or candidates for public office.

- **Exemption 4** - Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens.

- **Exemption 5** - Research and demonstration projects conducted by or subject to the approval of department or agency heads, and which are designed to study, evaluate, or otherwise examine public programs or benefits.

- **Exemption 6** - Taste and food quality evaluation and consumer acceptance studies.

Annual continuation applications are not required for exempt projects. If you make changes to the study's design or procedures that increase the risk to subjects or include activities that do not fall within the approved exemptor category, please contact me to discuss whether or not a new application must be submitted. Any such changes or modifications must be reviewed and approved by the IRB prior to implementation.

Please retain this letter for your files. This office will hold your exemption application for a period of three years from the approval date. If you wish to continue this protocol beyond this period, you will need to submit another Exemption Request. If the research is being conducted for a master’s thesis or doctoral dissertation, the student must file a copy of this letter with the thesis or dissertation.

Cc: Robert Lord - Advisor

Cc: Stephanie Woods - IRB Chair

☑ Approved consent form/s enclosed
Standardized estimates are reported with standard errors in parentheses. * Estimates are significant at $p < .05$. Zero-order correlations are indicated in parentheses. $R^2$ for leadership potential ratings = .33, $p < .05$. Leadership potential was measured as a trichotomous construct. $\chi^2 = 65.18$, $df = 58$, $p > .05$; CFI = .95; RMSEA = .04; WRMR = .63.
Hypothesis 1: Matches to IFTs will mediate the influence of subordinate traits on supervisors’ leadership potential ratings, even when accounting for matches to ILTs.

<table>
<thead>
<tr>
<th>Model Tested</th>
<th>Direct Effect of Trait on Leadership Potential (\beta)-weight</th>
<th>Indirect Effect of Trait Through Match to IFT</th>
<th>Indirect Effect of Trait Through Match to ILT</th>
<th>Total Indirect Effect of Trait on Leadership Potential (\beta)-weight</th>
<th>(R^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proactive Personality</td>
<td>-.10 (.25) .03 (.25)</td>
<td>.02 (.08) .00 (.04)</td>
<td>.12 (.14) .00 (.03)</td>
<td>.13* (.14) .00 (.06)</td>
<td>.24</td>
</tr>
<tr>
<td>Charisma</td>
<td>-.07 (.18) -.06 (.17)</td>
<td>.01 (.05) .00 (.03)</td>
<td>-.01 (.09) .00 (.02)</td>
<td>.00 .00 (-.06)</td>
<td>.23</td>
</tr>
<tr>
<td>Affective-Identity Motivation to Lead</td>
<td>-.01 (.21) .07 (.20)</td>
<td>.03 (.05) .02 (.04)</td>
<td>.07 (.10) .00 (.02)</td>
<td>.09 (.09) .02 (.05)</td>
<td>.22</td>
</tr>
<tr>
<td>Non-Calculative Motivation to Lead</td>
<td>-.15 (.22) -.21 (.24)</td>
<td>-.04 (.06) .01 (.03)</td>
<td>-.03 (.09) -.01 (.03)</td>
<td>-.07 (.10) .00 (.05)</td>
<td>.25</td>
</tr>
<tr>
<td>Social-Normative Motivation to Lead</td>
<td>.05 (.18) .02 (.19)</td>
<td>-.01 (.05) .00 (.03)</td>
<td>-.04 -.02 (.09) (.05)</td>
<td>-.05 -.02 (.10) (.06)</td>
<td>.23</td>
</tr>
<tr>
<td>Machiavellianism</td>
<td>N/A N/A</td>
<td>N/A N/A</td>
<td>N/A N/A</td>
<td>N/A N/A</td>
<td>.23</td>
</tr>
</tbody>
</table>

Note. Standardized estimates are reported with standard errors in parentheses * \(p < .05\). Results in bold supported the relevant hypothesis. Leadership potential was measured as a trichotomous construct. Anti. = Antiprototypical. Proto. = Prototypical. The mediational relationship could not be tested for the Machiavellianism model because this model would not converge.
<table>
<thead>
<tr>
<th>Model Tested</th>
<th>Hypothesis 2</th>
<th>Hypothesis 3</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(a)</td>
<td>(b)</td>
<td>(a)</td>
</tr>
<tr>
<td></td>
<td>$\beta$-weight of Anti. IFT on Leadership Potential</td>
<td>$\beta$-weight of Anti. ILT on Leadership Potential</td>
<td>$\beta$-weight of Proto. IFT on Leadership Potential</td>
</tr>
<tr>
<td>Proactive Personality</td>
<td>.14 (.14)</td>
<td>.12 (.15)</td>
<td>-.28* (.10)</td>
</tr>
<tr>
<td>Charisma</td>
<td>.14 (.15)</td>
<td>.12 (.15)</td>
<td>-.26* (.10)</td>
</tr>
<tr>
<td>Affective-Identity Motivation to Lead</td>
<td>.14 (.16)</td>
<td>.12 (.15)</td>
<td>-.26* (.11)</td>
</tr>
<tr>
<td>Non-Calculative Motivation to Lead</td>
<td>.15 (.15)</td>
<td>.10 (.14)</td>
<td>-.24* (.11)</td>
</tr>
<tr>
<td>Social-Normative Motivation to Lead</td>
<td>.13 (.15)</td>
<td>.13 (.17)</td>
<td>-.26* (.10)</td>
</tr>
<tr>
<td>Machiavellian-ism</td>
<td>.13 (.13)</td>
<td>.13 (.14)</td>
<td>-.27* (.10)</td>
</tr>
<tr>
<td><strong>Full Model (Anti. IFT + Anti. ILT + Prot. IFT + Proto. ILT)</strong></td>
<td>.39* (.19)</td>
<td>-.18 (.20)</td>
<td>-.42* (.13)</td>
</tr>
</tbody>
</table>

*Note.* Standardized estimates are reported with standard errors in parentheses. $*p < .05$. Results in **bold** supported the relevant hypothesis. Leadership potential was measured as a trichotomous construct. Anti. = Antiprototypical. Proto. = Prototypical.
<table>
<thead>
<tr>
<th>Model Tested</th>
<th>(a) β-weight for Trait on Prototypical IFT</th>
<th>(b) β-weight for Trait on Antiprototypical IFT</th>
<th>(c) β-weight for Trait on Prototypical ILT</th>
<th>(d) β-weight for Trait on Antiprototypical ILT</th>
</tr>
</thead>
<tbody>
<tr>
<td>H4. Proactive Personality</td>
<td>-.06 (.25)</td>
<td>-.03 (.24)</td>
<td>.23* (.16)</td>
<td>-.03 (.29)</td>
</tr>
<tr>
<td>H5. Charisma</td>
<td>-.06 (.16)</td>
<td>.01 (.16)</td>
<td>-.03 (.11)</td>
<td>-.01 (.18)</td>
</tr>
<tr>
<td>H6. Affective-Identity</td>
<td>-.10 (.18)</td>
<td>.11 (.16)</td>
<td>.14 (.12)</td>
<td>.03 (.20)</td>
</tr>
<tr>
<td>Motivation to Lead</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H6. Non-Calculative</td>
<td>.18 (.20)</td>
<td>.04 (.18)</td>
<td>-.06 (.12)</td>
<td>-.08 (.24)</td>
</tr>
<tr>
<td>Motivation to Lead</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H6. Social-Normative</td>
<td>-.01 (.18)</td>
<td>-.13 (.23)</td>
<td>.02 (.19)</td>
<td>-.09 (.12)</td>
</tr>
<tr>
<td>Motivation to Lead</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H7. Machiavellianism</td>
<td>-.25* (.12)</td>
<td>.07 (.13)</td>
<td>-.16 (.12)</td>
<td>.01 (.15)</td>
</tr>
</tbody>
</table>

*Note.* Standardized estimates are reported with standard errors in parentheses * p < .05. Depicted β-coefficients were derived from the models represented in Appendix Q. Values in **bold** indicate that the parameter estimate was in the hypothesized direction. The relevant hypothesis number is listed next to the model tested. Leadership potential was measured as a trichotomous construct.