An Examination of Prototypes and Leader-Member Exchange

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ABSTRACT

Because cognitive categories associated with the evaluation of a working relationship are stable at times, yet dynamic under specific conditions, understanding leader-member exchange (LMX) and identifying cognitive correlates associated with exchange quality is perplexing (Foti, Knee & Backert, 2008). The purpose of this study was to investigate how congruence between a leader's and follower's leader and follower prototypes affects the quality of the leader-member exchange relationship as assessed by each partner in the dyadic pair. Leaders and followers in 68 dyadic pairs performed a series of tasks in a laboratory setting. Multiple assessments of liking and trust for each other, as well as LMX quality from their perspective were made. Congruence on leader prototypes significantly predicted follower assessed LMX; followers' liking and trust for leaders fully mediated this relationship. In addition, congruence on follower prototypes significantly predicted leader assessed LMX; leaders' liking for followers fully mediated this relationship. These results emphasize the reciprocal nature of LMX relationships. Practical implications of having high quality LMX include, but are not limited to, higher satisfaction and commitment, less conflict, and higher performance ratings.

Author's Note

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Chapter 1 – Introduction

In modern organizations, the development and maintenance of high quality working relationships between leaders and followers remains difficult. In order to develop and understand working relationships between leaders and followers, it is imperative to study leadership and followership from the perspectives of both dyadic partners (Lord & Maher, 1991). While leaders and leader behaviors have been studied extensively (van Gils, van Quaquebeke, & van Knippenberg, 2009), the role of the follower (i.e. a non-leader in a dyad) remains an under-studied area of research. In order to enhance our understanding of the working relationship between leaders and followers, more attention needs to be focused on how followers perceive the follower role.

To further our understanding about the social exchange processes at the dyadic level, it is necessary to study variables that contribute to a high quality relationship for both leaders and followers. There is evidence to suggest that both cognitive and affective variables influence relationship quality (Lord & Maher, 1991; Lord, Foti & DeVader, 1984; Engle & Lord, 1997; Shamir, 2007). Previous work regarding cognitive schemas demonstrates that individuals have a strong predisposition to organize information into useful knowledge structures that allow for the classification of others into category members and non-category members (Lord et al., 1984; Lord & Maher, 1991; Ross & Nisbett, 1991; Shondrick & Lord, 2010; Shondrick, Dinh & Lord, 2010). There is a wealth of research demonstrating that knowledge structures held by followers about leaders (their leader prototypes) have a strong effect on the relationship quality, but there is far less research that demonstrates the effect of leaders' and especially followers' knowledge structures about followers on relationship quality (Carsten, Uhl-Bien, West, Patera, & McGregor, 2010; Engle & Lord, 1997; Epitropaki & Martin, 2005; Sy, 2010; Schyns & Schilling, 2010; Shondrick et al., 2010). In addition, liking and trust, as affective variables, have been found to impact an individual's perception of the relationship (Engle & Lord, 1997; Turban, Jones & Rozelle, 1990; Sy, 2010). Although numerous studies have documented the importance of high liking and trust in a working relationship, the ways in which knowledge structures of leadership and followership affect liking and trust in such a relationship are still not fully known.

In order to understand how leader schemas affect relationship quality, it is essential to understand both leaders' and followers' schemas for both leadership and followership. Schemas are knowledge structures people use to represent the prototypical characteristics of a wide range

of categories (Shondrick et al., 2010). Central components of ILT's and implicit followership theories (IFT's) are prototypes, defined as abstract composites of the most representative member or the most commonly shared attributes of a particular category (Lord et al., 1984; Shondrick & Lord, 2010). While leader prototypes are focused on expectations of how a leader should behave, follower prototypes are conceptualized as how followers should behave. The premise of social exchange processes is that an individual's behavior is perceived by that individual, as well as by the other party of the dyad (Van Gils, 2010). This perception is governed by implicit expectations about how this individual believes a leader or follower should act within his or her specific role (Van Gils, 2010). Hence, each member of the dyad develops prototypes of what a leader or follower should be. These prototypes are developed over the course of time and interaction with leaders and followers (Carsten et al., 2010; Shamir, 2007). This abstraction then influences individuals' perceptions of actual leaders and followers (Shamir, 2007, Schyns & Schilling, 2010). Given, perceptions and expectations are shaped by individual experiences; leader and follower prototypes are likely to be very different between leaders and followers (Engle & Lord, 1997; Lord & Maher, 1991; Shamir, 2007).

In addition to individual experience, prototypes may also be influenced by organizations and environments within those organizations. Carsten et al. (2010) and Louis (1980) assert that organizations may influence how schemas are activated by setting norms and standards of behavior for individuals in different hierarchical roles and then reinforcing those standards. In addition, according to Weick (1995), the environment in which an individual operates will influence not only how one socially constructs definitions of different roles (i.e., leader or follower), but also how individuals behave in those roles. Thus, differences in roles within a specific context can lead to a number of different perspectives in terms of leader and follower prototypes by activating schemas in a particular way in specific situations (Carsten et al., 2010; Lord & Maher, 1991; Shamir, 2007).

In order to examine this difference, however, it is essential to evaluate the congruence between dyadic partners. This suggests that dyadic congruence exists when individuals hold similar schemas regarding a specific phenomenon. Congruence, therefore, between prototypes held by a leader and follower could be seen as influencing the relationship quality. Engle and Lord (1997) researched congruence on leader prototypes as it relates to leader-member exchange (LMX) as assessed by each dyadic partner and found evidence to suggest that congruence on

prototypes predicts LMX quality. Although congruence on leader prototypes from the perspectives of both dyadic partners has been studied, research on congruence of follower prototypes, especially from the follower's perspective, is still lacking.

The purpose of this study is to investigate how congruence between a leader's and follower's leader and follower prototypes affects the quality of the LMX relationship as assessed by each partner in the dyadic pair. As such, it addresses the call by Sy (2010) as well as Lord and Brown (2004) for research that generates a deeper understanding of follower identities and prototypes as well as its effect on the leadership process. Liking and trust are examined as mediators in this relationship. Although prior research has identified a connection between liking and trust to LMX, the extent to which affective variables, such as liking and trust, affect the relationship between follower prototypes and the LMX is still not fully known. The following sections of this paper detail the development of LMX theory, theoretical foundation for leader prototypes and follower prototypes, roles of liking and trust, as well as the hypotheses and the proposed models of the study.

Chapter 2 - Literature Review

2.1 - Development of Leader-Member Exchange Theory

Social exchange processes describe the quality of exchanges in a relationship between individuals at the dyadic level (Brown, 1986). The quality of exchanges is characterized as multi-dimensional and is divided into two basic categories: the in-group, which is characterized by high trust, liking and reciprocal influence, and the out-group which is characterized by low trust, liking and role defined relationship (Dienesch & Liden, 1986). This is the case for all vertical dyadic relationships, and it is posited that group members will differentiate relationships in this manner (Liden, Sparrowe & Wayne, 1997). Furthermore, group membership develops fairly quickly and groups remain stable after they have formed (Dienesch & Liden, 1986). The traditional perspective is that individuals evolve their roles with one another through consistent interactions and have a direct impact on the other. This highlights the importance of reciprocal exchanges between partners in a relationship to improve its quality (Molm, Takahashi & Peterson, 2000). These exchanges, however, can be applied to various forms of interpersonal relationships, including the relationship between leaders and followers.

Social exchange theory provides the theoretical basis for leader-member exchange (LMX) theory, formerly known as vertical dyad linkage theory (Sparrowe & Liden, 1997; Wayne, Shore & Liden, 1997). Leader-member exchange theory describes the interpersonal relationship that evolves between leaders and followers against the background of a formal organization (Graen & Cashman, 1975). The relationship is characterized by exchanges in this context wherein each dyadic partner offers something that the other partner sees as valuable; in this regard, each partner must see the exchange as reasonably equitable or fair (Graen & Scandura, 1987). In addition, when dyadic partners perceive the value of the commodities exchanged between as being greater, the quality of the LMX relationship also becomes greater (Wayne, Shore & Liden, 1997). Because the value of exchanges between dyadic partners is often perceived differently by each partner, however, each partner may experience the relationship differently.

Although initial research was built on the idea that leaders and followers experience LMX relationships in a similar way, recent findings have shown that the relationship quality is often assessed differently by dyadic partners in different roles (Van Gils et al., 2010). A meta-analysis in which primary data was also collected (Sin, Nahrgang and Morgeson, 2009) suggested that the similarity of leader and follower perceptions of their LMX relationship quality is often very low despite the fact that both parties are part of and rate the same relationship. An examination of moderators in this research showed that longer relationship tenure and familiarity as well as affectively oriented relationship dimensions showed higher levels of agreement (Sin et al., 2009). In addition, Sin et al. (2009) found a correlation of only .29 between leaders' assessment of LMX and members' assessment of LMX. Finally, a meta-analysis by Gerstner and Day (1997) across 24 independent samples and a sample size of 3460 individual dyads supports these findings. Clearly these findings are replicable, suggesting that this issue of LMX disagreement is a common problem.

Such disagreement in LMX relationships is thought to be due largely to the impact of cognitive and affective factors (Lord & Maher, 1991; Lord, Foti, & DeVader, 1984; Wayne, Shore & Liden, 1997). LMX relationships have been shown to vary with specific regard to the amounts of resources exchanged between the two parties (e.g. personal experience, support) (Wayne et a., 1997; Lord & Maher, 1991). Since leaders and followers often have access to different resources and develop unique personal experiences depending on their roles, the quality

of the relationship is evaluated differently for each member of the dyad (Engle & Lord, 1997; Lord & Maher, 1991; Lord et al., 1984). For example, in a study of 166 newly hired employees for 6 months, leader and follower expectations of each other assessed in the first 5 days, as well as perceived similarity of the followers, predicted LMX at 2 weeks and at 6 weeks following the start of the relationship (Liden, Wayne & Stilwell, 1993). In addition, affective variables, such as the liking and trust between members of a dyad, are integral to the relationship quality (Dienesch & Liden, 1986). In the same study previously mentioned, Liden et al. (1993) found that liking from both the leaders' and followers' perspectives predicted LMX at 2 weeks, 6 weeks and 6 months. Therefore, the quality of the exchanges may be impacted because the evaluations of the affective correlates associated with the relationship are different between dyadic partners (Dienesch & Liden, 1986; Wayne et al., 1997). As such, studying cognitive correlates such as leader and followership prototypes, as well as affective variables such as liking and trust, is essential when evaluating the quality of an LMX relationship.

2.2 - Role of Leader Prototypes in LMX

It is widely accepted that the construct of leadership is a perceptual process, as well as a behavioral process (Shondrick & Lord, 2010). This idea was elaborated by viewing perceiver knowledge structures as social categories that allowed for the classification of individuals into leader or non-leader categories (Lord & Maher, 1991; Shondrick & Lord, 2010). These perceptual processes are a direct result of the leader categorization process described by Lord and his colleagues (1984), based on cognitive categorization processes described by Rosch (1977, 1978). In the following section, the structure of cognitive categories, leader categorization theory, its influence on the development of leader prototypes and studies that support the influence of leader prototypes on leader-member exchange are reviewed.

In order to avoid being overwhelmed by the heavy amount of information that is encountered each day, individuals create cognitive shortcuts that allow us to simplify information processing and focus (Rosch, 1977, 1978). Schemas are constructed around information that is environmentally useful for the perceiver; biological, social, and cultural needs heavily influence human's schema construction in an organized manner (Rosch, 1977, 1978). Consistent with Rosch's theory, categories are organized horizontally with respect to contrasting interpretations of a stimulus (e.g., a leader vs. a non-leader) and hierarchically around levels of abstraction within a particular category (e.g., leader) (Shondrick & Lord, 2010). The *basic level*

(e.g., business leader) is most commonly used and most relatable to one's world. The *superordinate level* categories are abstract and inclusive (e.g., leaders) and the *subordinate level* categories are concrete and exclusive (e.g., top-level business leaders) than basic level categories (Lord et al., 1984; Shondrick & Lord, 2010). According to Rosch (1977) categories develop around a prototype, which is the most abstract yet most representative example of a category. Prototypical features are widely shared among category members and, as such, are very useful as cues of category membership (Rosch, 1977, 1978).

Based on this work (Rosch, 1977, 1978), Lord and his colleagues (Lord, Foti, & De Vader, 1984; Lord & Maher, 1991) developed a categorization-based theory of leadership that posits when individuals encounter someone who exhibits salient characteristics and behaviors, they search for a matching category. If there is a match between a perceived individual and the concept of a leader held by the perceiver, it is more likely that the perceiver will see that individual as a leader (Lord, Foti, & DeVader, 1984). The nature of these searches is automatic, and can be influenced by a wide variety of factors including, but not limited to personal experience, available information regarding the target, ambiguity of information, the perceiver's goals, culture, and affective variables (Lord et al., 1984; Shondrick & Lord, 2010; Ross & Nisbett, 1991).

When processing capacity is overwhelmed, perceivers will rely on this automatic categorization process as a basis for judgment of others in social interactions (Engle & Lord, 1997). Leader prototypes guide information processing in a structurally organized fashion around common features and are used to interpret the behavior of others and to generate one's own behaviors (Lord & Maher, 1991; Shondrick & Lord, 2010). As such, leader prototypes are important because they set expectations for what leaders should do, as well as act as a guide for interpreting one's own behavior (Lord & Maher, 1991). In summary, leadership prototypes simplify reality by imposing structure on a somewhat ambiguous social world, as leader categorization theory implies. However, one might suspect that because of unique experiences and motivation, different perceivers may structure their social world slightly differently and need not have the same perceptions of a specific individual (Engle & Lord, 1997).

2.3 - Role of Follower Prototypes in LMX

As with leadership, categorization with regard to followership is an equally important part of individual schemas (Carsten et al., 2010). Most of the existing research is studied from a

follower-centric approach to leadership, rather than a followership approach (Carsten et al., 2010). The basic follower-centric approach to leadership states it is followers rather than leaders who construct both the phenomenon of leadership and the images of specific leaders (Meindl, 1990, 1995; Meindl et al., 1985). In this way, the focus is on how followers view their leaders and leaders' behaviors (Carsten et al., 2010). For example, a follower's leader prototype could serve as a follower-centric approach to leadership. Thus, the emergence and consequences of leadership are largely influence by followers' cognitive processes (Shamir, 2007). A followership approach differs from a follower-centric approach to leadership in that the primary focus is on follower perspectives of followership (what is means to be a follower), rather than follower perspectives of leadership (Carsten et al., 2010). In order to properly evaluate an exchange relationship, it is necessary to study individuals' cognitive structures of followership in addition to leadership (Shondrick & Lord, 2010). In the following section, follower categorization theory, the development of follower prototypes and studies that support the influence of follower prototypes on leader-member exchange are reviewed.

As with leadership, follower categories are organized horizontally with respect to contrasting interpretations of stimuli and hierarchically around levels of abstraction within a particular category with regard to followership (Shondrick & Lord, 2010). The *basic level* (e.g., business follower) is most commonly used and most relatable to one's world. The *superordinate level* categories are abstract and inclusive (e.g., followers) and the *subordinate level* categories are concrete and exclusive (e.g., top-level business followers) than basic level categories (Lord et al., 1984; Shondrick & Lord, 2010). Rosch's theory of cognitive categorization may be used to explain that follower prototypes are hierarchically organized around a basic level category, which may include a general context-specific concept of someone who shows deference to a leader (Uhl- Bien & Pillai, 2007). Prototypes are the most representative example of the follower category and thus prototypes are useful as followership cues (Shondrick & Lord, 2010).

Categorization theory posits that if there is a match between a perceived individual and the concept of followership held by the perceiver, it is more likely that the perceiver will see that individual as a follower (Shondrick & Lord, 2010). Salient group behaviors or characteristics cue perceivers (followers) to search for a matching social category to make sense of the situation (Foti & Lord, 1987). This search can activate a follower identity, however, it should be noted that follower identities may also be activated through the perception that someone else is the

leader (Uhl- Bien & Pillai, 2007; Shondrick & Lord, 2010). The nature of these searches, again, is automatic or unconscious, and would result in recognition of the target as being a member of the category (i.e. a follower) (Lord et al., 1984). These searches can be influenced by a wide variety of factors, including previous experience, available information regarding the target, ambiguity of information, the perceiver's goals, culture, and affect (Lord, Foti, & DeVader, 1984; Ross & Nisbett, 1991; Shondrick & Lord, 2010).

Follower judgments based on such categorization processes influence social interactions through follower prototypes (Shondrick & Lord, 2010). In this way, follower prototypes are used to interpret the behavior of others and to generate an individual's own behavior (Lord & Maher, 1991; Shondrick & Lord, 2010). Thus, follower prototypes are important because they set expectations for what followers should do, as well as act as a guide for interpreting one's own behavior within the context of a dyad as well (Lord & Maher, 1991). Empirical support of this process with regard to followership, however, is still needed, thus Shondrick and Lord (2010) call for research from a followership perspective.

A perceiver's initial categorization of another individual can lay the groundwork for the dyadic relationship that will develop (Engle & Lord, 1997; Van Gils et al., 2010). Lord and Maher's reciprocal influence model (1991) describes how social perception mediates the behavior of one dyadic partner and the response of the other with leader prototypes; however, it stands to reason that this is possible with regard to follower prototypes as well. Therefore, the interpretation of one's behavior will influence the relationship from the perspective of the follower as well (Van Gils et al., 2010). A study by Sy (2010) sought to identify the structure of follower prototypes, as well as examine the relationship between follower prototypes and relationship outcomes. Results of this study indicated that follower prototypes positively predicted liking, relationship quality and trust (Sy, 2010). This research offers support for the assertion that follower prototypes have a significant impact on LMX quality; however, congruence on follower prototypes was not assessed.

Engle and Lord (1997) examined implicit theories of performance (performance prototypes) and found that perceptions of performance were instrumental in determining the subsequent LMX quality, providing further evidence that the interpretation of followers' behavior that influences the relationship and that this process is not necessarily limited to leader prototypes (Lord & Maher, 1991). This process is important for followers to be cognizant of in

an LMX relationship because if followers' prototypes are similar to schemas held by their dyadic partner, the follower is likely to be more successful at engaging their partner in higher quality exchanges (Lord & Maher, 1991). This suggests that similarities and differences in follower prototypes for each dyadic partner impacts relationship quality.

2.4 - Role of Congruence in LMX

There is a dynamic interplay between a leader's and a follower's perceptions of leadership and followership in a dyadic relationship (Shondrick & Lord, 2010). Thus, there are several theoretical reasons why agreement between a leader's and follower's leader and follower prototypes is instrumental in determining LMX quality (Engle & Lord, 1997). Engle and Lord (1997) provide evidence that congruence on leader prototypes provides opportunities for identification with an individual's dyadic partner as well as a basis for common understanding. Since prototypes guide not only behavior, but the interpretation of that behavior, superior relationship quality between a leader and a follower can only be achieved when the behavior of both dyadic partners aligns with expectations and both dyadic partners interpret it similarly (Engle & Lord, 1997; Lord & Maher, 1991; Shondrick & Lord, 2010). Thus, congruence between prototypes is essential in a high quality LMX relationship and factors that influence this congruence need to be addressed.

There are several factors that can influence congruence on leader and follower prototypes. Prototypes may differ if: (1) the more leaders and followers have had different experiences regarding both roles, (2) the more leaders and followers are subject to different contexts that provide different saliencies, (3) the more leaders' and followers' goal definitions (objectives and needs conceptualized as anchored to the specific roles of leader and follower) differ from each other (van Gils et al., 2010). In addition, prototypes are likely to differ based on the extent to which leaders and followers think their standards for each role are met by the other as well as by themselves (Lord et al., 1984; Van Gils et al., 2010). Lord and Maher (1991) suggest that leadership and followership are constructed as a pair and that both vary according to personal experiences, as well as the roles that each individual serve in the dyad. This suggests that whether or not leaders and followers have similar prototypes will have an effect on the exchange quality between leaders and followers.

Previous studies have empirically investigated how congruence on leader prototypes between dyadic partners influences relationship quality. The results of such research suggest that there is a strong correlation between congruence of leader prototypes and LMX as rated by each dyadic partner (Engle & Lord, 1997; Schyns & Schilling, 2008). In a field study of 18 supervisors and 76 subordinates, Engle and Lord (1997) used a quasi-experimental design to demonstrate that congruence between perceived similarity, prototypes, and self-schemas are positively and significantly related to LMX quality. In this study, congruence was operationalized as whether or not dyadic partners had the same prototypes. Taking a perspective similar to that of van Gils et al. (2010), Epitropaki and Martin (2005) examined the role of leader prototypes for LMX as well as perceptions of job satisfaction, commitment, and well-being in a field study of 439 employees, surveyed at 2 different time points. Congruence, in this study, was operationalized as the perceived match between a follower's leader prototypes and a specific leader's behavior. The authors found support for their hypotheses that matches between the supervisors and their employees' leader prototypes led to higher quality LMX, which was significantly correlated to commitment, satisfaction, and well-being (Epitropaki & Martin, 2005).

While the match between follower prototypes and an individual's supervisor and/or subordinates is important, it is essential to examine congruence of prototypes between dyadic partners as well. Engle and Lord (1997) found considerable support for the assertion that whether or not dyadic partners have the *same prototypes* (Engle & Lord, 1997) also influences that individual's perception of LMX quality. The current study evaluates leader and follower prototypes from the perspectives of both dyadic partners, therefore this operationalization of congruence, where the leader prototypes of both leaders and followers are compared, has been chosen.

2.5 - Role of Liking in LMX

The reciprocal nature of social exchange relationships suggests that liking would have a strong impact on the evaluation of the exchange process by each dyadic partner (Engle & Lord, 1997; Greenberg, Soloman, & Pyszczynski, 1997; Turban et al., 1990). Prior research in social psychology, in the contexts of social influence and terror management theory, has demonstrated that cognitive category congruence is highly predictive of liking (Greenberg et al., 1997). In other words, individuals that think in similar ways are more likely to have high liking for each other. This assertion suggests that liking would have a strong impact on the evaluation of the

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exchange process by each dyadic partner (Engle & Lord, 1997; Greenberg et al., 1997). However, liking between dyadic partners has been considered as an affective correlate of leader-member exchange theory, an antecedent of LMX relationships, as well as a mediator of the relationship between prototypes and LMX relationships. Literature for each of these three perspectives is reviewed below.

Previous research suggests that liking is an affective correlate of LMX relationships (Graen & Cashman, 1975; Greenberg et al., 1997; Turban et al., 1990; Wayne et a., 1997, Dienesch & Liden, 1986). Graen and Cashman (1975) proposed that leader-subordinate compatibility influences the type of leader-member exchange a leader initiates with the subordinate. In addition, research has shown liking to be instrumental in every-day relationships; which has been demonstrated by individuals' natural tendency to seek out and like individuals that think in similar ways (Engle & Lord, 1997; Greenberg et al., 1997). Dienesch and Liden (1986) suggested that leader-member exchange is a multi-dimensional construct, and that liking is an important dimension of such relationships. This assertion is supported by Turban et al. (1990) in a laboratory experiment and found substantial support for liking as integral to relationship quality and that both may emerge differently across dyads. As such, liking and relationship quality are strongly linked such that liking can be regarded as one facet of relationship quality, but as two distinct constructs (Wayne et al., 1997).

Many studies that have examined the relationship between liking and LMX quality found substantial support for liking as an antecedent of LMX (Liden et al., 1993; Wayne & Ferris, 1990; Wayne et al., 1997). Wayne and Ferris (1990), as well as Liden et al. (1993) and Wayne et al. (1997) explored liking as an antecedent of leader-member exchange quality in this way by examining liking in field studies of bank employees and newly hired employees. Results indicated that supervisor-focused liking for subordinates as well as subordinates liking for their supervisor significantly impacted LMX quality (Liden et al., 1993; Turban et al., 1990; Wayne & Ferris, 1990). Furthermore, Liden et al. (1993) found evidence for a causal relationship with liking as an antecedent in this matter in an examination of this relationship over 6 months of subordinates working with their immediate supervisor. Turban et al. (1990) corroborates these findings. Taking a different perspective, Wayne et al. (1997) evaluated the differences between

of perceived organizational support (POS) and LMX and found that liking and dyad tenure are antecedents of LMX. Together, these studies offer comprehensive support for liking as an antecedent of LMX.

In addition to the evidence that suggests liking is an antecedent of LMX (Sy, 2010; Engle & Lord, 1997), previous research emphasizes that affective variables, such as liking, are a consequence of categorization process previously discussed (Engle & Lord, 1997; Lord et al., 1984; Lord & Maher, 1991; Shondrick, Dinh & Lord, 2010; Sy, 2010). Engle and Lord (1997) investigated liking as a mediator in the relationship between leader prototypes and LMX quality, as well as performance prototypes and LMX quality. Results of study support the claim that prototypes significantly predicted liking and supervisor-rated LMX (Engle & Lord, 1997). The results of this study offer causal support for the assertion that liking does mediate the relationship between prototypes and LMX quality. In addition, Sy (2010) examined the relationship between follower prototypes, liking, and LMX and found that follower prototypes significantly predicted liking and LMX quality. Together, these studies offer comprehensive support that congruence on prototypes influences liking; which, in turn, influences LMX quality as assessed by each dyadic partner. This suggests that liking may mediate the relationship between congruence on follower prototypes, in addition to leader prototypes, and LMX as assessed by both dyadic partners.

2.6 - Role of Trust in LMX

Trust is typically viewed as essential to relationship quality and an integral part of exchanges between supervisors and subordinates (Dienesch & Liden, 1986; Wayne et al., 1994; Liden et al., 1997). In the existing literature, LMX has been characterized as a multidimensional construct, with trust as one of the components (Dienesch & Liden, 1986; Liden et al., 1997); in other words, LMX partially can be characterized in terms of trust between leader and member from this point of view (Dienesch & Liden, 1986). The role of trust then, is thought to be that as trust between partners grows, so will their exchange quality (Dienesch & Liden, 1987; Liden et al., 1997). In the following section, conceptualizations of trust as an affective correlate separate from LMX, as an antecedent of high quality LMX relationships, and as a mediator of the relationship between congruence on prototypes and LMX are discussed. In addition, studies that support the influence of trust on exchange quality are reviewed.

Although trust has historically been viewed as an integral part of LMX relationships, recent research suggests that trust is, in fact, a separate affective correlate of LMX relationships (Brown, 1986; Dienesch & Liden, 1986; Scandura & Pellegrini, 2008). Scandura and Pellegrini (2008) examined the effect of different trust dimensions in LMX relationships and found support for a nonlinear association between trust and LMX. This provides evidence that, contrary to previous expectations, trust appears to be vulnerable even in high-quality LMX relationships. Additional research has shown trust to be instrumental in outcomes of matrix gaming studies designed to explore social exchange relationships, yet separate from relationship quality itself (Engle-Warnick & Slonim, 2006; Greenberg et al., 1997).

In addition to theoretical support that trust and LMX are two separate but related constructs, there has been recent support for point of view that trust is actually an antecedent of LMX (Liden et al., 1997; Scandura & Pellegrini, 2008). In an effort to provide a more comprehensive view of LMX and capture the complexity of the construct, Liden et al. (1997) posit that there may be evidence to support trust as an antecedent to relationship quality and recognize trust as a multi-dimensional construct. In this regard, LMX quality can be viewed as a consequence of trust on the basis that a causal relationship exists between these two constructs such that perceived relationship quality may be higher when trust is present (Liden et al., 1997). Although this relationship needs to be further explored, these studies offer support for testing perceived LMX quality as a consequence of trust.

While there is support for trust as a separate construct and an antecedent of LMX, there is also support for trust as a consequence of prototypes; suggesting trust may be a mediator of the relationship between prototypes and LMX. Previous research has posited that leaders' leader prototypes may influence leaders' perceptions of and behaviors toward followers that impact followers' trust in leaders, suggesting a connection between trust and leadership (Dirks, 2000). Results from the previous study outlined by Sy (2010) indicate that leaders' follower prototypes predicted liking, trust and relationship quality, although not specifically with trust as a mediator. In this regard, leaders' perceptions of followers may affect the level of trust between leaders and followers (Sy, 2010). In addition, followers matching leaders' follower prototype and anti-prototype may be evaluated positively and negatively, respectively, suggesting that prototypes influence the level of trust and relationship quality in a work relationship (Sy, 2010). Lord and Maher (1991) assert that congruence on cognitive categories is correlated with trust. Moreover,

individuals are more inclined to trust others that they view as similar to themselves (Moss, Garivaldis and Toukhsati, 2007). This suggests that trust is an antecedent of LMX and may mediate the relationship between congruence on prototypes and LMX. No known study to date, however, has specifically examined trust as a mediator in this fashion, and further exploration is needed.

Trust has historically been recognized as a construct not separate from leader-member exchanges (Dienesch & Liden, 2000) and social exchange relationships have classically been characterized by mutual trust (Engle-Warnick & Slonim, 2006; Molm, 1979). While the author recognizes this point of view, the focus in this study is characterizing trust as an antecedent of leader-member exchanges; which is supported by Liden et al. (1997) in an effort to identify its effect on LMX. Although no known study to date has examined trust as a mediator between the relationship between congruence on prototypes and LMX, research supports that congruence on prototypes is an antecedent to high trust and that trust is correlated LMX quality (Sy, 2010; Wayne et al., 1997; Wayne et al., 1994).

2.7 - Working Model of Hypotheses

The vast applications of LMX theory serve as evidence to suggest that studying LMX is a useful tool for understanding the complexities of dyadic functioning in many organizational settings (Engle & Lord, 1997). In order to improve the quality of LMX relationships between leaders and followers, it is imperative to understand its antecedents. There is substantial evidence to suggest that cognitive correlates such as leader and follower prototypes, as well as affective correlates such as liking and trust, are instrumental to how an individual perceives the exchange quality. Various aspects of perceived cognitive similarity, such as leader prototypes have been found to be instrumental in determining the quality of exchanges (Engle & Lord, 1997; Liden et al., 1993). In addition, there is evidence to suggest that LMX evolves differently depending on affective variables in different dyadic pairs (Engle & Lord, 1997; Dienesch & Liden, 1986; Wayne et al., 1994). As such, it stands to reason that congruence on leader and follower prototypes, as well as liking and trust, play a vital role in shaping an individual's perspectives on relationship quality.

Although research shows a modest convergence between supervisor and subordinate perspectives on LMX, perspectives on certain aspects of exchange provided by both the subordinate and supervisor may vary (Paglis & Green, 2002). Subsequently, it is essential to

examine how dyadic congruence on prototypes influences the quality of the leader-member exchange relationship as assessed by each partner in the dyadic pair. The model is, therefore, drawn separately from the perspectives of both the leader and the follower and the following hypotheses are proposed. The leader prototype congruence model (H1 and H2) is depicted in Figure 1, while the follower prototype congruence model (H3 and H4) is depicted in Figure 2.

H1a: Leaders' liking for followers will partially mediate the relationship between congruence on Leader Prototypes and LMX quality as assessed by leaders.

H1b: Leaders' trust for followers will partially mediate the relationship between congruence on Leader Prototypes and LMX quality as assessed by leaders.

H2a: Followers' liking for leaders will partially mediate the relationship between congruence on Leader Prototypes and LMX quality as assessed by followers.

H2b: Followers' trust for leaders will partially mediate the relationship between congruence on Leader Prototypes and LMX quality as assessed by followers.

H3a: Leaders' liking for followers will partially mediate the relationship between congruence on Follower Prototypes and LMX quality as assessed by leaders.

H3b: Leaders' trust for followers will partially mediate the relationship between congruence on Follower Prototypes and LMX quality as assessed by leaders.

H4a: Followers' liking for leaders will partially mediate the relationship between congruence on Follower Prototypes and LMX quality as assessed by followers.

H4b: Followers' trust for leaders will partially mediate the relationship between congruence on Follower Prototypes and LMX quality as assessed by followers.

Chapter 3 - Method

3.1 - Participants

The population targeted for this study was 18 through 22 year-old undergraduate students at a large Southeastern University that were willing participants. The final sample size consisted of 136 participants organized into 68 dyads (N = 68). Participants were recruited from psychology and management courses across 2 academic semesters using the SONA recruitment management system, an online system that allows a specified number of participants to voluntarily sign up for an experiment at a certain time. Participants were given extra credit for

their classes as compensation for their participation; these points were awarded through the SONA system. A chance to win a small gift-card to Wal-Mart was also used as an incentive. To maintain rater anonymity, a limited amount demographic data, including gender, was collected.

A power analysis for the study was carried out by using tables from Cohen (1992). Engle and Lord (1997) analyzed the relationship between leader prototypes and LMX, with liking as a mediator, using multiple regression analysis and found a moderate effect size. For this study, $\alpha = 0.05$ and a moderate effect size was expected in the sample of dyadic pairs. Cohen's (1992) recommendations for an alpha level of 0.05 and a moderate effect size are a sample size of 67 units of analysis in order to achieve statistical power of 0.8. Based on previous research by Engle and Lord (1997) and power analysis tables presented by Cohen (1992), it was determined that a final sample size of n = 68 was sufficient. It should be noted that (n) is the number of dyads needed; yielding a total sample size of $n^{participant} = 136$. Given the chosen population and sampling strategy, this was a feasible and attainable sample size.

3.2 - Experimental Design

A 2(gender of leader) x2(gender of follower) experimental design was used in order to further control for gender. This manipulation was chosen in order to fully take advantage of the laboratory setting.

3.3 - Procedure

Randomization was used in 2 stages in this experiment. Random assignment was first used to assign participants to dyadic pairs (stage 1) and then to subsequently assign participants to the roles of "leader" and "follower" (stage 2).

Upon arrival, participants were randomly assigned to dyadic pairs and gave informed consent (Appendix A). Participants then completed a survey measuring their leader and follower prototypes (Appendices B and C) and were randomly assigned to roles of "leader" and "follower," although they were not informed of these roles at this time. Upon completion, they were asked as to complete Task 1 as a group. Following the successful conclusion of this task (all groups completed task 1 successfully), dyadic pairs were separated into different research rooms. Dyadic partners were then informed of their role as either "leader" or "follower" and were asked to fill out surveys regarding their trust and liking for each other (Appendices D and E). Following completion of these surveys, participants were asked to participate in Task 2 with their partner. Following the successful completion of this task (all groups were successful),

participants were asked to complete surveys regarding their liking and trust for each other again, as well as their assessment of the relationship quality (Appendix F). The over-all procedure took one hour on average. The experimental protocol is depicted in Appendix G. This timeline is depicted in Figure 3.

3.4 - Tasks

Two tasks were used in this experiment. In task 1, a 5x8 map was placed on the ground which was organized into 1 square foot sections, yielding a rectangular shaped grid with a total of 40 squares. There was one correct path containing 13 squares leading across the length of the rectangle from one side to the opposite side. The objective for the group was to find and take the one correct path through the map from one side to the other through a series of trial and error. The range of group size was 2-6 with a mean of 4.03.

Participants took turns attempting to navigate through the grid in this manner; they were able to move side to side, diagonal or forward in any direction, but not backwards. When a participant stepped on a correct square, they were notified and allowed to continue, however, if they stepped on an incorrect square, they were instructed to return to the starting side of the map, at which point, it was the next participant's turn to make an attempt. The person in a current attempt to navigate the map was allowed to receive assistance from the previous participant regarding which squares were correct, but from no one else. No participant was allowed to delegate tasks to the group at any time. In this way, each participant had a chance to act in the role of a leader (guiding another individual through the map) as well as a follower (being guided by another individual through the map). In addition, each participant had a chance to observe other individuals in both the leader and follower role as well. Thus, each participant had the opportunity to observe and subsequently form an initial opinion of their subsequent partner. This task was complete when the correct path was found, and all participants had successfully taken the correct path to the other side. If an error was committed after the correct path has been found, all participants having successfully made it to the finishing side had to return to the starting side. On average, 15.5 minutes were needed for groups to complete this task successfully; the range of times necessary for successful completion was 13.5 minutes to 18 minutes.

The second task in this experiment was a variation of the "Prisoner's Dilemma" designed to evaluate leader-follower exchange relationships (Zahn & Wolf, 1998). In this task, leaders were given two cards labeled "support" and "ignore" while followers are given cards labeled "work" or "loaf"; which depicted strategy alternatives each participant could take. Both participants were given a pay-off structure outlining the potential results (Figure 4). Both participants were allowed to communicate as frequently as they wish; however, communication was restricted to 10 seconds between rounds. No other specific instructions were given in order to prevent participants from being prompted in specifically competitive or cooperative ways. In addition, each participant sat side by side, differing from the original prisoner's dilemma (Zahn & Wolf, 1998). Participants were asked show their cards simultaneously, indicating which strategy they choose to take. Points awarded for each round were disclosed afterwards. After the completion of 75 rounds, point totals were disclosed. On average, 29 minutes were needed for dyads to complete this task successfully. Task 2 score (tables 2-4) was calculated by taking the sum of the points awarded to the leader or the follower for all 75 rounds.

3.5 - Measure of Leader Prototypes

Leader Prototypes were measured using a revised 21-item version of the original 41-item scale developed by Offermann et al. (1994) and revised by Epitropaki and Martin (2004) to measure the traits that are believed to be prototypical of leaders. All participants were asked to rate how characteristic a list of 21 traits is of a leader, with no definition of the term provided (Epitropaki & Martin, 2004). Both leaders and followers completed this measure. Each trait was rated on a 9-point scale with response options ranging from (1) *not at all characteristic* to (9) *extremely characteristic*. This scale includes six dimensions; the items along with Cronbach's alpha is listed for each dimension in parentheses: Sensitivity (3 items: understanding, sincere, helpful; .63), Intelligence (4 items: intelligent, knowledgeable, educated, clever; .71), Dedication (3 items: motivated, dedicated, hardworking; .70), Dynamism (3 items: energetic, strong, dynamic; .70), Tyranny (6 items: domineering, pushy, manipulative, loud, conceited, selfish; .85), and Masculinity (2 items: masculine, male; .88). A previous distinction was made by Epitropaki and Martin (2005) between prototypical dimensions (sensitivity, intelligence, motivation, and dynamism; .71) and anti-prototypical dimensions (tyranny and masculinity; .78).

Scores for all 21 items were summed for each participant; anti-prototypical were reverse-coded. Higher scores signified stronger standing on the traits that are believed to be prototypical of leaders. This measure is appears in Appendix B.

For purposes of this study, congruence on leader prototypes was measured by taking the square root of the sum of squared differences between ratings by each member of the dyadic pair for each item. Edwards (1994) calls this statistic "D." In this regard, a lower score signifies more congruence on leader prototypes. This method was chosen in order to take into account individual differences on each item.

3.6 - Measure of Follower Prototypes

Follower Prototypes were measured using an 18-item scale based on the traits identified by Sy (2010) to measure the attributes that are believed to be prototypical of followers. All participants were asked to rate how characteristic a list of 18 traits is of a follower, with no definition of the term provided (Sy, 2010). Both leaders and followers completed this measure. Each trait was rated on a 9-point scale with response options ranging from (1) *not at all characteristic* to (9) *extremely characteristic*. This scale includes six dimensions; with items and with Cronbach's alpha listed for each dimension: Industry (3 items: hardworking, productive, goes above and beyond; .92), Enthusiasm (3 items: excited, outgoing, happy; .84), Good Citizen (3 items: loyal, reliable, team player; .88), Conformity (3 items: easily influenced, follows trends, soft spoken; .87), Insubordination (3 items: arrogant, rude, bad-tempered; .64), and Incompetence (3 items: uneducated, slow, inexperienced; .68). A previous distinction was made by Sy (2010) between prototypical dimensions (sensitivity, intelligence, motivation, and dynamism; .83) and anti-prototypical dimensions (tyranny and masculinity; .72). Scores for all 18 items were summed for each participant; anti-prototypical were reverse-coded. Higher scores signified stronger standing on the traits that are believed to be prototypical of followers. This measure is appears in Appendix C.

As with leader prototypes, congruence on follower prototypes was measured by taking the square root of the sum of squared differences between ratings by each member of the dyadic pair for each item. Edwards (1994) calls this statistic "D." In this regard, a lower score signifies more congruence on IFT's.

3.7 - Measure of Liking

Liking was measured using a 4-item scale originally developed by Wayne and Ferris (1990) designed to measure interpersonal liking (e.g. "How much do you like your subordinate?"). These items were measured on a 7-point scale with response options ranging from (1) *strongly disagree* to (7) *strongly agree*. The items were summed; with a highest possible score of 20. Higher scores signifies higher liking. Cronbach's alpha was .89 at time 1 and .93 at time 2 from the leader's perspective and .87 at time 1 and .88 at time 2 from the follower's perspective. This measure appears in Appendix D.

3.8 - Measure of Trust

Trust was measured with a 6- item scale developed by McAllister (1995) and modified by Webber (2008) to measure cognitive and affective components of individual interpersonal trust (e.g., "This person approaches his/her job with professionalism and dedication," "We have a sharing relationship."). A measure of both the cognitive and affective dimensions of trust included was chosen for completeness. These items were measured on a 7-point scale with response options ranging from (1) strongly disagree to (7) strongly agree. The totals were then summed with a top score of 42. Higher scores signify higher trust. Cronbach's alpha for *total* trust was .87 at time 1 and .93 at time 2 from the leader's perspective and .92 at time 1 and .86 at time 2 from the follower's perspective. This measure appears in Appendix E.

3.9 - Measure of Leader-Member Exchange

Leader-member exchange quality was measured using the 10 item LMX-SLX scale originally developed by Graen, Hui and Taylor (2004) specifically to assess both leader and follower perspectives of the exchange relationship (e.g. "My leader has confidence in my ideas."). These items were measured on a 5-point scale with response options ranging from (1) *strongly disagree* to (5) *strongly agree*. Previous research has found that the scores on this measure demonstrate satisfactory psychometric properties including reliability (e.g., Graen, Hui and Taylor, 2006; Scherbaum, Naidoo, & Ferreter, 2007). For this measure, there are two distractor items; therefore, the remaining 8 items were summed for each participant resulting in a possible range of scores from 8-40; higher scores signifying better quality LMX as assessed by each dyadic partner. Cronbach's alpha was .94 from the leader's perspective and .95 from the follower's perspective. This measure appears in Appendix A.

Chapter 4 - Results

4.1 - Reliability, Descriptive Statistics and Correlations

Table 1 presents means, sums and standard deviations for both scales and sums for the dyadic variables of interest in this study. As previously mentioned, both leaders and followers completed measures of both leader prototypes and follower prototypes. The scale mean and variance on leader prototype were comparable for both leaders and followers; leaders had a scale mean of 6.27 and a scale *SD* of 1.9, while followers had a scale mean of 6.31 and a scale *SD* of 1.74. With regard to the follower prototype, leaders had a scale mean of 7.21 and a scale *SD* of 1.93, while followers had a scale mean of 7.13 and a scale *SD* of 1.54. Hotelling's T^2 was computed to evaluate changes in liking, affective trust, cognitive trust and total trust from time 1 to time 2 for both leaders and followers, as well as for the total sample. For the total sample (N=68), Hotelling's trace was significant *(F = 3.46, p < .05).* Participants showed differences in liking *(F = 9.5, p < .05)*, cognitive trust *(F = 7.26, p < .05)* and total trust *(F = 6.15, p < .05)* from time 1 to time 2. For leaders (n=68), Hotelling's trace was significant *(F = 2.79, p < .05).* Leaders showed differences in liking *(F = 8.61, p < .05),* cognitive trust *(F = 4.50, p < .05)* and total trust *(F = 4.54, p < .05)* from time 1 to time 2. For followers (n=68), however, Hotelling's trace was not significant; followers did not show significant differences in liking, affective trust, cognitive trust, or total trust from time 1 to time 2.

Tables 2 and 3 presents correlations and reliability coefficients for the dyadic variables of interest. Table 4 presents inter-correlations between dyadic variables of interest from the leaders' perspective and the followers' perspective. The reliability (alpha) coefficients listed in tables 2 and 3 demonstrate, for the most part, acceptable reliability for the scales used in this study. The follower prototype subscales, however, did not show acceptable reliability (.65). With the exception of leader's leadership experience (which correlated significantly with follower assessed cognitive and total trust at -.29 and -.25 respectively), the control variables (gender, group size, experimenter and leadership experience) show no significant correlations with any dyadic variables of interest for this study. As noted in Table 4, the correlation between leaders' leader prototype and leaders' follower prototype was significant *(.36, p < .01),* but there was not a significant correlation between followers' leader prototype and followers' follower prototype *(.22, p > .05).* Leaders' leader prototype did not correlate significantly with followers' leader prototype *(.12, p > .05).* Followers' leader prototype correlated significantly with leaders'

follower prototype (.24, *p < .05),* suggesting that followers' image of a prototypical leader may be more similar to leaders' prototypical image of a follower than a follower's prototypical image of a follower. Leaders' follower prototype did not significantly correlate with followers' follower prototype (-0.15, *p > .05),* suggesting that leaders and followers may have different ideas of a prototypical follower. Leaders' affective and cognitive trust for followers correlated highly at time 1 *(.60, p < .01)* and at time 2 *(.73, p < .01).* Followers' affective and cognitive trust for leaders correlated highly at time 1 as well *(.75, p. < .01),* yet the strength of this correlation weakened at time 2 (.53, *p. < .01).* These results were comparable to those of Webber (2008), who also found this correlation should significantly weaken over time. The correlation between followers' liking for leaders at time 1 and total trust for leaders at time 1 was .68, *p < .01*, while the correlation between followers' liking for leaders at time 2 and followers' trust for leaders at time 2 was .77, *p < .01.* These correlations are slightly higher than the results of Sy (2010); which may be attributed to differences in methodology (Sy used field surveys to collect this data).

Table 5 presents scale means, scale standard deviations, inter-correlations and reliability (alpha) coefficients for the leader prototype subscales and follower prototype subscales. The reliability (alpha) coefficients listed in table 2 demonstrate, for the most part, acceptable reliability for the scales used in this study. The leadership prototype subscales of sensitivity (.63) and the follower prototype subscale of conformity (.64), however, did not. The inter-correlations for leader and follower prototype subscales were carefully evaluated, as few studies have compared these scales. Although slightly weaker in this study, the inter-correlations between the leader prototype subscales and the follower prototype subscales are comparable to those found in Sy (2010). The inter-correlations between the follower prototype subscales were comparable to those found in Sy (2010) with two exceptions. The correlations between "Conformity" and "Good Citizen," as well as "Insubordination" and "Conformity," were stronger in this study (-.24, *p < .05)* and *(-.24, p < .05)* respectively compared to *(.02, p > .05)* and (.01, *p > .05)* in Sy (2010). The inter-correlations between the leader prototype subscales, however, were notably weaker in this study compared to previous research (Epitropaki and Martin, 2004). All correlations were in the same direction.

4.2 - Evaluation of Congruence Indices

Because leaders and followers could have scale scores that are equal, yet differ widely in their ratings of specific items (e.g. hardworking, intelligent), it was necessary to create a measure to examine the separate effects of similarity on leader and follower prototypes. For example, in one dyad, a leader might rate "hardworking" as highly prototypical of a leader with a score of 9 and rate "intelligent" as not prototypical with a score of 1, while a follower may rate "hardworking" as not prototypical with a score of 1 and rate "intelligent" as highly prototypical with a score of 9. In contrast, in another dyad, a leader might rate both "hardworking" and "intelligent" as moderately prototypical with a score of 5 each, while a follower may also rate "hardworking" and "intelligent" as moderately prototypical with a score of 5 each. Although the scale scores in both dyads would be equal with a total score of 10, this would unreflective of the differences in their prototypicality ratings. These differences, however, may have substantial consequences for liking, trust and relationship quality and need to be evaluated (Engle & Lord, 1997). Edwards (1994) noted that congruence scores such as "D" (the square root of the sum of squared differences) can and have been used to represent similarity between leaders and subordinates, while Engle and Lord (1997) have previously used "D" to estimate congruence on leader prototypes for leaders and followers. Thus, "D" was chosen to represent similarity on leader and follower prototypes for leaders and followers.

Like other congruence scores, however, there a number of assumptions that could potentially hinder the reliability of using "D" (Edwards, 1994; Engle & Lord, 1997). Previous research has commented that congruence scores are "sensitive measures because of their ability to pick up differences in specific items as well as aggregate scales." (Edwards, 1994; Engle & Lord, 1997; Johns, 1981). Furthermore, difference scores can be less reliable than their component scores and difficult to interpret (Johns, 1981; Edwards, 1994). Engle and Lord (1997) pointed out that this is partly due to the fact that the impact of the supervisor and subordinate components depends on their relative variances. Edwards (1994) suggested ways to test the inherent constraints of "D" by using multivariate analyses that treat each item as a separate dimension. Due to the sample size requirements of such analyses, however, they were not conducted for this study.

Nevertheless, it is possible to empirically evaluate congruence scores such as "D" by following the procedure used by Engle and Lord (1997) and noted by Edwards (1994) to reduce the difficulties in interpreting "D" by empirically examined the relationship of "D" to the component scales. The rationale for the D-profile similarity measure is to treat the effects of differences in either direction as being equivalent, in order to demonstrate that using "D" would be more appropriate than using component scores (Engle & Lord, 1997; Edwards, 1994). The first two terms in the regression model used in the current study reflect the component variables (the separate effects of leader and follower prototypes). The third term, as recommended by Edwards (1994: 60) and Engle and Lord (1997), is a dummy variable (W1) that takes a value of 0 if leader's prototype is greater than or equal to follower's prototype and of 1 if leader's prototype is less than the follower's prototype as recommended by Edwards (1994) and Engle and Lord (1997). The final two terms show the interaction of this dummy variable and the leader and follower prototypes. These three terms (W1, W1 x leader prototype and W1 x follower prototype) allow the regression slopes and intercepts to change at the point at which leader and follower scores are equal (Engle & Lord, 1997). The results of these congruence tests are shown in Table 6.

With regard to evaluation of "D" for leader prototypes, the middle column of table 4 shows that this model explained a significant amount of variance in the "D" of leader prototypes (37%). In addition, this model demonstrates empirical support for the constraints Edwards (1994: 62) identified as being inherent in interpretable absolute difference models. First, the weights for the leader and follower prototypes components were significant *(0.04, p <.10* and -0.11, *p < .001* respectively), and of opposite sign. Second, the leader component was of opposite sign to the interaction of the W1 dummy variable and the leader component (0.04 and -0.24). Third, the interaction of the W1 dummy variable and the follower component was of opposite sign to the follower component and was approximately twice as large (0.24, *p < .01* and -0.11, *p < .01*). Finally, W1 was not significant for either leader or follower prototype congruence. These results are comparable to that of Engle and Lord (1997), thus demonstrating further support for the use of "D" in the evaluation of similarities on leader prototypes for leaders and followers.

With regard to evaluation of "D" for follower prototypes, table 4 shows that this model explained a substantial amount of variance in the "D" of leader prototypes (83%). In addition, this model demonstrates strong empirical support for the constraints Edwards (1994: 62) identified as being inherent in interpretable absolute difference models. First, the weights for the leader and follower prototypes components were significant (0.20, *p <.001* and   -0.22, *p < .001* respectively), and of opposite sign. Second, the leader component was of opposite sign to the interaction of the W1 dummy variable and the leader component and was approximately twice as large (0.20, *p < .001* and -0.45, *p < .001*). Third, the follower component was of opposite sign to the interaction of the W1 dummy variable and the follower component and was approximately twice as large (-0.22, *p < .001* and *0.43, p < .001*). Finally, W1 was not significant for either leader or follower prototype congruence. These results demonstrate support for the use of "D" in the evaluation of similarities on follower prototypes for leaders and followers. To the authors' knowledge, no previous study has attempted to demonstrate support for use of "D" for similarity on follower prototypes in this manner.

As such, we believe that these empirical tests show that there is clear justification for interpreting "D" as primarily reflecting congruence in supervisors' and subordinates' prototypes, as it has in previous research (Engle & Lord, 1997). Moreover, table 1 shows that the leader and follower scales have nearly identical variance for both leader and follower congruence scores.

4.3 - Issues with Reliability

Given the weaker reliability coefficients for the follower prototype for followers, as reported in table 2 (.65) as well as and the follower prototype subscale of conformity, as reported in table 3 (.64), reliability was also assessed using a confirmatory factor analysis (CFA) framework. Table 7 reports fit indices for the follower prototype scale. All items loaded significantly onto their respective factors (loadings ranging from .74 to .89 on the Industry scale, from .68 to .83 on the Good Citizen scale, from .70 to .79 on the Enthusiasm scale, from .64 to .72 on the Insubordinate scale, from .58 to .69 on the Conformity scale and from .59 to .73 on the Incompetence scale). The six factors were allowed to covary. The chi-square value for the overall model fit was significant, $\chi^2 (120) = 210.21$, *p* <.001 suggesting a lack of fit between the hypothesized model and the data. Due to the Sensitivity of $\chi 2$ in large samples, however, other

fit indices were assessed (Kline, 1998). Examination of these indices indicated acceptable model fit with a χ^2/df ratio of 1.75, TLI = .95, CFI = .95, RMSEA = .07. Therefore, the follower prototype scale and sub-scales showed acceptable reliability in a CFA framework.

4.4 - Hypotheses Testing

A series of manifest path models were constructed in order to test the hypotheses in this study. In these models, residuals from liking and trust at both time points were allowed to correlate; given the high correlations listed in Tables 2 and 3.[1] Hypothesis 1a predicted that leaders' liking for followers will partially mediate the relationship between congruence on leader prototypes and LMX quality as assessed by leaders, while hypothesis 1b predicted that leaders' trust for followers will partially mediate the relationship between congruence on leader prototypes and LMX quality as assessed by leaders. To test for mediation, a manifest path model (Figure 5) was specified in which leaders' liking and trust for followers at time 1 and time 2 fully mediated the relationship between congruence on leader prototypes and leader-assessed LMX. The model showed acceptable fit: $\chi 2$ (7) = 22.49 (p > .05) (normed chi-square = 3.21); CFI = .93; IFI = .93; NFI = .90. Path estimates from congruence on leader prototypes to leaders' liking for followers (-.19) as well as from congruence on leader prototypes to leaders' trust for followers (-.17), however, were not significant. Thus, hypotheses 1a and 1b were not supported.

Hypothesis 2a predicted that followers' liking for leaders will partially mediate the relationship between congruence on leader prototypes and LMX quality as assessed by followers, while hypothesis 2b predicted that followers' trust for leaders will partially mediate the relationship between congruence on leader prototypes and LMX quality as assessed by followers. To test for mediation, a manifest path model (Figure 6) was specified in which followers' liking and trust for leaders at time 1 and time 2 fully mediated the relationship between congruence on leader prototypes and follower-assessed LMX. The model showed excellent fit: $\chi 2$ (7) = 9.3 (p < .05) (normed chi-square = 1.33); CFI = .98; IFI = .98; NFI = .98. All path estimates were significant; thus showing support for the fully mediated model. The fit of this fully mediated model was then compared with a partially mediated model in which congruence on leader prototypes had a direct relationship with follower-assessed LMX. The partially mediated model did not fit significantly better than the fully mediated model ($\Delta\chi 2$ (1) = 0.1) and the added path was not significant. Thus, hypotheses 2a and 2b were supported; although only partial mediation was hypothesized.

Hypothesis 3a predicted that leaders' liking for followers will partially mediate the relationship between congruence on follower prototypes and LMX quality as assessed by leaders, while hypothesis 3b predicted that leaders' trust for followers will partially mediate the relationship between congruence on follower prototypes and LMX quality as assessed by leaders. To test for mediation, a manifest path model (Figure 7) was specified in which leaders' liking and trust for followers at time 1 and time 2 fully mediated the relationship between congruence on follower prototypes and leader-assessed LMX. The model showed acceptable fit: $\chi2$ (7) = 22.4 (p > .05) (normed chi-square = 3.19); CFI = .93; IFI = .94; NFI = .91. The path estimate from congruence on follower prototypes to leaders' trust for followers was not significant (-.09) was not significant, however, all other path estimates were. Thus, hypotheses 3a was supported, but not hypothesis 3b. Additional manifest path models using only leaders' liking for followers as a mediator were fit, in order to determine if the mediation effect found was full or partial. A manifest path model was fit in which leaders' liking for followers at time 1 and time 2 fully mediated the relationship between congruence on follower prototypes and leader-assessed LMX. The model showed good fit: $\chi2$ (3) = 7.3 (p > .05) (normed chi-square = 2.43); CFI = .95; IFI = .96; NFI = .93. The fit of this fully mediated model was then compared with a partially mediated model in which congruence on leader prototypes had a direct relationship with follower-assessed LMX. The partially mediated model fit significantly better than the fully mediated model ($\Delta\chi2$ (1) = 4.3) and the added path was significant. Thus, a partial mediation effect was found in support of hypothesis 3a.

Hypothesis 4a predicted that followers' liking for leaders will partially mediate the relationship between congruence on follower prototypes and LMX quality as assessed by followers, while hypothesis 4b predicted that followers' trust for followers will partially mediate the relationship between congruence on follower prototypes and LMX quality as assessed by followers. To test for mediation, a manifest path model (Figure 8) was specified in which followers' liking and trust for leaders at time 1 and time 2 fully mediated the relationship between congruence on leader prototypes and follower-assessed LMX. The model showed excellent fit: $\chi2$ (7) = 8.3 (p < .05) (normed chi-square = 1.19); CFI = .99; IFI = .99; NFI = .97. Path estimates for congruence on follower prototype to followers' liking for follower at time 1 (-.01) and congruence on follower prototype to followers' trust for leader at time 1 (-.07), however, were not significant. Thus, hypotheses 4a and 4b were not supported.

Chapter 5 - Discussion

5.1 - Summary of Findings

The purpose of this study was to investigate how congruence between a leader's and follower's leader and follower prototypes affects the quality of the LMX relationship as assessed by each partner in the dyadic pair. Liking and Trust from the perspective of both dyadic partners were examined as mediators in these relationships. The author found evidence that congruence on leader prototypes is related to LMX quality as assessed by leaders and followers. In addition, there was evidence to support that congruence on follower prototypes was related to LMX quality as assessed by leaders, but not LMX quality as assessed by followers. The author also found empirical evidence that liking is positively related to leader and follower assessments of LMX quality. Specifically, followers' liking for leaders fully mediated the relationship between congruence on leader prototypes and follower assessed LMX quality. In addition, leaders' liking for followers fully mediated the relationship between congruence on follower prototypes and leader assessed LMX quality. Furthermore, the author found evidence that followers' trust for leaders was positively related to followers' assessment of LMX quality; although leaders' trust for followers was not related to leaders' assessment of LMX quality. Specifically, followers' trust for leaders fully mediated the relationship between congruence on leader prototypes and followers' assessment of LMX quality.

A number of interesting general observations were made regarding task 2; the organizational prisoner's dilemma. Interpretation of the instructions varied widely between and within dyads. As seen in Zahn and Wolf (1998), multiple matrix gaming strategies, including tit-for-tat, win/stay lose/change, altruism, and "nash equilibrium," were initially observed. While both parties in some dyads recognized the benefits of mutual cooperation, one or both parties in other dyads took a more competitive view and defected strategically, in order to gain more points than their partner. Furthermore, the behavior of one partner had a tendency to subsequently influence the behavior of the other. For example, the defecting of one partner frequently led to the defection of the other partner in the following round. In general, followers defected more frequently than leaders; perhaps recognizing that the cost of defecting for them was lower than for the leader in a scenario where both partners defected. Most dyads eventually settled into a pattern of mutual cooperation; which is reflective in the mean scores on task 2 for leaders and followers (65 and 47.94 respectively).

Paired sample Hoelling's T^2 tests of affective trust, cognitive trust, total trust and liking from time 1 to time 2 revealed interesting results as well. Scale means of affective trust remained consistent from time 1 to time 2 for both leaders and followers, but scale means on cognitive trust, total trust and liking were significantly different from time 1 to time 2 for leaders only. These results suggest that from the beginning of the second task of the experiment to the end, followers had not re-evaluated cognitive trust, total trust and liking as much as leaders had. It should be noted, however, that cognitive trust was likely based off of ability to be accurate and memorize the correct path in task one. This, in turn, is suggestive that followers were not reciprocating the relationship as much as leaders; perhaps an artifact of task 2. Although these results were not predicted, they offer interesting possibilities for future research.

These results are similar to those of Engle and Lord (1997), who found that from the supervisors' perspective, liking mediated the relationship between congruence on performance prototypes and LMX quality, yet are contrary to the findings that congruence on leader prototypes did not predict subordinate-rated liking or LMX quality. These differences in the results may be attributed to differences in the methodologies used. First of all, Engle and Lord sampled supervisors and subordinates in a work environment, while this study was conducted with students in a laboratory. It is possible that student followers rely more heavily on prototypes in their assessment of relationship quality, while working subordinates may rely more heavily on exemplars (Shondrick & Lord, 2010).

From the leaders' perspective, congruence on leader prototypes predicted LMX quality and liking for the follower mediated the relationship between congruence on follower prototypes and LMX quality. From the followers' perspective, liking and trust for the leader mediated the relationship between congruence on leader prototypes and LMX quality. The results of this study make important contributions to LMX literature. First of all, it suggests that both leader and follower prototypes are predictive of LMX quality assessments. In addition, these results emphasize the reciprocal nature of an LMX relationship. That is to say, similarity on the prototype of the role held by their dyadic partner influences an individual's assessment of relationship quality. This not only corroborates previous claims that the quality of each leader–follower relationship depends on the reciprocation of contributions to that relationship, but also brings a new perspective regarding the exchanges between leaders and followers (van Gils et al, 2009; Dienesch & Liden, 1986; Graen & Scandura, 1987; Graen & Uhl-Bien, 1995).

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The support offered regarding the prediction of LMX by liking is consistent with prior work showing that liking plays an important role in the development of leader-member exchanges (Engle and Lord, 1997; Liden et al., 1993; Turban & Jones, 1990), although like Engle and Lord (1997), this study did not test a developmental model. In addition, liking was found to be a mediator of the relationship between congruence on leader prototypes and follower assessed LMX quality, as well as the relationship between congruence on follower prototypes and leader assessed LMX quality. These findings suggest that similarity of prototypes leads an individual to identify with their dyadic partner and produce an affective reaction that has a direct effect on social relationships (Greenwald & Banaji, 1995; Engle & Lord, 1997). This seems to be the case regardless of whether or not an individual has taken the role of leader or follower within the context of a dyadic relationship.

The results of this study also offer support corroborating previous research that trust may be predictive of LMX quality (Scandura & Pellegrini, 2008; Liden et al., 1997).[2] Furthermore, followers' trust in leaders was also found to fully mediate the relationship between congruence on leader prototypes and follower assessed LMX quality; offering further support of the assertion by Greenwald and Banaji (1995) that similarity of prototypes leads an individual to identify with their partner, which produces affective reaction that has a direct effect on their relationship. An important contribution of this study, however, is that this affective reaction may not be limited to only liking; in fact, trust may be an important part of this reaction. It is important to note that trust was not a significant predictor of leaders' assessment of LMX quality, nor did leaders' trust for followers mediate the relationship between congruence on follower prototypes and leader assessed LMX. One plausible explanation for this is that trust is a more important determinant of relationship quality for followers than leaders. This also may be due to the lack of an ongoing relationship and length of interaction between leaders and followers in this study though.

This study makes several noteworthy contributions to current literature regarding leader and follower prototypes and implicit theories of leadership and followership. First of all, it is the only study, to the authors knowledge, that empirically evaluates both leader and follower prototypes from both leaders' and followers' perspective. In addition, the author found evidence to support that both leader prototypes and follower prototypes are useful in assessing relationship quality. Congruence on leader prototypes significantly predicted follower's liking and trust for leaders as well as follower assessed LMX, while congruence on follower prototypes significantly

predicted leaders' liking for followers and leader assessed LMX. This suggests that leaders may use both leader and follower prototypes to assess relationship quality, while followers are more likely to use primarily leader prototypes to assess relationship quality.

5.2 - Limitations and Future Research

As with many studies involve laboratory based experiments, there were certain limitations that may limit the generalizability of the findings of this study. Specifically, the sample composition was limited to undergraduate students in a large South-Eastern University. Moreover, the relationships evaluated in this study were all short-term. Although these limitations were somewhat mitigated by controlling for gender and leadership experience, replication using different types of samples is needed. Future research should focus on obtaining data from supervisors and subordinates in a working environment, as well as obtaining longitudinal data to control for tenure and evaluate longer term relationships. Moreover, research using longitudinal data would a logical step forward because we don't yet fully understand the dynamic nature of prototypes. Although prototypes were initially thought to be consistent over time and context, Shondrick and Lord (2010) posit that they may be dynamic under certain conditions. Additional avenues for future research might include how leader and follower prototypes (especially follower) change over time as well as how these changes affect assessments of relationship quality as assessed by both leaders and followers.

5.3 - Implications and Conclusions

The practical implications of this work should not be overlooked. The results of this study make a significant contribution in terms of how leaders and followers develop LMX relationships; which impacts many job related outcomes. Such workplace outcomes include, but are not limited to, higher satisfaction and commitment, less conflict, and higher performance ratings (Scandura & Graen, 1984; Graen et al., 2004; Liden et al., 2000). As noted in previous research, it is ill-advised for organizations to allow low-quality LMX relationships to permeate their workforces, as the impact of these relationships may be directly reflected in profits, revenues, and other "bottom line" measures (Scandura & Graen, 1984; Engle & Lord, 1997). LMX-based interventions have been shown to help remedy such situations (Liden et al., 1993; Engle & Lord, 1997). If used, some form of cognitive norming, where organizational

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performance standards should be explicitly provided to leaders and followers, should be included; perhaps through the use of frame-of-reference training (Hauenstein & Foti, 1989; Engle & Lord, 1997).

In conclusion, the author found evidence that congruence on leader prototypes is related to followers' liking and trust for leaders, which, in turn, directly affects follower assessed LMX quality. In addition, there is evidence to support that congruence on follower prototypes is related to leaders' liking for followers, which directly affects leader assessed LMX quality. These results shed new light regarding the complexity of the processes underlying leaders' and followers' assessments of LMX relationships with their dyadic partners and present evidence of a causal relationship between congruence on prototypes, affective variables of liking and trust, and assessments of LMX quality. In addition, the findings convey the importance of recognizing the relationship between dyadic congruence and LMX as assessed by both dyadic partners as "two way street."

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1a

Leader's
Liking for
Follower

1b

Leader's
Trust for
Follower

Leader Assessed
Quality of
Leader-Member
Exchange

Leader
Prototype
Congruence

Follower Assessed
Quality of
Leader-Member
Exchange

2a

Follower's
Liking for
Leader

2b

Follower's
Trust for
Leader
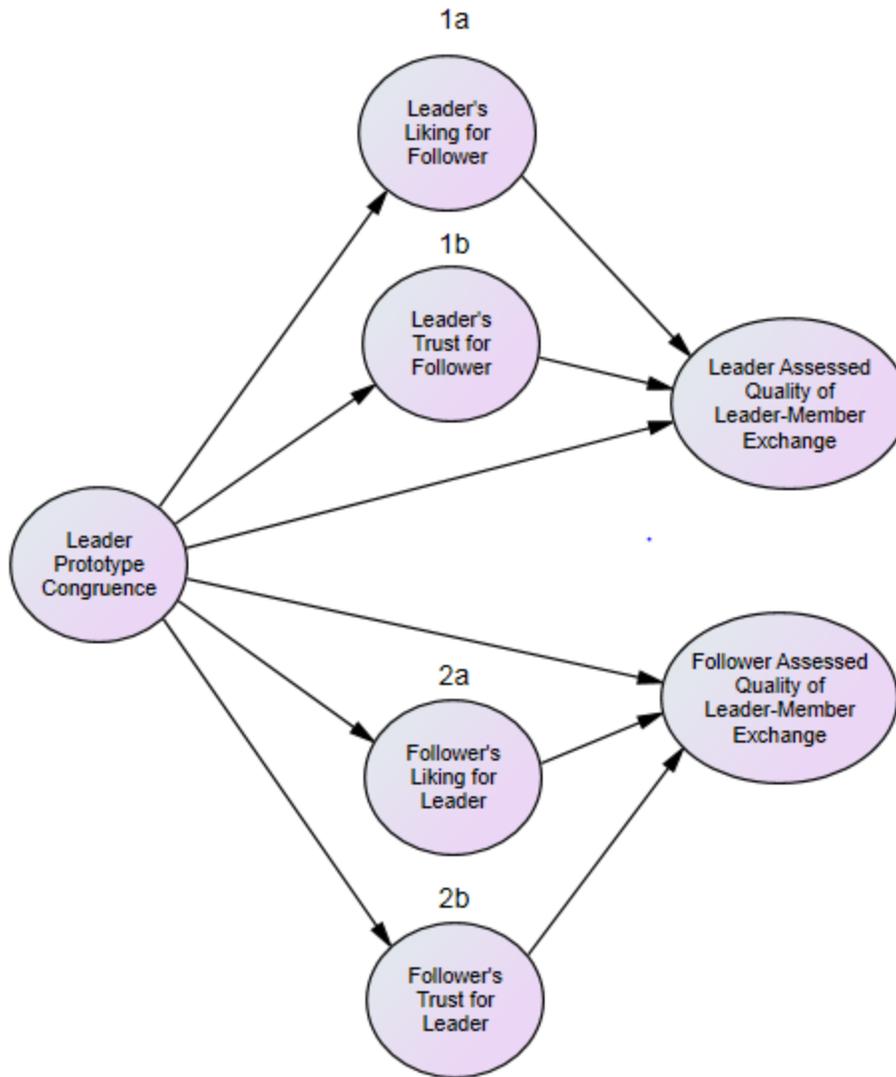
Figure 1. Leader Prototype Model and Visual Depiction of Hypotheses 1 and 2.
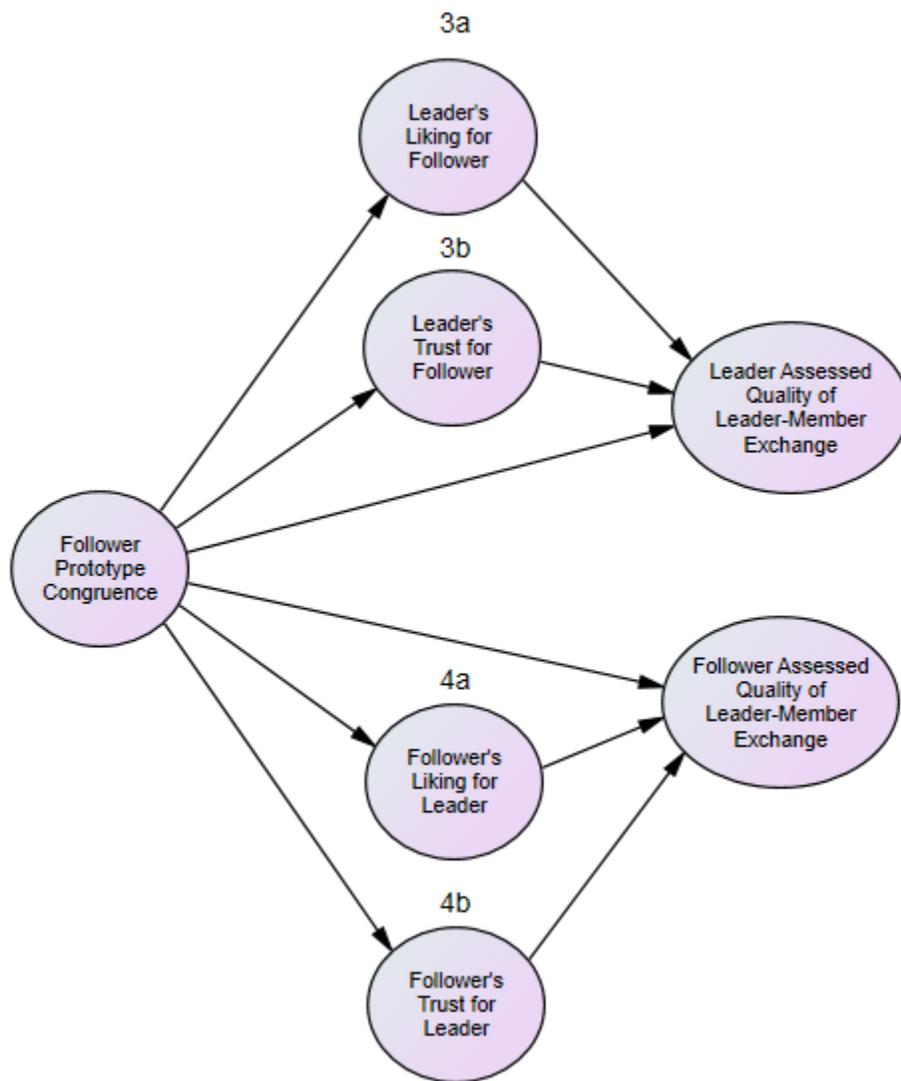
Figure 2. Follower Prototype Model and Visual Depiction of Hypotheses 3 and 4.

Measurement of Dyadic Variables

Measurement of Leader and Follower Prototypes

Measurement of Liking and Trust at Time 1

Measurement of Liking, Trust and LMX at Time 2

Participants Enter, Randomized into Dyadic Pairs → Participants Randoimzed into Roles of Leader or Follower → Task 1: Organizational Map → Dyads Separated, Particiapnts Informed of Roles → Task 2: Organizational Prisoner's Dilemma → Debriefing of Partiipants

Experimental Protocol

Figure 3. Timeline of Measurement of Variables and Experimental Protocol. This chart is depicted in chronological order; with time moving forward from left to right.

Figure 4. Point Matrix for Task 2. Blue outline denotes points awarded to the leader. Red outline denotes points awarded to the follower.
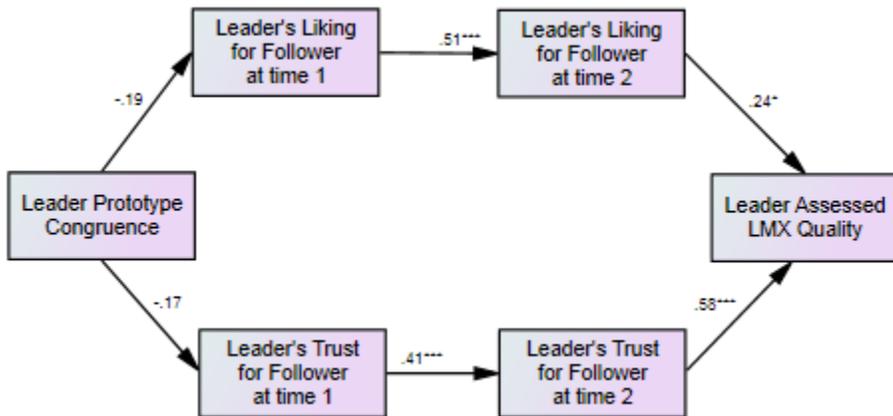
Figure 5. Manifest Path Model for Leader's Liking and Trust for Follower fully mediating the relationship between Leader Prototype Congruence and Leader Assessed LMX Quality. Standardized path coefficients are shown.

* p ≤ .05

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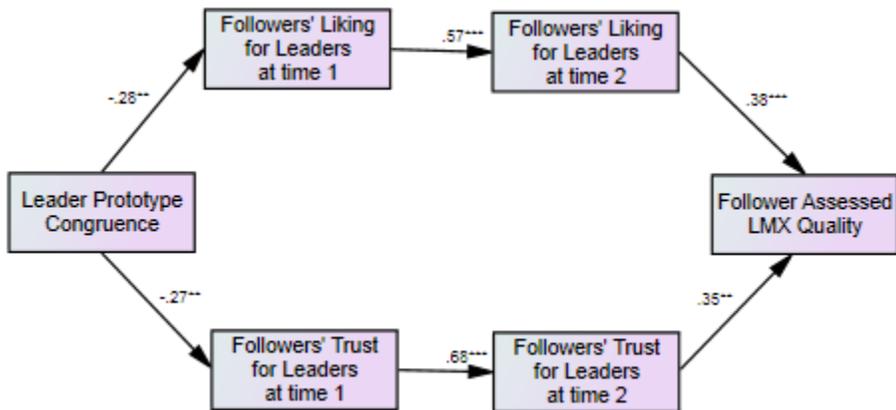
*** p < .001

Figure 6. Manifest Path Model for Follower's Liking and Trust for Leader fully mediating the relationship between Leader Prototype Congruence and Follower Assessed LMX Quality. Standardized path coefficients are shown.

* $p \le .05$

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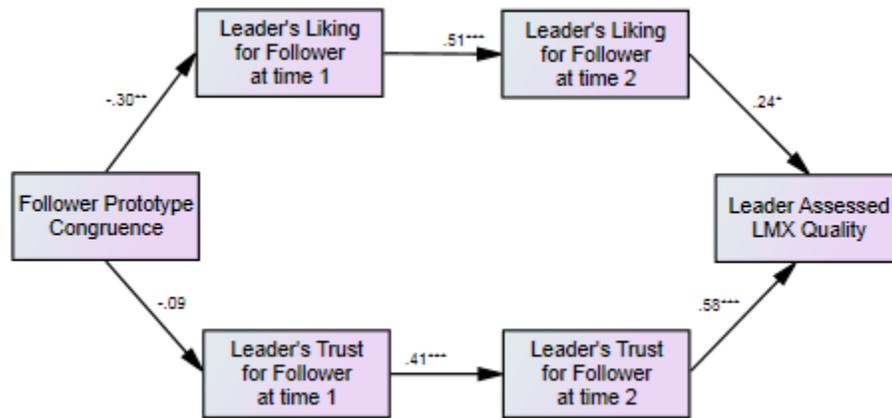
*** $p < .001$

Figure 7. Manifest Path Model for Leader's Liking and Trust for Follower fully mediating the relationship between Follower Prototype Congruence and Leader Assessed LMX Quality. Standardized path coefficients are shown.

* $p \le .05$

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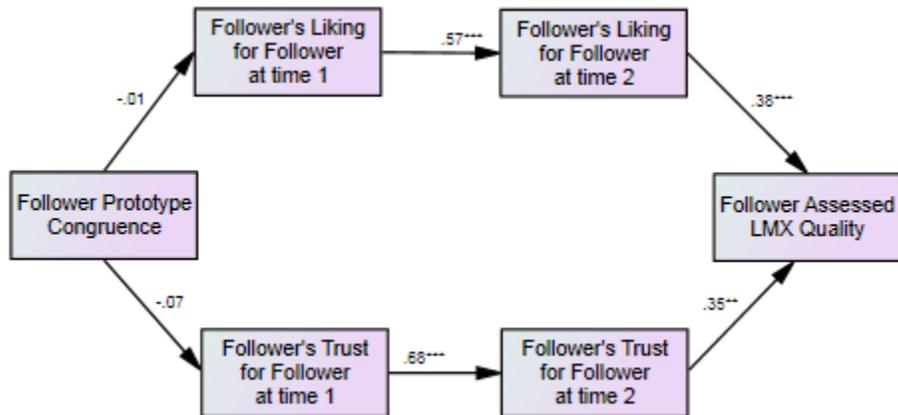
*** $p < .001$

*Figure 8.* Manifest Path Model for Follower's Liking and Trust for Leader fully mediating the relationship between Follower Prototype Congruence and Follower Assessed LMX Quality. Standardized path coefficients are shown.

* $p \leq .05$

** $p < .01$

*** $p < .001$

Table 1

Means, Sums and Standard Deviations of Dyad Variables

Leader		Mean	SD
1	Gender (1)	N/A	N/A
2	Group Size (1)	4.03	1.44
3	Experimenter (1)	5.29	0.97
4	Leadership Experience (1)	4.21	1.25
5	Leader Prototype (1)	6.27	1.90
6	Follower prototype (1)	7.21	1.93
7	Liking (1)	5.29	0.97
8	Affective Trust (1)	4.21	1.25
9	Cognitive Trust (1)	4.83	1.06
10	Total Trust (1)	4.52	1.03
11	Task 2 Score (2)	65.00	196.76
12	LMX assessment (2)	3.23	0.91
13	Liking (2)	4.93	1.34
14	Affective Trust (2)	4.02	1.45
15	Cognitive Trust (2)	4.43	1.64
16	Total Trust (2)	4.23	1.43
Follower			
17	Leader Prototype Congruence (1)	10.14	2.89
18	Follower Prototype Congruence (1)	8.79	3.72
19	Leadership Experience (1)	2.78	3.30
20	Leader Prototype (1)	6.31	1.74
21	Follower prototype (1)	7.13	1.54
22	Liking (1)	5.03	0.91
23	Affective Trust (1)	4.34	1.38
24	Cognitive Trust (1)	4.91	1.11
25	Total Trust (1)	4.63	1.16
26	Task 2 Score (2)	47.94	154.22
27	LMX assessment (2)	3.33	0.81
28	Liking (2)	4.90	1.07
29	Affective Trust (2)	4.28	1.29
30	Cognitive Trust (2)	4.70	1.18
31	Total Trust (2)	4.49	1.08

Note. N = 68.

Table 2

Correlations and Reliability Coefficients for Dyadic Variables from Leader's Perspective

Leader	Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Gender (1)																		
2	Group Size (1)	-0.19																	
3	Experimenter (1)	0.30*	0.01																
4	Leadership Experience (1)	-0.09	-0.14	0.27*															
5	Leader Prototype (1)	0.12	-0.08	-0.06	0.14	(0.78)													
6	Follower prototype (1)	0.23	0.11	0.10	-0.03	0.36**	(0.73)												
7	Liking (1)	-0.18	-0.06	-0.11	-0.18	-0.2	-0.12	(0.89)											
8	Affective Trust (1)	-0.07	-0.15	-0.03	-0.02	-0.05	-0.03	0.52**	(0.85)										
9	Cognitive Trust (1)	-0.08	-0.09	0.05	-0.17	-0.03	0.01	0.55**	0.60**	(0.84)									
10	Total Trust (1)	-0.08	-0.14	0.01	-0.10	-0.02	-0.01	0.59**	0.91**	0.87**	(0.87)								
11	Task 2 Score (2)	-0.01	-0.08	0.04	0.03	-0.03	0.06	0.10	0.06	0.10	0.08								
12	LMX assessment (2)	-0.20	-0.11	0.02	0.05	-0.1	-0.15	0.38**	0.49**	0.31*	0.45**	0.48**	(0.94)						
13	Liking (2)	-0.13	0.02	-0.05	0.08	-0.13	-0.17	0.66**	0.51**	0.38**	0.51**	0.48**	0.72**	(0.9)					
14	Affective Trust (2)	-0.12	-0.08	0.02	0.03	0.00	-0.08	0.49**	0.73**	0.50**	0.68**	0.35**	0.72**	0.77**	(0.93)				
15	Cognitive Trust (2)	-0.22	-0.11	0.15	-0.04	-0.18	-0.17	0.33**	0.43**	0.39**	0.46**	0.52**	0.74**	0.76**	0.73**	(0.91)			
16	Total Trust (2)	-0.19	-0.11	0.10	-0.01	-0.1	-0.14	0.44**	0.62**	0.48**	0.62**	0.47**	0.78**	0.82**	0.92**	0.94**	(0.93)		
17	Leader Prototype Congruence (1)	0.14	-0.08	-0.14	0.05	-0.15	0.02	-0.19	-0.16	-0.13	-0.17	-0.23	-.41**	-0.23	0.39	-0.23	-.26*		
18	Follower Prototype Congruence (1)	0.01	0.11	-0.12	0.18	0.08	-0.22	-.30*	-0.05	-0.11	-0.09	-0.15	-.30*	-0.18	-0.07	-0.05	-0.06	0.16	

Note. N = 68. Cronbach alpha coefficients are listed in parentheses. The scores for task 2, labeled "Task 2 Score (2)" in table 2, were calculated by taking the sum of total points awarded to the leader or the follower for each round, and then adding these sums for each round.

*p < .05
**p < .01.

Table 3

Correlations and Reliability Coefficients for Dyadic Variables from Follower's Perspective

Follower	Variable	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
17	Leader Prototype Congruence (1)															
18	Follower Prototype Congruence (1)	0.16														
19	Leadership Experience (1)	0.05	0.09													
20	Leader Prototype (1)	-0.32**	0.05	0.09	(0.79)											
21	Follower prototype (1)	-0.07	-0.21	0.99	0.22	(0.65)										
22	Liking (1)	-.277*	0.00	-0.06	0.17	0.28*	(0.87)									
23	Affective Trust (1)	-.27*	0.04	-0.10	0.07	0.20	0.63**	(0.89)								
24	Cognitive Trust (1)	-0.24	0.12	0.01	0.18	0.27*	0.65**	0.75**	(0.89)							
25	Total Trust (1)	-0.27*	0.08	-0.06	0.10	0.25*	0.68**	0.95**	0.92**	(0.92)						
26	Task 2 Score (2)	-0.34**	-0.14	-0.04	0.02	0.18	0.23	0.34**	0.29*	0.34**						
27	LMX assessment (2)	-.26*	-0.05	-0.11	0.13	0.26*	0.37**	0.27*	0.36**	0.33**	0.36**	(0.95)				
28	Liking (2)	-.26*	-0.05	-0.13	0.08	0.41**	0.66**	0.40**	0.45**	0.45**	0.44**	0.66**	(0.88)			
29	Affective Trust (2)	-.26*	-0.06	-0.28	0.04	0.19	0.49**	0.68**	0.59**	0.68**	0.41**	0.60**	0.61**	(0.91)		
30	Cognitive Trust (2)	-0.22	0.10	-0.23	0.08	0.30*	0.56**	0.46**	0.59**	0.55**	0.49**	0.54**	0.74**	0.53**	(0.79)	
31	Total Trust (2)	-0.28*	0.02	-0.21	0.06	0.28*	0.60**	0.65**	0.67**	0.71**	0.51**	0.66**	0.77**	0.89**	0.86**	(0.86)

Note. N = 68. Cronbach alpha coefficients are listed in parentheses. The scores for task 2, labeled "Task 2 Score (2)" in table 2, were calculated by taking the sum of total points awarded to the leader or the follower for each round, and then adding these sums for each round.

*p < .05
**p < .01.

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Table 4

Inter-correlations for Dyadic Variables for Leader's and Follower's Perspective

	Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	Leader Prototype Congruence (1)	0.14	-0.14	0.05	-0.10	-0.15	0.02	-0.19	-0.16	-0.13	-0.17	-0.23	-.41**	-0.23	-.26*	-0.23	-.26*
18	Follower Prototype Congruence (1)	0.01	-0.12	0.18	-0.11	0.08	-0.22	-0.30	-0.05	-0.11	-0.09	-0.15	-.30*	-0.18	-0.07	-0.05	-0.06
19	Leadership Experience (1)	0.18	-0.19	0.04	-0.10	0.05	-0.1	-0.09	0.1	0.05	0.08	-0.06	-0.03	-0.04	0.17	-0.09	0.06
20	Leader Prototype (1)	0.24	-0.02	0.02	0.09	0.12	0.24	0.18	0.11	0.19	0.17	0.08	-0.01	0.07	0.06	-0.02	0.02
21	Follower prototype (1)	-0.07	-0.13	0.15	0.00	0.18	-0.15	0.21	0.14	0.13	0.16	0.21	0.15	0.22	0.19	0.17	0.16
22	Liking (1)	-0.12	-0.10	0.06	-0.06	0.08	0.08	0.27*	.25*	0.17	0.24	0.15	0.38**	0.27*	0.34**	0.26*	0.32**
23	Affective Trust (1)	-0.15	-0.17	0.04	-0.10	0.03	-0.03	0.08	0.07	0.2	0.14	0.26*	0.38**	0.22	0.27*	0.42**	0.38**
24	Cognitive Trust (1)	-0.01	-0.24	0.07	0.01	0.1	-0.01	0.15	0.22	0.24*	0.26*	0.24	0.27*	0.21	0.27*	0.29*	0.30*
25	Total Trust (1)	-0.10	-0.12	0.06	-0.06	0.07	-0.02	0.11	0.15	0.23	0.21	0.27*	0.35**	0.23	0.29*	0.39**	0.37**
26	Task 2 Score (2)	-0.17	-0.13	0.14	-0.04	0.06	0.02	-0.01	-0.08	0.08	-0.01	0.39**	0.26*	0.14	0.08	0.2	0.16
27	LMX assessment (2)	-0.13	-0.01	0.11	-0.11	0.12	-0.05	0.24	0.22	0.24*	0.26*	0.40**	0.44**	0.43**	0.43**	0.42**	0.45**
28	Liking (2)	-0.11	-0.04	0.13	-0.13	0.23	0.01	0.13	0.11	0.08	0.11	0.24*	0.34**	0.28*	0.34**	.27*	0.33**
29	Affective Trust (2)	-0.12	0.02	-0.07	-0.23	-0.08	0.04	0.12	0.12	0.27*	0.21	0.42**	0.47**	0.36**	0.46**	0.52**	0.53**
30	Cognitive Trust (2)	-0.24	-0.17	0.12	-0.29*	0.16	0	0.09	0.06	0.21	0.15	0.22	0.18	0.11	0.19	0.25*	0.24
31	Total Trust (2)	-0.20	-0.08	0.02	-0.25*	0.04	0.03	0.12	0.11	0.28*	0.21	0.37**	0.38**	0.28*	0.37**	0.44**	0.44**

Note. N = 68. Variables from the leader's perspective are listed on the columns, while variables from the follower's perspective are listed on the rows. Variable numbers correspond with those in tables 2 and 3. The scores for task 2, labeled "Task 2 Score (2)" in table 2, were calculated by taking the sum of total points awarded to the leader or the follower for each round, and then adding these sums for each round.

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

Table 5

Inter-correlations and Reliability Coefficients for Leader and Follower Prototype Sub-Scales

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. sensitivity	7.73	0.86	(0.63)											
2. intelligence	7.51	1.31	0.23**	(0.71)										
3. dedication	8.65	2.88	0.35**	0.09	(0.70)									
4. dynamism	6.92	2.31	0.39**	0.35**	0.27**	(0.70)								
5. tyranny	3.72	2.99	-0.05	0.16	-0.27**	0.32**	(0.85)							
6. masculinity	3.07	1.02	-0.15	0.03	-0.19*	0.15	0.34**	(0.88)						
7. industry	6.48	2.06	0.03	0.06	-0.13	0.11	-0.05	-0.06	(0.92)					
8. enthusiasm	5.60	1.71	0.19*	0.13	-0.09	0.32**	0.12	0.03	0.64**	(0.84)				
9. good citizen	7.78	1.47	-0.01	-0.04	-0.05	0.00	-0.10	-0.07	0.71**	0.55**	(0.88)			
10. insubordinate	2.07	1.32	-0.06	0.05	-0.21*	0.04	0.49**	0.28**	-0.39**	-0.17	-0.37**	(0.87)		
11. conformity	2.41	1.42	-0.06	0.04	-0.09	-0.20*	0.14	-0.04	-0.46**	-0.36**	-0.24**	0.39**	(0.64)	
12. incompetence	2.17	1.18	-0.11	0.02	-0.07	-0.07	0.15	0.13	-0.31**	-0.31**	-0.24**	0.49**	0.42**	(0.68)

Note. $N^{participant} = 136$.

*p < .05

**p < .01.

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Table 6

Results of Regression Analysis Testing Effects of Prototype Congruence on Component Variables

Predictor	Leader prototype congruence	Follower prototype congruence
Leader's prototype	0.04[+]	0.20***
Follower's prototype	-0.11**	-0.22***
W l	-4.08	1.85
W l x Leader's prototype	-0.24**	-0.45***
W l x Follower's prototype	0.24**	0.43***
R^2	0.37	0.83
F	7.18***	61.59***
Adjusted R^2	0.32	0.82
df	5, 67	5, 67

Note. N = 68. Unstandardized regression coefficients are reported. W l is a dummy variable that takes a value of 0 if leader's prototype is greater than or equal to follower's prototype and of 1 if leader's prototype is less than the follower's prototype as recommended by Edwards (1994) and Engle and Lord (1997).
[+] *p < .10*
* *p < .05*
** *p < .01*
*** *p < .001*

Table 7

Overall Reliability Fit Indices for Factorial Models of the Follower Prototype Scale

Model	χ^2	df	χ^2/df	$\Delta\chi^2$	Δ df	CFI	TLI	RMSEA
Null	1793.24	153	11.72					.28
1 Factor	979.70	135	7.26	813.54*	18	.56	.51	.21
2 Factors	707.80	134	5.28	271.90*	1	.71	.66	.17
6 Factors	210.21	120	**1.75**	497.59*	14	**.95**	**.95**	**.07**

Note. N = 136. Numbers in bold indicate acceptable fit indices. CFI = comparative fit index. TLI = Tucker-Lewis index. RMSEA = root mean square of approximation. * $p < .05$.

Appendix A

Informed Consent

Please read the following information. VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY Informed Consent for Participants in Research Projects Involving Human Subjects Investigators(s): Dr. Roseanne Foti, Patrick T. Coyle, Will Giles, Lauren Langford, John Kewley, and Danielle Holup.

I. Purpose of this Research/Project: In modern organizations, leadership and followership are important. The purpose of this experiment is to explore characteristics of leadership and followership held by individuals. This experiment will involve 136 male and female undergraduate students from Virginia Tech, ages ranging from approximately 18 to 30.

II: Procedures: You will be asked to participate in an experiment involving 4 surveys and 2 tasks. You will first be asked to fill out a survey regarding which characteristics you feel are representative of a leader and follower. You will then be asked to participate in a group task; the objective for the group is to find the correct path through a 5x8 map. You will then be paired with another participant and will be asked to complete 2 opinion based surveys. You and your partner will then be asked to participate in a second task involving a series of decision making processes. You will then be asked to complete one final opinion based survey regarding this task. The experiment will be held in Williams Hall on the Virginia Tech campus, and should take no more than 1 hour of your time to complete.

III. Risks - The only potential risk to you in this study would be discomfort. Should you feel uncomfortable at any time during the survey, you may feel free to withdraw.

IV. Benefits - Participation in this study may help you recognize which characteristics you feel are representative of leaders and followers. You may request a summary of the results of this study by contacting the researcher, Patrick T. Coyle, at coylep23@vt.edu, by summer of 2011.

V. Extent of Anonymity and Confidentiality - The researchers will not release the results of the study to anyone other than individuals working on the project without written consent. The investigators listed at the top will be given access to the survey results in order to transcribe the data. All information given during this study will remain anonymous. The surveys will provide information from a wide array of students to ensure an appropriate number of participants; therefore, you will not be identifiable from any information submitted in the study.

VI. Compensation – You may earn points of SONA extra credit for your one of your psychology courses.

VII. Freedom to Withdraw – Your participation in this study is voluntary; you are free to withdraw from this study at any time without penalty. If you choose to withdraw, you will not be penalized by reduction in extra credit points awarded for this study (1). You are free not to answer any questions or respond to experimental situations that you choose without penalty.

IX. After reading this document, if you agree to the information stated, please sign below in order to continue with participation.

X. Who to Contact for Research Related Questions: For questions about the research itself, or to report any adverse effects during or following participation, please feel free to contact the Principal Investigator, Dr. Roseanne Foti, at rfoti@vt.edu; the Chair of the Human Subjects Committee, Dr. Dave Harrison, at dwh@vt.edu; the Chair of the Institutional Review Board at Virginia Tech, David M. Moore, at (540)-231-4991 or moored@vt.edu; or researcher, Patrick T. Coyle, at coylep23@vt.edu.

XI. You must be 18 years of age or older may participate in this study.

If you agree to the consent statement above, please indicate this by agreeing below.

Name: _____ Date: _____

Signature: _____ Date: _____

Appendix B

Survey of Leader Prototypes

Please rate how characteristic each of the following traits is of a **LEADER.**
Use the 9 point scale below, where:
1 = *not at all characteristic* and 9 = *extremely characteristic.*

Understanding

1   2   3   4   5   6   7   8   9

Sincere

1   2   3   4   5   6   7   8   9

Helpful

1   2   3   4   5   6   7   8   9

Intelligent

1   2   3   4   5   6   7   8   9

Knowledgeable

1   2   3   4   5   6   7   8   9

Educated

1   2   3   4   5   6   7   8   9

Clever

1   2   3   4   5   6   7   8   9

Motivated

1   2   3   4   5   6   7   8   9

Dedicated

1   2   3   4   5   6   7   8   9

Hardworking

1   2   3   4   5   6   7   8   9

Energetic

1   2   3   4   5   6   7   8   9

Strong

1   2   3   4   5   6   7   8   9

Dynamic

1   2   3   4   5   6   7   8   9

Domineering

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Pushy

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Manipulative

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Loud

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Conceited

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Selfish

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Masculine

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Male

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Please indicate your total years of experience as a formal leader. _____

Appendix C

Survey of Follower Prototypes

Please rate how characteristic each of the following traits is of a **FOLLOWER.**
Use the 9 point scale below, where:
1 = *not at all characteristic* and 9 = *extremely characteristic.*

Hard Working

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Productive

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Goes Above and Beyond

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Excited

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Outgoing

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Happy

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Loyal

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Reliable

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Team Player

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Easily Influenced

1   2   3   4   5   6   7   8   9

Follows Trends

1   2   3   4   5   6   7   8   9

Soft-spoken

1   2   3   4   5   6   7   8   9

Arrogant

1   2   3   4   5   6   7   8   9

Rude

1   2   3   4   5   6   7   8   9

Bad Tempered

1   2   3   4   5   6   7   8   9

Uneducated

1   2   3   4   5   6   7   8   9

Slow

1   2   3   4   5   6   7   8   9

Inexperienced

1   2   3   4   5   6   7   8   9

Please indicate your total years of experience as a formal leader. _____

Appendix D

Survey of Liking

<u>Please indicate your answer by circling the appropriate response for each question</u>

1. I like this individual.

Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree

2. I get along well with this individual.

Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree

3. Supervising this individual is a pleasure.

Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree

4. I think this individual would make a good friend.

Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree

Survey 2 - Follower

Please indicate your answer by circling the appropriate response for each question

1. I like this individual.

| Strongly Disagree | Disagree | Slightly Disagree | Neutral | Slightly Agree | Agree | Strongly Agree |

2. I get along well with this individual.

| Strongly Disagree | Disagree | Slightly Disagree | Neutral | Slightly Agree | Agree | Strongly Agree |

3. Being supervised by this individual is a pleasure.

| Strongly Disagree | Disagree | Slightly Disagree | Neutral | Slightly Agree | Agree | Strongly Agree |

4. I think this individual would make a good friend.

| Strongly Disagree | Disagree | Slightly Disagree | Neutral | Slightly Agree | Agree | Strongly Agree |

Survey of Trust

Please indicate your answer by circling the appropriate response for each question.

1. We have a sharing relationship. We can both freely share our ideas, feelings, and hopes.

| Strongly Disagree | Disagree | Slightly Disagree | Neutral | Slightly Agree | Agree | Strongly Agree |

2. I can talk freely to this individual about difficulties I am having at work and know that (s)he will want to listen.

| Strongly Disagree | Disagree | Slightly Disagree | Neutral | Slightly Agree | Agree | Strongly Agree |

3. If I shared my problems with this person, I know (s)he would respond constructively and caringly.

| Strongly Disagree | Disagree | Slightly Disagree | Neutral | Slightly Agree | Agree | Strongly Agree |

4. This person approaches his/her job with professionalism and dedication.

| Strongly Disagree | Disagree | Slightly Disagree | Neutral | Slightly Agree | Agree | Strongly Agree |

5. Given this person's track record, I see no reason to doubt his/her competence and preparation for the job.

| Strongly Disagree | Disagree | Slightly Disagree | Neutral | Slightly Agree | Agree | Strongly Agree |

6. I can rely on this person not to make my job more difficult by careless work.

| Strongly Disagree | Disagree | Slightly Disagree | Neutral | Slightly Agree | Agree | Strongly Agree |

LMX-SLX Survey Leader-Member Exchange

For each of the ten questions, please indicate your level of agreement or disagreement by circling where appropriate for each question. The ten questions are as follows:

1. My follower is satisfied with my work.
Strongly Disagree   Disagree   Don't know   Agree   Strongly Agree

2. My follower will repay a favor.
Strongly Disagree   Disagree   Don't know   Agree   Strongly Agree

3. My follower would help me with my job problems.
Strongly Disagree   Disagree   Don't know   Agree   Strongly Agree

4. My follower will return my help.
Strongly Disagree   Disagree   Don't know   Agree   Strongly Agree

5. My follower has confidence in my ideas.
Strongly Disagree   Disagree   Don't know   Agree   Strongly Agree

6. My follower and I have a mutually helpful relationship.
Strongly Disagree   Disagree   Don't know   Agree   Strongly Agree

7. My follower has trust that I would carry my workload.
Strongly Disagree   Disagree   Don't know   Agree   Strongly Agree

8. My follower is one of my leaders.
Strongly Disagree   Disagree   Don't know   Agree   Strongly Agree

9. My follower has respect for my capabilities.
Strongly Disagree   Disagree   Don't know   Agree   Strongly Agree

10. I have an excellent working relationship with my follower.
Strongly Disagree   Disagree   Don't know   Agree   Strongly Agree

Survey 4 – Follower

For each of the ten questions, please indicate your level of agreement or disagreement by circling where appropriate for each question. The ten questions are as follows:

1. My leader is satisfied with my work.
Strongly Disagree   Disagree   Don't know   Agree   Strongly Agree

2. My leader will repay a favor.
Strongly Disagree   Disagree   Don't know   Agree   Strongly Agree

3. My leader would help me with my job problems.
Strongly Disagree   Disagree   Don't know   Agree   Strongly Agree

4. My leader will return my help.
Strongly Disagree   Disagree   Don't know   Agree   Strongly Agree

5. My leader has confidence in my ideas.
Strongly Disagree   Disagree   Don't know   Agree   Strongly Agree

6. My leader and I have a mutually helpful relationship.
Strongly Disagree   Disagree   Don't know   Agree   Strongly Agree

7. My leader has trust that I would carry my workload.
Strongly Disagree   Disagree   Don't know   Agree   Strongly Agree

8. My leader is one of my leaders.
Strongly Disagree   Disagree   Don't know   Agree   Strongly Agree

9. My leader has respect for my capabilities.
Strongly Disagree   Disagree   Don't know   Agree   Strongly Agree

10. I have an excellent working relationship with my leader.
Strongly Disagree   Disagree   Don't know   Agree   Strongly Agree

Appendix G

Experimental Protocol

RESEARCHER at START of study:

Hello everyone. Thank you for agreeing to participate in this study. My name is _____ and I am an undergraduate research assistant in I/O psychology here at Virginia Tech, working on a master's thesis with Patrick Coyle and Dr. Roseanne Foti. We are conducting a study exploring various aspects of leadership and performance in dyadic pairs.

There is no need to rush; this is not a test. You responses will remain completely anonymous and only the researchers will have access to the data. As we go through today's session, you may finish a particular portion of the study before or after others. We will wait until everyone has finished each individual session before proceeding to the next. If you finish a particular portion of the study before others, please wait patiently for further instructions. Please take your time and make sure you complete each section as thoroughly as possible and to the best of your abilities.

It is extremely important that you follow each instruction carefully. In addition, if you have brought any materials with you such as newspapers, books, etc., please store them at this time. To ensure our findings are as accurate as possible, we must have your undivided attention throughout today's session. Today's session should take approximately 1 hour complete.

Today, you will first be asked to complete an information sheet as well as a questionnaire regarding your own ideas of what a good leader and a good follower should be, followed by 2 tasks. Please take a few moments to first fill out the information sheet. Then you may start on survey 1. Should you wish to have a copy of the information sheet for your own personal records; one will be provided for you.

Distribute consent forms and survey 1; wait for completion, then collect. Randomly assign participants to roles of leader and follower. Do not do this out loud.

Thank you! Task 1 will be a group task. In this task, a 5x8 map will be placed on the ground, divided into 1 square foot sections. The objective is for to find and take the one correct path through the map to the other side. You will take turns guessing, and may move either side to side, or forward in any direction, but not backwards. When you step on a correct square, you will be notified and allowed to continue, however, if you step on an incorrect square, you must return to the start, at which point, it will be the next person's turn to try. When one participant is wrong, everyone, even those participants who have been previously successful and have made it to the other side, must start over. The person currently in the map will be allowed to receive assistance from the previous participant to try, but from no one else. You are not allowed to delegate instructions to the entire group. The task will be successfully completed when everyone has made it to the other side.

Are there any questions so far?

64

Pause to address questions.

Great, Let's begin!

RESEARCHER after the first task is complete.

      Thank you everyone! For the next part of this experiment, you've been assigned into pairs. Each pair will now be separated.

If more than one dyad is present, please take dyads to different rooms. Once this has been done, continue; if only one dyad is present, skip this step.

You will now be asked to fill out 2 additional surveys before the start of Task 2.

Distribute survey 2 and 3 to leader and follower. Collect surveys upon completion.

      Thank you. For this next task, you (point to participant) will be the leader, and you (point to participant) will be the follower. In this task, you will now be given two cards showing strategy alternatives you may choose to take.

Distribute cards to leader first, and follower second

      As you can see, the two strategy choices the leader may choose from are to either support the follower, or ignore the follower. The two strategy choices the follower may choose from are to either work or loaf. In choosing a strategy, you will be asked hold up a card, indicating which strategy you choose to take; you both will be asked to please show your cards at the same time. This will take place 75 times; therefore we will have 75 rounds. You will now be given a pay-off structure outlining the potential points awarded to each person, based on the strategies you both choose.

Distribute Pay off Matrices

      In this matrix, you can see that the number of points distributed to each person depend on the combination of strategies chosen by each person. Please follow along with me as we go over the matrix. For your convenience, this matrix is color coded so that potential points for the leader are outlined in blue, and potential points for the follower are outlined in red.

      You will see that if the leader chooses to support, and the follower chooses to work, the leader is awarded 5 points, and the follower is awarded 3 points. If the leader chooses to support, and the follower chooses to loaf, the leader loses 10 points, and the follower is awarded 10 points. If the leader chooses to ignore, and the follower chooses to work, the leader is awarded 10 points, and the follower loses 10 points. If the leader chooses to ignore, and the follower chooses to loaf, the leader loses 5 points, and the follower loses 3 points.

So, leader, if the leader chooses to ignore, and the follower chooses to work, how many points do you get?

Pause to listen to answer. (10)

IF CORRECT, say *"That is correct!"* If INCORRECT, say *"That is incorrect. The correct answer is 10."*

Follower, if you choose to loaf and the leader chooses to ignore, how many points do you get?

Pause to listen to answer. (-3)

IF CORRECT, say *"That is correct!"* If INCORRECT, say *"That is incorrect. The correct answer is -3."*

After each round, you will be informed of points awarded for that round. Cumulative totals will not be provided until the end. We have no further specific instructions for you. Are there any questions?

(Pause to address questions.)

Okay, Let's begin!

Begin Task 2.

This will be round 1. Are you both ready? **(wait for response)** *Okay, please hold up your cards.* **(Examine cards, and type strategies into spreadsheet)** *Thank you. For round 1, leader you've earned _____ points, and follower, you have earned _____ points. Next.*

Repeat this script for 75 rounds.

RESEARCHER after the second task is complete.

We have finished our 75 rounds. You will both now be provided with cumulative point totals. Leader, you have earned _____ points. Follower, you have earned _____ points. We would like you to now fill out a couple of brief surveys please!

Distribute survey's 2, 3, and 4 to leader and follower upon completion of task 2. Make sure leader and follower receive the correct version of survey 4. Collect when finished.

Great job everyone! We would like to thank you for your participation today. We will now debrief you on the experiment. We were evaluating the relationship between your prototypes of leadership and followers and your assessment of the relationship quality following the experiment. It is theorized that if individuals hold similar ideas of leadership and

followership, they should subsequently have a better relationship. All assignment to pairs and roles of "leader" and "follower" was done at random. Are there any questions?

Pause to address questions.

Great! We ask you to please not discuss the protocol of the experiment with anyone outside of this lab session because they may be future participants in this study. If you would like to know the results, please feel free to e-mail Patrick T. Coyle, and the results of the study will be available to you after data collection has been completed. Thank you everyone for your time today!

Footnotes

[1] Given the correlation between leader's assessment of LMX and the follower's assessment of LMX (.44, $p < .01$), manifest path models depicting hypotheses 1 and 2 (leader prototype congruence) simultaneously as well as hypotheses 3 and 4 (follower prototype congruence) simultaneously were constructed. Models where residuals between the leader's assessment of LMX quality and the follower's assessment of LMX quality were and were not allowed to correlate were compared. In both cases, the model allowing these residuals to correlate did not fit significantly better than the models where they were not allowed to correlate ($\Delta\chi2$ (1) = 0.3) and ($\Delta\chi2$ (1) = 0.2) respectively.

[2] Results of a supplemental exploratory factor analysis (n=136) of all items used to create the liking, trust and LMX scales (time 2) showed that cognitive trust, affective trust and LMX emerged as separate dimensions. Principal axis factoring with a direct oblimin rotation was used. A subsequent factor analysis using data from leaders only (n=68) showed that trust and LMX emerged as separate dimensions. A subsequent factor analysis using data from followers only (n=68) showed that cognitive trust, affective trust and LMX emerged as separate dimensions.