ABSTRACT

Title of thesis: FOLLOWER PERSONALITY, SCHEMA STRUCTURE, AND

LEADERSHIP ENDORSEMENT

Mina T. Sipe, Master of Arts, 2003

Thesis directed by: Professor Paul J. Hanges
                      Department of Psychology

This study investigated the relationship between followers' personalities and their cognitive schemas of self and leaders and examined whether these schemas were related to followers' endorsements of leadership styles. Undergraduates completed a five factor personality measure and explicit measures of their self-schemas and leadership schemas. Approximately one month later, they completed implicit measures of their self-schemas and leadership schemas and rated three types of leaders (charismatic, relationship-oriented, and task-oriented) in terms of liking or perceived effectiveness. Results showed that personality was related to both the self-schema and leadership schema such that people's self-schemas and their leadership schemas were consistent with their basic dispositional tendencies. In turn, the self-schema and leadership schema were useful in predicting leader liking and perceived leader effectiveness, respectfully. Explicit and implicit schema measures both supported hypothesized relationships, but they were differentially related to the variables of interest.

FOLLOWER PERSONALITY, SCHEMA STRUCTURE, AND LEADERSHIP

ENDORSEMENT

by

Mina T. Sipe

Thesis submitted to the Faculty of the Graduate School of the
University of Maryland, College Park in partial fulfillment
Of the requirements for the degree of
Master of Arts
2003

Advisory Committee:

      Professor Paul J. Hanges, Chair
      Professor Katherine Klein
      Professor Benjamin Schneider

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Introduction

The majority of research on leadership has focused on the impact of leaders on followers, conceptualizing followers as passive recipients of a leader's influence. Thus, it is not surprising that this early literature focused on the personal characteristics, behavioral styles, and decision strategies of effective leaders (Yukl, 1998). However, theorists have started to emphasize a more active role for the follower (Hollander, 1992). According to Lord and Maher (1991), "The locus of leadership is not solely in a leader or solely in followers. Instead, it involves behaviors, traits, characteristics, and outcomes produced by leaders as these elements are interpreted by followers" (p.11). Leadership is now conceptualized as emerging from the interactions between leaders and followers (Klein & House, 1995). Recent studies have shown that follower characteristics such as personality and values (e.g., Ehrhart & Klein, 2001) may influence perceptions of leader effectiveness.

The present study follows this new trend of conceptualizing the follower as an important contributor to the leader-follower relationship. In particular, I build upon the work of Lord and his associates and examine the cognition process of followers and the role that these cognitive processes play in identifying leaders. I extend this work by hypothesizing that these cognitive mechanisms are the mediating process by which personality affects followers' perceptions of leaders. In particular, I hypothesize that follower personality will differentially influence the structure of important cognitive schemas. Since Lord hypothesized that leader perception is a function of the match between the leader's behavior and the follower's ideal leader expectations (i.e., leadership schema), the extant literature showing that personality affects leader

perceptions could be explained by differences in the structure of important cognitive processes.

In this study, I examined the extent to which cognitive schemas (both self and leadership schemas) reflect the followers' personalities and the extent to which self and leadership schemas predict leadership endorsement. More specifically, I hypothesized that self-schemas predict the degree to which a leader is liked whereas leadership schemas predict the degree to which a leader is seen as effective for the follower. To build this argument, I first summarize research and theory regarding follower personality and leadership endorsement. I then discuss how different cognitive schemas (i.e., self-schemas and leadership schemas) may be differentially related to two different types of leadership endorsement. Next, I review implicit leadership theory and the connectionist model of schemas. Finally, I present specific hypotheses regarding the relationship between follower personality and self-schema and between self-schema and the outcome of leadership liking, as well as the hypotheses regarding the relationship between follower personality and leadership schema and between leadership schema and the outcome of perceived leadership style effectiveness.

Follower personality and leadership endorsement

Although researchers have speculated that dispositional characteristics, such as positive/negative affectivity, might influence leadership perceptions (Hall & Lord, 1995), there have only been a handful of studies that have explored the relationship between follower personality and preferences for different leadership styles. Unfortunately, these studies have not made clear why, or through what mechanisms, personality characteristics might influence leadership preferences. For example, Kenis (1978)

examined the influence of bank employees' need for independence and authoritarianism on their satisfaction with supervisors, who were rated in terms of three leadership behavior dimensions: participation, consideration, and initiating structure. The study found that subordinates high in need for independence and low on authoritarianism expressed greater satisfaction with supervisors who were described by subordinates as more considerate and participative.

Other studies have found that individuals low in authoritarianism also are reported to prefer leaders with more democratic as compared to more autocratic styles (e.g., Garland & Barry, 1990; Tosi, 1973; Weed, Moffitt & Mitchell, 1976). Cellar, Sidle, Goudy, and O'Brien (2001) extended these findings by showing that participants who were highly agreeable tended to believe that leaders with a more democratic style were more effective than leaders with a more autocratic style. Clearly, followers' personalities affect their leadership preferences as well as their beliefs about leader effectiveness.

While there appears to be a relationship between follower personality and perceptions of leadership, the nature of this relationship is unclear. Do people prefer a leader or perceive him/her as more effective when the leader has similar characteristics as they do? Or do people prefer a leader or perceive him/her as more effective when the leader compensates for something that is lacking in themselves?

A recent study by Keller (1999) seems to support the idea that individuals prefer leaders who are similar to them (i.e., similarity hypothesis). Keller measured participants' personality using a Big 5 personality measure (NEO-FFI; Costa & McCrae, 1989) and found several relationships between personality and leadership perceptions. For example, individuals who were high on agreeableness tended to indicate that their

ideal leaders would be sensitive. Highly extroverted individuals tended to have charismatic leaders as their ideal. These findings are consistent with a body of literature in social psychology concerning interpersonal attraction. This literature has shown that individuals prefer others who are similar to themselves (e.g., Berscheid, 1984; Kandel, 1978). Consistent with these findings, Pulakos and Wexley (1983) have found that manager's performance ratings by subordinates appear to be correlated with subordinates' ratings of how similar they are to the manager.

However, not all research supports the similarity hypothesis. A recent study by Ehrhart and Klein (2001) showed that participants were predominantly drawn to leaders who met their needs. These authors examined whether followers' achievement orientation, risk-taking, self-esteem, need for structure as well as work values (extrinsic, intrinsic, interpersonal relations, security, and participation) would predict follower preferences for three different leadership styles. They found that respondent values were the best predictors of followers' leadership preferences. Specifically, followers who valued participation preferred charismatic leaders, those who valued extrinsic rewards preferred relationship-oriented leaders, and those who valued security tended to prefer task-oriented leaders. The authors concluded that these relationships reflected need fulfillment, rather than similarity attraction, as the basis for leadership endorsement. That is, consistent with need fulfillment theories (e.g., Lawler, 1973; McClelland, 1985; Miner, 1978), individuals were more likely to endorse leaders whom they perceived would meet their needs.

Overall, the empirical studies have appeared to yield inconsistent results. Some studies have supported the view that people "endorse/choose" leaders similar to

4

themselves. Other studies have supported the perception that people "endorse/choose" leaders that have characteristics that they need. Rather than being a real inconsistency, I believe that *both may be true*. More precisely, I argue that part of the reason why the literature is unclear is that two kinds of leadership endorsement have been undifferentiated in these leadership studies: 1) endorsement based on the type of leader an individual would *like* to work with, and 2) endorsement based on the type of leader that is perceived as most *effective* for the follower.

The training literature on reaction measures supports this argument. Yost (1996) describes how trainee reaction measures often include a mixture of liking and effectiveness measures such as efficacy expectations. In typical reaction measures, trainees are often just asked how well they "liked" the training program. He argues that trainees might <u>like</u> the training program, but not find it particularly effective. In their review of the training literature, Tannenbaum and Yukl (1992) come to a similar conclusion,

> "Reaction measures do not appear to be directly related to other criteria. In other words, liking does not imply learning, a finding that highlights the problem of using trainee reactions as the sole criteria of training effectiveness. Future research could examine whether trainee reactions that focus on the utility or applicability of training (as opposed to assessing whether trainees liked the training) are related to any of the other effectiveness criteria" (p.425).

I propose that distinguishing between liking and effectiveness perceptions of followers might also be useful to make in the literature on leadership. Previous studies that have measured participants' endorsement of leaders have often combined leader

liking and effectiveness items or have not explicitly stated whether they were measuring

liking for the leader, or perceived effectiveness. In these cases, it is not clear whether the

participant is responding in terms of liking or in terms of effectiveness perceptions.

For example, in the Kenis (1978) study, the dependent variable was satisfaction

with the leaders. People can be satisfied with their leader either because they like the

leader, or because they think the leader is effective, or because they both like the leader

and think that s/he is effectcive. The same could be true for choosing an ideal leader

(e.g., Keller, 1999): are these leader attributes ideal because the individual enjoys

working with the leader, or ideal because the leader would be the most effective? Indeed,

some studies do not clearly outline the construct of "leadership effectiveness" (e.g.,

Cellar et al., 2001) whereas in other studies, follower expectations that they would like

and perform well for a particular leader was combined into one dependent variable (e.g.,

Ehrhart & Klein, 2001).

When these two aspects of leadership endorsement are disentangled from one

another, clearer relationships may emerge. As reviewed previously, studies have

consistently found that individuals rate leaders more highly when they are similar to

themselves (e.g., Keller, 1999; Pulakos & Wexley, 1983) which parallels the social

psychology literature on liking and attraction. These results suggest thatpeople prefer

leaders who are similar to their self-concept. In other words, the type of leader liked may

be related to an individual's self schema. Perceived leader effectiveness, on the other

hand, may be related to one's leadership schema. Both of these schemas may, in turn, be

influenced by one's personality. In the next section, I will review implicit leadership

theory and the connectionist model of schemas, including a discussion of self schemas

and leadership schemas. I will then discuss the specific hypotheses of this study.

Implicit leadership theory and connectionist networks

Lord and his colleagues (Lord, Foti, & DeVader, 1984; Lord, Foti, & Phillips,

1982) developed a theory of leadership categorization in the 1980's based on Rosch's

(1978) work on cognitive categorization. According to implicit leadership theory, people

have tacit beliefs about the attributes and behaviors that distinguish leaders from

nonleaders (House et al., 1999; Lord & Maher, 1991). Implicit leadership theories can

essentially be viewed as prototypes, or ideal instances of leadership (Lord et al., 1984).

The theory maintains thatsomeone will be seen as a leader when there is sufficient

overlap between his/her characteristics and the characteristics in the follower's leadership

schema. Once activated, leadership schemas are believed to aid in the recollection of old

information as well as help individuals to identify, organize, and interpret new

information (Lord et al., 1984; Lord & Maher, 1991; Phillips & Lord, 1982).

Implicit leadership theory was developed based on the traditional, symbolic

models of cognition which indicated that information was processed in a serial manner.

In other words, schemas were thought to be made up of distinct individual units, or

symbols, which could be altered, added, or accessed independently of other schemas

(Smith, 1996; Strauss & Quinn, 1997). Lord and his colleagues (Lord, Brown, & Harvey,

2001; Lord, Brown, Harvey, & Hall, 2001; Hanges, Lord, & Dickson, 2000) have

recently revised the theory and reconceptualized leadership schemas as stable patterns of

activity over a connectionist network.

The connectionist and symbolic cognitive architectures represent two different ways that human knowledge and information processing can be understood. Whereas the symbolic model views the human mind as a computer-like symbolic processor, the connectionist model is patterned after neurons and neural networks in the brain (Bechtel & Abrahamsen, 1991). In the symbolic model, cognitive schemas are stored as discrete representations which can be accessed and modified separately from other schemas. In the more efficient connectionist model, schemas are conceptualized as stable patterns of activation that emerge within a network of neuron-like units and alternative schemas are simply different patterns of activation (Lord et al., 2001; Strauss & Quinn, 1997). This neural or biological approach to modeling cognition also allows for parallel information processing which enables rapid cognitive activation throughout a network, as opposed to the symbolic model's slower serial information processing in which knowledge is retrieved sequentially (Strauss & Quinn, 1997; Lord & Maher, 1991a). Finally, because schemas are newly generated every time they are used (but also regulated by prior learned patterns of associations), the connectionist model allows for schemas to be influenced by contextual factors and is thus more flexible than the symbolic model in which knowledge is stored and retrieved from memory (Strauss & Quinn, 1997). Based on the above discussion, cognitive theorists have generally agreed that schemas may be best explained by a connectionist architecture since connectionist models are particularly good at simulating flexible, quick, and automatic information processing (e.g., Hanges et al , 2000; Lord et al., 2001; Lord & Maher, 1991a; Strauss & Quinn, 1997).

A generic representation of a connectionist network is presented in Figure 1. The fundamental elements within a connectionist network are called "units", which are

modeled after neurons in the brain. These units, represented by circles in Figure 1, are interconnected by links that can be mutually excitatory or inhibitory. These links, or connections, between units are assigned weights that determine the excitatory and inhibitory patterns within the network. The chain of activation/inhibition continues until a stable state is reached (Bechtel & Abrahamson, 1991). In this system, there are two primary, directly observable levels: the input and output layers. The input layer (i.e., the four input units in Figure 1) receives information from external sources (e.g., leader behaviors) and the output layer (i.e., the five output units in Figure 1) functions to send output from the network (e.g., follower reactions). Networks often also include hidden units that exist between the input and output layers (Lord & Maher, 1991; Hanges et al., 2000). These hidden units represent internal cognitive components (e.g., values, affect, norms) that help individuals interpret environmental input and produce appropriate behavioral responses.

Within a connectionist network, a schema is defined as a stable pattern of activation weights among the network's hidden units (Hanges et al., 2000; Smith 1996) and the attributes, or traits, that make up a schema form an interactive, mutually activating connectionist network (Smith, 1996). A schema develops as the network "learns" the associations among the units (Hanges et al., 2000). Repeated exposure to the same stimuli, such as dynamic leaders, for example, gets reflected in repeated activation patterns; with each repeated encounter, the connections among the units in the activation pattern grows stronger. These connection weights incrementally adjust, and after repeated exposure to a particular activation pattern, the pattern eventually "settles in" and becomes stable (Lord et al., 2000).

9

Thus, according to the connectionist approach, schemas are well-learned, but flexible (Strauss & Quinn, 1997). Because schemas are newly evoked each time they are used, they can adjust to novel or ambiguous contexts. That is, different contexts can trigger different patterns of activation in which constraints specific to that context are satisfied; even if the same set of network units is used, slightly different schemas can be generated, such as a schema for religious versus secular leaders (Hanges et al., 2001). However, activation patterns that constitute a schema are guided by previously learned patterns of associations. As stated earlier, a connectionist architecture seems to be a better overall representation of schematic processing than the traditional symbolic model of cognition. I will now briefly discuss the specific cognitive schemas that are of interest in this paper, namely self-schemas and leadership schemas.

Self-schemas

Markus (1977) proposed that self-schemas are cognitive generalizations about the self that organize and influence the processing of self-related information. Such schemas are formed based on the observation of consistent patterns of one's own behavior. Personality theorists have noted that individuals' personality traits and their self-schemas may be related (Baumeister & Tice, 1988). In fact, a recent study using the self-reported five factor model of personality confirmed that personality traits were correlated with participants' self-schemas, as measured by response latency scores for the respective trait scales (Siem, 1998).

The literature on interpersonal attraction and liking suggests that people are attracted to or like others similar to themselves. For example, Newcomb's (1961) classic study found that over time, individuals were more likely to become friends with

attitudinally similar others.   Other researchers have interpreted this phenomenon and found evidence that people tend to dislike those who are dissimilar to themselves (Rosenbaum, 1986). In any case, this suggests that people have access to cognitive representations of themselves (i.e., their self-schema), which can influence their attraction, or liking, for leaders. Consequently, I argue that followers' personalities are related to their self-schemas, which influence the type of leaders they would enjoy working with.

<u>Leadership schemas</u>

In terms of leadership schemas, a connectionist-based model of leadership schema generation has recently been proposed (i.e., Lord, Brown, Harvey, & Hall, 2001) in which distributed, interactive connectionist networks have been used to better understand how leadership schemas may be influenced by contextual factors, such as individual characteristics.

According to the theoretical model proposed by Lord and colleagues (2001), individuals' leadership schemas are activated not only by behavioral inputs from a leader (e.g., past experiences with leaders), but also by multiple contextual constraints such as leader qualities, task characteristics, follower characteristics, and cultural features. The sensitivity to contextual constraints is enabled by the spontaneous recreation of schemas inherent in connectionist models of cognition. These contextual factors can either increase or decrease the activation of each of the leader attributes in a schema through followers attributes such as their values, norms, affect, and goals. Such a model of leadership schemas is concurrent with the more active role of followers in recent conceptualizations of leadership (e.g., Klein & House, 1995) and argues that perceptions

of leadership are created by fitting a pattern of characteristics that perceivers expect from leaders (Lord et al., 2001).

Researchers have noted that background variables such as personality traits may influence implicit leadership theories (Hunt, Boal, & Sorenson, 1990). Based on the above model of leadership schema generation, follower personality may act as a contextual constraint that inhibits or facilitates the activation of the units (i.e., leader attributes) within the leadership schema, thereby influencing the pattern of activation among the units by altering their link weights. Thus, a connectionist model explanation of why followers have different perceptions and interpretations of the same sets of leadership behaviors in Ehrhart and Klein's (2001) study may be that individual follower personality characteristics provide contextual input patterns that can cause substantial change in the activated leadership schema and in the meaning of the exact same leader behavior. This change in meaning of the same behavior (e.g. a charismatic leader being seen as "encouraging" versus "overbearing") due to differential pattern evocation among the schema's units results in the activation of different follower reactions, such as a greater perceived effectiveness of a relationship-oriented leader as opposed to a charismatic leader.

The stable pattern of activation over a collection of "schema" units is, in turn, thought to influence subsequent behavior (Hanges, et al., 2000; Lord & Emrich, 2001). Recent empirical evidence has supported the assumption that individuals' schema structures can be used to predict behavioral outcomes: Lim and Hanges (2002) found that participants' leadership schemas were related to their actual leadership behaviors, as observed by assessors in an assessment center. Given this finding, leadership schema

structure may also be useful in predicting other behavior, such as participant's endorsement of the type of leader seen as effective.

This emphasis on how changes in the *pattern* of activation among elements in a leadership schema affect the coherent interpretation of leadership perceptions (Lord, Brown, Harvey, & Hall, 2001; Thagard & Kunda, 1998) underscores the distinction between *schema content* (i.e., leadership attributes, represented as units) and *schema structure* (i.e., the location and arrangement of these attributes in relation to one another within the schema) (Hanges, et al., 2000). That is, the location of each attribute within a leadership schema may be important in predicting behavior, even if schema content is held constant. One way to determine how units within a schema are positioned and activated in relation to one another is to determine the number of links each unit (i.e., leader attribute) has with other units in the schema network. This operationalization is called the "centrality" of the attribute (Lim & Hanges, 2002; O'Neill & Hanges, 2000). Another aspect of schema structure is the degree to which schemas are unitized and internally consistent (i.e., coherence). One can empirically model the connectionist architecture of leadership schemas using a computer modeling technique called Pathfinder (Schvaneveldt, 1990).

Personality to self-schema

Based on the review of the literature, I believe that self and leadership schema structure may be valuable in explaining how followers' personalities influence leadership endorsement. With leader liking, it is possible that follower personality affects their self schemas, and leaders that subsequently match these schemas are liked. With leader

13

effectiveness, it is possible that follower personality affects their leadership schemas, and leaders that match these leadership schemas are perceived as effective.

Table 1 outlines the specific hypotheses between personality traits and self-schema attributes and the hypotheses between self-schema attributes and leadership liking. The personality trait of Extroversion is commonly described as the tendency to be assertive, active, and talkative (Digman, 1990) as well as the tendency to be sociable, gregarious, and also impulsive (Watson & Clark, 1997). Because self-schemas are thought to be formed by the observation of consistent patterns of one's own behavior (Markus, 1977), extroverted individuals may have the analogous attributes of "assertive", "dynamic", "motivational", or "risk taker" as central to their self-schemas. The first four rows of Table 1 shows that the personality trait of Extroversion (in the far right column) is hypothesized to be related to the self-schema attributes "assertive", "dynamic", "motivational" and "risk taker" (in the middle column within the same rows as Extroversion).

The personality trait of Agreeableness is described as the tendency to be cooperative, helpful to others, sympathetic, generous and kind (Digman, 1990; Mount & Barrick, 1995). Accordingly, individuals who are high in agreeableness may have analogous attributes such as "group-oriented", "compassionate", and "just" as central to their self-schemas, while individuals low on agreeableness may have "autocratic" as central to their self-schemas.

The personality trait of Conscientiousness is described as the tendency to be dependable, strong-willed, orderly, rule-bound and plans ahead (Digman, 1990; Mount & Barrick, 1995). As Conscientious individuals see themselves consistently behaving in

14

this manner, they may have the analogous attributes "reliable", "decisive", "procedural", and "plans ahead" as central to their self-schemas.

<u>Self-schema to leader liking</u>

Based on the similarity hypothesis, leaders that match these self-schema attributes are liked. For example, because charismatic leaders are highly involved, energized and enthusiastic (Conger & Canungo, 1987), an individual would tend to like the charismatic leader if the "dynamic" attribute is more central to his self-schema. Because charismatic leaders arouse followers' motives by giving inspirational talks (Yukl, 1998), an individual for whom "motivational" is a central part of his self-schema would tend to like the charismatic leader. An individual with "risk taker" as a central self-schema attribute would tend to like the charismatic leader because charismatic leaders tend to take risks that may oppose the status-quo (Conger & Canungo, 1987). Since charismatic leaders also emphasize a group or collective mentality (Yukl, 1998), an individual for whom "group-oriented" is a central part of his self-schema would like the charismatic leader. As shown in Table 1, charismatic leader liking (in the far right column) is hypothesized to be related to the self-schema attributes within the same row (i.e., "dynamic", "motivational", "risk taker" and "group-oriented").

Followers with central self-schema attributes such as "compassionate", and "just" would tend to like the relationship-oriented leader because relationship-oriented leaders are similarly understanding, considerate, and provide recognition for followers' contributions and accomplishments (Yukl, 1998). Followers with "assertive" or "autocratic" as central self-schema attributes would not tend to like relationship-oriented leaders; a dictatorial individual who strongly states his opinions and preferences may

15

think that relationship-oriented leaders (who are flexible and give a certain amount of autonomy to followers in deciding how to do tasks, etc.) are strongly dissimilar to himself, and therefore tend not to like the leader.

Certain self-schema attributes may also be related to followers' liking for task-oriented leaders. Characteristics of task-oriented leaders include making task-oriented decisions such as how to coordinate activities, planning and scheduling work, and providing the necessary supplies, equipment, and technical assistance (Yukl, 1998). Therefore, followers who have central self-schema attributes such as "assertive" , "decisive", "procedural", "plans ahead", and "reliable" would tend to like task-oriented leaders because they have similar characteristics.

Personality to leadership schema

As explained previously, research on followers' values has found that followers endorsed leaders who fulfilled their needs (i.e., Ehrhart & Klein, 2001). Similarly, according to Reik's complementarity theory of romantic love, an individual falls in love with someone who is different from oneself in that the other has characteristics that he/she desires but has been unable to achieve alone or with someone similar (Reik, 1957). Followers' personalities may influence their leadership schemas in a similar manner. That is, an effective leader may be perceived as one with certain compensatory strengths that the follower may be lacking or that enable the follower to be more effective himself (see Table 2). For example, introverted individuals may look to gregarious, outgoing leaders to draw them out of their own quiet personalities in order to accomplish an organizational goal. These individuals are likely to have "assertive", "dynamic", "motivational", and "risk taker" as central to their leadership schemas. A person low on

16

Conscientiousness may perceive that outstanding leaders they have encountered have been ones who can provide structure for them in accomplishing tasks. Therefore, these individuals are likely to have leadership schemas in which "decisive", "procedural", "plans ahead", and "reliable" are central attributes. A person who scores low on Agreeableness may think that an outstanding leader for him is one who has characteristics that counteract his own disinterest and apathy towards others in order to accomplish a goal or task. Therefore, these individuals would have a leadership schema in which "group oriented", "compassionate", and "just" are central leadership schemas, while "autocratic" would not be a central leadership schema.

Leadership schema to leader effectiveness

Lord and his associates have argued that leadership schemas are critical cognitive mechanisms by which leader effectiveness perceptions are produced (Lord et al., 2001; Lord & Maher, 1991). Therefore, people may choose leaders that match their ideas of effective leadership. Table 2 outlines the specific hypothesized relationships between leadership schema attributes and the type of leader perceived as effective for the follower. As described in previously, the attributes "dynamic", "motivational", "risk taker", and "group oriented" would match the charismatic leader; the attributes "compassionate", "just", "autocratic", and "assertive" would be related to the relationship-oriented leader; and the attributes "decisive", "assertive", "procedural", "plans ahead", and "reliable" would be related to the task-oriented leader. If an attribute is central to an individual's leadership schema, the person is likely to perceive that analogous leader type as most effective for him/her.

17

Thus, in reviewing the research on follower characteristics and evaluations of leadership style, it is plausible that the concept of cognitive schemas could provide valuable insight into the processes by which follower characteristics impact leadership perceptions. More specifically, this paper potentially contributes to the literature in several ways: First, to date, there has been no research on the role of cognitive mechanisms in the link between follower personality and leadership preferences. In fact, cognitions have rarely been studied in their relationships to more distalpsychological outcomes, such as perceptions of leader effectiveness (as opposed to more proximal outcomes, such as attention and memory) (Lord & Emrich, 2001). This study will eliminate this research gap. Secondly, the distinction between two kinds of leadership endorsement outcomes (liking and effectiveness) has not been clear in previous studies relating follower characteristics with leadership endorsement. I add to this literature by arguing that these concepts should be separated. Third, this study may add to the literature by arguing that different cognitive schema relate to different kinds of leadership endorsement. Fourth, although the five factor model of personality is now commonly thought to provide a conceptual foundation for the categorization of individual differences in personal disposition (Mount & Barrick, 1995), there has been no research on the relationship between the five factor model of personality and cognitive schema structure. Consequently, this paper argues that followers' personalities will be related to their self-schemas, which will influence the type of leaders they would enjoy working with. Furthermore, followers' personalities will also be related to their leadership schemas, and the pattern of attributes in their leadership schemas will relate to their

18

endorsement of the type of leader that they believe will be most effective (i.e., leadership effectiveness).

Present Study

As mentioned earlier, prior research has not clearly distinguished between two kinds of leadership endorsement. It is argued that leadership endorsement can be differentiated into endorsement based on leadership liking and endorsement based on perceived leadership effectiveness. This study attempted to clarify this distinction by explicating that different cognitive mechanisms are related to followers' liking versus perceived effectiveness of three leadership styles: charismatic, relationship-oriented, and task-oriented leadership.

These three leadership styles have been shown to be clearly distinguishable from one another. Research participants differed in their preferences for a charismatic leader, a relationship-oriented leader, and a task-oriented leader (Ehrhart & Klein, 2001). A charismatic leader is broadly defined in the literature as one who communicates high performance expectations, takes calculated risks that may oppose the status quo, expresses confidence in followers' abilities to reach performance goals, and espouses a collective identity with a value-based overarching vision (Bass, 1985; Conger & Kanungo, 1987; Ehrhart & Klein, 2001; House, 1977; Shamir, House, & Arthur, 1993). A relationship-oriented leader shows trust and confidence in followers, treats them with kindness and respect, communicates with them and listens to their problems, and provides recognition and shows appreciation for their contributions (Ehrhart & Klein, 2001; Yukl, 1998). Finally, a task-oriented leader is characterized as one guides

19

subordinates in setting high but realistic performance goals, plans and schedules work, coordinates subordinate activities, and provides necessary supplies, equipment, and technical assistance (Ehrhart & Klein, 2001; Yukl, 1998).

The outcome of follower endorsement based on leadership liking was used to test the similarity assumption that has been discussed in the literature – that people like leaders similar to themselves – by including self-schemas as the mediating factor between follower personality and liking of leadership style. Furthermore, personality was assessed using the five factor model of personality traits as many researchers consider this model to be a sufficient categorization of individual differences in personal disposition.

According to this model, personality can be seen as being made up of these five primary dimensions: (1) agreeableness – the tendency to be good-natured, sympathetic and helpful to others; (2) conscientiousness – the tendency to be reliable, orderly, and achievement oriented; (3) extroversion – the tendency to be active and talkative; (4) openness to experience – the tendency to be imaginative and intellectual; and (5) neuroticism – the tendency to experience negative affect and lack of emotional stability (Barrick & Mount, 1991; Mount & Barrick, 1995). The growing use of the five factor model in psychology has allowed for the consistency of measurement of personality across studies and more systematic comparisons of research results in the field (Lim & Ployhart, 2002).

Furthermore, because empirical research is only beginning on behavioral outcomes related to leadership schema structure, this study adds to the literature by examining the role of leadership schema structure on followers' endorsements of

effective leadership. Based on the connectionist model of cognition, schema structure was assessed using the Pathfinder scaling program. Finally, based on Lord et al's (2001) connectionist model of leadership schemas, the study examined the influence of participants' personality on their leadership schema structure.

Based on the above discussion, the following hypotheses were tested in the present study:

Hypothesis 1: Participants' self-schemas will reflect their personality traits.

Hypothesis 1a: Extroverted participants will have extroverted attributes as a central component of their self-schemas. That is, extroversion will be related to the centrality of "assertive", "dynamic", "motivational" and "risk taking" self-schema attributes.

Hypothesis 1b: Participants high on agreeableness will have agreeableness attributes as central to their self-schemas. That is, agreeableness will be positively related to the centrality of "group-oriented", "compassionate", and "just" self-schema attributes but negatively related to the centrality of the "autocratic" self-schema attribute.

Hypothesis 1c: Highly conscientious participants will have conscientious aspects as central components of their self-schemas. Conscientiousness will be positively related to the centrality of "decisive", "procedural", "plans ahead", and "reliable" self-schema attributes.

Hypothesis 2: The structure of self-schema attributes will be related to participants' *liking* for one of three leadership types: charismatic, relationship-oriented, and task-oriented. More specifically, people will tend to like leaders that are more similar to their central self-schema.

Hypothesis3: Follower personality traits will be related to the structure of their leadership schemas.

Hypothesis 3a: Participants <u>low</u> on extroversion will have extroverted attributes as central to their leadership schemas. Therefore, Introversion will be related to the centrality of the leadership attributes "assertive", "dynamic", "motivational", and "risk taker".

Hypothesis 3b: Participants <u>low</u> on agreeableness will have agreeableness attributes as central to their leadership schemas. These individuals will have "group-oriented", "compassionate", and "just" as central to their leadership schemas, while the attribute "autocratic" will be least central to their leadership schemas.

Hypothesis 3c: Participants <u>low</u> on conscientiousness will have conscientious attributes as central to their leadership schemas. That is, these individuals will have the attributes "decisive", "procedural" , "plans ahead", and "reliable" as central to their leadership schemas.

Hypothesis 4: Leadership schema structure will be related to follower perceptions of leadership *effectiveness* for one of three leadership styles: charismatic, relationship-oriented, and task-oriented leadership. More specifically, participants will tend to choose effective leaders as those who fit their central leadership schema attribute.

An overall theoretical model is presented in Figure 2, and specific hypotheses relating personality traits, schemas, and leadership type are summarized in Tables 1 and 2.

Method

<u>Participants and Design</u>

The study was conducted using a sample of 149 undergraduate students at the University of Maryland, College Park campus. The sample was 45% male and 55% female. In terms of ethnic identity, sample was 68% Caucasian, 12% African American, 9% Asian American, 6% Hispanic, and 5% were classified as other. Approximately 96% of the participants were between the ages of 18 and 21 while the remaining 4% were 22 years of age or older. Fifty-seven percent of the sample had over two years of work experience, 22% had between one to two years of work experience, and the remaining 21% of the sample had one year or less of work experience.

The experimental design is a two by two completely randomized factorial design. The two levels of the between-subjects factor were "order of implicit schema measurement" (i.e., leadership schema then self-schema versus self-schema then leadership schema) and "type of leadership endorsement" (i.e., either effectiveness or liking ratings).

Leadership Style Manipulation:

The within-subjects manipulation consisted of showing participants three summary statements from three types of leaders. In particular, participants read a statement from a charismatic leader, a statement from a relationship-oriented leader, and a statement from a task-oriented leader.

<u>Description of the charismatic leader</u>. Theorists and researchers commonly emphasize that charismatic leaders: (a) communicate high performance expectations to followers, (b) exhibit confidence in followers' ability to reach goals, (c) take calculated

risks that oppose the status quo, and (d) articulate a value-based overarching vision and collective identity (Bass, 1985; Conger & Kanungo, 1987; Ehrhart & Klein, 2001; House, 1977; Shamir et al., 1993). Thus, the following statement (from Ehrhart & Klein's study) was used:

> I have been a successful leader because I am committed to this company's future and I work hard to communicate my vision for this company to my store managers. I set high standards for my managers. I expect them to work as hard as they can to reach those standards. However, I don't push them only for the sake of productivity; rather, I want them to reach their potential and do the best job they can. I want them to realize how good they can be and how much they have to offer. My goal is to do things differently than this organization has done them in the past, and I'm willing to take some chances to show them how things can be improved. I rely on my managers to be creative in finding new ways to get the job done. I don't want my managers to think of this as just another job. Instead, I try hard to make them feel like they're a part of something special here, something big, something that's going to make a difference in this organization.

Description of the relationship-oriented leader. According to leadership theory and research, a relationship-oriented leader: (a) treats subordinates with kindness and respect, (b) emphasizes communication with and listening to subordinates, (c) shows trust and confidence in subordinates and (d) provides recognition and shows appreciation for subordinates' contributions and accomplishments (Ehrhart & Klein, 2001; Yukl, 1998). Thus, the following statement was used:

> I attribute my success as a leader to my concern for my managers' personal well-being. The first thing I try to do in all of my interactions with my managers is to treat them with kindness and consideration. I am committed to being friendly and respectful, even when stress is high or there is a lot of work to be done. Another thing I emphasize with my managers is communication. I keep them informed of progress on projects or any other organizational issues that might affect them, and I am always available to listen to my subordinates' problems, whether their problems are personal or work-related. In addition, I show trust and confidence in my managers. I want them to feel involved in their work and to know that I think they can do a good job. The final thing I do with my

store managers is that I recognize their contributions. If they work hard and do a good job, I go out of my way to make sure they know that their work is appreciated.

Description of the task-oriented leader. The literature suggests that the task-oriented leader: (a) guides subordinates in setting performance goals that are high but realistic, (b) plans and schedules the work, (c) provides necessary supplies, equipment, and technical assistance, and (d) coordinates subordinate activities (Ehrhart & Klein, 2001; Yukl, 1998). Thus, the following statement was used:

I'm successful as a leader because I emphasize task accomplishment. I begin by working with my managers to set goals for their work. I don't want to overwhelm my managers with impossible standards, so I make sure their goals are realistic yet still challenging. I am very careful and detailed in laying out what my managers need to get done. I don't want there to be any ambiguity; they need to know exactly what to do and what needs to get done. Once they know what needs to get done, I make sure they have everything they will need to do it. I provide them with the necessary supplies, equipment, and technical assistance to insure that they can be successful at their jobs. Finally, I coordinate the work so that the managers and their assistant managers know what their job is and there is no overlap between the two. I want everyone to know what their role is so that they can see how they are contributing to the accomplishment of our organization's goals.

Order of Implicit Schema Manipulation

The implicit self-schema and leadership schema of participants was measured. To ensure that the schemas were not systematically affected by the "leader style" manipulation, the order by which the schemas were measured were counter-balanced. Half of the participants provided their self-schema ratings at the beginning of the experiment whereas the other half of the participants provided their leader schema ratings at the beginning of the experiment.

Measures

Personality factors. The five personality factors (i.e. Extroversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience) were assessed with the IPIP, or International Personality Item Pool (IPIP, 2001). The IPIP instrument is a 50-item measure with 10 items for each factor of the FFM (Five Factor Model). Each item is assessed using a 5-point scale ranging from 1 (very inaccurate) to 5 (very accurate). Each factor is scored such that higher numbers indicate greater quantities of the trait (except for neuroticism, where higher numbers indicate less neuroticism). The scores on these scales have relatively high reliability and also have convergent validity with other measures of personality (Goldberg, 1999). Furthermore, a recent study by Goldberg (1998) reported the following alpha reliability for the IPIP scales: Extroversion (.87), Agreeableness (.82), Conscientiousness (.79), Neuroticism (.86), and Openness to experience (.84). The reliabilities for these measures in the present study were very comparable: .78 for Extroversion, .82 for Agreeableness, .81 for Conscientiousness, .86 for Neuroticism, .78 for Openness to experience.

Implicit schema measure. Paired comparisons of 12 leadership attributes and the term "outstanding leader" were used to measure implicit leadership schemas. Paired comparisons of the same 12 attributes and the term "you" were used to measure implicit self-schemas. Each pair of attributes was rated on a 6-point Likert scale ranging from 1 (unrelated) to 6 (highly related). The 12 attributes and the definition of effective leader were adapted from the GLOBE research project on leadership (House et al., 1999). The relatedness ratings for leadership attributes and relatedness ratings for self attributes were analyzed using a network scaling technique knows as Pathfinder (McDonald &

26

Schvaneveldt, 1988; Schvaneveldt, Dearholt, & Durso, 1988; Schvaneveldt, Durso, & Dearholt, 1989; Schvaneveldt, et al., 1985).

Researchers were hampered by the inability to empirically test connectionist theories of cognition until the Pathfinder network scaling algorithm was developed in 1981 by Schvaneveldt and Durso. Pathfinder transforms relatedness ratings of concepts (e.g., leadership attributes) into spatial representations of individuals' network models in which each concept is represented as a node, and the relationships, or activation weights, between the concepts are represented as links between the nodes (Dearholt & Schvaneveldt, 1990).

More specifically, pair-wise comparisons are used to obtain distance estimates between leadership attributes to produce structural representations of the network relationships among the concepts. The relatedness rating is assumed to reflect the psychological distance between the attributes in the participants' memory, and is therefore thought to be a function of the activation weight between the two items (Higgins, 1999). In general, items that are judged to be highly related to one another are linked together in a network. Research has shown that Pathfinder networks have explanatory power above and beyond that of the original relatedness ratings provided by participants (Cooke, 1990; Cooke, Durso, & Schvaneveldt, 1986) and are even more predictive than other statistical techniques, such as multidimensional scaling (Goldsmith & Johnson, 1990).

There is evidence that Pathfinder networks empirically recapture theoretical connectionist models of cognition (Schvaneveldt, 1990) and more specifically, are useful in assessing leadership schemas (Hanges, Higgins, Smith-Major, Dyer, Dorfman, &

Brodbeck, 2001; Lim & Hanges, 2002; Nishii, 2001; O'Neill & Hanges, 2000).

Although research on schema structure is relatively new, studies conducted at the

University of Maryland have provided initial support for its theoretical relevance and

distinction from schema content (Hanges et al., 2001;Lim & Hanges, 2002; Nishii, 2001;

O'Neill & Hanges, 2000). That is, even when schema content is held constant, leadership

schemas show meaningful differences in schema structure. In the case of these studies,

differences in individuals' schema structure were related to differences in cultural values.

Participants' schema coherence values were first examined in order to determine

whether or not schemas were sufficiently consistent to be analyzed. Higher absolute

coherence values indicate that a schema is more internally consistent than a schema with

lower absolute coherence values. Consistent with O'Neill and Hanges (2000), an

attribute is considered more critical or central to the network the more links it has to other

attributes in a network. Thus, self and leadership attribute centrality was operationalized

as the number of links it has to other attributes within the connectionist network.

Explicit schema measure.   In order to measure explicit leadership schemas,

participants were asked to rate twelve leadership attributes on their importance for

outstanding leadership using a 6-point Likert scale ranging from 1 (not at all important)

to 6 (highly important). The same 12 attributes were rated in terms of importance to

one's self concept in order to measure participants' self schemas, or self concepts. The

twelve attributes used to measure explicit schemas were the same ones used to measure

implicit schemas.

Endorsements of charismatic, task-oriented, or relationship-oriented leaders.

Leader descriptions and vignettes from Ehrhart and Klein's (2001) study were used to

assess participants' endorsements of leadership styles. Yukl (1998) asserts that these three leadership categories summarize important theories of leadership. After reading descriptions of the three leader types, half of the subjects were asked to rate how much he or she likes each of the three leaders and to pick the leader that he or she would like to work with. The other half of participants were asked to rate how effective each of the three leaders were and to pick the leader that he or she thinks would be the most effective for them. See Appendix D for the introductory materials that research participants read.

Liking for leadership style. After reading each of the leadership style statements participants used a five-point response scale, 1 (*to little or no extent*) and 5 (*to a great extent)* to indicate the extent to which they believed they would (a) enjoy working with the district manager; (b) get along with the district manager; (c) like the district manager, and (d) would want to be friends with the district manager. The Cronbach's alpha for this scale was .85 for the charismatic leader, .90 for the relationship-oriented leader, and .88 for the task-oriented leader. Participants were then asked to choose the leader that they like the most.

Perceived effectiveness of leadership style. After reading each of the leadership style statements, participants used a five-point response scale, 1 (*to little or no extent*) and 5 (*to a great extent)* to indicate the extent to which (a) they would work at a high level of performance under the district manager; (b) they would be hard-working under the district manager; (c) they would be productive under the district manager, and (d) the district manager would enable them to be successful in accomplishing their job-related goals. Cronbach's alpha for this scale was .79 for the charismatic leader, .89 for the

relationship-oriented leader, and .86 for the task-oriented leader. Participants were then asked to choose the leader that they believe was the most effective for them.

Biodata measure of prior experience. In addition, data was collected on the participants' gender, age, and past experience with leaders. Two items were used to assess past experience with leaders. Participants used a five-item scale ranging from zero months to over 2 years experience for the item, "How much experience do you have working under a supervisor/manager?" Participants used a five-item scale ranging from 0 to 4 or more for the items, "How many supervisors/managers have you worked under?" These items were combined to form a single measure of past experience with leaders. The Cronbach's alpha for this scale was .78.

Manipulation check of leadership styles

After completing all measures, three items were used to assess whether or not participants could distinguish among the three types of leaders. For each item, one of the three leadership styles was described and participants were asked to choose which of the three types of managers (i.e., manager #1, manager #2, or manager #3) best fit the description.

Procedure

Data collection occurred in two phases. During Phase 1, research participants completed a survey containing the Goldberg Big Five measure of personality and the explicit measures of self and leadership schemas. This phase of the experiment occurred during the mass-testing phase of the Psychology 100 research pool. During Phase 2, approximately one month following Phase 1 data collection, research participants came to the laboratory and were assigned to one of four conditions: In terms of schema order, half of the participants either answered items about their implicit self-

schema first and implicit leadership schema last, while the other half answered items about their leadership schema and then their self-schema. Within these two conditions, half of the participants completed leadership ratings in terms of how much they liked the leaders, while the other half completed leadership ratings in terms of effectiveness.

Participants were told that they would be completing three sections, each for a separate study: The first (or third) section would be used for a study on self-perceptions, the second section would be used for a study on major leadership styles in the workplace, and the third (or first) section would be used for a study on leadership concepts. The participants then rated a series of attributes so that a measure of one of their schemas was obtained. In order to measure leadership schema, participants were presented with paired comparisons of 12 leadership attributes as well as the term "outstanding leader". In order to measure self-schema, participants were presented with paired comparisons of the same 12 attributes, as well as the term "you". Participants were asked to rate each pair based on a 6-point Likert scale ranging from 1 (unrelated) to 6 (highly related). A total of 78 self-schema relatedness ratings and 78 leadership-schema relatedness ratings were presented to participants to encompass all possible pairs of items within the list of 12 attributes. The 12 attributes and the definition of effective leader were adapted from the GLOBE research project on leadership (House et al., 1999).

Participants then read the leadership vignette and descriptions of a charismatic leader, a relationship-oriented leader, and a task-oriented leader and completed survey measures of their endorsements of charismatic, relationship-oriented, and task-oriented leaders in terms of either liking or perceived effectiveness. The survey also included open-ended questions asking respondents to list adjectives describing each leader and to

explain why they chose the leaders they did in terms of preference or perceived

effectiveness. Participants were also asked to complete items assessing past leadership

experience and past experience with leaders. After completing this measurement,

participants conducted the Pathfinder ratings that enabled measurement of their

remaining schema. After participants returned their completed surveys, they were asked

to complete set of questions designed to verify that participants were able to distinguish

among the three types of leaders (manipulation check). If a participant's answers on the

manipulation check were incorrect, the questions were asked again verbally to make sure

that the responses on the manipulation check accurately reflected the extent to which the

participant could not distinguish the differences between leadership styles. Upon

completion of all of these measures, participants were debriefed and any questions were

addressed.

Results

This section is structured in the following manner. First, I will discuss evidence concerning the reliability and dimensionality of the scales used in this study. Second, I will perform a series of analyses designed to assess whether the order in which implicit self and leadership schemas were presented had any potential effects on the variables and relationships in this study. Third, because schemas were assessed using two different measures, I will examine the relationships between the implicit and explicit measurement of schemas. Fourth, I will examine the results of participants' leadership ratings and choice of leader in terms of leader liking and leader effectiveness. Finally, I will discuss the results of the hypotheses presented in this study as well as post-hoc analyses.

Factor analyses and reliability of leadership endorsement measures

As indicated previously, six different leadership endorsement measures were used in the present study. An exploratory principal components analysis of the six leadership endorsement scales was run to verify unidimensionality of each of these scales. Specifically, a single factor was extracted from the items written for each scale. The magnitude of the factor loadings for the items was examined. Any items that had factor loadings less than 0.40 were dropped from the analysis. Once the principal components analyses were completed, inter-item reliabilities were calculated.

Leader effectiveness measures. The charismatic leader effectiveness scale was found to be unidimensional with the factor loadings for its items ranging from .75 to .82. The Cronbach's alpha for this scale was .79. The relationship-oriented leader effectiveness scale was also unidimensional with its items ranging from .83 to .92. The Cronbach's alpha for this scale was .89. The task-oriented leader effectiveness scale was

unidimensional, with item factor loadings ranging from .79 to .87. The Cronbach's alpha

for this scale was .86. In summary, these results demonstrated that all three leader

effectiveness scales have desirable psychometric properties (i.e., unidimensionality and

reliability).

Leader liking measures.   The charismatic leader liking scale was found to be

unidimensional with item loadings ranging from .71 to .90. The Cronbach's alpha for

this scale was .85. The relationship-oriented leader liking scale was also unidimensional

with items ranging from .80 to .95. The Cronbach's alpha for this scale was .90. The

task-oriented leader liking scale was unidimensional as well, with item loadings ranging

from .80 to .94. The Cronbach's alpha for this scale was .88. In summary, these results

demonstrated that all three leader liking scales have desirable psychometric properties.

Assessment of schema order effects

For the measurement of implicit schemas, recall that half of the participants

completed pathfinder relatedness ratings for their leadership schemas first and then

completed the implicit self-schema measure. The other half of the participants completed

their implicit self-schema measure and then their implicit leadership schema measure.

The ordering of the implicit schemas was counterbalanced because it was unclear

whether or not the ordering would bias participants' responses.

Leadership endorsement measures. First, I tested whether or not the order in

which the implicit schemas were completed affected participants' subsequent responses

to the leadership endorsement scales. It is possible that completing a measure of one's

implicit leadership schema immediately before rating the three types of leaders (versus

34

completing the self-schema measure right before rating the leaders) could have elicited higher mean responses on the leadership ratings.

To assess implicit schema order effects on leadership endorsement, leadership endorsement scales were collapsed in terms of liking and effectiveness and a repeated measures ANOVA was conducted with the three types of leadership styles (i.e., charismatic, relationship-oriented, and task-oriented) as the within subjects factor and schema order (i.e., self schema first or leadership schema first) as the between subjects factor. Results showed that there was no schema order effect on leadership endorsement scale scores for the three leaders ($\underline{F}$ (2,133) = 0.65, $\underline{p}$>.05). That is, mean endorsement values on the leadership scales for the three types of leaders were not significantly different for those participants who completed their implicit leadership schemas first compared to those participants who completed their implicit self-schemas first.

Coherence of implicit schemas. Coherence is an indicator of the internal consistency of people's schemas. A higher coherence value indicates that the participant is giving a more consistent pattern of responses to the Pathfinder relatedness ratings. Six implicit schemas that had unreliable coherence values (within the range of -.025 and .025) were omitted as well as eleven leadership endorsement scores for participants who failed the manipulation check. The final dataset included 147 implicit leader schemas, 145 implicit self schemas, 69 leadership liking ratings and 69 leadership effectiveness ratings.

To determine if the coherence values of participants' self and leadership schemas were influenced by the order in which the schemas were assessed, a repeated measures ANOVA was conducted with self and leader schema coherence values as the within

35

subjects factor and schema order as the between subjects factor. Results showed that there was a significant interaction between type of schema being assessed and measurement order ($\underline{F}(1,147) = 10.97$, $\underline{p} < .05$). An examination of the mean coherence values indicated that when participants completed ratings of their implicit <u>self</u>-schemas after rating their implicit leadership schemas, their self-schemas ($\underline{M} = .47$) were more coherent than their leadership schemas ($\underline{M} = .40$). Similarly, when participants completed ratings of their implicit <u>leadership</u> ratings after rating their implicit self-schemas, their leadership schemas ($\underline{M} = .43$) were more coherent than the self-schemas ($\underline{M} = .35$). These results suggested the existence of a practice effect; it appears that because the same attributes were used in both types of schemas, participants were making more consistent or reliable ratings of those attributes the second time around.

<u>Centrality of implicit schemas.</u> As discussed previously, centrality is an indicator of how critical or central an attribute is to the schema. The greater the attribute's centrality, the more links it has with other attributes in the schema. Since my study was concerned with the centrality of self and leadership schema attributes and how they relate to personality and leadership endorsement, I conducted a repeated measures ANOVA to assess whether schema measurement order had any effect on centrality values. This analysis showed that the magnitude of the centrality scores of the leader schema and self-schema attributes were affected by schema measurement order ($\underline{F}(1,141) = 12.18$, $\underline{p} < .05$). The centrality values of the schemas completed second were greater than the centrality values of the schemas completed first. More specifically, when participants rated their implicit self-schemas second, their average self-schema centrality values ($\underline{M} = 3.82$) were larger than their average leadership schema centrality values ($\underline{M} = 3.35$).

36

However, when participants rated their implicit leadership schemas second, their average leadership schema centrality values ($\underline{M} = 3.48$) were larger than their average self-schema centrality values ($\underline{M} = 3.13$). Once again, these results suggested a practice effect, with participants making more coherent distinctions among the attributes on the second measurement of implicit schema.

Because these results suggested that order of schema presentation might affect the relationships with self and leadership schemas hypothesized in this study, additional analyses were run to examine whether schema order moderated the relationships between personality and self-schema attributes, and personality with leadership-schema attributes. These moderated regressions are described later within the respective sections for each hypothesis.

Implicit and explicit self-schema measures

Since schemas were assessed using two different methods, a preliminary analysis of the relationship between implicit versus explicit schemas was conducted. Table 3 presents the intercorrelations among the centrality values for the implicit self-schema attributes. Attribute centrality scores were significantly correlated with each other. This is to be expected since the centrality score is operationalized as the number of links an attribute has with other attributes in a network. Because these are all attributes within one schema (i.e., the self concept), it is not surprising that attributes are correlated.

Table 4 presents the intercorrelations among the self-schema attributes measured *explicitly*. Recall that for this measure, participants rated each of the twelve attributes in terms of its importance to their self concept. The centrality of the explicitly measured

self attributes were less correlated (average r = .18) with each other overall than were the centrality ratings provided by the implicit self-schema (average r = .37).

Correlations comparing the centrality of the implicit and explicit self-schema attributes are presented in Table 5. The diagonal contains the correlations between the same attribute measured explicitly and implicitly; only three attributes (motivational, compassionate, and risk taker) had significant modest correlations between their implicit and explicit measures. Thus, it appears that explicit and implicit measures of attribute centrality for the self-schema may be assessing different kinds ofinfo rmation.

Implicit and explicit leadership schema measures

Table 6 presents the intercorrelations among implicit leadership schema attributes. As with the implicit self-schema, attributes were significantly intercorrelated with each other. Table 7 presents intercorrelations among explicit leadership schema attributes. These explicit attribute ratings were less intercorrelated with each other (average r = .21) than were the implicit leadership schema attribute scores (average r = .27). Correlations among implicit and explicit leadership schema attributes are presented in Table 8 with correlations between implicit and explicit measures for each attribute within the diagonal. None of the relationships between the explicit and implicit measures of the same attribute were significant. These results indicate that the implicit and explicit methods of assessing schemas tap into different aspects of schema structure.

Leader liking and effectiveness ratings and choice

Before testing the hypotheses of the study, preliminary statistics were conducted to examine participants' leadership endorsement ratings and their choice of a leader. Of the 69 participants who were asked to choose the leader they *liked* the most, 43 participants (62.3%) chose the relationship-oriented leader, 19 participants (27.5%) chose the charismatic leader, and 7 participants (10.1%) chose the task-oriented leader. Similarly, respondents rated the relationship-oriented leader highest on the four-item leader liking rating scale ($\underline{M} = 4.33$), the charismatic leader second highest ($\underline{M} = 3.63$) and the task-oriented leader lowest ($\underline{M} = 2.99$). To test for significant differences among the leadership liking ratings, a repeated measures ANOVA was conducted in which the leader liking ratings for each of the three leaders was the within subjects factor. The results showed that there was a significant difference among the three leader liking ratings ($\underline{F}(2,67) = 49.88$, $\underline{p} < .01$). A post-hoc test of within subjects contrasts showed that the relationship-oriented leader was rated significantly higher than the charismatic leader, ($\underline{F}(1,67) = 34.52$, $\underline{p} < .01$), and the task-oriented leader, ($\underline{F}(1,67) = 94.62$, $\underline{p} < .01$). Further, ratings of the charismatic leader were significantly higher than ratings of the task-oriented leader, ($\underline{F}(1,67) = 18.88$, $\underline{p} < .01$).

Of the 69 participants who were asked to pick the leader that they believed was the *most effective for them*, 37 participants (53.6%) chose the relationship-oriented leader, 19 participants (27.5%) chose the charismatic leader, and 13 participants (18.8%) chose the task-oriented leader. The relationship-oriented leader ($\underline{M} = 4.10$) was rated higher than the charismatic leader ($\underline{M} = 4.03$) on the four-item leader effectiveness ratings scale, and the task-oriented leader was rated the lowest ($\underline{M} = 3.81$). However, a repeated

measures ANOVA found no significant differences among the leadership effectiveness ratings for the three types of leaders ($\underline{F}(2,67) = 3.08$, $\underline{p} > .05$).

These results showed that while there were differences across leaders in terms of how much they were liked, all three leaders were perceived to be equally effective. In other words, there is no one leadership type that is universally seen as the most effective compared with the others. This finding supports the idea that leader liking and effectiveness are two different constructs and should be measured separately.

<u>Tests of hypotheses</u>

<u>The relationship between personality and self-schema.</u> Hypothesis 1a-1c predicted that the personality of participants would be reflected in the structure of their self-schemas. More specifically, I hypothesized that Extroversion would be to be related to the centrality of "assertive", "dynamic", "motivational" and "risk taker" self-schema attributes; Agreeableness would be related to the centrality of "group oriented", "compassionate", "just", and "autocratic" self attributes; and Conscientiousness would be related to the centrality of "decisive", "procedural", "plans ahead", and "reliable" self attributes.

Implicit self-schema measure results. In order to first test whether schema measurement order affected this relationship, I ran moderated regressions and analyzed the interaction effects between personality and schema order on self-schema centrality values. The ΔF interaction value for each of the hypothesized personality trait – self-schema attribute relationships was averaged across personality traits to obtain an average ΔF value. Results indicated that the overall interaction between schema order and personality on self-schemas was not significant (average ΔF $(1,141) = 2.03$, $p>.05$).

40

These results indicated that schema order did not significantly influence the overall relationships between personality and self-schema centrality values. Therefore, the "order of schema measurement" experimental factor was not included in subsequent analyses.

Table 9 showsthe zero -order correlations between personality traits and self-schemas using the implicit measure of schema. Table 9 shows that Agreeableness was significantly related with only one out of four hypothesized self-schema attributes. Agreeableness was correlated .22 (p<.01) with the "compassionate" attribute (Hypothesis 1b). Contrary to my hypotheses, Agreeableness was not related to "group oriented", "just" or "autocratic" self attributes. Conscientiousness was also significantly related with only one out of four hypothesized attributes in that Conscientiousness was correlated .23 (p<.01) with the "plans ahead" attribute (Hypothesis 1c). Contrary to my hypotheses, Conscientiousness was not related to "decisive", "procedural", or "reliable" self attributes. The relationship between Extroversion and the self-schema attribute of "dynamic" also approached significance ($\underline{r}$ = .12, $\underline{p}$ <.10) (Hypothesis 1a). However, Extroversion was not found to be related to "assertive", "motivational", or "risk taker" attributes.

Explicit selfs chema measure results. Table 10 shows the results of the analyses comparing personality and self schemas using the explicit measurement. The use of the explicit measure of self-schema yielded much stronger support for Hypothesis 1. Eleven out of the twelve hypothesized relationships between personality traits and schema attributes were significant: As hypothesized, Extroversion was significantly related to "assertive" ($\underline{r}$ = .14, $\underline{p}$ < .05), "dynamic" ($\underline{r}$ = .29, $\underline{p}$ < .01), "motivational" ($\underline{r}$ = .15, $\underline{p}$ <

.05), and "risk taker" (r = .40, p < .01) self attributes. As hypothesized, Agreeableness was significantly positively related to "group oriented" (r = .53, p < .01), "compassionate" (r = .60, p < .01), and "just" (r = .17, p < .05) self attributes while it was significantly negatively related to the "autocratic" self attribute (r = -.17, p < .05). Agreeableness was also significantly positively related to "dynamic" (r = .32, p < .01) and "motivational" (r = .36, p <.01) self attributes while significantly negatively related to the "assertive" (r = -.18, p < .05) self attribute, although this was not hypothesized. As hypothesized, Conscientiousness was significantly related to "procedural" (r = .42, p < .01), "plans ahead" (r = .51, p < .01), and "reliable" (r = .27, p < .01) self attributes. Contrary to predictions, however, Conscientiousness was not related to the self attribute "decisive". In summary, consistent with this hypothesis, support was found for the predicted relationship between personality and self-schemas. The explicit self-schema measures supported this hypothesis more strongly than did the implicit measures.

The relationship between self-schema and leader liking. Hypothesis 2 predicted that self-schema would be related to participants' liking for one of three leadership styles such that participants would like leaders similar to themselves (i.e., their self-schemas). Specifically, I hypothesized that people who have "dynamic", "motivational", "risk taker", and "group oriented" attributes as central to their self schemas would like charismatic leaders; people who have "assertive", "decisive", "procedural", "plans ahead", and "reliable" attributes as central to their self schemas would liket ask-oriented leaders; and people who have "compassionate" and "just" attributes as central to their self-schemas, but who have "autocratic" and "assertive" as less central schema components would liker elationship-oriented leaders.

42

Implicit self schema measure results. In order to test whether schema

measurement order affected this relationship, I ran a set of moderated regressions that

examined the extent to which order of schema presentation may have moderated the

hypothesized relationships between self-schema attributes and leadership liking ratings.

The ΔF interaction value for each of the hypothesized schema attribute-leadership liking

relationships was averaged across leadership styles to obtain an average ΔF value.

Results indicated that the overall interaction between schema order and self-schema

attributes on leadership liking ratings was not significant (average ΔF (1,63) = 1.25, $p >$

.05). These results indicated that schema order did not significantly influence the

relationships between schema centrality values and leadership liking ratings. Therefore,

the "order of schema measurement" experimental factor was not included in subsequent

analyses.

Correlational analyses using the implicit self-schema measure are presented in

Table 11. Relationships between self attributes and the *choice* of the leader liked the

most was analyzed using point-biserial correlations in which choice of the leader was the

dichotomous dependent variable. Relationships between self attributes and ratings of the

extent to which the three types of leaders were liked were obtained using zero order

correlations. Results showed limited but partial support for Hypothesis 2. As predicted,

the "risk taker" self attribute was significantly related to the extent to which participants

liked the charismatic leader (r = .21, p < .05). Contrary to my hypotheses, "dynamic",

"motivational", and "group oriented" self attributes were not related to participants'

liking of the charismatic leader. Although not hypothesized, the "autocratic" self attribute

was also significantly related to the choice of the charismatic leader as the one liked the

43

most ($r = .28$, $\underline{p} < .01$). None of the proposed self attributes were found to be

significantly related to task-oriented leader liking. The "just" self attribute was

significantly related to the extent that the task-oriented was liked ($\underline{r} = .22$, $\underline{p} < .05$),

although this was not hypothesized. Finally, as hypothesized, the "autocratic" self

attribute was significantly negatively related to relationship-oriented leader liking (in

terms of both choice of the relationship-oriented leader and the extent to which the leader

was liked). Contrary to my hypotheses, relationship-oriented leader liking was not

related to "compassionate", "just", or "assertive" self attributes.

    Explicit self schema measure results. Correlations between *explicit* self-schema

attributes and leadership liking are shown in Table 12. As with implicit schemas (Table

11), relationships between explicit self attributes and the *choice* of the leader liked the

most was analyzed using point-biserial correlations in which choice of the leader was the

dichotomous dependent variable. Relationships between explicit self attributes and

ratings of the *extent* to which the three types of leaders were liked were obtained using

zero order correlations.

    The use of an explicit self-schema measure also provided partial support for

Hypothesis 2. As expected, the explicit self attributes of "plans ahead" ($\underline{r} = .28$, $\underline{p} < .05$)

and "reliable" ($\underline{r} = .35$, $\underline{p} < .01$) were significantly related to the liking rating of the task-

oriented leader. Contrary to my hypotheses, "assertive", "decisive", and "procedural"

self attributes were not related to task-oriented leader liking. The self attributes

"motivational" ($\underline{r} = -.24$, $\underline{p} < .05$), "risk taker" ($\underline{r} = -.21$, $\underline{p} < .05$), and "compassionate" ($\underline{r} =$

$-.23$, $\underline{p} < .05$) were also significantly negatively related to task-oriented leader liking,

although I did not predict this finding.

As predicted for the relationship-oriented leader, participants' explicit "compassionate" self attribute was significantly related to the extent to which they liked ($r = .27$, $p < .05$) and chose ($r = .29$, $p < .01$) the relationship-oriented leader as the one they liked the most. Contrary to hypotheses, "just", "autocratic", and "assertive" self schema attributes were not significantly related to relationship-oriented leader liking. However, "motivational" ($r = .35$, $p < .01$) and "group oriented" ($r = .28$, $p < .01$) self attributes were significantly related to relationship-oriented leader liking, although this was not hypothesized.

Finally, relationships between hypothesized self attributes and charismatic leader liking failed to support Hypothesis 2 in that none of the hypothesized relationships were found to be significant: "dynamic", "motivational", "risk taker", and "group oriented" self attributes were not related to charismatic leader liking. Instead, the self attributes "procedural" ($r = .23$, $p < .05$) and "plans ahead" ($r = .25$, $p < .05$) were significantly related to charismatic leader liking, although this was not predicted.

Overall, these results provide partial support for the relationship between self-schema and leadership liking. Interestingly, the self attributes that were found to be related to leadership liking using the implicit schema measure were not the same attributes found to be significant using the explicit schema measure. Consistent with the conclusions reached by comparing the correlations between the implicit and explicit measures, these results imply that different information is being captured by the two separate methodologies.

The relationship between personality and leadership schema. Hypothesis 3a – 3c predicted that follower personality traits would be related to the structure of their

45

leadership schemas. More specifically, I hypothesized that participants who scored low on a particular personality trait would have trait-related attributes as central to their leadership schemas. In other words, a person low on Extroversion would think of extroverted (i.e., assertive, dynamic, motivational, risk taking) attributes as critical for an outstanding leader; a person low on Agreeableness would think of agreeable (i.e., group oriented, compassionate, just, not autocratic) attributes as critical for an outstanding leader; and a person low on Conscientiousness would likely have conscientious (i.e., decisive, procedural, reliable, plans ahead) characteristics as critical, or central, for an outstanding leader.

Implicit leadership schema measure results. In order to test whether schema measurement order affected this relationship, I ran moderated regressions and analyzed the interaction effects between personality and schema order on leadership schema centrality values. The ΔF interaction value for each of the hypothesized personality trait – leadership schema attribute relationships was averaged across personality traits to obtain an average ΔF value. Results indicated that the interaction between schema order and personality on leadership schemas was not significant (ΔF $(1,143) = 1.12$, p>.05). These results indicated that schema order did not significantly influence the relationships between personality and leadership schema centrality values. Therefore, the "order of schema measurement" experimental factor was not included in subsequent analyses.

As shown in Table 13, implicit schema centrality values provided partial support for the more general hypothesis that personality would be related to leadership schema structure. However, followers' personalities were found to be *positively* related to leadership schema centrality scores: For the trait of conscientiousness, two out of four

hypothesized relationships were significant (but in the opposite direction hypothesized) in that Conscientiousness was significantly *positively* related to the "plans ahead" (r = .29, p < .01) and "reliable" (r = .16, p < .05) leader attributes (Hypothesis 3c). Contrary to hypotheses, Conscientiousness was not related to the leadership attributes "decisive" or "procedural". The relationship between Extroversion and the leader attribute "assertive" also approached significance in the opposite direction hypothesized (r = .14, p < .10) (Hypothesis 3a), although the hypothesized relationships between Extroversion and the leader attributes "dynamic", "motivational", and "risk taker" were not significant. Finally, none of the hypothesized relationships between Agreeableness and the leader attributes "group oriented", "compassionate", "just", and "autocratic" were found to be significant. Although not hypothesized, Conscientiousness was also significantly related to the implicit leadership attribute "just" (r = .22, p < .01) and Agreeableness was significantly related to the leader attribute "procedural" (r = .18, p < .05).

 Explicit leadership schema measure results. The *explicit* leadership schema measure showed much stronger support for the relationship between personality and leadership schema attribute. Eight out of twelve of the hypothesized relationships were significant, but again, mostly in the opposite direction hypothesized (see Table 14). Extroversion was significantly *positively* related to the "dynamic" explicit leadership attribute (r = .15, p < .05), but was not found to be related to the other hypothesized leadership attributes of "assertive", "motivational", and "risk taker". Agreeableness was *positively* related to the explicit leader attributes "group oriented" (r = .28, p < .01), "compassionate" (r = .46, p < .01), and "just" (r = .14, p < .05), but was not related to the "autocratic" leader attribute as hypothesized. Finally, Conscientiousness was found to be

significantly related to all four hypothesized attributes, although three out of four were in the opposite direction hypothesized: Conscientiousness was significantly *negatively* related to the "decisive" leadership attribute ($r = -.21$, $p < .01$), as hypothesized, but it was *positively* related to "procedural"($r = .26$, $p < .01$), "plans ahead" ($r = .18$, $p < .05$), and "reliable" ($r = .19$, $p < .05$) explicit leadership attributes. In summary, these results suggest that followers' personalities are related to their leadership schemas. However, contrary to the direction of my hypotheses, it appears that followers' prototypes of their outstanding leader is one who is similar to themselves and not a leader who has complementary characteristics.

The relationship between leadership schema and leader effectiveness. Hypothesis 4 predicted that leadership schema structure would be related to follower perceptions of leadership effectiveness for one of three leadership styles. More specifically, I predicted that followers with "dynamic", "motivational", "risk taker" and "group-oriented" attributes as central to their leadership schemas would be more likely to endorse charismatic leaders as the most effective leader for themselves; followers with "assertive", "decisive", "procedural", "plans ahead", and "reliable" as central leadership schema attributes would be more likely to endorse task-oriented leaders as the most effective for themselves; and followers with "compassionate" and "just" as central leadership schema attributes would be more likely to endorse relationship-oriented leaders as the most effective for themselves while followers with "autocratic" and "assertive" as central leadership schema attributes would be less likely to endorse relationship-oriented leaders.

Implicit leadership schema measure results. A set of moderated regressions were run in order to examine the extent to which order of schema measurement may have moderated the hypothesized relationships between leadership schema attributes and leadership effectiveness ratings. The ΔF interaction value for each of the hypothesized leadership schema attribute-leadership effectiveness relationships was averaged across leadership styles to obtain an average ΔF value. Results indicated that the overall interaction between schema order and leadership schema attributes on leadership effectiveness ratings was not significant (average ΔF $(1,65) = .59$, $\underline{p} > .05$). These results indicated that schema order did not significantly influence the relationships between leadership schema centrality values and leadership effectiveness ratings. Therefore, the "order of schema measurement" experimental factor was not included in subsequent analyses.

Table 15 lists the correlations between implicit leadership schema attributes and leader effectiveness. Relationships between implicit leader attributes and the *choice* of the most effective leader for the respondent was analyzed using point-biserialcorrelations in which choice of the leader was the dichotomous dependent variable. Relationships between leader attributes and ratings of the *extent* to which the three types of leaders were effective for the respondent were obtained using zero order correlations.

Results showed limited but partial support for Hypothesis 4. As predicted, the "decisive" leader attribute was significantly related to both the choice of the task-oriented leader ($\underline{r} = .30$, $\underline{p} < .01$) and the extent to which the task-oriented leader was effective for the respondent ($\underline{r} = .24$, $\underline{p} < .05$). Also as predicted, the "procedural" leader attribute was significantly related to the choice of the task-oriented leader as the most effective ($\underline{r} = $

.28, $p < .05$). Contrary to my hypotheses, "assertive", "plans ahead", and "reliable" implicit leader attributes were not related to task-oriented leader effectiveness. Although not hypothesized, "dynamic" ($r = .25$, $p < .05$), "group- oriented" (choice: $r = .23$, $p < .05$) (extent: $r = .21$, $p < .05$), and "autocratic" ($r = .31$, $p < .01$) leader attributes were also positively correlated with task-oriented leader effectiveness.

None of the proposed implicit leader schema attributes were found to be significantly related to charismatic leader effectiveness endorsement. However, although not hypothesized, "decisive" ($r = -.27$, $p < .05$) and "procedural" ($r = -.21$, $p < .05$) implicit leadership attributes were significantly negatively related to choice of the charismatic leader as most effective, while the "plans ahead" implicit leadership attribute was significantly positively related to the extent of charismatic leader effectiveness ($r = .21$, $p < .05$).

Finally, none of the predicted implicit leader schema attributes were found to be significantly related to relationship-oriented leader effectiveness endorsement. Although not hypothesized, only the leader attribute "reliable" was significantly negatively related to the extent of relationship-oriented leader effectiveness ($r = -.23$, $p < .05$).

Explicit leadership schema measure results. The relationship between *explicit* leadership schema attributes and leadership effectiveness were also analyzed (Table 16). As with implicit schemas (Table 15), relationships between explicit leadership attributes and the *choice* of the most effective leader for the respondent was analyzed using point-biserial correlations in which choice of the leader was the dichotomous dependent variable. Relationships between explicit leadership attributes and ratings of the *extent* to

which the three types of leaders were effective were obtained using zero order correlations.

The use of an explicit leadership schema measure also provided partial support for Hypothesis 2. As expected, the explicit leader attribute "compassionate" was significantly related to the extent of relationship-oriented leader effectiveness ($r = .21$, $p < .05$). Although not hypothesized, the "group-oriented" leadership attribute was also significantly related to both the choice ($r = .27$, $p < .05$) and extent ($r = .33$, $p < .01$) of relationship-oriented leader effectiveness.

None of the hypothesized relationships between leadership attribute and charismatic leadership effectiveness were found to be significant using the explicit schema measure. However, the "autocratic" ($r = .26$, $p < .05$) and "procedural" (choice: $r = .23$, $p < .05$) (extent: $r = .20$, $p < .05$) explicit leadership attributes were found to be significantly related to charismatic leadership effectiveness.

Finally, none of the hypothesized relationships between leadership attribute and task-oriented leader effectiveness were significant. However, the "risk taker" leadership attribute was significantly negatively related to the extent of task-oriented leader effectiveness ($r = -.20$, $p < .05$). Overall, these results showed limited support for the theorized relationships between followers' leadership schemas and their endorsements of effective leadership style.

Post-Hoc Analyses

Implicit leader and self-schema measures predicting leader effectiveness endorsement. To test whether the significant relationships with leader effectiveness

51

endorsement (Table 15) were truly due to participants' implicit *leadership* schemas and not due to their *self* schemas, I conducted multiple regressions to predict the "extent of leader effectiveness" and I conducted logistic regressions to predict the "choice of the most effective leader for the participant" using both implicit leader schemas and self-schemas as predictors. A total of eleven separate regressions were run to predict leader effectiveness in which the predictors for each analysis were paired self and leader implicit attributes (see Table 17). The attributes chosen for regression were those for which implicit leader attributes were significantly related to leader effectiveness (i.e., Table 15). By entering both the self and leader attribute simultaneously into one regression, I ascertained the extent to which the leadership schema attribute predicted leader effectiveness while accounting for the corresponding self-schema attribute. In other words, these multiple regressions were run to test whether or not followers' leadership schemas truly did relate to leader effectiveness perceptions, or whether the relationships found between these variables was really due to their self-schemas and the shared variance between their self and leadership schemas.

The results of this analysis are shown in Table 17 and as can be seen, only the implicit *leader* attribute predictors were significant or approached significance for eight out of the eleven regressions whereas the *self* attribute predictors were significant or approached significance for only one out of eleven regression analyses. Nonparametric binomial tests indicated that the significance of eight out of eleven regressions for the leader attribute predictors is greater than what would be expected by chance (p<.01) while the proportion of self attribute predictors that were found to be nonsignificant was

greater than what would be expected by chance (p<.01). These results suggest that leadership schemas and not self schemas predict leader effectiveness.

In terms of significant relationships with charismatic leader effectiveness, results showed that when "decisive" is more central to a person's implicit leadership schema (by one Standard Deviation [SD] unit), s/he is 45% less likely to pick a charismatic leader as the most effective for him/her (Exp(B) = .55, $\underline{p}$ < .05). In addition, a trend was found that when "procedural" is more central to a person's leadership schema (by one SD unit), s/he is 32% less likely to pick a charismatic leader as the most effective for him/her (Exp(B) = .68, $\underline{p}$ < .10); and when "plans ahead" is more central to a person's leadership schema, the more a charismatic leader is perceived as effective for him/her (β = .23, $\underline{p}$ < .10, sr^2 = .05).

In terms of significant relationships with task-oriented leader effectiveness, results showed that when "dynamic" is more central to a person's implicit leadership schema (by one SD unit), s/he is 45% more likely to pick a task-oriented leader as the most effective for him/her (Exp(B) = 1.45, $\underline{p}$ < .05); when "procedural" is more central to a person's leadership schema (by one SD unit), s/he is 56% more likely to pick a task-oriented leader as the most effective (Exp(B) = 1.56, $\underline{p}$ < .05); in addition, when "autocratic" is more central to a person's leadership schema, the more a task-oriented leader is perceived as effective for him/her (β = .29, $\underline{p}$ < .05, sr^2 = .08). Trends were also found such that when "group-oriented" is more central to a person's leadership schema (by one SD unit), s/he is 39% more likely to pick a task-oriented leader as the most effective for him/her (Exp(B) = 1.39, $\underline{p}$ < .10) whereas when "decisive" is more central to

53

a person's leadership schema (by one SD unit) s/he is 58% more likely to pick a task-oriented leader as the most effective (Exp(B) = 1.58, $\underline{p}$ <.10).

In terms of relationship-oriented leader effectiveness, results showed a trend such that when "reliable" is more central to a person's implicit leadership schema, the less the relationship-oriented leader is perceived as effective for him/her (β = -.23, $\underline{p}$ < .10, sr^2 = .05).

It appears that the implicit self-schema rather than the leadership schema significantly predicted leader effectiveness for only one relationship: When self and leader "decisive" attributes were the predictors, 9% of the unique variance of the extent that the task-oriented leader is the most effective was due solely to the self attribute "decisive" (β = .31, $\underline{p}$ < .05, sr^2 = .09). Recall that in Table 15, the leader attribute "decisive" was significantly related to the extent of task-oriented leader effectiveness. It now seems that this relationship was the result of shared variance between the "decisive" self attribute and the "decisive" leader attribute. In other words, people who have "decisive" as a central self-concept perceive task-oriented leaders as highly effective. Nevertheless, the overall pattern of results on Table 17 suggests that implicit leadership schema was the main contributor to leader effectiveness for these relationships.

Overall, these results using implicit schemas suggest that people who have "plans ahead" as a central leadership schema tend to perceive charismatic leaders as being highly effective for them, but people who have "decisive" or "procedural" as central leadership schemas are less likely to choose the charismatic leader as the most effective for them.

In line with hypotheses, the results also suggest that individuals who have "decisive" or "procedural" as central to their leadership schemas are more likely to choose task-oriented leaders as the most effective for them. Furthermore, task-oriented leaders are also seen as effective by followers who have "autocratic" as central to their leadership schemas, and are likely to be chosen as the most effective by followers who have "dynamic" or "group-oriented" as central to their leadership schemas.

In terms of relationship-oriented leader effectiveness, the results suggest that individuals who have "reliable" as central to their leadership schemas are less likely to perceive the relationship-oriented leader as effective for them.

<u>*Explicit* leader and self-schema measures predicting leader effectiveness.</u> The same type of analyses as above were run using the results based on *explicit* leadership schemas (i.e., Table 16) to test whether the significant relationships with leader effectiveness endorsement were truly due to participants' leadership schemas and not due to their self schemas. That is, I conducted multiple regressions to predict the "extent of leader effectiveness" and I conducted logistic regressions to predict the "choice of the most effective leader for the participant" using both explicit leader schemas and self-schemas as predictors. A total of seven separate regressions were run to predict leader effectiveness in which the predictors for each analysis were paired self and leader explicit attributes (see Table 18). The attributes chosen for regression were those for which explicit leader attributes were significantly related to leader effectiveness (i.e., Table 16). By entering both the self and leader attribute simultaneously into one regression, I ascertained the extent to which the leadership schema attribute predicted leader effectiveness while accounting for the corresponding self-schema attribute.

55

The pattern of results using *explicit* schema attributes was more ambiguous than the pattern using implicit schema attributes. Only the explicit *leader* attribute predictors were significant or approached significance for three out of the seven regressions listed in Table 18, while only the explicit self attribute predictors approached significance for two out of the seven regressions. For one set of paired attribute predictors (group-oriented), both self and leader attributes predicted a significant amount of independent variance in relationship-oriented leader effectiveness (self: $\beta = .28$, $\underline{p} < .05$, $sr^2 = .07$; leader: $\beta = .244$, $\underline{p} < .05$, $sr^2 = .05$). Nonparametric binomial tests indicated that the significance of three out of seven regressions for the explicit leader attribute predictors is greater than what would be expected by chance ($p < .01$) while the proportion of self attribute predictors that were found to be nonsignificant was greater than what would be expected by chance ($p < .01$). Although the relationship between leadership schema and leader effectiveness using explicit schemas was not as clear cut as with implicit schemas, these results suggest that, concurrent with the results found using implicit schemas, explicit leadership schemas and not self schemas predict leader effectiveness.

In terms of significant relationships with charismatic leader effectiveness, results showed that when "autocratic" is more central to a person's explicit leadership schema (by one SD unit). s/he is 90% more likely to pick a charismatic leader as the most effective for him/her (Exp(B) = 1.90, $\underline{p} < .05$). A trend was also found such that when "procedural" is more central to a person's explicit leadership schema (by one SD unit), s/he is 77% more likely to pick a charismatic leader as the most effective for him/her (Exp(B) = 1.77, $\underline{p} < .10$); when "procedural" is more central to a person's explicit self-

56

schema, the more a charismatic leader is perceived as effective for him/her ($\beta = .27$, $\underline{p} <$ .10, $sr^2 = .04$).

In terms of relationships with task-oriented leader effectiveness, results using explicit schemas showed a trend such that task-oriented leaders are not thought of as very effective by people who have "risk taker" as central to their leadership schema ($\beta = .24$, $\underline{p}$ $< .10$, $sr^2 = .04$).

In terms of significant relationships with relationship oriented leader effectiveness, results using explicit schemas suggest that people who have "group-oriented" as central to their self-concept ($\beta = .28$, $\underline{p} < .05$, $sr^2 = .07$) and people who have "group-oriented" as central to their leadership schema ($\beta = .24$, $\underline{p} < .05$, $sr^2 = .05$) are more likely to perceive the relationship-oriented leader as effective for them. There was also a trend such that people who have "group-oriented" as central to their leadership schema are 96% more likely to pick the relationship-oriented leader as the most effective leader for them (Exp(B) = 1.96, $\underline{p} < .10$).

Overall, the results using explicit schemas suggest that people who have "procedural" as a central self-concept tend to perceive that charismatic leaders are highly effective for them; people who have "autocratic" or "procedural" as central self-concepts, are also more likely to choose the charismatic leader as the most effective for them. Results also suggest that people who have "risk taker" as central to their leadership schema are less likely to perceive task-oriented leaders as effective. In addition, people who have "group-oriented" as central to either their self-schema or leadership schema are more likely to perceive the relationship-oriented leader as effective for them.

<u>Implicit leader and self-schema measures predicting leader l*iking*</u>.   Recall that

Hypothesis 2 predicted that self-schema centrality would be related to leader liking. The

results of this hypothesis were listed on Table 11. To test whether these significant

relationships with leader liking endorsement were truly due to participants' *self*-schemas

and not due to their *leadership* schemas, I conducted multiple regressions to predict the

"extent the leader is liked" and I conducted logistic regressions to predict the "choice of

the leader liked the most" using both implicit leader schemas and self-schemas as

predictors. A total of five separate regressions were run to predict leader liking in which

the predictors for each analysis were paired self and leader implicit attributes (see Table

19). The attributes chosen for regression were those for which implicit self attributes

were significantly related to leader liking (i.e., Table 11). By entering both the self and

leader attribute simultaneously into one regression, I ascertained the extent to which the

self-schema attribute predicted leader liking while accounting for the corresponding

leadership schema attribute.

When examining the pattern of results, only the implicit *self* attribute predictors

were significant or approached significance for four out of the five regressions listed in

Table 17, while none of the leader attributes in the sets of paired predictors were

significantly related to leader liking. Nonparametric binomial tests indicated that the

significance of four out of five regressions for the self attribute predictors is greater than

what would be expected by chance ($\underline{p} < .01$). These results suggest that implicit self-

schemas and not leadership schemas predict leader liking.

In terms of significant relationships with charismatic leader liking, results showed

that when "autocratic" is more central to a person's implicit self-schema (by one SD

unit), s/he is 29% more likely to pick a charismatic leader as the leader liked the most

(Exp(B) = 1.29, $\underline{p} < .05$). Trends in the results also showed that task-oriented leaders are

liked by people who have "just" as a central self-concept ($\beta = .22$, $\underline{p} < .10$, $sr^2 = .05$). The

results for relationship-oriented leader liking are inconclusive as it appears that there are

both positive and negative trends for the relationship between the "autocratic" self-

schema and leader liking: the more central "autocratic" is to a person's implicit self-

schema, the more likely s/he is to pick the relationship-oriented leader as the one most

liked, but the less likely s/he is to like the leader in terms of the extent of liking.

     Explicit leader and self-schema measures predicting leader liking.   The same

type of analyses as above were run using the results based on *explicit* self schemas as an

additional test of whether the significant relationships with leader liking endorsement

were truly due to participants' self schemas and not due to their leadership schemas. That

is, I conducted multiple regressions to predict the "extent the leader is liked" and I

conducted logistic regressions to predict the "choice of the leader liked the most" using

both explicit leader schemas and self-schemas as predictors. A total of eleven separate

regressions were run to predict leader liking in which the predictors for each analysis

were paired self and leader explicit attributes (see Table 20). Attributes chosen for

regression were those for which explicit leader attributes were significantly related to

leader liking (see Table 12). By entering both the self and leader attribute simultaneously

into one regression, I ascertained the extent to which the self-schema attribute predicted

leader liking while accounting for the corresponding leadership schema attribute.

     When examining the pattern of results, only the implicit *self* attribute predictors

were significant or approached significance for seven out of the eleven regressions listed

in Table 17, while none of the leader attributes in the sets of paired predictors were significantly related to leader liking. A nonparametric binomial test indicated that the significance of seven out of eleven regressions for the self attribute predictors is greater than what would be expected by chance ($p<.01$). Overall, the pattern of results on Table 20 mirrors the pattern found using implicit schema measures in that it suggests that self schema was the main contributor to leader liking for these relationships.

In terms of significant relationships with charismatic leader liking, results showed that the more "procedural" is central to a person's explicit self-schema, the more the person likes the charismatic leader ($\beta = .43$, $p < .01$, $sr^2 = .10$). There was also a trend such that when "procedural" is central to a person's leadership schema, the less the person likes the charismatic leader ($\beta = -.30$, $p < .10$, $sr^2 = .05$).

In terms of significant relationships with task-oriented leader liking, results showed that when "motivational" is more central to a person's explicit self-schema (by one SD unit), s/he is 56% less likely to pick the task-oriented leader as the one liked the most ($Exp(B) = .44$, $p < .05$); however, when "reliable" is more central to a person's explicit self-schema, the more the person likes the task-oriented leader ($\beta = .31$, $p < .05$, $sr^2 = .08$). Trends in the results also showed that when "compassionate" is more central to a person's explicit self-schema, s/he is 68% less likely to pick the task-oriented leader as the one liked the most ($Exp(B) = .32$, $p < .10$) but when "plans ahead" is more central to a person's self-schema, the more the person likes the task-oriented leader ($\beta = .31$, $p < .05$, $sr^2 = .08$).

In terms of significant predictors of relationship-oriented leader liking, results showed that when "motivational" ($\beta = .44$, $p < .01$, $sr^2 = .16$) or "compassionate" ($\beta =$

.49, $\underline{p} < .05$, $sr^2 = .10$) is more central to a person's explicit self-schema, the more a person likes the relationship-oriented leader. Trends in the results also suggested that when "group-oriented" is more central to a person's explicit self-schema, the more a person likes the relationship-oriented leader ($\beta = .25$, $\underline{p} < .10$, $sr^2 = .05$).

Overall, these results using explicit schemas suggest that charismatic leaders are liked by people who have "procedural" as a central self-concept, but may not be liked as well by people who have "procedural" as central to their leadership schema. As hypothesized, these results also suggest that task-oriented leaders are liked by people who have "plans ahead" or "reliable" as central self-concepts. In addition, task-oriented leaders are less likely to be chosen as the leader liked the most by people who have "motivational" or "compassionate" as central self-concepts.
Also as hypothesized, these results suggest that relationship-oriented leaders are liked by people have "compassionate" as a central self-concept. In addition, this type of leader is liked by people who have "motivational" or "group-oriented" as central to their self-concepts.

Experience and implicit self-schema measure predicting implicit leadership schema measure. This study explored how individual characteristics affect schema structure. I was also interested in examining additional influences on leadership schemas. For instance, Lord and his colleagues (Lord et al., 1984) describe how leadership schemas are shaped by past experience with leaders.

Post-hoc analyses found that for some schema attributes, the structure of both self and leadership schemas predict leader effectiveness perceptions. This finding raised the possibility that there may be a relationship between the structure of self and leadership

61

schemas. Cognitive researchers have also theorized that people's self-schemas may influence their leadership schemas. For example, Lord and his colleagues have proposed that individuals with independent self-schemas are more likely to have participative leadership schemas, whereas individuals with dependent self-schemas are more likely to have directive leadership schemas (Lord et al., 2001). However, researchers have not yet empirically examined the extent to which people's leadership schemas may be influenced by their self-schemas.

Therefore, using hierarchical regressions, I conducted additional analyses to examine the extent to which participants' experience with leaders predicted each of their implicit leadership attributes and the extent that their implicit self attributes predicted their corresponding leader attributes, after accounting for experience with leaders. The demographic variable "experience with leaders" was entered in the first step, the implicit self attribute was entered in the second step, and the interaction term was entered in the final step of each regression. Table 21 shows the results of all twelve hierarchical regressions.

Results showed that there were nine significant implicit self attribute main effects on their respective implicit leader attributes: the self attributes "assertive" ($\beta = .35$, $p < .01$), "dynamic" ($\beta = .17$, $p < .05$), "motivational" ($\beta = .30$, $p < .01$), "risk taker" ($\beta = .26$, $p < .01$), "compassionate" ($\beta = .34$, $p < .01$), "just" ($\beta = .20$, $p < .05$), "autocratic" ($\beta = .20$, $p < .05$), "decisive" ($\beta = .17$, $p < .05$), and "plans ahead" ($\beta = .31$, $p < .01$) were significantly related to their respective leadership attributes and explained between 3 to 12% ($M = 7\%$) of the variance in their implicit leadership attributes.

Results also showed that the interaction term between the "group-oriented" implicit self attribute and experience with leaders was significant in predicting the "group-oriented" implicit leadership attribute (β = -1.11, $\underline{p}$ < .05). The interaction, shown in Figure 3, indicates that the negative relationship between followers' "group-oriented" self attribute and leadership attribute is stronger for those people who had more experience with leaders.

Table 21 also reveals that there were several demographic main effects on implicit leadership attributes. Past experience with leaders significantly predicted "dynamic" (β = .22, $\underline{p}$ < .01) and "reliable" (β = .18, $\underline{p}$ < .05) implicit leader attributes These results indicate that individuals with more experience with leaders tend to have "dynamic" and "reliable" as central leadership schema attributes.

<u>Experience and explicit self-schema measure predicting explicit leadership schema measure.</u> The same type of analyses described in the previous section was used to predict *explicit* leadership schema attributes using past experience with leaders and *explicit* self attributes. That is, using hierarchical regression analyses, I examined the extent to which participants' experience with leaders predicted each of their explicit leadership attributes and the extent that their explicit self attributes predicted their corresponding leader attributes, after accounting for past experience with leaders. The demographic variable "experience with leaders" was entered in the first step, the explicit self attribute was entered in the second step, and the interaction term was entered in the final step of each regression. Table 22 shows the results of all twelve hierarchical regressions.

The use of explicit measures of schemas showed that all twelve explicit self attributes significantly predicted their corresponding leadership attributes. That is, after controlling for past experience with leaders, the explicit self attribute ratings for "assertive" (β = .48, p < .01), "dynamic" (β = .41, p < .01), "motivational" (β = .42, p < .01), "risk taker" (β = .59, p < .01), "group-oriented" (β = .44, p < .01), "compassionate" (β = .68, p < .01), "just" (β = .63, p < .01), "autocratic" (β = .63, p < .01), "decisive" (β = .46, p < .01), "procedural" (β = .65, p < .01), "plans ahead" (β = .46, p < .01), and "reliable" (β = .50, p < .01) explained between 17 and 46% (M = 29%) of their respective explicit leadership attribute ratings.

Finally, Table 22 also reveals that there was a demographic main effect on explicit leadership attributes. Past experience with leaders negatively predicted "assertive" (β = -.18, p < .05) explicit leader attribute ratings. This indicates that individuals with more experience with leaders are less likely to have "assertive" as central to their leadership schemas.

Personality and leadership liking endorsement. Correlations were also run to determine the relationship between personality traits and leadership liking endorsement in terms of choice and extent of liking for the three types of leaders (Table 23). The only personality trait that was found to be significant with leader liking was Agreeableness: Results suggest that respondents high on Agreeableness are more likely to choose the relationship-oriented leader as the one liked the most out of the three leaders (r = .29, p < .05) and are more likely to rate the relationship-oriented leader higher in terms of liking (r = .29, p < .05) as opposed to individuals low on Agreeableness. In addition, results suggest that individuals high on Agreeableness are less likely to choose the task-oriented

64

leader as the one liked the most (r = -.30, p < .05). These results are consistent with the

basic premise that individuals like leaders similar to themselves; conversely, it appears

that individuals also do not like leaders who are dissimilar to them.

       Personality and leadership effectiveness endorsement. Correlations were also run

to determine the relationship between personality traits and leadership effectiveness in

terms of choice and extent of perceived effectiveness of the three types of leaders (Table

24). None of the relationships were significant.

Discussion

Based on past research in cognition, personality, and leadership, the main goals of this study were to examine 1) the relationship between followers' personalities and their cognitive schemas about themselves and leaders; 2) how follower's self-schemas influence the type of leader they like; and 3) how follower's leadership schemas influence the type of leader they believe is most effective for them. By testing these relationships, I attempted to clarify the distinction between the outcomes of leadership liking and leadership effectiveness. In addition, I also examined the influence of self-schemas and past experience with leaders on leadership schemas.

I assessed self-schemas and leadership schemas using explicit and implicit measures of these schemas. As indicated earlier, participants directly rated the importance of various attributes for the explicit measure of self and leader schemas. The implicit measure of attribute importance was the derived measure of centrality obtained using the Pathfinder algorithm on paired comparison ratings of schema attributes. In this section, I will first discuss the results of this study for both the implicit and explicit schema measures. I will then compare the results from the explicit and implicit schema measures. Finally, I will discuss the study's implications and limitations.

Follower personality and schemas

The results provide some support for my hypothesis that aspects of people's self-schemas reflect their personality traits. The cumulative findings from explicit and implicit schema measures suggest that extroverted people are more likely to have "risk taker", "dynamic", "motivational", or "assertive" as central self-concepts than are

66

introverted people. Conscientious people, on the other hand, are more likely to have "plans ahead", "procedural", or "reliable" as central to their self-concept. Agreeable people are more likely to have "compassionate", "group- oriented", "dynamic", "motivational", or "just" as central self-concepts. They are less likely to have "assertive" or "autocratic" central self-concepts. The majority of these results were consistent with specific hypotheses about personality and the structure of self-schemas and support previous research which found significant relationships between personality and self schema (e.g., Siem, 1998).

In terms of the relationship between personality and the structure of leadership schemas, I hypothesized that the structure of leadership schemas would be complementary to the individual's own personality. More specifically, I hypothesized that followers who were low on Conscientiousness would have leadership schemas in which "decisive", "procedural", "reliable" and "plans ahead" were central concepts. The results, however, were in the opposite direction. While Conscientiousness was related to the structure of leadership schemas, highly conscientious participants tended to have leader schemas in which "plans ahead", "procedural", "reliable", and "just" were central concepts. Further, extroverted participants had leader schemas in which "dynamic" and "assertive" were central concepts. Finally, agreeable participants had leader schemas in which "compassionate", "group-oriented", "just", and "procedural" were central concepts. However, consistent with my original prediction, my results showed that participants lower on conscientiousness had "decisive" as a more central attribute in their leadership schema than did more conscientious participants. Thus, while the majority of the findings indicated that people have leader schemas that are similar to their own

67

personalities, there was some support for a complementary personality and leader schema relationship. Future research should examine possible moderators that could explain why some personality-leader schema relationships were based on similarity while others may be based on complementarity. Recent research in social psychology suggests that self-esteem may be one such moderator: A study by Mathes and Moore (2001) found that low self-esteem individuals were more likely to be attracted to romantic partners on the basis of complementary characteristics than were the high self-esteem participants. Therefore, perhaps individuals with low self-esteem are more likely to have leadership schemas that are complementary to their personalities.

Personality and implicit versus explicit schema measures

These results suggest that participants' personalities are related to the structure of self and leadership schemas. This support was primarily obtained with the explicit schema ratings. Eleven out of the twelve hypothesized relationships were significant when personality was correlated with explicit self-schema attributes, compared to only three significant relationships with the implicit self-schema attribute centrality scores. Similarly, eight out of twelve hypothesized relationships were significant when personality was correlated with explicit leadership schema attributes, compared to only three significant hypothesized relationships with the implicit measure.

There are several possible reasons for the superiority of the explicit over the implicit measures for these hypotheses. For example, one possibility is that the implicit measure of schema structure may be more "sensitive" to noise, or error variance, than is the explicit schema measure. If this is true, then steps could be taken to improve the implicit measurement of schemas. For example, this study found that there was a

68

practice effect for schemas: the implicit schemas completed second by participants were more coherent and had higher centrality values than the schemas completed first. This suggests that participants became more comfortable with the implicit schema ratings with practice. Therefore, perhaps future studies using the Pathfinder algorithm to analyze implicit schemas should begin with a short practice section to familiarize participants with the kind of attribute ratings they will be doing.

Perhaps stronger results would have been found with the implicit measures if personality was operationalized more specifically to correspond with the schema attributes in question. That is, perhaps stronger relationships between personality traits and implicit schema attributes would have been found if the specific personality traits used were more tightly conceptually related to the schema attributes. For example, the Guilford Zimmerman Temperament Survey (GZTS) is a personality inventory that measures ten personality dimensions (Guilford, Zimmerman, & Guilford, 1976). The personality dimension "Sociability" of the GZTS measures the extent to which an individual seeks and develops social contacts and is indicative of people who are group oriented. The trait of Sociability appears to be more closely related to the implicit attribute "Group oriented" than the trait of Agreeableness that was used in the present study. Future research on the relationship between personality and implicit schemas should examine whether tighter conceptual links between the personality trait and schema attribute result in stronger relationships between constructs.

Another possible explanation for the stronger support for the personality-schema hypotheses with explicit measures is that both the personality measure and the explicit schema measures were given at the same point in time (i.e., mass testing). The implicit

measures were given approximately one month later. This difference in proximity of assessment with the personality measure may account for the differences in results. While this is a possible explanation for my results, it is important to note that the explicit schema measures predicted leadership liking and effectiveness, which was collected one month later. Future research should assess personality at a preliminary time point (e.g., mass testing) and then administer both the explicit and implicit schema measures at the second time point.

Self-schema and leader liking

I also hypothesized that there would be a connection between the structure of individuals' self-schemas and the extent to which they like certain kinds of leaders. In general, the results supported this hypothesis. While not all of my specific hypotheses were supported, the post-hoc analyses provided additional support that it is the attributes of the *self-schema* and not the leader schema that influence leader liking.

Overall, the relationships between the self-schema attributes and leadership liking suggest that individuals like the kind of leader who is similar to themselves. For example, results suggest that task-oriented leaders are liked by people who have "just", "reliable", or "plans ahead" as central self-concepts. Relationship-oriented leaders are liked by people who have "group-oriented", "motivational", and "compassionate" as central self-concepts.

Surprisingly, results suggest that charismatic leaders are liked by people who consider "autocratic" or "procedural" as central self-concepts.

This finding for charismatic leaders was unexpected. Since the overall pattern for the other two leadership styles appears to be that individuals like the kind of leader who

70

is similar to themselves, it may be that the charismatic leader was perceived by those who liked this leader as one who was forceful of his/her values on others and "went by the book". For example, the part of the charismatic leader description read by participants that says: "I work hard to communicate *my* vision…to my store managers [italics added]" can be construed as being forceful of his/her values on others. The part of the description that says, "I set high standards for my store managers. I expect them to work as hard as they can to reach those standards," can be construed as being procedural.

Although the extent a leader is liked by his/her followers is an interesting outcome, a more practical outcome of interest is the extent a leader is thought of as effective for his/her followers. This is because the ultimate goal of an effective manager/leader is not so much to be liked by his/her followers, but to be effective in driving results through leadership by motivating and energizing followers. In the next section, I discuss the leadership schema attributes that predict how effective a leader is perceived to be.

<u>Leadership schema and leader effectiveness</u>

I hypothesized that there would be a relationship between the structure of individuals' leadership schemas and the extent to which they perceived certain types of leaders to be effective. Similar to the results found for the relationship between self-schemas and leader liking, this study found partial support for the hypothesized relationships between participants' leadership schemas and perceived leader effectiveness. However, the post-hoc analyses found that when compared together, it was the centrality of the leadership schema attributes that predicted leader effectiveness and not the centrality of self-schema attributes.

Specifically, results suggest that people for whom "plans ahead" or "autocratic" are central leadership concepts perceive that charismatic leaders are highly effective for them. It is possible that the visionary aspect of charismatic leadership is seen as effective to individuals who think leaders should anticipate and prepare for the future. As for the importance of the autocratic attribute, again, one explanation is that participants in this study viewed the charismatic leader as one who presses his/her values onto others.

On the other hand, the results suggest that people who have "decisive" as a central leadership concept believe that charismatic leaders are the least effective for them. Instead, these individuals tend to choose the task-oriented leader as the most effective. Individuals who have "procedural" as a central leadership concept also tend to choose the task-oriented leader as the most effective.

Interestingly, task-oriented leaders are also seen as effective by individuals for whom "autocratic", "group oriented", or "dynamic" are central leadership concepts. This suggests that people perceive the task-oriented leader as forceful of his/her opinions on others, but also highly involved and concerned with the well-being of the group. For these individuals, it appears that task-oriented leader characteristics of setting the goals and explicitly laying out how and when tasks get done; being very hands-on and involved; and ensuring that managers aren't overwhelmed with impossible goals while coordinating work among group members to lessen conflict, are perceived as effective leadership qualities.

Finally, only two attributes predicted relationship-oriented leader effectiveness: Results suggest that people for whom "reliable" is a central leadership concept believe that relationship-oriented leaders are not very effective for them. Conversely, people for

whom "group oriented" is a central leadership concept <u>do</u> believe that relationship-oriented leaders are effective. Thus, it appears that a relationship-oriented leader is seen as concerned with group well-being, but not very dependable. It is possible that the emphasis by this type of leader on the relational or "softer" side of a leader-follower relationship (e.g., trust, kindness, respect, and appreciation of the follower) may have the potentially negative repercussion of being perceived as not focusing on accomplishing tasks.

Although most of the specific hypotheses linking self-schema to leader liking; and leadership schema to leader effectiveness were not supported, the results do provide support for the general hypotheses. That is, evidence was found for a relationship between personality and self- and leadership schemas; between self-schemas and leader liking; and between leadership schemas and leader effectiveness.

Implicit versus explicit schema measures and leadership endorsement

The results of this study suggest that the implicit and explicit methods of assessing schemas tap into different aspects of schema structure. For example, the self attributes that were found to be related to leadership liking using the *implicit* schema measure were not the same attributes found to be significant using the *explicit* schema measure, and vice versa. Similarly, the leader attributes that were found to be related to leadership effectiveness using the *implicit* schema measure were not the same attributes found to be significant using the *explicit* schema measure. These results imply that different information is being captured by the two separate methodologies.

Furthermore, a closer examination of the pattern of results suggest that *explicit self-schemas* may be a better predictor of leadership liking than *implicit self-schemas*,

73

while *implicit leadership schemas* may be a better predictor of leadership effectiveness than *explicit leadership schemas*. The majority of the trends and significant relationships between self schema attributes and leader liking (i.e., eight out of eleven) were obtained using the explicit measure of self-schema. The majority of the trends and significant relationships between leadership schema attributes and leader effectiveness (i.e., nine out of twelve) were obtained using the implicit measure of leadership schema. This pattern implies that a more conscious, deliberate cognitive process may occur in the perception of how much a leader is liked while a more unconscious, implicit cognitive process may occur in the perception of how effective a leader is. In order to test this hypothesis, future research could be conducted to determine if leader effectiveness perceptions are more influenced by implicit priming, for instance, than liking perceptions.

Additional influences on leadership schema

Post-hoc analyses found that for some schema attributes, the structure of both self and leadership schemas predict leader effectiveness perceptions. This finding raised the possibility that self and leadership schemas may overlap, leading to the question, "To what extent do self-schema attributes predict corresponding leadership schema attributes?" Leadership schemas may have also been influenced by participants' past experience with leaders. Therefore, in addition to the hypothesized relationships discussed above, I examined the possible influence of individuals' self-schemas and past experience with leaders on their leadership schemas. Below, I first discuss the results using implicit self-schema structure to predict implicit leadership schema structure in terms of main effects and interactions with experience with leaders. I then discuss the results using explicit self-schemas to predict explicit leadership schemas, followed by a

74

review of any main effects due to experience with leaders on implicit and explicit

leadership schemas. I will then compare the findings using implicit schemas versus

explicit schemas.

Implicit self schemas predicting implicit leadership schemas. Analyses suggest

first and foremost that respondents' implicit self-schemas do substantially predict their

implicit leadership schemas. In fact, ten out of twelve implicit self-schema attributes

either directly predicted the corresponding implicit leadership schema attribute, or

interacted with experience with leaders to predict leadership schema. The majority (nine

out of twelve) of the implicit self-schema attributes directly predicted their corresponding

implicit leadership schema attributes after controlling for experience with leaders. More

specifically, results suggest that individuals who have "assertive", "dynamic",

"motivational", "risk taker", "compassionate", "just", "autocratic", "decisive" or "plans

ahead" as central to their self-concepts are more likely to have the same attribute as

central to their leadership schemas.

Results also suggested that, especially for those with more experience with

leaders, individuals for whom "group oriented" is *not* central to their self-concepts were

likely to have "group oriented" as central to their leadership schemas. That is, perhaps as

individuals have more experiences with leaders (i.e., more experience as a follower) their

leadership schemas evolve such that a person who does not see himself as group-oriented

grows to see the benefits of working under a group-oriented leader.

Explicit self schemas predicting explicit leadership schemas. The relationship

between *explicit* self and leadership schemas mainly corroborated the overall pattern

found using implicit measures: again, it appears that participants' leadership schema

attributes are largely predicted by their corresponding self-schema attributes. However, in the case of explicit schema measures, self-schemas accounted for much more of the variance in leadership schemas compared with implicit schema measures, suggesting that implicit measures may be better at separating, or distinguishing, self and leadership schemas.

Overall, analyses using explicit schemas showed that allattributes exhibited a positive main effect between self schema attributes and the corresponding leadership schema attribute. For example, respondents who reported that assertiveness was important to their self-concept were more likely to report that assertiveness was an important attribute for an outstanding leader.

Main effect of past experience with leaders on leadership schemas. Besides self-schema main effects, individuals' past experience with leaders in a work environment in terms of both experience with a number of leaders and years of experience also directly influenced their implicit and explicit leadership schemas. The results suggest that individuals who have little experience working under a leader tend to believe that assertiveness is a central leadership concept. In contrast, individuals with more experience with (and therefore knowledge of) leaders have leadership schemas in which "dynamic" and "reliable" are central concepts. In support of these findings, it is interesting to note that the literature on transformational leadership has found that the most effective leaders have both transactional (e.g., reliable) and transformational (e.g., dynamic) qualities (Bass, Avolio, Jung, & Bernson, 2003).

Comparison of implicit versus explicit schema findings. The overall conclusion based on results from both the explicit and implicit schema measures is that self-schema

76

structure <u>does</u> influence leadership schema structure. These relationships between self attributes and corresponding leader attributes were stronger for the explicit schemas. In fact, for a couple of attributes (i.e., 'procedural' and 'reliable'), no relationships were found between the *implicit* self and leader attributes, but these relationships were strongly supported using the explicit schema measures. These results suggest that the implicit measure of schemas may be better at distinguishing between self and leadership schemas.

Overall, the post-hoc analysis discussed above aimed to examine the effect of self schemas on leadership schemas. Taken together, the majority of the relationships between self and leadership schema attributes using implicit and explicit schemas were positive, such that the more important or central the self schema attribute was for the respondent, the more important or central the leadership attribute was also. The data can be interpreted to suggest that respondents used their knowledge of themselves as a proxy for their idea of a great leader. An alternative interpretation is that this relationship could be due to the fact that personality seems to influence both self and leadership schemas in a similar manner: people base their self-concepts on their own consistent behaviors, which is influenced by their personality, and, as this study shows, people think of outstanding leaders as having characteristics similar to their own personality traits.

Research Implications

This study found evidence to support the general hypotheses between constructs. That is, evidence was found for a relationship between personality and self- and leadership schemas; between self-schemas and leader liking; and between leadership schemas and leader effectiveness. The findings from this study suggest that personality traits do relate to self and leadership schemas in meaningful ways. In turn, self-schemas

77

and leadership schemas can predict behavior in terms of leadership liking and perceived leadership effectiveness, respectively.

The study revealed an unexpected pattern of results in the relationship between personality and leadership schema: it appears that for the majority of the relationships, participants' personality traits related to their leadership schema attributes in much the same way that their personality related to their self-schema attributes. That is, their leadership schemas reflected their own personalities – these results suggest that extroverted individuals think of outstanding leaders as have extroverted qualities, agreeable individuals think of outstanding leaders as having agreeable qualities, and conscientious individuals think of outstanding leaders as having conscientious qualities.

This implies that people's ideal conceptualization or schema of an outstanding leader is one who is similar to themselves. One could also say that their leadership schemas "fit" their own personalities. One potential reason why personality and leadership schemas are related in this way could be that, based on one's personality, an individual is attracted to, and actively places himselfin, situations where he best "fits" with the leader and the environment that the leader creates (Schneider, 1987). Repeated exposure to these leaders who are similar to the individual forms the stable activation patterns that constitute their leadership schemas (Lord, et al., 2000). Therefore, personality may influence a person's exposure to certain leadership styles over others, which then shapes their leadership schema.

In addition, previous literature on leadership endorsement did not distinguish between endorsement based on liking versus effectiveness. This study found evidence that the leader endorsement outcomes of liking and effectiveness have different cognitive

predictors. Self-schema attributes, and not leadership schema, were found to influence the extent that individuals liked a leader. Leadership schema attributes, not self-schema, were found to influence the perceived effectiveness of a leader for the individual. This suggests that leader liking and perceived leader effectiveness are separate constructs. Future research concerning followers' reactions to leaders should distinguish between liking and perceived effectiveness.

However, there does seem to be a fair amount of overlap between self and leadership schemas. Future research on different populations needs to be done to determine if this observation was sample specific or if this is a more generalizable phenomenon. The results of the current study seem to indicate that people's self-schemas influence their leadership schemas such that, for the majority of the attributes, the more important an attribute is to your self-concept, the more important the attribute is for your idea of an outstanding leader.

In terms of evaluating the different procedures for operationalizing schemas, this study found that implicit schema attributes were not at all related to their corresponding explicit attributes. Furthermore, implicit and explicit schema measures each appear to differentially predict behavior. That is, some relationships with leadership endorsement outcomes were significant using implicit schemas, but not explicit schemas, and other relationships were significant using explicit schemas, but not implicit schemas. A recent study by Beng-Chong Lim found similar results using implicit and explicit leadership schemas (personal communication, April, 2003). He found that although implicit and explicit leadership schemas were each related to different aspects of the outcome, there was no relationship between the explicit and implicit measures. In addition, Lawrence

79

James' research on conditional reasoning has also found that implicit and explicit measures of achievement motivation were uncorrelated with each other, but that each scale added predictive validity to academic achievement. James concluded that when combined, implicit conditional reasoning and explicit self-report data may provide information on both the explicit and implicit functioning of motives (James, 1998).

The results of this study also suggest that perhaps explicit and implicit measures of schema may be tapping into different, but equally important aspects of an individual's schema. Further research should be conducted on the construct validity of cognitive schemas using implicit and explicit measures.

Limitations

The present study attempted to examine how people's self-schemas influence the type of leader liked the most and how people's leadership schemas influence the type of leader thought of as most effective for them. However, a critique of this study could be that the use of an undergraduate student sample may limit the generalizability of the results to the workforce population. Although a more ideal sample would have been organizational employees who had experience working with leaders, 78% of the study's participants had worked for at least one year and 93% had worked under at least two managers.

A further limitation is the fact that the behavioral outcome in this study was the extent that participants rated their liking and perceived effectiveness of paper leaders. Future research might use a more objective criterion of leader effectiveness for the individual, such as task performance, under separate experimental conditions in which

the same task is lead by prototypically charismatic, relationship-oriented, and task-oriented leaders.

A potential source of method bias in this study was that implicit schema measures were assessed at a different time than explicit schema measures. In addition, explicit schema measures were given at the same time as the personality measure. A replication of this study would ideally assess personality at Time 1, explicit and implicit self and leadership schemas at Time 2, and leadership perceptions at Time 3.

Finally, this study is the first to assess self-schemas using the Pathfinder technique of mapping connectionist schemas. Although it is conceptualized that respondents are making relatedness ratings of self-concept pairs that are due to the structure of their self-schemas, the exact decision processes when making these ratings are unclear and may be more ambiguous than when making relatedness ratings for leadership schemas. For example, when a participant is making relatedness ratings for the pair "you are just" versus "you are decisive", a respondent may believe the pair of concepts is similar and so rate it highly (e.g., I am both just and decisive and those aspects of my self-concept are very related to one another). That is, ideally, individuals should be making comparative ratings of "you are just" and "you are decisive" without removing the attributes just and decisive from the self-concept framework. However, some individuals may remove the concepts "just" and "decisive" from the self-concept framework first, then compare the abstract concepts and believe they are similar to one another, but think that neither of these concepts are part of their self-concept. In this case, respondents may be unclear how to respond to the relatedness rating. Future studies might clarify the logic of respondents as they make these self-concept ratings by using a

81

talking methodology in which respondents are asked to talk about their thought processes aloud as they are rating attributes.

Conclusion

After over sixty years of research on leadership that has focused on the characteristics of leaders, scholars in the field are beginning to study the characteristics of followers who interpret the actions of their leaders. This study provides evidence that followers' personalities relate to their self and leadership schemas, and these schemas influence their perceptions of leaders.

Table 1

Hypothesized relationships between follower personality, self-schema attributes, and leadership style liking

PERSONALITY	SELF ATTRIBUTE	LEADERSHIP LIKING
Extroversion	Assertive	Task-oriented (-) Relationship-oriented
Extroversion	Dynamic	Charismatic
Extroversion	Motivational	Charismatic
Extroversion	Risk Taker	Charismatic
Agreeableness	Group-Oriented	Charismatic
Agreeableness	Compassionate	Relationship-oriented
Agreeableness	Just	Relationship-oriented
Agreeableness	(-)Autocratic	Relationship-oriented
Conscientiousness	Decisive	Task-oriented
Conscientiousness	Procedural	Task-oriented
Conscientiousness	Plans Ahead	Task-oriented
Conscientiousness	Reliable	Task-oriented

Table 2

Hypothesized relationships between follower personality, leadership schema attributes, and perceived leader effectiveness

PERSONALITY	LEADER ATTRIBUTE	PERCEIVED LEADER EFFECTIVENESS
Introversion	Assertive	Task-oriented (-) Relationship-oriented
Introversion	Dynamic	Charismatic
Introversion	Motivational	Charismatic
Introversion	Risk Taker	Charismatic
Low Agreeableness	Group-Oriented	Charismatic
Low Agreeableness	Compassionate	Relationship-oriented
Low Agreeableness	Just	Relationship-oriented
Low Agreeableness	(-)Autocratic	Relationship-oriented
Low Conscientiousness	Decisive	Task-oriented
Low Conscientiousness	Procedural	Task-oriented
Low Conscientiousness	Plans Ahead	Task-oriented
Low Conscientiousness	Reliable	Task-oriented

Table 3
Means, standard deviations, and intercorrelations among implicit self-schema attributes

Variable	M	S.D.	1	2	3	4	5	6	7	8	9	10	11
(1) Assertive	4.06	2.12											
(2) Dynamic	3.47	1.94	.47**										
(3) Motivational	3.88	2.07	.38**	.43**									
(4) Risk taker	2.91	1.92	.28**	.31**	.27**								
(5) Group oriented	3.72	1.86	.32**	.39**	.31**	.17*							
(6) Compassionate	3.60	2.21	.44**	.43**	.39**	.26**	.37**						
(7) Just	3.63	1.77	.37**	.46**	.31**	.29**	.44**	.55**					
(8) Autocratic	2.85	2.21	.31**	.20**	.38**	.36**	.34**	.31**	.32**				
(9) Decisive	3.50	1.86	.34**	.34**	.36**	.33**	.46**	.27**	.41**	.49**			
(10) Procedural	2.88	1.88	.33**	.39**	.36**	.26**	.38**	.46**	.35**	.37**	.39**		
(11) Plans ahead	3.36	1.93	.35**	.32**	.39**	.22**	.36**	.29**	.35**	.47**	.44**	.51**	
(12) Reliable	3.95	1.81	.42**	.39**	.31**	.29**	.44**	.46**	.47**	.36**	.33**	.51**	.38**

Note. N = 145. * p < .05; ** p < .01

Table 4
Means, standard deviations, and intercorrelations among explicit self-schema attributes

Variable	M	S.D.	1	2	3	4	5	6	7	8	9	10	11
(1) Assertive	4.35	1.25											
(2) Dynamic	4.77	1.19	.06										
(3) Motivational	4.58	1.17	.12	.57**									
(4) Risk taker	3.45	1.38	.24**	.17*	.14								
(5) Group oriented	4.59	1.30	-.01	.33**	.42**	-.06							
(6) Compassionate	5.16	1.10	-.13	.20*	.28**	-.14	.43**						
(7) Just	5.18	1.05	.16	.03	.19*	-.12	.23**	.26**					
(8) Autocratic	2.20	1.42	.28**	-.03	-.06	.28**	-.20*	-.18*	-.20*				
(9) Decisive	4.31	1.24	.36**	.10	.09	.22**	-.08	-.21*	-.04	.24**			
(10) Procedural	3.46	1.51	.15	-.05	-.02	.07	.01	-.12	.00	.43**	.24**		
(11) Plans ahead	4.61	1.30	.17*	.16	.21*	-.10	.04	-.06	.08	.23**	.25**	.59**	
(12) Reliable	5.37	0.90	-.01	.16	.24**	-.20*	.08	.19*	.21*	-.01	.18*	.25**	.41**

Note. N = 147. * $p < .05$; ** $p < .01$

Table 5
Correlations between implicit and explicit self-schema attributes

	Implicit attributes											
Explicit attributes	1	2	3	4	5	6	7	8	9	10	11	12
(1) Assertive	.10	.10	.08	.05	-.02	-.03	.03	-.04	.02	.04	.09	-.03
(2) Dynamic	.01	.09	.04	-.03	.02	.13	.15	-.10	.02	.03	.06	.02
(3) Motivational	.01	.16	.17*	.03	.08	.15	.03	-.09	.08	-.02	-.04	-.04
(4) Risk taker	.00	-.05	.03	.02	-.11	-.06	-.05	-.15	-.01	-.07	-.10	-.09
(5) Grp oriented	.11	.13	.26**	.01	.15	.32**	.14	.07	.15	.10	.15	.08
(6) Compass.	-.02	.02	.07	-.02	.06	.19*	.17*	.07	.01	.05	.08	.00
(7) Just	.06	.05	.10	-.03	-.07	.11	.12	.07	.10	.04	.05	.06
(8) Autocratic	.08	-.13	-.04	.15	-.04	-.09	-.02	.04	.09	-.01	.08	-.01
(9) Decisive	.11	-.03	-.05	.08	-.06	-.07	-.03	-.13	-.06	.03	.09	.12
(10) Procedural	.09	.00	.12	.01	-.04	-.11	.02	.07	.11	.08	.29**	.13
(11) Plans ahead	.04	-.08	.15	-.03	-.03	-.07	-.02	.08	-.01	.07	.21**	.05
(12) Reliable	-.05	-.13	.08	-.12	.03	.02	.06	.02	.08	.06	.10	.12

Note. Grp oriented = Group oriented; Compass. = Compassionate. N = 144.
* $p < .05$; ** $p < .01$

Table 6

Means, standard deviations, and intercorrelations among implicit leadership schema attributes

Variable	M	S.D.	1	2	3	4	5	6	7	8	9	10	11
(1) Assertive	3.72	1.88											
(2) Dynamic	3.66	1.85	.40**										
(3) Motivational	4.05	1.85	.43**	.63**									
(4) Risk taker	2.55	1.64	.27**	.18*	.26**								
(5) Group oriented	3.82	1.89	.14	.47**	.44**	.10							
(6) Compassionate	3.39	1.85	.18*	.33**	.29**	.12	.24**						
(7) Just	3.65	1.79	.20*	.32**	.33**	-.01	.40**	.27**					
(8) Autocratic	2.58	1.57	.30**	.36**	.26**	.22**	.20*	.03	.02				
(9) Decisive	3.72	1.68	.27**	.27**	.24**	.03	.30**	.14	.30**	.29**			
(10) Procedural	2.68	1.46	.21*	.40**	.25*	.04	.28**	.16	.29**	.34**	.15		
(11) Plans ahead	3.37	1.70	.30**	.32**	.34**	.17*	.49**	.18*	.28**	.23**	.43**	.29**	
(12) Reliable	3.90	1.93	.26**	.49**	.46**	.14	.52**	.22**	.39**	.15	.14	.34**	.40**

Note. N = 146. * p < .05; ** p < .01

Table 7
Means,standard deviations, and intercorrelations among explicit leadership schema attributes

Variable	M	S.D.	1	2	3	4	5	6	7	8	9	10	11
(1) Assertive	4.59	1.17											
(2) Dynamic	5.39	0.84	.23**										
(3) Motivational	5.43	0.83	.11	.66**									
(4) Risk taker	3.52	1.35	.19	-.03	.04								
(5) Group oriented	5.39	0.87	.08	.33**	.27**	-.09							
(6) Compassionate	4.89	1.14	.30**	.25**	.18*	.17*	.26**						
(7) Just	5.28	1.00	.39**	.20*	.21*	-.02	.23**	.35**					
(8) Autocratic	2.18	1.31	.30**	-.01	-.04	.21*	-.10	-.04	-.03				
(9) Decisive	4.90	1.04	.35**	.22*	.16	.12	.04	.13	.17*	.22*			
(10) Procedural	3.70	1.25	.34**	.19*	.14	.08	.20*	.10	.17*	.33**	.16		
(11) Plans ahead	5.28	0.87	.24**	.28**	.42**	-.03	.27**	.14	.38**	.09	.32**	.42**	
(12) Reliable	5.57	0.77	.30**	.25**	.40**	-.10	.19*	.25**	.40**	.07	.12	.39**	.55**

Note. N = 148. * $p < .05$; ** $p < .01$

Table 8
Correlations between implicit and explicit leadership schema attributes

Explicit attributes	Implicit attributes											
	1	2	3	4	5	6	7	8	9	10	11	12
(1) Assertive	.14	-.09	-.09	.12	-.05	-.11	.03	.14	.11	.01	-.07	-.13
(2) Dynamic	.10	.07	.03	.00	-.06	-.01	.02	-.11	-.12	.01	-.04	-.11
(3) Motivational	.06	.17	.13	-.02	-.03	-.01	.01	-.11	-.07	.11	.06	-.03
(4) Risk taker	-.05	-.14	-.09	.07	-.14	-.01	-.13	.07	.09	-.13	-.16	-.24**
(5) Grp oriented	.15	.12	.13	-.13	.09	.04	.18	-.08	.05	.16	.17*	.16
(6) Compass.	.05	.05	-.05	.02	.01	.13	-.06	-.05	-.08	-.05	-.07	-.05
(7) Just	.19*	-.02	-.01	.07	-.06	.07	.11	-.09	-.19*	.07	.04	.07
(8) Autocratic	-.16	-.12	-.05	.00	-.06	-.09	-.08	.11	-.10	-.08	-.12	-.11
(9) Decisive	.10	.13	.09	.07	.06	.03	.04	-.01	.05	.03	.02	-.05
(10) Procedural	.05	-.02	-.10	.04	-.05	.04	.02	-.12	-.07	.08	-.07	-.02
(11) Plans ahead	.04	.08	.06	-.09	.06	.01	.14	-.03	-.01	.09	.04	.01
(12) Reliable	.07	.10	.03	-.12	-.06	-.02	.03	-.07	-.10	.18	.12	.09

Note. Grp oriented = Group oriented; Compass. = Compassionate. N = 146.
* p < .05; ** p < .01

Table 9
Correlations between personality traits and *implicit* self-schema attributes

Self Attribute	Personality		
	Extroversion	Agreeableness	Conscientiousness
Assertive	.06	.10	.01
Dynamic	.12[+]	.08	.06
Motivational	.08	.14	.10
Risk taker	.02	-.02	-.06
Group oriented	-.10	.05	.01
Compassionate	.03	.22**	-.0
Just	.11	.07	.04
Autocratic	-.11	-.06	.08
Decisive	.00	-.03	-.03
Procedural	.00	-.03	.01
Plans ahead	-.05	.01	.23**
Reliable	.05	.04	.10

Note. $N = 145$. [+] $p < .10$; ** $p < .01$
Hypothesized relationships are shaded.

Table 10

Correlations between personality traits and *explicit* self-schema attributes

Self Attribute	Personality		
	Extroversion	Agreeableness	Conscientiousness
Assertive	.14*	-.18*	-.15
Dynamic	.29**	.32**	.03
Motivational	.15*	.36**	.03
Risk taker	.40**	-.13	-.07
Group oriented	.01	.53*	-.01
Compassionate	-.09	.60**	-.10
Just	.00	.17*	-.01
Autocratic	.10	-.17*	.10
Decisive	.14	-.12	.05
Procedural	-.01	-.14	.42**
Plans ahead	-.12	.00	.51**
Reliable	-.13	.14	.27**

Note. N = 147. * p < .05; ** p < .01
Hypothesized relationships are shaded.

Table 11

Correlations between *implicit self-schema* attributes and leadership *liking* endorsement in terms of choice of the leader as the one liked most and extent of liking for the leader

Self Attribute	Charismatic		Task-oriented		Relationship-oriented	
	Choice	Extent	Choice	Extent	Choice	Extent
Dynamic	-.01	.09	-.07	-.02	.05	.18
Motivational	.13	.13	-.13	.15	-.04	.07
Risk taker	-.03	.21*	.00	-.06	.03	.15
Group oriented	.11	-.01	-.08	.01	-.05	.16
Compassionate	.03	-.06	.02	.19	-.04	-.06
Just	-.09	-.19	.05	.22*	.05	.01
Autocratic	.28*	-.01	.02	-.10	-.27*	-.29**
Assertive	.05	.00	.11	-.01	-.11	-.18
Decisive	.05	.05	-.10	-.11	.02	.03
Procedural	.03	.01	.08	.10	-.08	.00
Plans ahead	.04	.02	.00	.14	-.03	.01
Reliable	.06	.06	.12	-.10	-.12	.03

Note. N = 67. * $p < .05$; ** $p < .01$
Hypothesized relationships are shaded.

93

Table 12

Correlations between *explicit* self-schema attributes and leadership *liking* endorsement in terms of choice of the leader as the one liked most and extent of liking for the leader

Self Attribute	Charismatic		Task-oriented		Relationship-oriented	
	Choice	Extent	Choice	Extent	Choice	Extent
Dynamic	.03	-.04	.06	.17	-.07	.12
Motivational	.07	.15	-.24*	.05	.09	.35**
Risk taker	.12	-.05	-.11	-.21*	-.04	-.09
Group oriented	-.16	-.06	-.05	.18	.18	.28**
Compassionate	-.16	.00	-.23*	.07	.29**	.27*
Just	-.02	.19	-.10	.04	.08	.04
Autocratic	-.02	-.10	.01	-.08	.02	-.11
Assertive	-.06	.00	.16	-.09	-.04	-.16
Decisive	-.08	.07	.15	.05	-.02	.00
Procedural	-.10	.23*	-.07	.19	.13	.17
Plans ahead	.11	.25*	.08	.28*	-.15	-.05
Reliable	-.12	.09	.13	.35**	.03	.14

Note. N = 69. * p < .05; ** p < .01
Hypothesized relationships are shaded.

Table 13

Correlations between personality traits and *implicit* leadership schema attributes

	Personality		
Leader Attribute	Extroversion	Agreeableness	Conscientiousness
Assertive	.14+	-.09	-.09
Dynamic	.05	.00	.02
Motivational	.05	.00	.12
Risk taker	.01	-.03	.06
Group oriented	.03	-.06	.16
Compassionate	.08	-.05	-.01
Just	.10	-.06	.22**
Autocratic	-.06	.00	-.08
Decisive	.03	-.14	.06
Procedural	.05	.18*	.00
Plans ahead	-.04	-.09	.29**
Reliable	.12	-.12	.16*

Note. N = 148. $^+$p < .10; * p < .05; ** p < .01
Hypothesized relationships are shaded.

Table 14

Correlations between personality traits and *explicit* leadership schema attributes

	Personality		
Leader Attribute	Extroversion	Agreeableness	Conscientiousness
Assertive	.05	-.01	-.07
Dynamic	.15*	.11	-.08
Motivational	.02	.11	.00
Risk taker	.10	.07	-.04
Group oriented	-.13	.28**	-.02
Compassionate	.01	.46**	-.01
Just	.01	.14*	.09
Autocratic	.04	-.07	.03
Decisive	-.06	.02	-.21**
Procedural	.07	.02	.26**
Plans ahead	-.12	.04	.18*
Reliable	-.07	.11	.19*

Note. $N = 148$. * $p < .05$; ** $p < .01$
Hypothesized relationships are shaded.

Table 15

Correlations between *implicit leadership schema* attributes and leadership *effectiveness* endorsement in terms of choice of the leader as the most effective for the respondent and extent of leader effectiveness

Leader Attribute	Charismatic		Task-oriented		Relationship-oriented	
	Choice	Extent	Choice	Extent	Choice	Extent
Dynamic	-.06	.06	.25*	.00	-.14	-.11
Motivational	.01	.18	.18	-.03	-.15	-.18
Risk taker	.10	.08	-.04	-.15	-.06	.00
Group oriented	-.01	.05	.23*	.21*	-.17	-.13
Compassionate	-.05	-.15	-.01	-.06	.05	-.02
Just	.01	.11	-.08	-.02	.05	.12
Autocratic	-.12	.08	.16	.31**	-.02	-.03
Assertive	-.14	.06	.09	.02	.06	-.02
Decisive	-.27*	.17	.30**	.25*	.00	.17
Procedural	-.21*	-.06	.28*	.17	-.03	-.03
Plans ahead	-.09	.21*	.15	.10	-.04	.03
Reliable	.03	-.09	.17	.14	-.16	-.23*

Note. N = 69. * p < .05; ** p < .01
Hypothesized relationships are shaded.

Table 16

Correlations between *explicit leadership schema* attributes and leadership *effectiveness* endorsement in terms of choice of the leader as the most effective for the respondent and extent of leader effectiveness

	Charismatic		Task-oriented		Relationship-oriented	
Leader Attribute	Choice	Extent	Choice	Extent	Choice	Extent
Dynamic	-.01	.01	.02	-.07	.00	.01
Motivational	.02	-.03	.10	.06	-.09	-.01
Risk taker	.08	.04	-.13	-.20*	.04	-.07
Group oriented	-.16	.15	-.16	.06	.27*	.33**
Compassionate	-.04	.10	-.11	-.05	.12	.21*
Just	-.05	.02	.08	.04	-.02	.05
Autocratic	.26*	.17	-.12	-.08	-.14	-.05
Assertive	.17	.07	-.03	-.15	-.12	-.12
Decisive	.06	-.03	.06	-.10	-.10	-.09
Procedural	.23*	.20*	-.14	-.04	-.09	-.04
Plans ahead	.01	.01	-.07	.01	.05	.08
Reliable	.03	.05	.03	.14	-.05	.00

Note. $N = 69$. * $p < .05$; ** $p < .01$

Hypothesized relationships are shaded.

98

Table 17
Logistic and multiple regressions of paired implicit self-schema and leader schema
attributes predicting leader effectiveness

	Charismatic Leader		
	DV = *Choice* that leader is the most effective for follower	DV = *Extent* leader is the most effective for follower	
Implicit Attribute	Exp(B)	β	sr^2
Predictor: Decisive			
Self	1.44[+]		
Leader	.55*		
Predictor: Procedural			
Self	1.13		
Leader	.68[+]		
Predictor: Plans ahead			
Self		-.03	.00
Leader		.23[+]	.05

	Task-oriented Leader		
	DV = *Choice* that leader is the most effective for follower	DV = *Extent* leader is the most effective for follower	
Implicit Attribute	Exp(B)	β	sr^2
Predictor: Dynamic			
Self	.87		
Leader	1.45*		
Predictor: Group oriented			
Self	1.12	.02	.00
Leader	1.39[+]	.20	.04
Predictor: Autocratic			
Self		.13	.02
Leader		.29*	.08

Table 17 continued

	Task-oriented Leader		
	DV = *Choice* that leader is the most effective for follower	DV = *Extent* leader is the most effective for follower	
Implicit Attribute	Exp(B)	β	sr^2
Predictor: Decisive			
Self	1.12	.31*	.09
Leader	1.58$^+$	.14	.02
Predictor: Procedural			
Self	.94		
Leader	1.56*		

	Relationship-oriented Leader		
	DV = *Choice* that leader is the most effective for follower	DV = *Extent* leader is the most effective for follower	
Implicit Attribute	Exp(B)	β	sr^2
Predictor: Reliable			
Self		-.02	.00
Leader		-.23$^+$	.05

Note. A total of eleven separate regressions were run to predict leader effectiveness. Leader *choice* was analyzed using logistic regression while rating of the *extent* the leader was effective was analyzed using multiple regression. The predictors for each analysis were paired attributes. Attributes chosen for regression were those for which implicit leader attributes were significantly related to leader effectiveness (see Table 15).
$^+$ p < .10*; * p < .05

Table 18
Logistic and multiple regressions of paired explicit self-schema and leader schema
attributes predicting leader effectiveness

	Charismatic Leader		
	DV = *Choice* that leader is the most effective for follower	DV = *Extent* leader is the most effective for follower	
Explicit Attribute	Exp(B)	β	sr^2
Predictor: Autocratic			
Self	.74		
Leader	1.90*		
Predictor: Procedural			
Self	.83	.27$^+$	.04
Leader	1.77$^+$	.04	.00

	Task-oriented Leader		
	DV = *Choice* that leader is the most effective for follower	DV = *Extent* leader is the most effective for follower	
Explicit Attribute	Exp(B)	β	sr^2
Predictor: Risk taker			
Self		-.24$^+$	.04
Leader		-.09	.01

Table 18 continued

Explicit Attribute	Relationship-oriented Leader		
	DV = *Choice* that leader is the most effective for follower	DV = *Extent* leader is the most effective for follower	
	Exp(B)	β	sr²
Predictor: Group oriented			
Self	1.13	.28*	.07
Leader	1.96⁺	.24*	.05
Predictor: Compassionate			
Self		.13	.01
Leader		.13	.01

Note. A total of seven separate regressions were run to predict leader effectiveness. Leader *choice* was analyzed using logistic regression while rating of the *extent* the leader was effective was analyzed using multiple regression. The predictors for each analysis were paired attributes. Attributes chosen for regression were those for which explicit leader attributes were significantly related to leader effectiveness (see Table 16).
$^+$ $\underline{p}$ < .10; * $\underline{p}$ < .05

Table 19

Logistic and multiple regressions of paired implicit self-schema and leader schema
attributes predicting leader liking

Implicit Attribute	Charismatic Leader			
	DV = *Choice* of leader liked the most	DV = *Extent* leader is liked		
	Exp(B)	β	sr^2	
Predictor: Risk taker				
Self		.21	.04	
Leader		-.07	.00	
Predictor: Autocratic				
Self	1.29*			
Leader	1.10			

Implicit Attribute	Task-oriented Leader			
	DV = *Choice* of leader liked the most	DV = *Extent* leader is liked		
	Exp(B)	β	sr^2	
Predictor: Just				
Self		.22[+]	.05	
Leader		.17	.03	

Implicit Attribute	Relationship-oriented Leader			
	DV = *Choice* of leader liked the most	DV = *Extent* leader is liked		
	Exp(B)	β	sr^2	
Predictor: Autocratic				
Self	.80[+]	-.25[+]	.06	
Leader	.93	-.06	.00	

Note. A total of five regressions were run to predict leader liking. Leader *choice* was
analyzed using logistic regression while rating of the *extent* the leader was liked was
analyzed using multiple regression. The predictors for each analysis were paired
attributes. Attributes chosen for regression were those for which implicit leader attributes
were significantly related to leader liking (see Table 11). [+] $p < .10$; * $p < .05$

Table 20

Logistic and multiple regressions of paired explicit self-schema and leader schema
attributes predicting leader liking

Explicit Attribute	Charismatic Leader			
	DV = *Choice* of leader liked the most		DV = *Extent* leader is liked	
	Exp(B)		β	sr^2
Predictor: Procedural				
Self			.43**	.10
Leader			-.30[+]	.05
Predictor: Plans ahead				
Self			.22	.04
Leader			.04	.00

Table 20 continued

	Task-oriented Leader		
	DV = *Choice* of leader liked the most	DV = *Extent* leader is liked	
Explicit Attribute	Exp(B)	β	sr^2
Predictor: Motivational			
Self	.44*		
Leader	1.39		
Predictor: Risk taker			
Self		-.23	.03
Leader		.03	.00
Predictor: Compassionate			
Self	.32[+]		
Leader	2.34		
Predictor: Plans ahead			
Self		.23[+]	.04
Leader		.11	.01
Predictor: Reliable			
Self		.31*	.06
Leader		.07	.00

Table 20 continued

Explicit Attribute	Relationship-oriented Leader		
	DV = *Choice* of leader liked the most	DV = *Extent* leader is liked	
	Exp(B)	B	sr^2
Predictor: Motivational			
Self		.44**	.16
Leader		-.20	.03
Predictor: Group oriented			
Self		.25$^+$	.05
Leader		.06	.00
Predictor: Compassionate			
Self	1.70	.49*	.10
Leader	.97	-.28	.03

Note. A total of eleven separate regressions were run to predict leader liking. Leader *choice* was analyzed using logistic regression while rating of the *extent* the leader was effective was analyzed using multiple regression. The predictors for each analysis were paired attributes. Attributes chosen for regression were those for which explicit leader attributes were significantly related to leader liking (see Table12).
$^+$ p < .10; * p < .05; ** p < .01

Table 21

Hierarchical multiple regressions of experience with leaders and *implicit* self-schema attribute predicting corresponding *implicit* leadership schema attribute

	Dependent Leader Attribute: Assertive	
Variables	β	ΔR^2
Step 1		.00
Experience with leaders	.06	
Step 2		.12**
Self attribute: Assertive	.35**	
Step 3		.01
Experience with leaders X Assertive	-.44	

	Dependent Leader Attribute: Dynamic	
Variables	β	ΔR^2
Step 1		.05**
Experience with leaders	.22**	
Step 2		.03*
Self attribute: Dynamic	.17*	
Step 3		.00
Experience with leaders X Dynamic	.25	

	Dependent Leader Attribute: Motivational	
Variables	β	ΔR^2
Step 1		.00
Experience with leaders	.06	
Step 2		.09**
Self attribute: Motivational	.30**	
Step 3		.00
Experience with leaders X Motivational	-.23	

Table 21 continued

	Dependent Leader Attribute: Risk taker	
Variables	β	ΔR^2
Step 1		.00
Experience with leaders	-.04	
Step 2		.07**
Self attribute: Risk taker	.26**	
Step 3		.01
Experience with leaders X Risk taker	-.22	

	Dependent Leader Attribute: Group oriented	
Variables	β	ΔR^2
Step 1		.01
Experience with leaders	.07	
Step 2		.01
Self attribute: Group oriented	.09	
Step 3		.04*
Experience with leaders X Group oriented	-1.11*	

	Dependent Leader Attribute: Compassionate	
Variables	β	ΔR^2
Step 1		.00
Experience with leaders	.07	
Step 2		.12**
Self attribute: Compassionate	.34**	
Step 3		.00
Experience with leaders X Compassionate	.07	

Table 21 continued

	Dependent Leader Attribute: Just	
Variables	β	ΔR^2
Step 1		.00
Experience with leaders	.03	
Step 2		.04*
Self attribute: Just	.20*	
Step 3		.01
Experience with leaders X Just	-.56	

	Dependent Leader Attribute: Autocratic	
Variables	β	ΔR^2
Step 1		.00
Experience with leaders	-.04	
Step 2		.04*
Self attribute: Autocratic	.20*	
Step 3		.00
Experience with leaders X Autocratic	.02	

	Dependent Leader Attribute: Decisive	
Variables	β	ΔR^2
Step 1		.00
Experience with leaders	-.05	
Step 2		.03*
Self attribute: Decisive	.17*	
Step 3		.00
Experience with leaders X Decisive	.12	

Table 21 continued

	Dependent Leader Attribute: Procedural	
Variables	β	ΔR^2
Step 1		.01
Experience with leaders	.11	
Step 2		.00
Self attribute: Procedural	.02	
Step 3		.00
Experience with leaders X Procedural	-.30	

	Dependent Leader Attribute: Plans ahead	
Variables	β	ΔR^2
Step 1		.02
Experience with leaders	.15	
Step 2		.10**
Self attribute: Plans ahead	.31**	
Step 3		.00
Experience with leaders X Plans ahead	-.37	

	Dependent Leader Attribute: Reliable	
Variables	B	ΔR^2
Step 1		.03*
Experience with leaders	.18*	
Step 2		.02
Self attribute: Reliable	.14	
Step 3		.01
Experience with leaders X Reliable	.37	

Note. β's reported are at entry.
* $p < .05$; ** $p < .01$

Table 22
Hierarchical multiple regressions of experience with leaders and *explicit* self-schema
attribute predicting corresponding *explicit* leadership schema attribute

	Dependent Leader Attribute: Assertive	
Variables	β	ΔR^2
Step 1		.03*
Experience with leaders	-.18*	
Step 2		.23**
Self attribute: Assertive	.48**	
Step 3		.00
Experience with leaders X Assertive	.18	

	Dependent Leader Attribute: Dynamic	
Variables	B	ΔR^2
Step 1		.00
Experience with leaders	.01	
Step 2		.17**
Self attribute: Dynamic	.41**	
Step 3		.00
Experience with leaders X Dynamic	-.02	

	Dependent Leader Attribute: Motivational	
Variables	β	ΔR^2
Step 1		.00
Experience with leaders	.06	
Step 2		.18**
Self attribute: Motivational	.42**	
Step 3		.01
Experience with leaders X Motivational	.68	

Table 22 continued

Variables	Dependent Leader Attribute: Risk taker	
	β	ΔR^2
Step 1		.01
Experience with leaders	-.12	
Step 2		.34**
Self attribute: Risk taker	.59**	
Step 3		.00
Experience with leaders X Risk taker	-.17	

Variables	Dependent Leader Attribute: Group oriented	
	β	ΔR^2
Step 1		.00
Experience with leaders	-.06	
Step 2		.20**
Self attribute: Group oriented	.44**	
Step 3		.01
Experience with leaders X Group oriented	-.42	

Variables	Dependent Leader Attribute: Compassionate	
	β	ΔR^2
Step 1		.01
Experience with leaders	-.09	
Step 2		.46**
Self attribute: Compassionate	.68**	
Step 3		.00
Experience with leaders X Compassionate	-.10	

Table 22 continued

	Dependent Leader Attribute: Just	
Variables	β	ΔR^2
Step 1		.00
Experience with leaders	-.03	
Step 2		.39**
Self attribute: Just	.63**	
Step 3		.00
Experience with leaders X Just	.05	

	Dependent Leader Attribute: Autocratic	
Variables	β	ΔR^2
Step 1		.01
Experience with leaders	-.11	
Step 2		.39**
Self attribute: Autocratic	.63**	
Step 3		.00
Experience with leaders X Autocratic	-.09	

	Dependent Leader Attribute: Decisive	
Variables	β	ΔR^2
Step 1		.00
Experience with leaders	-.01	
Step 2		.21**
Self attribute: Decisive	.46**	
Step 3		.00
Experience with leaders X Decisive	-.16	

Table 22 continued

	Dependent Leader Attribute: Procedural	
Variables	β	ΔR^2
Step 1		.00
Experience with leaders	-.05	
Step 2		.43**
Self attribute: Procedural	.65**	
Step 3		.00
Experience with leaders X Procedural	.20	

	Dependent Leader Attribute: Plans ahead	
Variables	β	ΔR^2
Step 1		.00
Experience with leaders	.00	
Step 2		.21**
Self attribute: Plans ahead	.46**	
Step 3		.00
Experience with leaders X Plans ahead	-.09	

	Dependent Leader Attribute: Reliable	
Variables	B	ΔR^2
Step 1		.00
Experience with leaders	-.02	
Step 2		.25**
Self attribute: Reliable	.50**	
Step 3		.00
Experience with leaders X Reliable	.00	

Note. β's reported are at entry.

* $p < .05$; ** $p < .01$

114

Table 23

Correlations between personality traits and leadership liking endorsement in terms of choice of the leader as the one liked most and extent of liking for the leader

Personality	Charismatic		Task-oriented		Relationship-oriented	
	Choice	Extent	Choice	Extent	Choice	Extent
Extroversion	.12	.08	.05	-.21	-.14	.02
Agreeableness	-.11	-.08	-.30*	.09	.29*	.29*
Conscientiousness	.07	.17	-.14	.13	.02	.17

Note. N = 69. * p < .05

Table 24

Correlations between personality traits and leadership effectiveness endorsement in terms
of choice of the leader as the most effective for the respondent and extent of leader
effectiveness

Personality	Charismatic		Task-oriented		Relationship-oriented	
	Choice	Extent	Choice	Extent	Choice	Extent
Extroversion	.19	.11	.02	.08	-.19	-.22
Agreeableness	-.11	.18	.17	.20	-.04	.15
Conscientiousness	-.01	.23	-.04	.08	.05	.05

Note. N = 69.

Input units   Hidden units   Output units
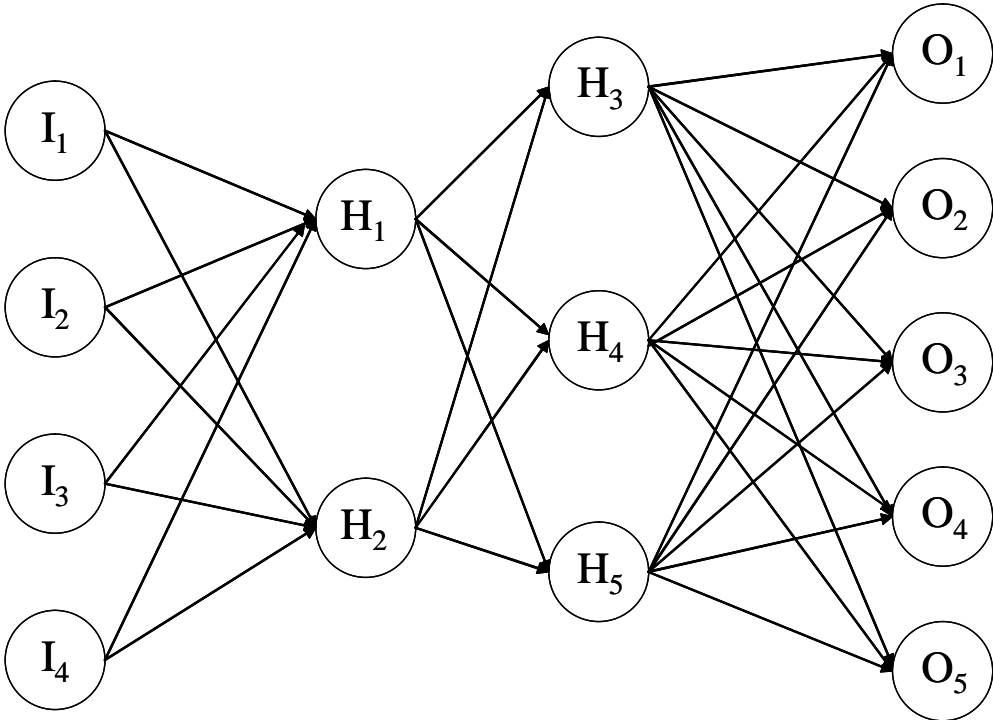
Figure 1. Representation of a basic connectionist model.

Leadership Endorsement

```
                 ┌──────────────┐              ┌──────────────┐
                 │              │              │              │
                 │  Self-Schema │─────────────▶│   Liking     │
                 │              │              │              │
                 └──────────────┘              └──────────────┘
┌──────────────┐
│              │
│   Follower   │
│  Personality │
│              │
└──────────────┘
                 ┌──────────────┐              ┌──────────────┐
                 │  Leadership  │              │  Perceived   │
                 │   Schema     │─────────────▶│ Effectiveness│
                 │              │              │              │
                 └──────────────┘              └──────────────┘
```
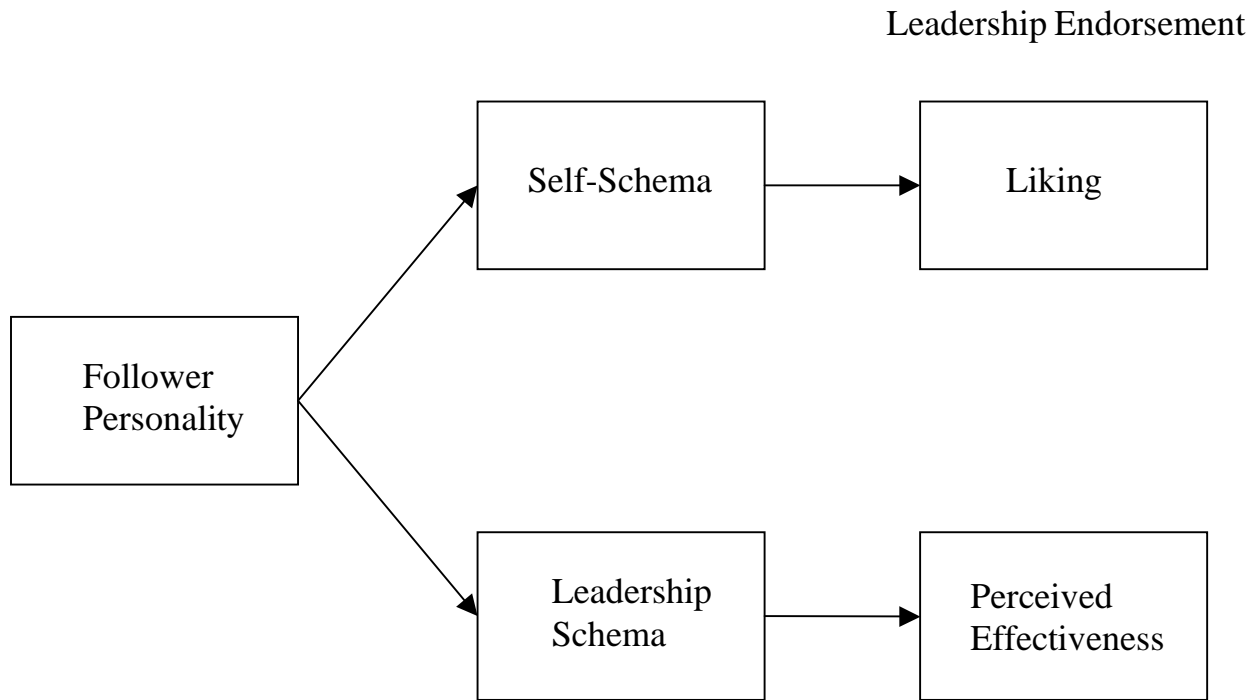
Figure 2. Theoretical Model.
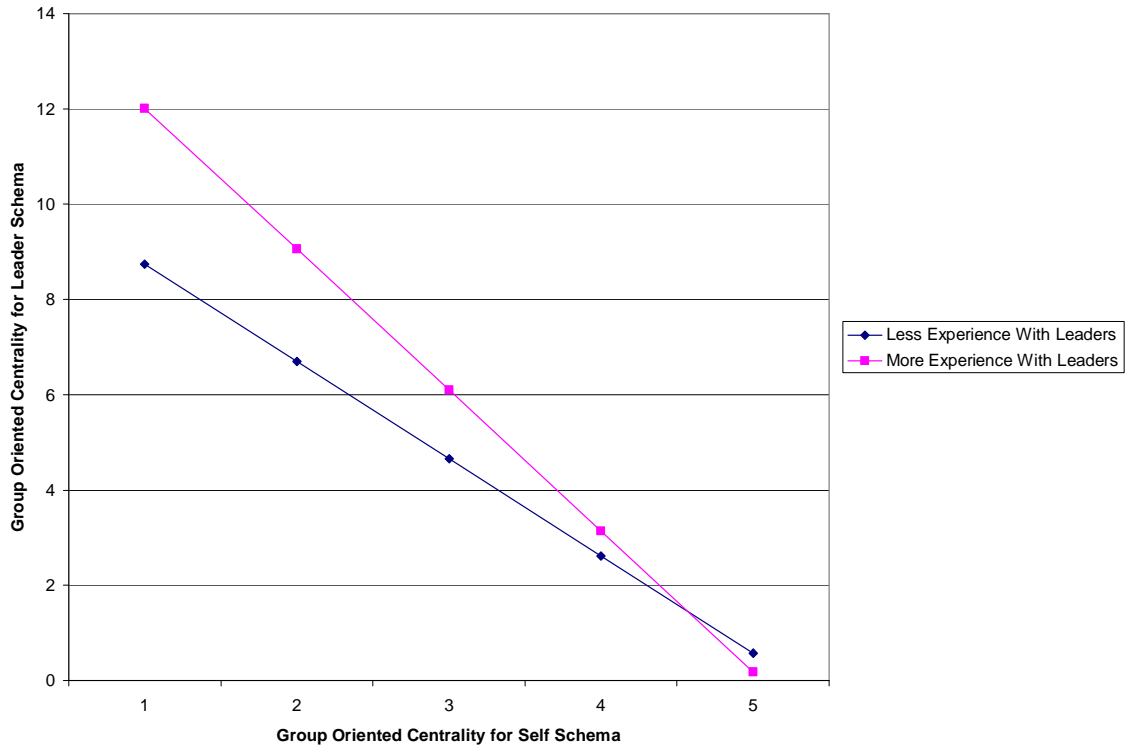
Figure 3. Effects of the interaction between implicit "Group Oriented" self attribute and experience with leaders on corresponding implicit leadership attribute.

Your Personality. On the following pages, there are phrases describing people's behaviors. **Please use the rating scale below to describe how accurately each statement describes you.** Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age. So that you can describe yourself in an honest manner, your responses will be kept in absolute confidence. Please read each statement carefully, and then fill in the bubble that corresponds to the number on the following scale:

1 = Very Inaccurate
2 = Moderately Inaccurate
3 = Neither Inaccurate nor Accurate
4 = Moderately Accurate
5 = Very Accurate

1. Am the life of the party.

2. Feel little concern for others.

3. Am always prepared.

4. Get stressed out easily.

5. Have a rich vocabulary.

6. Don't talk a lot.

7. Am interested in people.

8. Leave my belongings around.

9. Am relaxed most of the time.

10. Have difficulty understanding abstract ideas.

11. Feel comfortable around people.

12. Insult people.

13. Pay attention to details.

14. Worry about things.

15. Have a vivid imagination.

16. Keep in the background.

17. Sympathize with others' feelings.

18. Make a mess of things.

19. Seldom feel blue.

20. Am not interested in abstract ideas.

21. Start conversations.

22. Am not interested in other people's problems.

23. Get chores done right away.

24. Am easily disturbed.

25. Have excellent ideas.

26. Have little to say.

27. Have a soft heart.

Continue with the following scale:

A = Very Inaccurate
B = Moderately Inaccurate
C = Neither Inaccurate nor Accurate
D = Moderately Accurate
E = Very Accurate

28. Often forget to put things back in their proper place.

29. Get upset easily.

30. Do not have a good imagination.

31. Talk to a lot of different people at parties.

32. Am not really interested in others.

33. Like order.

34. Change my mood a lot.

35. Am quick to understand things.

36. Don't like to draw attention to myself.

37. Take time out for others.

38. Shirk my duties.

39. Have frequent mood swings.

40. Use difficult words.

41. Don't mind being the center of attention.

42. Feel others' emotions.

43. Follow a schedule.

44. Get irritated easily.

45. Spend time reflecting on things.

46. Am quiet around strangers.

47. Make people feel at ease.

48. Am exacting in my work.

49. Often feel blue.

50. Am full of ideas.

Relatedness ratings of LEADERSHIP concepts. In this section, you will be asked, *"How related are these pairs of leadership concepts?"* In making these types of judgments, there are several ways to think about the items being judged. For instance, two concepts might be related because they share common features or because they frequently occur together. While this kind of detailed analysis is possible, our concern is to obtain your initial impression of "overall relatedness". Therefore, please base your ratings on your first impression of how related these leadership concepts are.

When making these ratings, think of leaders that you have encountered in the past who have been particularly outstanding at motivating, energizing, or enabling YOU to contribute to the success of the organization or task.

For each question, please use the ratings scale below to describe how related the two concepts are to each other. Please read the concepts carefully, then fill in the number that corresponds to the answer on the answer sheet.

1	2	3	4	5	6
Unrelated	Slightly Related		Moderately Related		Highly Related

Before you begin, please read through the definitions of these leadership concepts below.

a) **Decisive** = makes decisions firmly and quickly

b) **Plans ahead** = anticipates and prepares in advance

c) **Group-oriented** = concerned with the well-being of the group

d) **Dynamic** = highly involved, energetic, enthusiastic, motivated

e) **Motivational** = stimulates others to put forth effort above and beyond the call of duty and to make personal sacrifices

f) **Reliable** = dependable, consistent in actions and behaviors

g) **Autocratic** = makes decisions in dictatorial way (dictatorial: forces his/her values and opinions on others).

h) **Procedural** = follows established procedures

i) **Risk taker** = willing to invest major resources in efforts that do not have high probability of success

j) **Compassionate** = helpful, understanding, shows compassion for others

k) **Assertive** = tends to state his/her rights, opinions, or preferences

l) **Just** = acts according to what is right or fair

m) **Effective leader** = a person who is skilled at motivating, influencing, or enabling you, others, or groups to contribute to the success of the organization or task.

Please rate the relatedness of the following pairs of concepts:

1.	Just Leader	VS	Decisive Leader
2.	Leader who Plans ahead	VS	Just Leader
3.	Decisive Leader	VS	Leader who Plans ahead
4.	Just Leader	VS	Group-oriented Leader
5.	Group-oriented Leader	VS	Decisive Leader
6.	Leader who Plans ahead	VS	Group-oriented Leader
7.	Just Leader	VS	Dynamic Leader
8.	Dynamic Leader	VS	Decisive Leader
9.	Leader who Plans ahead	VS	Dynamic Leader
10.	Dynamic Leader	VS	Group-oriented Leader
11.	Motivational Leader	VS	Just Leader
12.	Decisive Leader	VS	Motivational Leader
13.	Motivational Leader	VS	Leader who Plans ahead
14.	Group-oriented Leader	VS	Motivational Leader
15.	Motivational Leader	VS	Dynamic Leader
16.	Just Leader	VS	Reliable Leader
17.	Reliable Leader	VS	Decisive Leader
18.	Leader who Plans ahead	VS	Reliable Leader
19.	Reliable Leader	VS	Group-oriented Leader
20.	Dynamic Leader	VS	Reliable Leader

21.	Reliable Leader	VS	Motivational Leader
22.	Autocratic Leader	VS	Just Leader
23.	Decisive Leader	VS	Autocratic Leader
24.	Autocratic Leader	VS	Leader who Plans ahead
25.	Group-oriented Leader	VS	Autocratic Leader
26.	Autocratic Leader	VS	Dynamic Leader
27.	Motivational Leader	VS	Autocratic Leader
28.	Autocratic Leader	VS	Reliable Leader
29.	Just Leader	VS	Procedural Leader
30.	Procedural Leader	VS	Decisive Leader
31.	Leader who Plans ahead	VS	Procedural Leader
32.	Procedural Leader	VS	Group-oriented Leader
33.	Dynamic Leader	VS	Procedural Leader
34.	Procedural Leader	VS	Motivational Leader
35.	Reliable Leader	VS	Procedural Leader
36.	Procedural Leader	VS	Autocratic Leader
37.	Leader who is Risk taker	VS	Just Leader
38.	Decisive Leader	VS	Leader who is Risk taker
39.	Leader who is Risk taker	VS	Leader who Plans ahead
40.	Group-oriented Leader	VS	Leader who is Risk taker
41.	Leader who is Risk taker	VS	Dynamic Leader
42.	Motivational Leader	VS	Leader who is Risk taker
43.	Leader who is Risk taker	VS	Reliable Leader

44.	Autocratic Leader	VS	Leader who is Risk taker
45.	Leader who is Risk taker	VS	Procedural Leader
46.	Just Leader	VS	Compassionate Leader
47.	Compassionate Leader	VS	Decisive Leader
48.	Leader who Plans ahead	VS	Compassionate Leader
49.	Compassionate Leader	VS	Group-oriented Leader
50.	Dynamic Leader	VS	Compassionate Leader
51.	Compassionate Leader	VS	Motivational Leader
52.	Reliable Leader	VS	Compassionate Leader
53.	Compassionate Leader	VS	Autocratic Leader
54.	Procedural Leader	VS	Compassionate Leader
55.	Compassionate Leader	VS	Leader who is Risk taker
56.	Just Leader	VS	Assertive Leader
57.	Assertive Leader	VS	Decisive Leader
58.	Leader who Plans ahead	VS	Assertive Leader
59.	Assertive Leader	VS	Group-oriented Leader
60.	Dynamic Leader	VS	Assertive Leader
61.	Assertive Leader	VS	Motivational Leader
62.	Reliable Leader	VS	Assertive Leader
63.	Assertive Leader	VS	Autocratic Leader
64.	Procedural Leader	VS	Assertive Leader
65.	Assertive Leader	VS	Leader who is Risk taker

66.	Compassionate Leader	VS	Assertive Leader
67.	Just Leader	VS	Outstanding Leader
68.	Outstanding Leader	VS	Decisive Leader
69.	Leader who Plans ahead	VS	Outstanding Leader
70.	Outstanding Leader	VS	Group-oriented Leader
71.	Dynamic Leader	VS	Outstanding Leader
72.	Outstanding Leader	VS	Motivational Leader
73.	Reliable Leader	VS	Outstanding Leader
74.	Outstanding Leader	VS	Autocratic Leader
75.	Procedural Leader	VS	Outstanding Leader
76.	Outstanding Leader	VS	Leader who is Risk taker
77.	Compassionate Leader	VS	Outstanding Leader
78.	Outstanding Leader	VS	Assertive Leader

Relatedness ratings of concepts about YOURSELF. In this section, you will be asked, *"How related are these pairs of self-concepts?"* In making these types of judgments, there are several ways to think about the items being judged. For instance, two concepts might be related because they share common features or because they frequently occur together. While this kind of detailed analysis is possible, our concern is to obtain your initial impression of **"**overall relatedness". Therefore, please base your ratings on your first impression of how related these self-concepts are.

Before you begin, please read through the definitions of these self concepts below.

a) **Decisive** = makes decisions firmly and quickly

b) **Plans ahead** = anticipates and prepares in advance

c) **Group-oriented** = concerned with the well-being of the group

d) **Dynamic** = highly involved, energetic, enthusiastic, motivated

e) **Motivational** = stimulates others to put forth effort above and beyond the call of duty and to make personal sacrifices

f) **Reliable** = dependable, consistent in actions and behaviors

g) **Autocratic** = makes decisions in dictatorial way (dictatorial: forces his/her values and opinions on others).

h) **Procedural** = follows established procedures

i) **Risk taker** = willing to invest major resources in efforts that do not have high probability of success

j) **Compassionate** = helpful, understanding, shows compassion for others

k) **Assertive** = tends to state his/her rights, opinions, or preferences

l) **Just** = acts according to what is right or fair

m) **You** = yourself

Please rate the relatedness of the following pairs of concepts:

1.   You are Just   VS   You are Decisive

2.   You Plan ahead   VS   You are Just

3.   You are Decisive   VS   You Plan ahead

4.   You are Just   VS   You are Group-oriented

5.   You are Group-oriented   VS   You are Decisive

6.   You Plan ahead   VS   You are Group-oriented

7.   You are Just   VS   You are Dynamic

8.   You are Dynamic   VS   You are Decisive

9.   You Plan ahead   VS   You are Dynamic

10.   You are Dynamic   VS   You are Group-oriented

11.   You are Motivational   VS   You are Just

12.   You are Decisive   VS   You are Motivational

13.   You are Motivational   VS   You Plan ahead

14.   You are Group-oriented   VS   You are Motivational

15.   You are Motivational   VS   You are Dynamic

16.   You are Just   VS   You are Reliable

17.   You are Reliable   VS   You are Decisive

18.   You Plan ahead   VS   You are Reliable

19.   You are Reliable   VS   You are Group-oriented

20.   You are Dynamic   VS   You are Reliable

21.   You are Reliable   VS   You are Motivational

22.   You are Autocratic   VS   You are Just

23.	You are Decisive	VS	You are Autocratic
24.	You are Autocratic	VS	You Plan ahead
25.	You are Group-oriented	VS	You are Autocratic
26.	You are Autocratic	VS	You are Dynamic
27.	You are Motivational	VS	You are Autocratic
28.	You are Autocratic	VS	You are Reliable
29.	You are Just	VS	You are Procedural
30.	You are Procedural	VS	You are Decisive
31.	You Plan ahead	VS	You are Procedural
32.	You are Procedural	VS	You are Group-oriented
33.	You are Dynamic	VS	You are Procedural
34.	You are Procedural	VS	You are Motivational
35.	You are Reliable	VS	You are Procedural
36.	You are Procedural	VS	You are Autocratic
37.	You are Risk taker	VS	You are Just
38.	You are Decisive	VS	You are a Risk taker
39.	You are a Risk taker	VS	You Plan ahead
40.	You are Group-oriented	VS	You are a Risk taker
41.	You are a Risk taker	VS	You are Dynamic
42.	You are Motivational	VS	You are a Risk taker
43.	You are a Risk taker	VS	You are Reliable
44.	You are Autocratic	VS	You are a Risk taker
45.	You are a Risk taker	VS	You are Procedural

46.	You are Just	VS	You are Compassionate
47.	You are Compassionate	VS	You are Decisive
48.	You Plan ahead	VS	You are Compassionate
49.	You are Compassionate	VS	You are Group-oriented
50.	You are Dynamic	VS	You are Compassionate
51.	You are Compassionate	VS	You are Motivational
52.	You are Reliable	VS	You are Compassionate
53.	You are Compassionate	VS	You are Autocratic
54.	You are Procedural	VS	You are Compassionate
55.	You are Compassionate	VS	You are a Risk taker
56.	You are Just	VS	You are Assertive
57.	You are Assertive	VS	You are Decisive
58.	You Plan ahead	VS	You are Assertive
59.	You are Assertive	VS	You are Group-oriented
60.	You are Dynamic	VS	You are Assertive
61.	You are Assertive	VS	You are Motivational
62.	You are Reliable	VS	You are Assertive
63.	You are Assertive	VS	You are Autocratic
64.	You are Procedural	VS	You are Assertive
65.	You are Assertive	VS	You are a Risk taker
66.	You are Compassionate	VS	You are Assertive
67.	Just	VS	You
68.	You	VS	Decisive

69.	Plans ahead	VS	You
70.	You	VS	Group-oriented
71.	Dynamic	VS	You
72.	You	VS	Motivational
73.	Reliable	VS	You
74.	You	VS	Autocratic
75.	Procedural	VS	You
76.	You	VS	Risk taker
77.	Compassionate	VS	You
78.	You	VS	Assertive

Not Just Java

You have recently applied for a store manager position at Not Just Java, a combination coffeehouse and fudge shop new to the D.C. area. This chain sells a wide variety of fudge, chocolate, and other sweets, as well as offering a good selection of coffees and a laid back, relaxed atmosphere. Not Just Java is also well known for its emphasis on employee development. That is, part of Not Just Java's corporate philosophy is to develop its employees to their fullest potential and so the company has established a successful mentoring and development program.

Not Just Java is opening twelve new stores in the D.C./Maryland area. You have been hired to be the store manager of one of the 12 new stores. You have three years of experience working in another coffeehouse chain, where you advanced to the assistant manager position at your last job. You see Not Just Java as an opportunity for you to move upward and onward in your career as a retail manager. In the D.C./ Maryland area, three district managers will oversee the 12 new store managers. That is, each district manager will oversee four store managers. Each of the three district managers coming to the D.C./Maryland market has been in the company for at least five years. The district managers will be in charge of making all major decisions for each of the stores they oversee. The store managers will take care of all the day-to-day details of their store's operation and consult with the district manager on major issues and/or decisions. The district managers will also be mentors for their store managers, which will include meeting regularly for one-on-one coaching sessions to set goals and give feedback and advice on their developmental progress. The overall goal of this mentoring relationship

is to match store managers with the supervisors who can best develop them into more effective managers.

Before Not Just Java places you in one of the new D.C./Maryland stores, they would like to find a location that would best fit you and your personality. As part of Not Just Java's mentoring program, upper management has asked each of the district managers to briefly describe their management style, which you will have the opportunity to read shortly. After reading each description, you will be asked to rate the manager through a series of questions. After reading all of the statements, you will then be asked to make a choice of the district manager that you would interpersonally like the most.*

*For those participants who are asked leadership *effectiveness* items, the last sentence is replaced with, "After reading all of the statements, you will then be asked to make a choice of the district manager that you believe would be the most effective manager for you."

District Manager #1

I have been a successful leader because I am committed to this company's future and I work hard to communicate my vision for this company to my store managers. I set high standards for my store managers. I expect them to work as hard as they can to reach those standards. However, I don't push them only for the sake of productivity; rather, I want them to reach their potential and do the best job they can. I want them to realize how good they can be and how much they have to offer. My goal is to do things differently than this organization has done them in the past, and I'm willing to take some chances to show them how things can be improved. I rely on my store managers to be creative in finding new ways to get the job done. I don't want my store managers to think of this as just another job. Instead, I try hard to make them feel like they're a part of something special here, something big, something that's going to make a difference in this organization.

District Manager #1

The following questions are about how much you think you would <u>like</u> this district manager. Please circle the number that best represents your answer to each of the following questions (circle one # per question).

To what extent would you …

　　　　1)　　enjoy working with this district manager?

　　1　　　　　　　2　　　　　　　3　　　　　　　4　　　　　　　5
　To little or no　　　　　　　　To some　　　　　　　　　To a great
　　　extent　　　　　　　　　　　extent　　　　　　　　　　extent

　　　　2)　　get along with this district manager?

　　1　　　　　　　2　　　　　　　3　　　　　　　4　　　　　　　5
　To little or no　　　　　　　　To some　　　　　　　　　To a great
　　　extent　　　　　　　　　　　extent　　　　　　　　　　extent

　　　　3)　　like this district manager?

　　1　　　　　　　2　　　　　　　3　　　　　　　4　　　　　　　5
　To little or no　　　　　　　To some　　　　　　　　To a great
　　　extent　　　　　　　　　　extent　　　　　　　　　extent

　　　　4)　　want to be friends with this district manager?

　　1　　　　　　　2　　　　　　　3　　　　　　　4　　　　　　　5
　To little or no　　　　　　　To some　　　　　　　　To a great
　　　extent　　　　　　　　　　extent　　　　　　　　　extent

<u>District Manager #2</u>

I attribute my success as a leader to my concern for my store managers' personal well-being. The first thing I try to do in all of my interactions with my store managers is to treat them with kindness and consideration. I am committed to being friendly and respectful, even when stress is high or there is a lot of work to be done. Another thing I emphasize with my store managers is communication. I keep them informed of progress on projects or any other organizational issues that might affect them, and I am always available to listen to my subordinates' problems, whether their problems are personal or work-related. In addition, I show trust and confidence in my store managers. I want them to feel involved in their work and to know that I think they can do a good job. The final thing I do with my store managers is that I recognize their contributions. If they work hard and do a good job, I go out of my way to make sure they know that their work is appreciated.

<u>District Manager #2</u>

The following questions are about how much you think you would <u>like</u> this district manager. Please circle the number that best represents your answer to each of the following questions (circle one # per question).

To what extent would you …

1)   enjoy working with this district manager?

1	2	3	4	5
To little or no extent		To some extent		To a great extent

    2)   get along with this district manager?

1	2	3	4	5
To little or no extent		To some extent		To a great extent

    3)   like this district manager?

1	2	3	4	5
To little or no extent		To some extent		To a great extent

    4)   want to be friends with this district manager?

1	2	3	4	5
To little or no extent		To some extent		To a great extent

<u>District Manager #3</u>

I'm successful as a leader because I emphasize task accomplishment. I begin by working with my store managers to set goals for their work. I don't want to overwhelm my store managers with impossible standards, so I make sure their goals are realistic yet still challenging. I am very careful and detailed in laying out what my store managers need to get done. I don't want there to be any ambiguity; they need to know exactly what to do and when it needs to get done. Once they know what needs to get done, I make sure they have everything they will need to do it. I provide them with the necessary supplies, equipment, and technical assistance to insure that they can be successful at their jobs. Finally, I coordinate the work so that the store managers and their assistant managers know what their job is and there is no overlap between the two. I want everyone to know what their role is so that they can see how they are contributing to the accomplishment of our organization's goals.

The following questions are about how much you think you would <u>like</u> this district manager. Please circle the number that best represents your answer to each of the following questions (circle one # per question).

To what extent would you …

       1)   enjoy working with this district manager?

1	2	3	4	5
To little or no extent		To some extent		To a great extent

       2)   get along with this district manager?

1	2	3	4	5
To little or no extent		To some extent		To a great extent

       3)   like this district manager?

1	2	3	4	5
To little or no extent		To some extent		To a great extent

       4)   want to be friends with this district manager?

1	2	3	4	5
To little or no extent		To some extent		To a great extent

District Manager Choices and Additional Questions

1)   Please circle the district manager you think you would like the most:

   District Manager #1   District Manager #2   District Manager #3

        Briefly explain why you would like this district manager the most.

2)   List 2-5 adjectives that you would use to describe each of the district managers:

            District Manager #1:

            District Manager #2:

            District Manager #3:

3)   How much experience do you have working under a supervisor/manager? Circle

     one number.

        1   2   3   4   5

   Zero months   1 month –   6 months –   1 year –   Over 2 years
                    6 months   1 year   2 years

4)   How many supervisors/managers have you worked under? Circle one number.

        0   1   2   3   4 or more

District Manager #1

       I have been a successful leader because I am committed to this company's future and I work hard to communicate my vision for this company to my store managers. I set high standards for my store managers. I expect them to work as hard as they can to reach those standards. However, I don't push them only for the sake of productivity; rather, I want them to reach their potential and do the best job they can. I want them to realize how good they can be and how much they have to offer. My goal is to do things differently than this organization has done them in the past, and I'm willing to take some chances to show them how things can be improved. I rely on my store managers to be creative in finding new ways to get the job done. I don't want my store managers to think of this as just another job. Instead, I try hard to make them feel like they're a part of something special here, something big, something that's going to make a difference in this organization.

District Manager #1

The following questions are about <u>how effective you think this district manager will be for you</u>. Please circle the number that best represents your answer to each of the following questions (circle one # per question).

To what extent do you think…

    1)   you would work at a high level of performance under this district manager?

1	2	3	4	5
To little or no extent		To some extent		To a great extent

    2)   you would be hard-working under this district manager?

1	2	3	4	5
To little or no extent		To some extent		To a great extent

    3)   you would be productive under this district manager?

1	2	3	4	5
To little or no extent		To some extent		To a great extent

    4)   this district manager would enable you to be successful in accomplishing your job-related goals?

1	2	3	4	5
To little or no extent		To some extent		To a great extent

I attribute my success as a leader to my concern for my store managers' personal well-being. The first thing I try to do in all of my interactions with my store managers is to treat them with kindness and consideration. I am committed to being friendly and respectful, even when stress is high or there is a lot of work to be done. Another thing I emphasize with my store managers is communication. I keep them informed of progress on projects or any other organizational issues that might affect them, and I am always available to listen to my subordinates' problems, whether their problems are personal or work-related. In addition, I show trust and confidence in my store managers. I want them to feel involved in their work and to know that I think they can do a good job. The final thing I do with my store managers is that I recognize their contributions. If they work hard and do a good job, I go out of my way to make sure they know that their work is appreciated.

<u>District Manager #2</u>

The following questions are about <u>how effective you think this district manager will be for you</u>. Please circle the number that best represents your answer to each of the following questions (circle one # per question).

To what extent do you think…

    1) you would work at a high level of performance under this district manager?

1	2	3	4	5
To little or no extent		To some extent		To a great extent

    2) you would be hard-working under this district manager?

1	2	3	4	5
To little or no extent		To some extent		To a great extent

    3) you would be productive under this district manager?

1	2	3	4	5
To little or no extent		To some extent		To a great extent

    4) this district manager would enable you to be successful in accomplishing your job-related goals?

1	2	3	4	5
To little or no extent		To some extent		To a great extent

<u>District Manager #3</u>

I'm successful as a leader because I emphasize task accomplishment. I begin by working with my store managers to set goals for their work. I don't want to overwhelm my store managers with impossible standards, so I make sure their goals are realistic yet still challenging. I am very careful and detailed in laying out what my store managers need to get done. I don't want there to be any ambiguity; they need to know exactly what to do and when it needs to get done. Once they know what needs to get done, I make sure they have everything they will need to do it. I provide them with the necessary supplies, equipment, and technical assistance to insure that they can be successful at their jobs. Finally, I coordinate the work so that the store managers and their assistant managers know what their job is and there is no overlap between the two. I want everyone to know what their role is so that they can see how they are contributing to the accomplishment of our organization's goals.

District Manager #3

The following questions are about <u>how effective you think this district manager will be for you</u>. Please circle the number that best represents your answer to each of the following questions (circle one # per question).

To what extent do you think…

    1) you would work at a high level of performance under this district manager?

1	2	3	4	5
To little or no extent		To some extent		To a great extent

    2) you would be hard-working under this district manager?

1	2	3	4	5
To little or no extent		To some extent		To a great extent

    3) you would be productive under this district manager?

1	2	3	4	5
To little or no extent		To some extent		To a great extent

    4) this district manager would enable you to be successful in accomplishing your job-related goals?

1	2	3	4	5
To little or no extent		To some extent		To a great extent

District Manager Choices and Additional Questions

1)   Please circle the district manager you think will be the most effective for you:

      District Manager #1   District Manager #2   District Manager #3

      Briefly explain why you chose this district manager.

2)   List 2-5 adjectives that you would use to describe each of the district managers:

            District Manager #1:

            District Manager #2:

            District Manager #3:

3)   How much experience do you have working under a supervisor/manager? Circle
         one number.

            1   2   3   4   5

      Zero months   1 month –   6 months –   1 year –   Over 2 years
                      6 months   1 year   2 years

4)   How many supervisors/managers have you worked under? Circle one number.

            0   1   2   3   4 or more

147

1. Which of the three managers that you read about seemed to be more kind and respectful to subordinates, emphasize communication with and listening to subordinates, show more trust and confidence in subordinates, and provide more recognition and show more appreciation for subordinates' contributions and accomplishments? Please circle one answer:

    a. Manager #1   b. Manager #2   c. Manager #3

2. Which of the three managers that you read about seemed to guide subordinates more in setting performance goals; plan and schedule the work more; provide necessary supplies, equipment, and technical assistance; and coordinate subordinate activities more than the others? Please circle one answer:

    a. Manager #1   b. Manager #2   c. Manager #3

3. Which of the three managers that you read about seemed to communicate high performance expectations to subordinates more often, exhibit more confidence in subordinates abilities to reach goals, take more calculated risks, and articulate a vision and collective identity more than the others?

    a. Manager #1   b. Manager #2   c. Manager #3

In this section, you will be asked to <u>rate the importance of the following characteristics for outstanding leadership.</u>

In making these ratings, think of leaders that you have encountered in the past who have been particularly outstanding at motivating, energizing, or enabling you to contribute to the success of the organization or task.
The following behaviors and characteristics can be used to describe leaders. Each behavior or characteristic is accompanied by a short definition. Using the above description of an outstanding leader as a guide, please read each description carefully and rate the following behaviors and characteristics below. **On the line next to each behavior or characteristic write the number from the scale below that best describes how important that behavior or characteristic is for a leader to be outstanding.**

1	2	3	4	5	6
Not at all important	**Slightly Important**		**Moderately Important**		**Highly Important**

1. _____ Decisive = makes decisions firmly and quickly

2. _____ Plans ahead = anticipates and prepares in advance

3. _____ Group-oriented = concerned with the well-being of the group

4. _____ Dynamic = highly involved, energetic, enthusiastic, motivated

5. _____ Motivational = stimulates others to put forth effort above and beyond the call of duty and to make personal sacrifices

6. _____ Reliable = dependable, consistent in actions and behaviors

7. _____ Autocratic = makes decisions in dictatorial way (dictatorial: forces his/her values and opinions on others)

8. _____ Procedural = follows established procedures

9. _____ Risk taker = willing to invest major resources in efforts that do not have a high probability of success

10. _____ Compassionate = helpful, understanding, shows compassion for subordinates

11. _____ Assertive = tends to state his/her rights, opinions, or preferences

12. _____ Just = acts according to what is right or fair

NOW, In THIS section, you will be asked to <u>rate how important the following characteristics are to your self-concept.</u>

The following behaviors and characteristics can be used to describe how you think of yourself. Each behavior or characteristic is accompanied by a short definition. Please read each description carefully and rate the following behaviors and characteristics below. **On the line next to each behavior or characteristic write the number from the scale below that best describes how important that behavior or characteristic is to your self-concept.**

1	2	3	4	5	6
Not at all important	Slightly Important		Moderately Important		Highly Important

1. _____ Decisive = makes decisions firmly and quickly

2. _____ Plans ahead = anticipates and prepares in advance

3. _____ Group-oriented = concerned with the well-being of the group

4. _____ Dynamic = highly involved, energetic, enthusiastic, motivated

5. _____ Motivational = stimulates others to put forth effort above and beyond the call of duty and to make personal sacrifices

6. _____ Reliable = dependable, consistent in actions and behaviors

7. _____ Autocratic = makes decisions in dictatorial way (dictatorial: forces his/her values and opinions on others)

8. _____ Procedural = follows established procedures

9. _____ Risk taker = willing to invest major resources in efforts that do not have a high probability of success

10. _____ Compassionate = helpful, understanding, shows compassion for subordinates

11. _____ Assertive = tends to state his/her rights, opinions, or preferences

12. _____ Just = acts according to what is right or fair

References

Barrick, M. R., & Mount, M. K. (1991). The Big Five personality dimensions and job performance: A meta-analysis. Personnel Psychology, 44, 1-26.

Bass, B. M. (1985). Leadership and performance beyond expectations. New York: Free Press.

Bass, B.M., Avolio, B.J., Jung, D.I., & Benson, Y. (2003). Predicting unit performance by assessing transformational and transactional leadership. Journal of Applied Psychology, 88, 207-218.

Bechtel, W. & Abrahamsen, A. (1991). Connectionism and the mind: An introduction to parallel processing in networks. Cambridge, MA: Blackwell.

Berscheid, E. (1984). Interpersonal attraction. In G. Lindzey & E. Aronson (Eds.). Handbook of social psychology (pp 413-482). Reading, MA: Addison-Wesley.

Cellar, D. F., Sidle, S., Goudy, K., & O'Brien, D. (2001). Effects of leader style, leader sex, and subordinate personality on leader evaluations and future subordinate motivation. Journal of Business and Psychology, 16, 61-72.

Conger, J. A., & Kanungo, R. N. (1987). Toward a behavioral theory of charismatic leadership in organizational settings. Academy of Management Review, 12, 637-657.

Cooke, N. M. (1990). Using pathfinder as a knowledge elicitation tool: Link interpretation. In R. W. Schvaneveldt (Ed.), Pathfinder associative networks: Studies in knowledge organization (pp.227-240). Norwood, NJ: Ablex Publishing Corporation.

Cooke, N. M., Durso, F. T., & Schvaneveldt, R. W. (1986). Recall and measures of memory organization. <u>Journal of Experimental Psychology: Learning, Memory, and Cognition, 12</u>, 538-549.

Costa, P. T. Jr., & McCrae, R. R. (1989). <u>The NEO-PI/NEO-FFI manual supplement</u>. Odessa, FL: Psychological Assessment Resources.

Dearholt, D. W., & Schvaneveldt, R. W. (1990). Properties of pathfinder networks. In R. W. Schvaneveldt (Ed.), <u>Pathfinder associative networks: Studies in knowledge organization</u> (pp.1-30). Norwood, NJ: Ablex Publishing Corporation.

Digman. J. M. (1990). Personality Structure: Emergence of the Five Factor Model. <u>Annual Review of Psychology, 41,</u> 417-440.

Ehrhart, M. G., & Klein, K. J. (2001). Predicting followers' preferences for charismatic leadership: The influence of follower values and personality. <u>Leadership Quarterly, 12</u>, 153-179.

Garland, D. J., & Barry, J. R. (1990). Personality and leader behaviors in collegiate football: A multidimensional approach to performance. <u>Journal of Research in Personality, 24</u>, 355-370.

Goldberg, L. R. (1998). International Personality Item Pool: A scientific collaboration for the development of advanced measures of personality and other individual differences. [on-line]. Available HTTP: http//ipip.ori.org/ipip/ipip.html.

Goldberg, L. R. (1999). A broad-bandwith, public-domain personality inventory measuring the lower-level facets of several five-factor models. In I. Mervielde, I. Deary, F. DeFruyt, & F. Ostendorf (Eds.), <u>Personality psychology in Europe</u> (Vol.7, pp. 7-28). Tilburg: The Netherlands: Tilburg University Press.

152

Goldsmith, T. E., & Johnson, P. J. (1990). A structural assessment of classroom learning. In R. W. Schvaneveldt (Ed.), <u>Pathfinder associative networks: Studies in knowledge organization</u> (pp. 241-254). Norwood, NJ: Ablex Publishing Corporation.

Guilford, J.S., Zimmerman, W.S., and Guilford, J.P. (1976). <u>The Guilford Zimmerman Temperament Survey Handbook</u>. San Diego, CA: Edits Publishers.

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

Hanges, P. J., Higgins, M., Smith-Major, V., Dyer, N. G., Dorfman, P. W., & Brodbeck, F. C. (2001). <u>Influence of cultural values on leadership schema structure</u>. In P. J. Hanges & M. J. Gelfand (Chairs). Applications of pathfinder to understanding cognition in organizational psychology. Symposium presented at the 16th Annual Conference for the Society for Industrial and Organizational Psychology. San Diego, CA.

Hanges, P. J., Lord, R. G., & Dickson, M. W. (2000). An information-processing perspective on leadership and culture: A case for connectionist architecture. <u>Applied Psychology: An International Review, 49</u>, 133-161.

Higgins, M. (1999). <u>Differences in the schemas for male and female leaders</u>. Unpublished master's thesis, University of Maryland.

Hollander, E. P. (1992). Leadership, followership, self, and others. <u>Leadership Quarterly, 3(1)</u>, 43-54.

House, R. J. (1977). A 1976 theory of charismatic leadership. In J. G. Hunt, & l. L. Larson (Eds.), Leadership: The cutting edge (pp.189-207). Carbondale, IL: Southern Illinois Univ. Press.

House, R. J., Hanges, P. J., Ruiz-Quintanilla, S. A., Dorfman, P. W., Javidan, M., Dickson, M., Gupta, V., & GLOBE (1999). Cultural influences on leadership and organizations: Project GLOBE. In W. Mobley, M. J. Gessner, & V. Arnold (Eds.), Advances in global leadership (Vol. 1, pp. 171-233). Stamford, CN: JAI Press.

Hunt, J. G., Boal, K. B., & Sorenson, R. L. (1990). Top management leadership: Inside the black box. Leadership Quarterly, 1, 41-65.

International Personality Item Pool (2001). A Scientific Collaboratory for the Development of Advanced Measures of Personality Traits and Other Individual Differences (http://ipip.ori.org/). Internet Web Site.

James, L. R. (1998). Measurement of personality via conditional reasoning. Organizational Research Methods, 1, 131-163.

Kandel, D. (1978). Similarity in real-life adolescent friendship pairs. Journal of Personality and Social Psychology, 36, 306-312.

Keller, T. (1999). Images of the familiar: Individual differences and implicit leadership theories. Leadership Quarterly, 10(4), 589-607.

Kenis, I. (1978). Leadership behavior, subordinate personality, and satisfaction with supervision. The Journal of Psychology, 98, 99-107.

Klein, K. J., & House, R. J. (1995). On fire: Charismatic leadership and levels of analysis. Leadership Quarterly, 6, 183-198.

Lawler, E. E. (1973). Motivation in work organizations. Belmont, CA: Brooks/Cole.

Lim, B. C., & Hanges, P. J. (2002). Relationship between leadership schema structure and leader behavior. Unpublished manuscript, University of Maryland.

Lim, B. C., & Ployhart, R. E. (2002). Assessing the convergent and discriminant validity of Goldberg's International Personality Item Pool: A multitrait-multimethod examination. Manuscript submitted for publication.

Lord, R. G., & Emrich, C. G. (2001). Thinking outside the box by looking inside the box: Extending the cognitive revolution in leadership research. Leadership Quarterly, 11(4), 551-579.

Lord, R. G., & Maher, K. J. (1991a). Cognitive theory in industrial and organizational psychology. In M. D. Dunnette & L. M. Hough (Eds.), Handbook of industrial and organizational psychology (Vol.2, pp.1-20). Palo Alto, CA: Consulting Psychologists Press.

Lord, R. G., & Maher, K. J. (1991b). Leadership and information processing: Linking perceptions and performance. Boston: Unwin Hyman.

Lord, R. G., Brown, D. J., & Harvey, J. L. (2001). System constraints on leadership perceptions, behavior and influence: An example of connectionist level processes. In M. A. Hogg, & R. S. Tindale (Eds.), Blackwell handbook of social psychology: Group processes (pp. 283-310). Oxford, UK: Blackwell.

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

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

Lord, R. G., Foti, R. J., & Phillips, J. S. (1982). A theory of leadership categorization. In J. G. Hunt, U. Sekaran, & C. Schriesheim (Eds.), Leadership: Beyond establishment views (pp.104-121). Carbondale: Southern Illinois University Press.

McClelland, D. C. (1985). Human motivation. Glenview, IL: Scott Foresman.

McDonald, J. E., & Schvaneveldt, R. W. (1988). The application of user knowledge to interface design. In R. Guindon (Ed.), Cognitive science and its applications for human-computer interaction (pp. 289-338). Hillsdale, NJ: Erlbaum.

Miner, J. B. (1978). Twenty years of research on role motivation theory of managerial effectiveness. Personnel Psychology, 31, 739-760.

Mount, M. K., & Barrick, M. R. (1995). The big five personality dimensions: Implications for research and practice in human resources management. Research in Personnel and Human Resources Management, 13, 153-200.

Mount, M. K., & Barrick, M. R. (1995). The Big Five personality dimensions: Implications for research and practice in human resources management. Research in Personnel and Human Management, 13, 153-200.

Newcomb, T. M. (1961). The acquaintance process. New York: Holt, Rinehart, and Winston.

Nishii, L. H. (2001). The impact of cultural tightness-looseness and individualism-collectivism on leadership schemas: Schema structure in the U.S., Germany, Singapore, and Thailand. Unpublished master's thesis, University of Maryland.

O'Neill, O. A., & Hanges, P. J. (2000). Individual values and the structure of leadership schemas: Verification of a connectionist network. In D. J. Schleicher (Chair). Social cognition and I-O: Widening or narrowing the research-practice gap? Symposium presented at the 15th Annual Conference for the Society for Industrial and Organizational Psychology. New Orleans, LA.

Phillips, J. S., & Lord, R. G. (1982). Schematic information processing and perceptions of leadership in problem-solving groups. Journal of Applied Psychology, 67, 486-492.

Pulakos, E. D., & Wexley, K. N. (1983). The relationship among perceptual similarity, sex, and performance ratings in manager-subordinate dyads. Academy of Management Journal, 26, 129-139.

Rosch, E. (1978). Principles of categorization. In E. Rosch & B. B. Lloyd (Eds.), Cognition and categorization. Hillsdale, NJ: Erlbaum.

Rosenbaum, M. E. (1986). The repulsion hypothesis: On the nondevelopment of relationships. Journal of Personality and Social Psychology, 51, 1156-1166.

Schneider, B. (1987). The people make the place. Personnel Psychology, 40, 437-453.

Schvaneveldt, R. W. (1990). Proximities, networks, and schemata. In R. W. Schvaneveldt (Ed.), <u>Pathfinder associative networks: Studies in knowledge organization</u> (pp.135-148). Norwood, NJ: Ablex Publishing Corporation.

Schvaneveldt, R. W., Dearholt, D. W., & Durso, F. T. (1988). Graph theoretic foundations of Pathfinder networks. <u>Computer & Mathematics with Applications, 15</u>, 337-345.

Schvaneveldt, R. W., Durso, F. T., & Dearholt, D. W. (1989). Network structures in proximity data. In G. H. Bower (Ed.), <u>The psychology of learning and motivation: Advances in research and theory</u> (Vol. 24, pp. 249-284). New York: Academic Press.

Schvaneveldt, R. W., Durso, F. T., Goldsmith, T. E., Breen, T. J., Cooke, N. M., Tucker, R. G., & DeMaio, J. C. (1985). Measuring the structure of expertise. <u>International Journal of Man-Machine Studies, 23</u>, 699-728.

Shamir, B., House, R. J., & Arthur, M. B. (1993). The motivational effects of charismatic leadership: A self-concept based theory. <u>Organizational Science, 4</u>, 577-594.

Smith, E. R. (1996). What do connectionism and social psychology offer each other? <u>Journal of Personality and Social Psychology, 70</u>, 893-912.

Strauss, C. & Quinn, N. (1997). <u>A cognitive theory of cultural meaning</u>. New York: Cambridge University Press.

Tannenbaum, S. I., & Yukl, G. (1992). Training and development in work organizations. <u>Annual Review of Psychology, 43</u>, 399-441.

Thagard, P., & Kunda, Z. (1998). Making sense of people: Coherence mechanisms. In S. J. Read, & L. C. Miller (Eds.), <u>Connectionist models of social reasoning and social behavior</u> (pp. 3-26). Mahwah, NJ: Lawrence Erlbaum.

Tosi, H. L. (1973). The effect of the interaction of leader behavior and subordinate authoritarianism. <u>Personnel Psychology, 26</u>, 339-350.

Watson, D., & Clark, L. A. (1997). Extraversion and its positive emotional core. In Hogan R., Johnson J., Briggs, S. (Eds.), <u>Handbook of personality psychology</u> (pp.767-793). San Diego, CA: Academic Press.

Weed, S. E., Moffitt, W., & Mitchell, T. R. (1976). Leadership style, subordinate personality, and task type as predictors of performance and satisfaction with supervision. <u>Journal of Applied Psychology, 61</u>, 58-66.

Yukl, G. (1998). <u>Leadership in organizations</u> (4th ed.). Upper Saddle River, NJ: Prentice-Hall.