

## Introduction

Leadership is a fundamental and critical factor influencing follower attitudes and behavior. While leaders can unintentionally influence followers and leadership can result in unintended consequences, leadership represents the purposeful process of influencing followers toward goal attainment (Northouse, 2004). Therefore, at its very core, leadership involves intentional influence. Leaders engage in a variety of activities and exhibit a variety of behaviors in an effort to motivate followers and coordinate their activities in a manner facilitating accomplishment of goals and objectives. Over the past 50+ years, various leadership perspectives have been generated, developed, and integrated. Such perspectives of leadership include those focusing on typical leader personality traits and attributes (e.g., Kenny & Zaccaro, 1983), leadership styles (e.g., Stogdill, 1948), the quality of leader-follower relationships (e.g., Dansereau, Graen, & Haga, 1975), follower perceptions of leader characteristics (e.g., Lord, Foti, & DeVader, 1984), and the importance of situational demands to leadership effectiveness (e.g., Fiedler, 1964).

One area of leadership research receiving only modest attention is that of influence behavior (Kipnis, Schmidt, & Wilkinson, 1980; Schriesheim & Hinkin, 1990; Yukl & Tracey, 1992). Most of the research on influence behaviors has focused on identifying meaningful and distinct influence categories or tactics as well as the relationships between these categories and target compliance and commitment. The current study advanced the influence research tradition in three ways. First, the current study explored the relationships between leader influence behaviors and follower commitment to the leader. Second, the current study was designed to further our understanding of the nature of the relationships described above – specifically our understanding of *why* and *under what conditions* leader influence behaviors relate to follower

commitment. Third, by utilizing intact work units, the potential for multilevel relationships between leader influence behaviors, follower commitment, and additional leadership variables was evaluated.

In an effort to provide substantive explanations of the relationships of interest, lines of research previously pursued independently were conceptually integrated. At the center of this effort was the presence of implicit leadership theory (ILT) constructs as explanatory variables in the leader influence behaviors – follower commitment relationships. The conceptual framework developed for the current study suggested follower perceptions of leader influence behaviors will be related to subsequent follower commitment to the leader. However, the strength of these relationships will be dependent upon the degree of match between specific elements of the leader's influence tactics and specific elements of the follower's ILT. Previous investigations have indicated that when followers perceive leaders to be prototypically leader-like, leaders garner favorable reactions from followers (Epitropaki & Martin, 2005; Maurer & Lord, 1991). Based, in part, upon the findings of these investigations, the current study explored the potential moderating role of follower ILTs in the leader influence behaviors – follower commitment relationships. In effect, the intention was to progress the traditional line of leader influence research to include conceptually interesting moderators to explain conditions under which leader influence behavior would and would not result in follower commitment. From the ILT research perspective, the current study was designed to incorporate ILT constructs as they were originally intended by the conceptual framework of categorization theory. Categorization theory, the theoretical perspective upon which ILT research is based, indicates individuals compare leader *behavior* to their ILTs (Lord & Maher, 1991). However, recent studies (e.g., Epitropaki & Martin, 2005; Martin & Epitropaki, 2001) have generally focused on the match between

followers' ILTs and followers' perceptions of leaders' *traits*. The current study was designed to evaluate the impact of congruence between follower ILTs and leader influence *behavior*.

In summary, the current study (1) investigated the relationships between leader influence behaviors and follower commitment to the leader, (2) tested the moderating role of follower ILTs in those relationships, and (3) employed a multilevel model to evaluate leader influence behaviors as potential higher-level phenomena. Figure 1 provides a general illustration of the conceptual model the current study employed. What follows is an overview of the conceptual and empirical literature related to: (1) leadership and influence (2) leader influence constructs and measurement (including discussion of leader influence behaviors as higher-level constructs), (3) leader influence behaviors and follower commitment, and (4) the expected moderating role of follower ILTs.

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## Literature Review

### *Leadership and Influence*

Leadership is a multifaceted and complex concept. Stogdill (1974) suggested the number of definitions of leadership approaches the number of leadership researchers. Despite the myriad of leadership frameworks, several fundamental elements consistently appear in leadership definitions. Northouse (2004) identified these core elements as: (1) leadership as a process, (2) involving influence, (3) occurring within the context of a group of people, and (4) involving goal

attainment. While the focus of various leadership frameworks may differ dramatically – for example, some leadership perspectives focus on power (e.g., Rahim, 1988) while others focus on personality traits (e.g., Kenny & Zaccaro, 1983) – ultimately, leadership is about influencing people toward achieving a common purpose or objective.

The ubiquity of the concept of influence in leadership literature reflects its place as a central and core element of leadership. In distinguishing it from management, Bennis and Nanus (1985) described leadership as the process of *influencing* people and articulating a vision for change. Similarly, Rost (1991) characterized the interplay of leadership and followership as an *influence* relationship. In distinguishing leaders from managers, Zaleznik (1977) described leaders as directly and significantly *influencing* the perspective of followers. He wrote the influence of leaders “changes the way people think about what is desirable, possible, and necessary” (Zaleznik, 1977; p. 70). Therefore, leaders develop followers’ understanding of organizational goals and *influence* follower behavior toward attaining those goals. Yukl (1989a) suggests that while the various leadership perspectives may have little else in common with one another, most involve an influence process. Northouse (2004) goes so far as to write: “Influence is the sine qua non of leadership. Without influence, leadership does not exist (p. 3).” Mobilizing people and their work efforts toward attaining goals and objectives is what leadership is all about. While researchers, scholars, and practitioners debate which specific traits, behaviors, relationships, and processes are related to effective leadership, few, if any, debate the criticality of influence as one of *the* defining components of leadership.

While implicit in some leadership definitions and explicit in others, the influence process involved in leadership is intentional. While leader actions can and do have unintended consequences, leaders strive to lead followers to attain goals via influence. Burns (1978), in his

seminal piece on leadership, referred to acts of leadership as “the process and achievement of *intended* [italics added] change” (p. 427). Burns also referred to a person’s intent as a critical determinant of the impact of leadership. His powerful statement “It is purpose that puts man into history” (Burns, 1978; p. 442), highlights the intentionality and purposefulness of leadership.

Numerous leadership studies have investigated, identified, categorized, and labeled leader behavior. The Ohio State (Stogdill, 1948) and Michigan (Katz & Kahn, 1951; Likert, 1961) leadership studies identified broad categories of leader behavior, namely consideration and initiating structure, associated with positive organizational outcomes. Subsequently, transformational leadership models (Bass & Avolio, 1994) have identified visionary, stimulating, and charismatic leader behaviors associated with follower performance and work attitudes. Such leadership models describe relatively broad dimensions of leader behavior. That is, they are intended to distinguish between effective and ineffective leaders. However, the focus of some of the behaviors or behavioral categories included in these models (e.g., individualized consideration) falls outside the domain of direct influence attempts. Individualized consideration serves as a means for a leader to improve his or her relationship with a follower as well as develop his or her understanding of the follower’s needs, concerns, and ideas. While such leadership behavior may “open the follower up” to subsequent influence attempts, the consideration behavior itself does not necessarily constitute a direct and intentional influence effort. While such dimensions of leader behavior are critical to achieving a broad and comprehensive understanding of leaders and leadership, they are less than ideally suited for studies designed to investigate the impact of leaders’ direct, proactive, and intentional influence behavior aimed at followers. Given the importance of influence to virtually all definitions of leadership, a focus on specific influence behaviors exhibited by leaders is expected to be fruitful

in furthering understanding of follower perceptions of leaders and the subsequent impact of these perceptions on follower attitudinal and behavioral reactions. Consistent with a focus on intentional influence, previous research has identified influence strategies exhibited by leaders and others (Kipnis, et al., 1980). While taxonomies of influence behavior have been developed and validated, little has been done to integrate such taxonomies into process-oriented models of leadership.

As previously mentioned, the influence tactics literature is not the only line of research seeking to describe a wide range of leadership activities. A currently popular model of leadership encompassing a broad range of leadership styles and approaches is Bass and Avolio's Full Range Model of Leadership (Bass & Avolio, 1994). Their model includes elements related to transformational leadership, transactional leadership, and non-leadership. While the Full Range Model is broad in scope, it was not an ideal framework to utilize in the current study for two reasons. First, the current study was designed to assess the impact of influence attempts on follower commitment. While the Full Range Model includes *some* elements of leader behavior related to influence, it is a broader model intended to explain leadership activities, such as trust-building, providing support, and building relationships, that fall outside the relatively specific focus of leader proactive influence behavior. Because the focus of the current study was to investigate the nature of the relationships between intentional influence behavior and follower commitment, an empirically-derived influence behavior model was deemed the most appropriate representative of leader behavior.

Second, while transformational leadership is a widely researched topic, conceptual clarity and measurement fidelity of key model constructs has been questionable. Tejeda, Scandura, and Pillai (2001) reported large correlations among the four transformational leadership dimensions

measured by the MLQ, the most well-known and well-validated measure of transformational and transactional leadership, suggesting the factors are not wholly distinct. Also, some researchers have criticized transformational leadership as a trait-based model dressed up in behavior-based clothing (Bryman, 1992). Given the criticality of perceived leader influence *behavior* as a key input variable in the current study, it was deemed necessary to utilize a leadership framework focused on leader behavior, both at the conceptual and measurement levels. The influence literature provided such a framework.

### *Influence Constructs and Measurement*

Much of the early work on influence behavior focused on identifying a parsimonious and useful set of influence tactics used in upward, downward, and lateral influence attempts. Originally, research on influence behavior developed out of a lack of satisfaction with frameworks of social power, such as French and Raven's (1959) framework. Kipnis, et al. (1980), in their discussion of shortcomings of social power frameworks for adequately explaining influence attempts, suggested pre-existing conceptual frameworks do not adequately explain actual influence behavior. Therefore, they conducted a series of studies designed to empirically derive a parsimonious and useful set of influence behaviors. Kipnis, et al. (1980) began by having 165 part-time business graduate students describe a situation in which they successfully influenced a subordinate, co-worker, or boss. A total of 370 influence tactics were identified. The authors, serving as coders, categorized these influence tactics into 14 categories: clandestine, personal negative actions, administrative negative actions, exchange, persistence, training, reward, self presentation, direct request, weak ask, demand, explained rationale for request, gathered supporting data, and coalitions. Next, they generated 58 frequency-based items intended to represent the 14 influence tactic categories. Using a separate sample of 690 part-time

business graduate students, a series of factor analyses was conducted. The overall factor analysis resulted in a six-factor solution and explained 38% of the total item variance. The emergent factors were labeled as follows: assertiveness, ingratiation, rationality, sanctions, exchange, and upward appeal. Separate factor analyses were conducted based upon target status (i.e., subordinate, co-worker, and boss). Two additional factors, blocking and coalition, emerged during the factor analyses of the boss and subordinate data, respectively. Based on the results of the factor analyses, eight influence scales were constructed. The criteria for item inclusion were that they must have (1) primary factor loadings of .40 or greater and (2) secondary loadings of .25 or less. Also, items were retained that demonstrated high correlations with the other items chosen for inclusion to the particular scale. Ultimately, Kipnis, et al. (1980) finished with an eight-factor, 34-item measure of influence tactics.

Other researchers subsequently used versions of Kipnis, et al.'s (1980) scales. Erez and Rim (1982) used Kipnis, et al.'s original 58 items in their study of goals and influence behavior. Their factor analysis of the 58 items resulted in a six-factor solution. They labeled the factors as follows: clandestine, personal negative sanctions, administrative sanctions, rational tactics, exchange, and appeal to others. Also, based upon their earlier work (Kipnis, et al., 1980; Kipnis & Schmidt, 1982), Schmidt and Kipnis (1984) used the Kipnis-Schmidt Profiles of Organizational Influence Strategies (POIS) which included the following influence dimensions: ingratiation, exchange, reason, assertiveness, appeal up, and coalition.

Schriesheim and Hinkin (1990) identified several issues with the initial scale development and validation efforts of Kipnis, et al. (1980). They indicated Kipnis, et al.'s interpretation of the factor analytic results were questionable because the overall results combined data from participants using different referent targets (i.e., subordinate, co-worker, or

boss). Kipnis, et al. described the results of three subsequent factor analyses that separated participants based on their referent target. The results of these separate factor analyses produced different factor structures, though Kipnis, et al. did not fully present those results. Also, Schriesheim and Hinkin (1990) indicated several of the Kipnis, et al. factors contained items with marginal factor loadings and item content inconsistent with the factor labels. Finally, they pointed out Kipnis, et al.'s failure to attempt a replication of their results with a second sample.

As a result of these issues, Schriesheim and Hinkin (1990) conducted a series of studies to further assess and improve upon the work of Kipnis, et al. By conducting a content validity assessment using 34 judges and several subsequent exploratory and confirmatory factor analyses using three additional samples, they arrived at an 18-item, six-factor (ingratiation, exchange of benefits, rationality, assertiveness, upward appeal, and coalitions) version of the Kipnis, et al. scales. Their version of the scale marked a significant improvement over the original Kipnis, et al. scales with regard to content validity, factor distinctiveness, and scale reliability.

Concurrently, Yukl and Falbe (1990) used the factors identified by Kipnis, et al. (1980) as a starting point for developing their own measure of influence tactics. They generated items to measure assertiveness, rationality, ingratiation, exchange, upward appeals, and coalitions. They chose not to include sanctions items because this dimension represents reactive rather than proactive influence behavior. Also, they chose not to include blocking items due to the low frequency of blocking reported by Kipnis, et al. (1980). Finally, they generated items intended to reflect two new influence dimensions: inspirational appeals and consultation. Data gathered from two samples, (influence agents and influence targets) provided evidence of marginal to good subscale internal consistency reliability (alphas ranging from .56 to .79).

Based upon the scale construction and validation work conducted by Yukl and Falbe (1990) and Yukl, Lepsinger, and Lucia (1991), a revised set of nine scales was constructed by Yukl and Tracey (1992). The scales included the eight influence dimensions described in Yukl and Falbe (1990) and an additional factor, referred to as legitimating. Recently, Yukl, Chavez, and Seifert (2005) validated two additional influence tactics: collaboration and apprising. The superior fit of an 11-factor measurement model (compared to 9- and 3-factor models) supported their conceptual model of influence dimensions. Yukl, Seifert, and Chavez's (2005) eleven-dimension taxonomy constitutes the framework with the broadest range of proactive influence tactics and yet a desirably specific behavioral focus. Because their taxonomy of influence tactics includes traditionally desirable elements of influence such as inspirational appeals, exchange, collaboration, and consultation, less desirable tactics such as pressure, coalition, and ingratiation, and relatively infrequently investigated tactics (at least in mainstream leadership research) such as rational persuasion, apprising, legitimating, and personal appeals, it was considered ideal for the purposes of the current study. Table 1 presents the eleven influence tactics and definitions from Yukl, et al. (2005). Because all of Yukl, et al.'s (2005) scales are intended to measure proactive influence, from this point forward, these influence dimensions are collectively referred to as proactive leader influence behaviors (PLIBs).

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### *PLIBs and Follower Commitment*

Empirical investigations of leadership and influence have linked leader influence behavior to a wide range of follower reactions, the most common of which is commitment. Commitment to the leader constitutes an outcome that is conceptually aligned with and behaviorally proximal to proactive influence efforts. Leaders attempt to get followers to buy in to their decisions and act in accordance with their wishes. Followers' reactions can range from enthusiastic commitment to active resistance (Yukl, 1989b; see Figure 2). Commitment involves enthusiastic and internalized support of a decision, directive, or request as well as extraordinary effort to carry out the request. Compliance involves completing a request while demonstrating apathy and only moderate or adequate effort. Resistance involves opposing a request or directive, and can be overt (e.g., a blatant refusal) or covert (e.g., delays and avoidance). Empirical evidence indicates that the influence tactics employed by leaders directly relate to followers' commitment. What follows is a review of this empirical evidence. Because the focus of the current study was on *leaders'* influence attempts, when available, studies reporting downward influence attempts have been described in detail.

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*Yukl, et al. Studies.* Yukl and his colleagues have published several studies that report results describing the relationships between agent influence tactics and target commitment. Yukl and Tracey (1992) conducted a field investigation in which managers from seven companies in

six industries were asked to participate in a leadership study. Each manager was asked to distribute surveys to ten peers and subordinates. The surveys included items pertaining to the manager's influence tactics, effectiveness at gaining commitment, and overall effectiveness as a manager. With regard to downward influence attempts, commitment demonstrated significant correlations with inspirational appeal ( $r = .51, p < .01$ ), consultation ( $r = .42, p < .01$ ), rational persuasion ( $r = .38, p < .01$ ), ingratiation ( $r = .34, p < .01$ ), exchange ( $r = .26, p < .01$ ), personal appeal ( $r = .15, p < .01$ ), and pressure ( $r = -.23, p < .01$ ). However, due to intercorrelations among the influence tactics, the bivariate correlations were deemed insufficient for fully illustrating the nature of the relationships. Therefore, multiple regression was used to ascertain the strength of the relationships between each influence tactic and commitment while controlling for the effects of the remaining influence tactics. The results of the multiple regression indicated that inspirational appeal, consultation, and pressure were significant predictors of commitment, even while controlling for the remaining influence tactics ( $R = .58; F(9,504) = 27.9, p < .01$ ; accounting for 33% of the variance in subordinate commitment).

Falbe and Yukl (1992) reported similar findings from their study of critical incidents of influence. They had 95 night-time MBA students (approximately half of whom were managers) report incidents in which they were the target of an influence attempt. The participants described the direction of the incident (upward, lateral or downward) and the outcome (resistance, compliance, or commitment). They were also asked to provide a description of what was said and done by the potential influencer. The participants provided approximately six incidents each. The incidents were coded by independent raters for influence tactics used. The raters achieved a moderately high level of agreement (85%). Incidents in which consensus could not be achieved were discarded. According to the chi-square test, when inspirational appeal was

used, commitment was the most frequent outcome (90%), followed by compliance (10%). When pressure was used, resistance (56%) and compliance (41%) were the most frequent outcomes. Surprisingly, rational persuasion was as likely to produce resistance (47%) as compliance (30%) or commitment (23%). Falbe and Yukl also conducted an ANOVA to test the relationships between influence tactics and outcomes (coding resistance, compliance, and commitment as 1, 2, and 3, respectively). The omnibus test indicated that some influence tactics were associated with more favorable outcomes than other influence tactics ( $F = 7.8, p < .05$ ). Comparisons of influence tactics, based upon Duncan's multiple range test, indicated that inspirational appeal and consultation produced significantly more positive outcomes than the other tactics ( $p < .05$ ). Conversely, legitimating, coalition, and pressure produced significantly more negative outcomes than the other tactics. Additionally, rational persuasion was deemed more effective at gaining compliance and commitment when used as a follow-up rather than as an initial influence tactic.

Yukl, Kim, and Falbe (1996), also utilizing a critical incidents approach, investigated the relationships between agent power, agent influence tactics, several content factors, and target commitment. One-hundred and ninety-five MBA students, half of whom managed others, described three recent influence incidents. Half of the participants described incidents in which they were the target and half described incidents in which they were the agent. After providing a written description of the influence incident, participants completed a questionnaire regarding agent power, content factors, and direction of influence attempt (i.e., upward, lateral, or downward). Each participant described three incidents – one resulting in resistance, one resulting in compliance, and one resulting in commitment. Participants who could not recall an incident that ultimately resulted in resistance were asked to describe an incident that *initially*

produced resistance. Two independent raters coded the incidents with regard to the influence tactics utilized. The tactics were rated as present or absent and up to four tactics could be rated as present. If more than four tactics were seen as part of the incident, only the four most salient influence tactics were included. They found influence tactics, power, and content factors (importance of the requested activity to work and enjoyableness of the requested activity) to be independent predictors of influence outcomes. Of greatest relevance to the current study was the relationship between influence tactics and influence outcomes. For target-reported incidents, they reported significant correlations between influence outcomes and strong rational persuasion ( $r = .20, p < .05$ ), inspirational appeal ( $r = .29, p < .05$ ), consultation ( $r = .24, p < .05$ ), and pressure ( $r = -.31, p < .05$ ). Similarly, for agent-reported incidents, they reported significant correlations between influence outcomes and strong rational persuasion ( $r = .13, p < .05$ ), inspirational appeal ( $r = .20, p < .05$ ), consultation ( $r = .17, p < .05$ ), and pressure ( $r = -.30, p < .05$ ). Additionally, agent-reported incidents demonstrated a correlation between influence outcomes and ingratiation ( $r = .20, p < .05$ ). Yukl, et al. (2005) reconcile the disparate findings of Falbe and Yukl (1992) and Yukl, et al. (1996) (with regard to rational persuasion and commitment) by suggesting that the coding procedure used in the latter study was superior to that used in the former study because the latter study distinguished between strong and weak rational persuasion.

In their efforts to validate two new influence tactics (appraising and collaboration), Yukl, et al. (2005) provided additional evidence of a positive relationship between rational persuasion and commitment. A sample of 488 employees from several financial services organizations completed the most recent version of the Influence Behavior Questionnaire (IBQ) and two commitment items. Approximately half of the sample completed the questionnaire with regard

to a lateral influence incident originating from a peer. The other group of respondents completed the questionnaire with regard to a downward influence attempt initiated by a superior. The correlations between rational persuasion and commitment were .55 ( $p < .05$ ) and .48 ( $p < .05$ ) for the downward and lateral influence contexts, respectively.

*Additional Studies.* Two studies from the marketing literature also provide support for relationships between agent influence tactics and target outcomes, such as compliance and commitment. Based upon survey data gathered from 349 beer distributors, Simpson and Mayo (1997) found that suppliers' use of non-coercive influence tactics (i.e., suggestions and information exchange) was positively related ( $r = .29, p < .05$ ) to distributors' relationship commitment. Conversely, suppliers' use of coercive influence tactics (i.e., "threats and legalistic plea," Simpson & Mayo, p. 213) was negatively related ( $r = -.23, p < .05$ ) to distributors' relationship commitment.

Payan and McFarland (2005) mailed questionnaires to 1038 managers and owners of specialty tool and fastener distribution firms. Three-hundred and fifty-six usable surveys were returned. The respondents served as targets of influence attempts. Of all the influence tactics measured (rationality, recommendations, requests, information exchange, threats, and promises), rationality demonstrated the strongest relationship with compliance ( $r = .21, p < .05$ ). Threats demonstrated a non-significant relationship with compliance. Using multiple regression, rationality remained a significant predictor of compliance, even when entered simultaneously with the remaining influence tactics ( $B = 0.232, t = 4.04, p < .05$ ).

*Summary of Empirical Investigations.* The extant literature indicates target commitment is positively related to agent use of rational persuasion and inspirational appeal and negatively related to agent use of pressure. The strength of these relationships can aptly be characterized as

moderate, though some inconsistencies were observed across studies. As can be discerned from the review above, a number of studies have investigated the relationships between influence behaviors and commitment. However, previous investigations have not utilized intact work units to evaluate influence variables as potential group-level phenomena.

### *PLIBs as Group-Level Constructs*

Because influence researchers have conceptualized influence variables at the individual-level, the testing of measurement models of influence constructs has focused on influence tactics as individual-level processes (Kipnis, et al., 1980; Schriesheim & Hinkin, 1990; Yukl & Falbe, 1990; Yukl, et al, 2005). As a result, previous investigations have addressed research questions regarding the relationships of influence variables with influence outcomes at the individual-level of analysis (Falbe & Yukl, 1992; Yukl, et al., 1996), even when target influence and commitment data were nested within influence agent (e.g., Yukl & Tracey, 1992).

Despite the absence of group-level empirical investigations of influence, conceptual and empirical evidence *indirectly* indicate PLIBs can and, in certain situations, likely will function as group-level constructs. Within intact work units, PLIBs may function as group-level phenomena when unit members experience perceptual agreement regarding the leader's influence behavior. In their reanalysis of data from several experimental studies of group interaction, Kenny, Mohr, and Levesque (2001) found variance in a wide range of behaviors (nonverbal cues, verbal style, productivity, competitive and non-competitive talk, speaking time, dominance and friendliness) was largely attributable to actors and only weakly attributable to their partners. They concluded actor effects were strongest when partners were treated as situations. Therefore, when an actor's interactions with various partners all occur within similar social contexts, the actor's behavior will tend to be relatively consistent. While Kenny, et al. (2001) did not analyze data from

leadership situations, their findings are nonetheless compelling. Generalizing their findings to a leadership context would suggest a leader's behavior will be relatively consistent and will be most consistent when the leader interacts with his or her followers in similar contexts (i.e., interactions with Follower A and Follower B occur in relatively similar contexts). Further supporting and qualifying the notion of perceptual agreement, Malloy, Agatstein, Yarlus, and Albright (1997) conducted a series of experiments designed to evaluate factors that contribute to consensus of perception. They used videotapes and written descriptions of social interactions as the stimuli and manipulated factors such as content overlap, consistency of behavior, and observer communication. They reported the highest levels of perceptual agreement among observers (of the actors' behavior) when significant overlap of content existed, the actor was consistent across situations, and the observers had the opportunity to communicate with one another. Their findings suggest that when (1) leaders are consistent in their behavior (e.g., when leaders lack versatility and tend to use the same tactics/approach across situations and followers), (2) content overlap exists (e.g., the followers' exposure to the leader's behavior occurs in group settings in which all the followers are present), and (3) followers have the opportunity to communicate with one another (e.g., they are group members rather than isolated followers who do not interact with one another) that perceptual agreement of leaders' behavior is likely to be relatively high.

In addition to the investigations of behavioral consistency/perceptual agreement described above, the consistency of leader emergence has also been investigated. Kenny and Zaccaro (1983), in their re-analysis of data from a previous investigation of leader traits and leader emergence conducted by Barnlund (1962), established a lower bound estimate of leader-based variance in leader emergence of 49% (when task and group membership were varied).

Therefore, the same individuals were seen as leaders, even when participating in different tasks and when working with different group members. However, Kenny and Zaccaro's re-analysis did not include measures of group members' behavior.

Zaccaro, Foti, and Kenny (1991) expanded on the work of Kenny and Zaccaro (1983) by investigating the roles of self-monitoring and leadership behavior in leader emergence. Employing a complex rotation design, they had 108 undergraduates form 9-person rotation sets. Within a rotation set, a participant worked on four tasks in 3-person groups. Group membership changed for each task and participants never worked with the same people twice. Prior to working on the tasks, participants completed self-report measures of self-monitoring. After each of the four tasks was completed, group members provided ratings and rankings of leader emergence as well as ratings of each group members' leadership behavior (initiating structure, consideration, persuasion, and production). Zaccaro, et al. (1991) reported that, within tasks, 40% of the variance in leadership ratings and 38% of the variance in leadership rankings were attributable to the ratee. Finally, they reported a significant amount of variance in leadership ratings and rankings to be attributable to the ratee *across* situations. Additionally, they found *some* support for situational specificity of leader behavior. That is, emergent leaders were more likely to demonstrate leader behavior appropriate to the task than were non-leaders. However, the magnitudes of these relationships were small and the authors concluded that tentative support existed for situational specificity of leader behavior. Overall, the pattern of results reported by Zaccaro, et al.'s (1991) (i.e., powerful ratee effects for leader emergence and relatively modest effects for situational specificity/behavioral flexibility) support the notion that, *within situations*, followers are apt to demonstrate good levels of perceptual agreement regarding the leader.

In addition to the experimental findings reported above, field research on personality and leadership support the contention that internal and relatively stable personality traits account for significant variance in leadership behavior and effectiveness. Judge, Bono, Ilies, and Gerhardt's (2002) meta-analysis reports significant correlations (corrected and uncorrected) between personality and leadership. Hogan and Kaiser (2005; p. 169) go so far as to say "who we are is how we lead." Given the experimental findings of actor effects (Kenny, et al. 2001; Zaccaro, et al. 1991) and the link between personality and leadership reported above, there appears to be compelling evidence to support the contention that, within situations, leaders are apt to demonstrate behavioral consistency and followers are apt to demonstrate perceptual agreement.

Consistent with the research reviewed above, leadership researchers have increasingly shown an interest in treating elements of leader behavior as group-level constructs. Many researchers have conceptualized transformational leadership as a group-level construct and found sufficient empirical evidence to support aggregating individual-level (i.e., followers') ratings of leaders' transformational leadership behavior to the group-level (Bass, Avolio, Jung, & Berson, 2003; Keller, 2006; Liao & Chuang, 2007; Lim & Ployhart, 2004; Pearce & Sims, 2002; Schaubroeck, Lam, & Cha, 2007; Shin & Zhou, 2007). In addition to transformational leadership, Keller (2006) also treated initiating structure and substitutes for leadership as group-level variables. Pearce and Sims (2002) aggregated transformational leadership, transactional leadership, aversive leadership, directive leadership, and empowering leadership. Given the conceptual overlap of inspirational appeal with transformational leadership and of pressure with aversive leadership, the findings of Pearce and Sims were particularly relevant to the issue of treating PLIBs as group-level constructs.

The empirical evidence from the leadership studies reviewed above suggests followers of a given leader might demonstrate perceptual agreement with regard to the leader's influence tactics. Therefore, conceptualizing PLIBs as group-level constructs is consistent with other domains of leadership study. Additionally, the findings of Kenny, et al. (2001) and Malloy, et al. (1997) suggest that certain conditions are particularly likely to produce actor behavioral consistency and observer perceptual agreement. These conditions (i.e., leader-follower interactions occurring within a single social context, overlapping followers' observations of the leader's behavior, and communication among followers) were expected to be present in the current study's sample and further contribute to within-unit agreement of PLIBs.

Previous interviews with and psychological assessments of members of the current study's participant pool and their leaders (conducted by the primary researcher) anecdotally indicated a lack of versatility on the part of the leaders. That is, while there appeared to be substantive differences *between* leaders with regard to the exhibition of various leadership behaviors, there also appeared to be limited variability of leadership behaviors *within* leaders. Also, exposure of the participants to their leaders often overlapped (e.g., Managers' Meetings and "Alley Rallies"). In these interactions, the leaders were expected to provide leadership and direction to their followers. Because the influence opportunities often occurred in the presence of the entire group of followers, many opportunities existed for the followers to have shared experiences related to PLIBs. Therefore, leaders were expected to exhibit relatively consistent PLIBs towards their followers. As such, unit membership (i.e., working for a common leader) was expected to account for a significant portion of observed variance in follower perceptions of PLIBs.

Significant within-group similarity of perceptions of leaders' PLIBs would justify aggregating those perceptions to the unit-level and creating unit-level perceptual variables (i.e., unit-level perceptions of leader rational persuasion, inspirational appeal, and pressure). The composition model described above would best be categorized as a direct consensus model (Chan, 1998) or shared team property (Klein & Kozlowski, 2000).

*Hypothesis 1: Unit membership will account for sufficient variance in PLIBs to warrant aggregating these variables to the group-level.*

An additional comment about aggregation should be made. Pearce and Sims (2002) measured all the leadership behaviors with dyadically-focused items. That is, the items asked followers to rate the degree to which the leader exhibited the leadership behaviors towards them specifically (e.g., "My leader tries to influence *me* through threat and intimidation;" Pearce & Sims, 2002; p. 191; italics added). Therefore, measurement of the leadership behaviors was not inherently group-focused but rather represented individual perceptions of leader behavior directed at the specific individual. The within-group agreement of perceptions then represented behavioral consistency on the part of the leader rather than simply agreement among followers regarding the leader's global behavior. The approach taken by Pearce and Sims allowed for leadership behavior data to maintain its meaning at the individual-level in the event aggregation was not empirically justified. Chan (1998) indicated that direct consensus models can be comprised of inherently individual-level variables. He writes: "Consensus, as indexed by within-group agreement, can apply to individual-level attributes such as cognitive ability and styles, personality, mental representation, and behavioral variables. The critical issue is the

specification of an adequate direct consensus composition theory to present a substantive meaning for the mean or some other central tendency index of the within-group consensual attributes (p. 237).” Similar to Pearce and Sims (2002), the current study employed dyadically-focused items to measure PLIBs. At the individual-level, PLIBs scale scores represented a follower’s perceptions of the PLIBs directed at the follower. At the unit-level (assuming within-group agreement existed), mean unit PLIBs scores would represent consistent influence behavior exhibited by the leader toward followers.

### *Selection of PLIBs*

For several reasons, rational persuasion, inspirational appeal, and pressure were chosen as the PLIBs of interest for the current study. First, each had demonstrated a significant relationship with commitment in previous studies. Second, each influence tactic resides within a distinct meta-category of influence (Falbe & Yukl, 1992; Farmer, Maslyn, Fedor, & Goodman, 1997). Specifically, rational persuasion is a rational tactic, inspirational appeal is a soft tactic, and pressure is a hard tactic. Therefore, collectively, these three tactics provided a parsimonious yet diverse set of influence tactics that represent a broad range of influence strategies. Third, these three tactics were considered conceptually aligned with psychological constructs expected to serve as meaningful moderators of the PLIBs – commitment relationships (these potential moderators are described below).

While one objective of the current study was to replicate the findings of Yukl and his colleagues (with regard to the relationships between PLIBs and follower commitment), another objective involved identifying variables that might serve as meaningful moderators of the PLIBs – commitment relationships. Specifically, I wanted to answer the following question: Under what circumstances will the observed PLIBs – commitment relationships be stronger or weaker?

Because the focus of the current study was to investigate influence in leader – follower relationships, psychological constructs and theories from the leadership domain were reviewed in an effort to identify potential moderators. The implicit leadership theory literature provided an attractive explanatory tool for further developing our understanding of the relationships between PLIBs and follower commitment.

### *Implicit Leadership Theories (ILTs)*

Leadership categorization theory (Lord, et al., 1984) and implicit leadership theories (Lord & Maher, 1991) research provided an existing cognitive categorization framework well-suited for investigating the relationships between leader behavior, follower categorizations of leaders as leader-like or un-leader-like, and follower commitment. Below is a brief overview of leadership categorization theory and ILTs.

Based upon their experiences, people form implicit theories about the attributes and abilities required for successful leadership. Lord and colleagues have used categorization theory to explain the impact of ILTs on subsequent perceptions, attributions, and reactions (Engle & Lord, 1997; Lord, et al., 1984; Lord, Foti, & Phillips, 1982). According to categorization theory, due to the need for cognitive efficiency, people classify stimuli into a finite and manageable set of categories. Categories are identified by prototypical category characteristics. Newly processed stimuli are processed based upon their degree of similarity to these prototypical category characteristics (Rosch, 1978).

*Leader Prototypicality.* Within the context of leadership, followers compare leaders' behavior and traits to the prototypical characteristics of their "leadership" category (Nye & Forsyth, 1991). Overlap between an observer's perceptions of an individual's characteristics and the observer's leadership prototype contribute to the perception of the individual as

prototypically leader-like and subsequently contributes to more favorable evaluations of the individual (Epitropaki & Martin, 2005; Maurer & Lord, 1991).

The perceived degree of congruence between perceived leader characteristics and follower ILTs, also referred to as *leader prototypicality*, appears to be an important predictor of follower reactions (Epitropaki & Martin, 2005). The more prototypical a leader is perceived to be, the greater his or her traits and abilities are believed to match those associated with effective leadership. In their field investigation, Epitropaki and Martin (2005) found match/congruence between a follower's ILT and a follower's ratings of his or her leader's traits was positively related to work commitment, job satisfaction, and well-being (all mediated through LMX). Similarly, Maurer and Lord's (1991) experimental study indicated the prototypicality of a target's behavior was positively related to follower's general leadership impressions of the target (i.e., "the level or amount of leadership exhibited," p. 828).

*ILT Dimensions.* Based upon earlier work by Offermann, Kennedy, and Wirtz (1994), Epitropaki and Martin (2004) identified six latent constructs as central to ILTs – namely, sensitivity, intelligence, dedication, dynamism, tyranny, and masculinity. Using multiple samples of full-time employed participants, Epitropaki and Martin (2004) demonstrated these six ILT constructs were generalizable across age and tenure groups and they remained relatively stable over time, even when people changed managers. While these six constructs were central to ILTs across a variety of groups, mean differences did exist between men and women with regard to the sensitivity and tyranny constructs. Women rated sensitivity as more prototypical of leadership than did men. Conversely, men rated tyranny as more prototypical of leadership than did women. While these differences were statistically significant, the meanings assigned to these constructs by men and women were not practically different. That is, both the male and female

groups reported sensitivity as being prototypical of leadership (means of 6.90 and 7.26, respectively, with a scale midpoint of 5). Similarly, both the male and female groups reported tyranny as being antiprototypical of leadership (means of 4.06 and 3.68, respectively, with a scale midpoint of 5). Therefore, while men and women differed in terms of the *degree* to which certain characteristics were rated as prototypical or antiprototypical of leadership, they did not differ in terms of which characteristics defined leadership.

*ILTs and Follower Reactions.* Categorization theory suggests a follower compares his or her ILT to his or her actual leader and disparities between the two impact overall impressions and evaluations of the leader (Lord, 1985; Epitropaki & Martin, 2005). Lord and Maher (1991) indicated followers use ILTs to interpret leaders' *behavior*. While much of the conceptual writing on ILTs indicates people compare leader behaviors to their ILTs, the lone empirical investigation of ILT match and follower reactions focused on the match between follower ILTs and perceived leader *traits* (to the exclusion of leader *behavior*; Epitropaki & Martin, 2005). However, the conceptual parallels between some of Epitropaki and Martin's (2004) ILT dimensions and some of Yukl, et al.'s (2005) PLIB dimensions suggests the opportunity to investigate match/congruence between leaders' influence *behaviors* and followers' ILTs – which is consistent with the original assumptions of categorization theory. The following section describes conceptual “matches” between specific PLIBs and ILT dimensions.

*ILTs and PLIBs.* The rational persuasion influence tactic appears to be conceptually aligned with the intelligence dimension of Epitropaki and Martin's (2004) ILT model. Because the use of logic, reason, rationality, and facts is commonly associated with people of intelligence, followers who include intelligence as an important part of their ILTs are likely to respond

favorably to the rational persuasion tactic. From their perspective, the leader is demonstrating behavior consistent with leadership (i.e., consistent with their ILTs).

Similarly, the inspirational appeal influence tactic appears to be conceptually aligned with the dynamism dimension of Epitropaki and Martin's (2004) ILT model. It is reasonable to assume efforts to inspire and shows of enthusiasm are behaviors commonly associated with dynamic people. Followers who consider dynamism and energy important parts of their ILTs are likely to respond favorably to the inspirational appeal tactic because, from their perspective, the leader is demonstrating behavior consistent with leadership (i.e., consistent with their ILTs).

Finally, the pressure influence tactic appears to be conceptually aligned with the sensitivity and tyranny dimensions of Epitropaki and Martin's (2004) ILT model. The use of threats, demands, persistent micromanagement, and pressure are behaviors consistent with the tyranny trait but inconsistent with the sensitivity trait. Followers who consider sensitivity an important part of their ILTs are likely to respond unfavorably to the pressure tactic because, from their perspective, the leader is demonstrating behavior inconsistent with leadership (i.e., inconsistent with their ILTs). On the other hand, followers who consider tyranny an acceptable or necessary part of leadership would likely respond more favorably (or at least less unfavorably) to pressure tactics because, from their perspective, the leader is demonstrating leader-like behavior (i.e., behavior consistent with their ILTs).

*Match v. Moderation.* Epitropaki and Martin (2005) calculated difference scores to represent the degree of match between followers' ILTs and followers' perceptions of their leaders' traits. Because the same list of traits comprised their ILT and leader characteristics scales, they were able to employ the difference score approach. However, the current study did not utilize parallel and perfectly congruent measures. The traits captured by Epitropaki and

Martin's (2004) ILT measure do not map perfectly onto the behavioral dimensions captured by Yukl, et al.'s (2005) IBQ. Because the measures of the PLIB and ILT variables were non-parallel, the matching/difference score approach was not available for testing the study hypotheses. Instead, the relationships were operationalized as interactions between ILT dimensions and PLIB dimensions. "Match" would exist when an ILT dimension and the corresponding PLIB dimension were both rated at the same level (e.g., both rated high or both rated low).

Based upon the leadership and influence literature reviewed above and the assumptions regarding individual- and group-level conceptualizations of follower ILTs and PLIBs, the following hypotheses were generated (see Figure 3 for a visual representation of the hypothesized relationships):

*Hypothesis 2: Group-level perceived leader use of rational persuasion will be positively related to individual-level follower commitment.*

*Hypothesis 3: The individual-level intelligence dimension of followers' ILTs will moderate the relationship between group-level perceived leader use of rational persuasion and individual-level follower commitment; such that the more prototypical intelligence is rated, the more effective rational persuasion will be in attaining commitment.*

*Hypothesis 4: Group-level perceived leader use of inspirational appeal will be positively related to individual-level follower commitment.*

*Hypothesis 5: The individual-level dynamism dimension of followers' ILTs will moderate the relationship between group-level perceived leader use of inspirational appeal and individual-level follower commitment; such that the more prototypical dynamism is rated, the more effective inspirational appeal will be in attaining commitment.*

*Hypothesis 6: Group-level perceived leader use of pressure will be negatively related to individual-level follower commitment.*

*Hypothesis 7: The individual-level sensitivity dimension of followers' ILTs will moderate the relationship between group-level perceived leader use of pressure and individual-level follower commitment; such that the more prototypical sensitivity is rated, the less effective pressure will be in attaining commitment.*

*Hypothesis 8: The individual-level tyranny dimension of followers' ILTs will moderate the relationship between group-level perceived leader use of pressure and individual-level follower commitment; such that the more prototypical tyranny is rated, the more effective pressure will be in attaining commitment.*

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Insert Figure 3 about here  
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## Method

### *Participants*

From 201 units of a family dining restaurant organization, 843 Associate Managers (AMs) served as the participant pool. The typical restaurant unit had one General Manager (GM), 3 to 6 AMs, and approximately 100 hourly employees. For the purposes of the current study, GMs were treated as leaders and AMs were treated as followers. Sixty-five AMs did not receive all of the study materials due to terminations, transfers, promotions, vacations, and leaves of absence. As a result, the participant pool was ultimately comprised of 778 potential participants. Useable study data was returned by 381 AMs (a 49% response rate) from 128 stores. In an effort to evaluate potential response bias, demographic variables were compared across three groups: full participation ( $n = 381$ ), partial participation ( $n = 311$ ), and no participation ( $n = 86$ ). There were no significant differences between the groups with regard to age,  $F(2, 775) = .510, p > .05$  or organizational tenure,  $F(2, 775) = .593, p > .05$ . Chi-square tests were used to evaluate potential response bias associated with gender and ethnicity. There were no significant differences between the groups with regard to gender:  $\chi^2(2) = 0.012, p > .05$ . The chi-square value for the comparison of ethnic groups, on the other hand, was significant:  $\chi^2(8) = 15.731, p < .05$ . The results indicated that the African-American and Asian groups were slightly under-represented (33.3 expected, 22 actual for African-Americans; 4.9 expected, 3 actual for Asians), Latinos were appropriately represented (10.8 expected, 10 actual), and

Caucasians were slightly over-represented (323.1 expected, 336 actual). However, the uncertainty coefficient, which estimates the proportional reduction in error variance associated with predicting one variable from the other (i.e., predicting participation group from ethnic group), was quite small (only 1.2% reduction in error variance) suggesting that the relationship between the variables was weak. Ultimately, it was concluded that the sample of participants adequately represented the participant pool from which it was drawn.

Sixteen restaurant units had only a single AM fully participate. Due to the nested nature of the remaining data and the multilevel nature of the study hypothesis, these sixteen cases were excluded from subsequent analyses. Therefore, 365 AMs from 112 stores constituted the study sample. The sample was 73% male and 89% Caucasian (6% African-American, 3% Latina, 1% Asian, and 1% Other). The participants averaged 42 years of age, 5.34 years with the organization, 3.6 years as an AM, and 1.87 years working for their current GM.

### *Measures*

*Leader Influence Behavior.* Twelve items from three subscales of the most recent version of the IBQ were used to measure PLIBs (Yukl, et al., 2005; see Appendix A for sample items). The included subscales measured rational persuasion, inspirational appeal, and pressure. The AM participants answered the PLIB questions with regard to their General Manager. The internal consistency reliability coefficients for the rational persuasion, inspirational appeal, and pressures subscales were .90, .88, and .73, respectively. The alphas from the current study met or exceeded alphas reported in previous investigations employing the IBQ rational persuasion (.62 to .78), inspirational appeal (.70 to .83), and pressure (.65 to .89) subscales (Yukl & Falbe, 1990; Yukl & Tracey, 1992).

*Follower ILTs.* Followers' ILTs were measured by sixteen items from four subscales of Epitropaki and Martin's (2004) ILT measure. Specifically, the intelligence (4 items;  $\alpha = .70$ ), dynamism (3 items;  $\alpha = .69$ ), sensitivity (3 items;  $\alpha = .82$ ), and tyranny (6 items;  $\alpha = .89$ ) subscales were employed (see Appendix B). The alphas from the current study were similar to the alphas reported by Epitropaki and Martin (2004) for the intelligence (.79), dynamism (.70), sensitivity (.88), and tyranny (.88) dimensions.

*Follower Commitment.* Commitment to the leader was measured with an adapted version of Yukl, et al.'s (2005) 3-item measure (see Appendix C;  $\alpha = .83$ ).

*Demographic Questionnaire.* Associate Managers were asked to answer questions regarding their gender, age, ethnicity, organizational tenure, job tenure, and dyad (leader-follower) tenure (see Appendix D).

### *Procedure*

Data were gathered via paper-and-pencil surveys. Because all data were gathered from the AMs, common method variance (CMV) was a potential concern. Podsakoff, MacKenzie, Lee, and Podsakoff (2003) recommend several procedural remedies to limit CMV effects. Among them, they recommend temporal, proximal, and psychological separation of variable measurement. While proximal and psychological separations were not viable remedies given the study constraints, temporal separation was available to limit several potential sources of CMV. Therefore, a brief-interval longitudinal design was utilized. The study questionnaires were mailed to participants in three stages, at approximately 2-week intervals. The Time 1 survey included the demographic questionnaire and the IBQ items. At Time 2, the ILT items were sent to participants. Finally, the Time 3 survey included the commitment items.

Also, Podsakoff, et al. (2003) recommend informing participants of the anonymous nature of participation and that there are no right or wrong answers to the survey items. While the current study did not allow for anonymity, respondents were informed that all data were to be kept confidential, data were to be evaluated and results reported only at an aggregate level, there were no right or wrong answers, and the results would not be used to make any personnel decisions regarding GMs or AMs. Participants were told the results of the study would be used to augment existing leadership development programs within the company and their responses were highly valued. Such an instruction set was expected to reduce potential CMV effects due to social desirability, leniency, and acquiescence. The procedural remedies followed were considered sufficient to adequately avoid CMV effects. Therefore, statistical remedies were not viewed as necessary and were not employed.

At each stage of the study, a packet was sent to each participating restaurant unit. Enclosed in the packet was a memo addressed to the GM explaining the purpose of the study and providing instructions for survey administration. Also enclosed in the packet were sealed envelopes addressed to the specific AMs. These envelopes contained informed consent forms, a survey questionnaire, and a return envelope in which to seal the completed survey. Upon signing the informed consent forms and completing their surveys, AMs were instructed to give their sealed survey responses to the store training coordinator (who was not participating in the study). The training coordinator gathered the completed surveys, enclosed them in a large, pre-stamped and pre-addressed return envelope, and mailed them to the primary researcher.

## Results

An initial review of scale correlations revealed a strong relationship between rational persuasion and inspirational appeal ( $r = .76, p < .05$ ). The magnitude of this correlation

suggested the constructs measured by the scales may not be wholly empirically distinct. Utilizing maximum likelihood extraction and an oblique rotation, an exploratory factor analysis (EFA) of the PLIBs, ILT, and commitment items was conducted to further evaluate factor structure and empirical distinctiveness. The scree plot (see Figure 4) revealed a significant break between the eigenvalues of the fifth and sixth factors. The five-factor solution accounted for 61.36% of the observed item variance (with factors 1-5 accounting for 26.24%, 14.65%, 9.54%, 6.11%, and 4.82%, respectively). Therefore, the five-factor solution was determined to best represent the data. Factors loadings greater than or equal to .40 are reported in Table 2. The pattern of factor loadings indicated the pressure tactic items and commitment items loaded on their own unique factors, respectively. However, rational persuasion and inspirational appeal items loaded together on a single, “positive influence” factor. Similarly, ILT intelligence and ILT dynamism items loaded together on an “ILT prototypical” factor while ILT tyranny items loaded on a separate factor. With one exception, the pattern of loadings resulted in simple structure. The exception was the ILT sensitivity items. Sensitivity Item 3 loaded negatively on the ILT tyranny factor, sensitivity Item 1 loaded positively on the “ILT prototypical” factor, and sensitivity Item 2 cross-loaded on the two factors. Conceptually, the sensitivity dimension of ILTs should be opposed to the tyranny dimension and positively related to other prototypical aspects of ILTs (such as intelligence and dynamism). Because the sensitivity items created ambiguity at both the conceptual level (i.e., is sensitivity the opposite of tyranny or simply another prototypical/positive ILT dimension?) and the empirical level (i.e., one item loads on one factor, a second item loads on a second factor, and a third item is cross-loaded), they were removed and a second EFA was conducted.

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Insert Figure 4 about here  
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Insert Table 2 about here  
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Once again, the scree plot (see Figure 5) indicated that a five-factor solution was appropriate. The factors accounted for 63% of the observed item variance. Factors 1-5 accounted for 26.76%, 14.55%, 9.65%, 6.74%, and 5.33% of the variance, respectively. The factor loadings are reported in Table 3. The pattern of factor loadings constituted simple structure and resulted in a “positive influence” factor (rational persuasion and inspirational appeal items), a pressure factor (pressure items), an “ILT prototypical” factor (intelligence and dynamism items), an ILT tyranny factor (tyranny items), and a commitment factor (commitment items). As a result of the EFA results, a composite “positive influence” variable was created from the rational persuasion and inspirational appeal items. Similarly, a composite “ILT prototypical” variable was created from the ILT intelligence and ILT dynamism items. Means, standard deviations, scale reliabilities, and scale intercorrelations for the revised study variables (i.e., positive influence and prototypical ILT variables) and the original study variables (i.e.,

rational persuasion, inspirational appeal, pressure, ILT intelligence, ILT dynamism, ILT tyranny, and ILT sensitivity) are reported in Table 4.

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Insert Figure 5 about here

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Insert Table 3 about here

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Insert Table 4 about here

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While changing the operationalization of study constructs based upon a single-sample, iterative process is less than ideal and potentially allows sampling error to misguide research, it was deemed necessary given the compelling empirical evidence. The amalgamation of the rational persuasion and inspirational appeal variables did constitute a departure from the existing conceptual and empirical literature, which has defined influence tactics as either distinct dimensions (Yukl, et al., 2005) or as elements of distinct meta-categories (Farmer, et al., 1997).

Despite this departure, the factor analytic results reported above suggest “positive” and “negative” meta-categories appropriately captured the covariance of the influence tactic items – at least in the current influence context. Therefore, while amalgamating rational persuasion and inspirational appeal items to represent a broader “positive influence” construct was not consistent with the original study design, it did produce a conceptually interpretable set of factors.

With regard to the ILT items, Epitropaki and Martin (2004) reported a hierarchical factor structure that included specific ILT factors (e.g., intelligence, dynamism, tyranny) and higher-order factors, namely a prototypical factor (which included intelligence, dynamism, sensitivity, and dedication) and an antiprototypical factor (which included pressure and masculinity). In the current study, the broader, or higher-order, ILT constructs appeared to exert a significant influence on the items, indicating the higher-level/broader prototypical ILT conceptualization was the most appropriate manner in which to operationalize the selected ILT dimensions.

#### *Testing Study Hypotheses Based Upon EFA Results*

The unexpectedly large correlation between rational persuasion and inspirational appeal scale scores and the results of the EFA necessitated revising the operationalizations of the study variables. As a result, subsequent analyses utilized the positive influence variable in place of the rational persuasion and inspirational appeal variables. Similarly, the ILT prototypical variable replaced the separate ILT intelligence and ILT dynamism scales in subsequent analyses.

It is worth noting that the amalgamation of the rational persuasion and inspirational appeal variables and the parallel amalgamation of the ILT intelligence and ILT dynamism variables reduced the conceptual elegance of the study (i.e., rational persuasion conceptually fit with intelligence; inspirational appeal conceptually fit with dynamism). However, the factor analytic results indicated that rational persuasion and inspirational appeal were not empirical

distinguishable in the current study. Therefore, broader variables were used to test the original underlying expectation: effectiveness of a leader's influence behaviors is, to some degree, conditional upon the "fit" of those behaviors with the follower's ILT.

#### *Initial Justification for Multilevel Models*

In order for a multilevel model to be appropriate, non-independence must exist. That is, unit membership must, to some extent, account for followers' scores on the outcome variable of interest. Using HLM 6.03, the within-groups and between-groups variance components of commitment scores were estimated. The within-group variance ( $\sigma^2$ ) estimate was 0.32184 and the between-group variance ( $\tau_{00}$ ) estimate was 0.10294. The  $\chi^2$  for  $\tau_{00} = 225.691$  ( $d.f. = 111, p < .05$ ), indicating the amount of variance residing between groups was significant. From these variance components, an *ICC(1)* was calculated. The *ICC(1)* value was 0.242 ( $p < .05$ ), meaning 24% of the variance in follower commitment was attributable to unit membership. The presence of non-independence violates an assumption of traditional OLS regression and ANOVA because under such conditions error terms will be correlated due to a systematic underlying cause (i.e., the store). Therefore, non-independence provided initial evidence that proceeding with a multilevel model was appropriate.

Next, it was important to test the hypothesis that the PLIBs variables demonstrated adequate intra-unit agreement to justify aggregation to the unit-level (Hypothesis 1). The basis for Hypothesis 1 was that unit members, because they were followers of a common leader, would be largely exposed to the same or similar behavior from the leader. Therefore, a collective, or unit-level, perception of the leader's influence behaviors would exist. Inter-rater agreement was calculated for each unit, utilizing the  $a_{wg}$  (Brown & Hauenstein, 2005) and  $r_{wg}$  (James, Demaree, & Wolf, 1984) statistics. Specifically, the  $a_{wg(j)}$  and  $r_{wg(j)}$  statistics were

calculated because scales were composites of items. Both statistics represent consensus of ratings within a group. Additionally,  $ICC(1)$  and  $ICC(2)$  values (Bartko, 1976), which are indicators of interrater reliability + interrater agreement (LeBreton, Burgess, Kaiser, Atchley, & James, 2003), were calculated for both of the PLIBs variables.

*Interrater Agreement Indices.* The  $a_{wg(j)}$  statistic suffers from one relevant constraint – in order to be interpretable, it requires a minimum number of raters based upon the number of response categories of the items being employed (Brown & Hauenstein, 2005). As the number of response categories increases, so too does the number of raters needed to interpret the  $a_{wg(j)}$  values. With regard to this issue, Brown and Hauenstein (2005) provided the following heuristic: minimum number of raters needed = the number of response categories – 1. Because the current study used 5-point Likert-type response items, a minimum of four raters was required to interpret  $a_{wg(j)}$  values. Due to the unequal and relatively small size of the groups in the current study, only 48 groups met the criterion of having at least four raters. The  $a_{wg(j)}$  statistics provided below in Table 5 are based upon those 48 groups (rather than the full 112 groups).

In addition to calculating  $a_{wg(j)}$ ,  $r_{wg}$  statistics were also calculated. While  $r_{wg}$  statistics are the most prevalent agreement indices used in the behavioral sciences, there are some inherent limitations to them. As noted by Brown and Hauenstein (2005), the most significant limitation of  $r_{wg}$  statistics is they require the specification of the expected and theoretical null distribution (representing a complete lack of agreement). Traditionally, the null distribution has been assumed to be rectangular and uniform in shape and to represent completely random responding on the part of the raters. However, alternative null distributions, such as skewed distributions due to leniency or severity bias, may also be appropriate, and James, et al. (1984) recommend researchers utilize multiple distributions. With regard to  $r_{wg}$  statistics, the greater the assumed

skew of the theoretical null distribution, the smaller the  $r_{wg}$  values will be (all else being equal). While the confidential nature of the data collection process and the assurances made to participants that the data would not be used to make any personnel decisions were expected to minimize the skewing of ratings, a tendency to slightly inflate ratings was deemed a possibility. Therefore, the  $r_{wg}$  statistics based upon the uniform and the slightly skewed null distributions were considered appropriate and the  $r_{wg}$  results are reported in Table 5. The variance estimates of James, et al. (1984) and LeBreton and Senter (in press) were employed to calculate agreement against the uniform and slightly skewed null distributions. It is important to note that  $r_{wg(j)}$ , much like  $a_{wg(j)}$ , is impacted by sample size. Small samples produce attenuated estimates of agreement. Lindell, Brandt, and Whitney (1999) recommend a minimum of ten raters be used when reporting  $r_{wg}$  values in order to avoid attenuation. However, researchers routinely report  $r_{wg}$  values for groups smaller than ten (e.g., Keller, 2006; Pearce & Sims, 2002; Shin & Zhou, 2007) and Lindell, et al.'s recommendation may represent an ideal standard rather than a practical lower threshold. In the absence of an explicit heuristic regarding the minimum number of ratings (such as the one provided by Brown and Hauenstein (2005) regarding the  $a_{wg}$  statistic), the summary of  $r_{wg}$  values reported below was based upon all 112 groups. However, these results were interpreted with *extreme* caution.

*Interrater Reliability Indices.*  $ICC(1)$  is generally interpreted as the effect size of group membership on individual's ratings (Bliese, 2000). Therefore, the  $ICC(1)$  values reported in Table 5 represent the proportion of variance in AMs' ratings of PLIBs that can be accounted for by unit membership.  $ICC(2)$  is generally interpreted as the reliability of the group mean score. Together,  $ICC(1)$  and  $ICC(2)$  answer the following questions: (1) To what extent does group membership influence ratings? (2) How reliably do group mean scores discriminate between

groups? It is worth noting that  $ICC(2)$  values, because they represent the reliability of mean ratings, are influenced by sample size. As with other internal consistency reliability coefficients, all else being equal, more items (in this case, raters) produces larger reliability values. Due to constraints placed upon the research design by the participating organization, the groups in the current study were small and of unequal size (ranging from 2 to 6 group members/raters). Following the recommendation of Bliese and Halverson (1998), average group size was entered into the  $ICC(1)$  formula to account for unequal group sizes.

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Insert Table 5 about here

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*Interpreting the Similarity Results.* Traditionally, .70 has served as the cut point for agreement indices (Brown & Hauenstein, 2005; George, 1990; LeBreton, et al., 2003) and reliability indices, such as  $ICC(2)$ . However, applying the logic used by Nunnally and Bernstein (1994) with regard to interpreting reliability coefficients, LeBreton and Senter (in press) recommend taking a variety of factors into account when establishing a priori criteria for agreement. Specifically, they suggest considering the nature of the decisions to be made with the data (e.g., hiring decisions versus answering research questions), the psychometric properties of the items and scales employed, and the nature of the model to be tested. Also, it is important to remember that  $ICC(2)$  values are a function of both consensus and consistency and values below

the .70 threshold might be observed when consistency is high but absolute agreement is low or vice versa.

Given the dearth of available empirical evidence (within the domain of PLIBs research) to guide both the generation of hypotheses regarding aggregation and the establishment of agreement criteria, a liberal a priori cut-point of .60 was established to represent sufficient agreement. Also, because multiple agreement and reliability indices were utilized, decisions regarding aggregation were ultimately based upon the *pattern* of similarity values. With regard to *ICC(1)*, Cohen's (1988) guidelines for effect sizes were applied. Therefore, *ICC(1)* values around .10 were considered medium effects and values approaching .25 were considered large effects.

*Similarity Indices: Positive Influence Variable.* The mean  $r_{wg(j)un}$  value for positive influence was .63. The median value was .73 and approximately 69% of the groups had  $r_{wg(j)un}$  values greater than .60. The mean and median  $r_{wg(j)ss}$  values were .46 and .53, respectively, and approximately 45% of the groups had values greater than .60. Overall, the  $r_{wg(j)}$  values indicated, at best, marginal agreement within groups. The  $a_{wg(j)}$  values were less indicative of agreement. The mean and median  $a_{wg(j)}$  values were .51 and .54, respectively, and only 40% of the groups had  $a_{wg(j)}$  values meet the .60 threshold. The *ICC(1)* value for positive influence was .15, indicating a moderate effect for unit membership on positive influence scores. The *ICC(2)* value for positive influence was .37, indicating poor reliability. While the pattern of the results was somewhat mixed, my conclusion was that insufficient similarity existed within the units to justify aggregation.

*Similarity Indices: Pressure Variable.* The mean and median  $r_{wg(j)un}$  values were .60 and .68, respectively. Approximately 58% of the groups had  $r_{wg(j)un}$  values that met the .60 standard.

With regard to  $r_{wg(j)ss}$ , the mean value was .42 and the median value was .44. Only 43% of the groups had  $r_{wg(j)ss}$  values that met the .60 threshold. The mean and median  $a_{wg(j)}$  values were .33 and .38, respectively; and only 15% of the groups met the .60 criterion. The  $ICC(1)$  value of .11 and the  $ICC(2)$  value of .28 were modest. Unit membership demonstrated only a moderate effect on pressure scores and mean group scores did not reliably differentiate between the groups. Given the overall pattern of similarity results, aggregation of the pressure variable was not justified.

#### *Testing Study Hypotheses Based Upon Similarity Analysis Results*

Hypothesis 1 was not supported. Unit membership did not explain practically significant amounts of variance in the positive influence and pressure scores. Furthermore, acceptable levels of within-group agreement of scores were not observed. The lack of support for the aggregation of the positive influence and pressure scores to the unit-level resulted in the removal of positive influence and pressure variables *as unit-level variables* from subsequent analyses. Because these variables could not be justifiably aggregated, the remaining study hypotheses were tested at the individual-level. Figure 6 visually displays the revised analysis strategy for testing the study hypotheses.

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Insert Figure 6 about here

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### *Data Transformation*

Prior to conducting analyses to evaluate the substantive relationships among the study variables, transformations of the study variables were conducted. Positive influence, pressure, ILT tyranny, and commitment demonstrated a degree of skewness that constituted a significant departure from normality. Following the steps described by Tabachnik and Fidell (2001), skewness values were calculated and compared to zero prior to and subsequent to transformations. Table 6 provides the skewness values, standard errors, and z-scores (compared to zero). A conservative a priori significance criterion of .01 was used to assess skewness before and after the transformations. Additionally, Figures 7-11 display pre- and post-transformation histograms. The transformations successfully reduced the degree of skewness in the study variables. Once the variable transformations were completed, the remaining study hypotheses were ready to be tested. All subsequent analyses were conducted using both the transformed and non-transformed variables. The results were comparable and no conclusions regarding the study hypotheses or the substantive relationships among the study variables were affected by the transformations. Results derived from non-transformed variables are easier to interpret because they retain the original scale metric (in the case of the current study, all variables were based with 5-point scales). Therefore, only the non-transformed results are presented.

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Insert Table 6 about here

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Insert Figures 7-11 about here  
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### *Overview of Random Coefficient Modeling (RCM)*

Random coefficient models are appropriate analytical tools to use when one is interested in investigating the relationship between variables at different levels of analysis (Klein & Kozlowski, 2000) or when one has nested data (Bliese & Hanges, 2004). RCM techniques such as hierarchical linear modeling (HLM) involve specifying sets of level-1 and level-2 equations. In Step 1 of RCM, level-1 models of the relationships between level-1 predictors and the level-1 outcome for each level-2 unit are estimated. In the context of the current study, level-1 refers to the individual-level and level-2 refers to the unit-level. Therefore, for the current study, 112 separate regression equations were generated for the 112 units. In Step 2, the intercepts and slopes generated in Step 1 serve as the outcome variables in the level-2 analysis.

Hofmann (1997) describes four possible distributions of level-1 intercepts and slopes. First, there might be no significant variance in level-1 intercepts and slopes across the level-2 units (see Figure 12a). If such is the case, then a single regression equation adequately explains the relationship between the level-1 predictor and the outcome variable across the units. Second, there might be significant variance in the level-1 intercepts but no significant variance in the level-1 slopes (see Figure 12b). Third, there might be no significant variance in level-1 intercepts but significant variance in level-1 slopes (see Figure 12c). Finally, there might be meaningful variance in both the level-1 intercepts and level-1 slopes (see Figure 12d). While the purpose of RCM is to account for between-unit variance while testing individual-level

relationships, it also allows one to determine if modeling level-2 predictors is warranted. Significant variance in the level-1 intercepts indicates the possibility of a main effect for one or more level-2 predictors. Significant variance in the level-1 slopes indicates the possibility of cross-level interactions between level-1 predictors and level-2 predictors. Therefore, even when RCM is used to test relationships between variables at a single level of analysis (such as in the case of the current study), the initial steps are equivalent to those used in many HLM procedures. In effect, RCM is a variance partitioning procedure that seeks to explain within-unit variance in the level-1 outcome while accounting for level-2 unit membership.

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 Insert Figure 12 about here  
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#### *Testing the Study Hypotheses with RCM*

The  $a_{wg}$ ,  $r_{wg}$ , and  $ICC$  results indicated the PLIBs variables were best operationalized at the individual-level. Therefore, testing of the study hypotheses did not involve any unit-level variables. However, because the followers were nested within unit and a significant portion of the variance in commitment scores was attributable to unit membership ( $ICC(1) = .24, p < .05$ ), the data were non-independent. Non-independence violates an assumption of OLS regression and results in misspecified error terms. More specifically, using OLS regression with non-independent data produces inflated standard error estimates and reduces statistical power (Bliese & Hanges, 2004). These inflated standard error estimates result from a failure to estimate individual variability and between-group variability separately. In the presence of non-

independence, both types of variability exist; and yet, OLS techniques generally estimate only an overall residual term. RCM techniques estimate individual variability ( $\sigma^2$ ) and between-group variability ( $\tau_{00}$ ) separately, thereby accounting for group membership. Therefore, while all relationships among the study variables were analyzed at the individual-level-of-analysis (and HLM was not required to test the study hypotheses), RCM was employed to test the study hypotheses while accounting for unit membership.

It is worth noting that the small group sizes within the study sample presented some issues with regard to estimation of variance components. Specifically, when models included multiple level-1 predictors, the HLM 6.03 statistical analysis program excluded the smallest groups from the calculations of chi-square tests of the variance components. For example, including ILT prototypical, ILT tyranny, pressure, and pressure\*ILT tyranny (a total of four predictors) as level-1 variables resulted in the exclusion of 105 of the 112 groups from the calculation of the chi-square tests of the variance components. The chi-square tests are critical for calculating effect sizes and Raudenbush, Byrk, and Congdon (2006) caution against generalizing such results to excluded groups. Therefore, while it would have been optimal to conduct a single analysis with all the relevant variables included, such an analysis was not appropriate, given the small unit sizes. While the issue of group exclusion in the estimation of variance components could not be completely avoided, conducting separate and sequential sets of analyses helped mitigate its impact. Therefore, Analysis 1 tested the main effects and interaction of positive influence and ILT prototypical. Next, Analysis 2 tested the main effects and interaction of pressure and ILT tyranny. Finally, Analysis 3 involved taking the significant predictors from Analyses 1 and 2 and testing their relationships with commitment simultaneously. The use of the sequential approach helped keep the number of variables

included in any given model to a minimum, thereby maximizing the number of groups used to estimate the variance components.

Prior to testing the study hypotheses, the positive influence, pressure, ILT prototypical, and ILT tyranny scores were grand mean centered. Because interaction terms are highly correlated with their component predictors, multicollinearity is a concern when interaction terms are included in regression models. Grand mean centering component predictor scores removes their scale of measurement and reduces multicollinearity between the component predictors and their interaction terms (Tabachnik & Fidell, 2001). The RCM results are presented in Table 7.

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Insert Table 7 about here

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*Analysis 1: Positive Influence, ILT Prototypical, and Commitment.* The results of the EFAs led to the amalgamation of the rational persuasion and inspirational appeal variables. As a result, Hypotheses 2 and 4 were not directly testable in their original forms. Instead, the relationship between individual-level positive influence and individual-level commitment was evaluated (forthwith referred to as Hypothesis 2/4). Also, the EFA results led to the amalgamation of the ILT intelligence and ILT dynamism variables, thereby rendering Hypotheses 3 and 5 un-testable in their original forms. Instead, the interaction between positive influence and ILT prototypical was tested (forthwith referred to as Hypothesis 3/5). A random-coefficient regression model was specified to test the relationships between positive influence,

ILT prototypical, and commitment while accounting for between-unit variability. The level-1 and level-2 models were specified as follows:

$$\text{Level 1: Commitment}_{ij} = B_{0j} + B_{1j}(\text{positive influence}) + B_{2j}(\text{ILT prototypical}) + B_{3j}(\text{positive influence} * \text{ILT prototypical}) + r_{ij}$$

$$\text{Level 2: } B_{0j} = \gamma_{00} + U_{0j}$$

$$B_{1j} = \gamma_{10} + U_{1j}$$

$$B_{2j} = \gamma_{20} + U_{2j}$$

$$B_{3j} = \gamma_{30} + U_{3j}$$

where

$\gamma_{00}$  = mean of the intercepts across groups

$\gamma_{10}$  = mean of the positive influence slopes across groups (individual-level main effect for positive influence; Hypothesis 2/4)

$\gamma_{20}$  = mean of the ILT prototypical slopes across groups (individual-level main effect for ILT prototypical)

$\gamma_{30}$  = mean of the positive influence\*ILT prototypical slopes across groups (individual-level interaction; Hypothesis 3/5)

Variance ( $r_{ij}$ ) =  $\sigma^2$  = level-1 residual variance

Variance ( $U_{0j}$ ) =  $\tau_{00}$  = variance in intercepts

Variance ( $U_{1j}$ ) =  $\tau_{11}$  = variance in positive influence slopes

Variance ( $U_{2j}$ ) =  $\tau_{21}$  = variance in ILT prototypical slopes

Variance ( $U_{3j}$ ) =  $\tau_{31}$  = variance in positive influence\*ILT prototypical slopes

Analysis 1 in Table 7 provides a summary of the results. Positive influence was a significant predictor of commitment ( $B = 0.299$ ,  $t = 7.43$  ( $d.f. = 111$ ),  $p < .05$ ), providing initial support for Hypothesis 2/4. Also, the interaction term was significant as well ( $B = -0.116$ ,  $t = 2.16$  ( $d.f. = 111$ ),  $p < .05$ ), potentially providing support for Hypothesis 3/5. However, final judgments regarding Hypothesis 2/4 and Hypothesis 3/5 was reserved until Analysis 3 was completed. As a result of Analysis 1, positive influence and positive influence\*ILT prototypical were carried forward into Analysis 3.

*Analysis 2: Pressure, ILT Tyranny, and Commitment.* Because aggregation of the pressure variable was not justified, Hypothesis 6 was tested at the individual-level. Also, because the EFA results led to the removal of the ILT sensitivity variable, Hypothesis 7 was not tested. Hypothesis 8, which predicted an interaction between pressure and ILT tyranny, was tested at the individual-level-of-analysis. A random-coefficient regression model was specified to test the relationship between pressure, ILT tyranny, and commitment while accounting for between-group variability. The level-1 and level-2 models were specified as follows:

$$\text{Level 1: Commitment}_{ij} = B_{0j} + B_{1j}(\text{pressure}) + B_{2j}(\text{ILT tyranny}) + B_{3j}(\text{pressure*ILT tyranny}) + r_{ij}$$

$$\text{Level 2: } B_{0j} = \gamma_{00} + U_{0j}$$

$$B_{1j} = \gamma_{10} + U_{1j}$$

$$B_{2j} = \gamma_{20} + U_{2j}$$

$$B_{3j} = \gamma_{30} + U_{3j}$$

where

$\gamma_{00}$  = mean of the intercepts across groups

$\gamma_{10}$  = mean of the pressure slopes across groups (individual-level main effect for pressure; Hypothesis 6)

$\gamma_{20}$  = mean of the ILT tyranny slopes across groups (individual-level main effect for ILT tyranny)

$\gamma_{30}$  = mean of the pressure\*ILT tyranny slopes across groups (individual-level interaction; Hypothesis 8)

Variance ( $r_{ij}$ ) =  $\sigma^2$  = level-1 residual variance

Variance ( $U_{0j}$ ) =  $\tau_{00}$  = variance in intercepts

Variance ( $U_{1j}$ ) =  $\tau_{11}$  = variance in pressure slopes

Variance ( $U_{2j}$ ) =  $\tau_{21}$  = variance in ILT tyranny slopes

Variance ( $U_{3j}$ ) =  $\tau_{31}$  = variance in pressure\*ILT tyranny slopes

The regression weight for pressure was significantly different than zero ( $B = -0.144$ ,  $t = -3.41$  ( $d.f. = 111$ ),  $p < .05$ ; see Analysis 2 in Table 7). Just as with the test of Hypothesis 2/4, while *initial* support for Hypothesis 6 was provided, final conclusions were withheld until Analysis 3 was completed. The interaction between pressure and ILT tyranny was not significant ( $B = 0.057$ ,  $t = 1.44$  ( $d.f. = 111$ ),  $p < .05$ ). Therefore, Hypothesis 8 was not supported. As a result of Analysis 2, pressure was carried forward into Analysis 3.

*Analysis 3: Positive Influence, Pressure, Positive Influence\*ILT Prototypical, and Commitment.* Analyses 1 and 2 provided initial support for main effects for positive influence and pressure. They also provided initial support for the interaction between positive influence

and ILT prototypical. However, it was important to test these predictors simultaneously to evaluate their impact in the presence of other (initially) significant predictors. A random-coefficient regression model that included positive influence, pressure, and positive influence\*ILT prototypical was generated. The model was specified as follows:

$$\text{Level 1: Commitment}_{ij} = B_{0j} + B_{1j}(\text{positive influence}) + B_{2j}(\text{pressure}) + B_{3j}(\text{positive influence*ILT prototypical}) + r_{ij}$$

$$\text{Level 2: } B_{0j} = \gamma_{00} + U_{0j}$$

$$B_{1j} = \gamma_{10} + U_{1j}$$

$$B_{2j} = \gamma_{20} + U_{2j}$$

$$B_{3j} = \gamma_{30} + U_{3j}$$

where

$\gamma_{00}$  = mean of the intercepts across groups

$\gamma_{10}$  = mean of the positive influence slopes across groups (individual-level main effect for positive influence; Hypothesis 2/4)

$\gamma_{20}$  = mean of the pressure slopes across groups (individual-level main effect for pressure; Hypothesis 6)

$\gamma_{30}$  = mean of the positive influence\*ILT prototypical slopes across groups (individual-level interaction; Hypothesis 3/5)

Variance ( $r_{ij}$ ) =  $\sigma^2$  = level-1 residual variance

Variance ( $U_{0j}$ ) =  $\tau_{00}$  = variance in intercepts

Variance ( $U_{1j}$ ) =  $\tau_{11}$  = variance in positive influence slopes

Variance ( $U_{2j}$ ) =  $\tau_{21}$  = variance in pressure slopes

Variance ( $U_{3j}$ ) =  $\tau_{31}$  = variance in positive influence\*ILT prototypical slopes

Analysis 3a in Table 7 provides a summary of the results from the model above. Positive influence remained a significant predictor of commitment, even with pressure and positive influence\*ILT prototypical included in the model ( $B = 0.301$ ,  $t = 8.62$ , ( $d.f. = 111$ ),  $p < .05$ ). Similarly, pressured remained a significant predictor of commitment, even with positive influence and positive influence\*ILT prototypical included in the model ( $B = -0.112$ ,  $t = -3.10$ , ( $d.f. = 111$ ),  $p < .05$ ). However, with positive influence and pressure included in the model, the interaction term (positive influence\*ILT prototypical) was no longer significant ( $B = -0.071$ ,  $t = -1.19$  ( $d.f. = 111$ ),  $p > .05$ ). Therefore, ultimately, Hypothesis 3/5 was not supported. In order to calculate the proportion of within-unit variance in commitment explained by positive influence and pressure, the interaction term was removed from the model and a final analysis (Analysis 3b) was conducted. The model was specified as follows:

Level 1:  $\text{Commitment}_{ij} = B_{0j} + B_{1j}(\text{positive influence}) + B_{2j}(\text{pressure}) + r_{ij}$

Level 2:  $B_{0j} = \gamma_{00} + U_{0j}$

$B_{1j} = \gamma_{10} + U_{1j}$

$B_{2j} = \gamma_{20} + U_{2j}$

where

$\gamma_{00}$  = mean of the intercepts across groups

$\gamma_{10}$  = mean of the positive influence slopes across groups (individual-level main effect for positive influence; Hypothesis 2/4)

$\gamma_{20}$  = mean of the pressure slopes across groups (individual-level main effect for pressure; Hypothesis 6)

Variance ( $r_{ij}$ ) =  $\sigma^2$  = level-1 residual variance

Variance ( $U_{0j}$ ) =  $\tau_{00}$  = variance in intercepts

Variance ( $U_{1j}$ ) =  $\tau_{11}$  = variance in positive influence slopes

Variance ( $U_{2j}$ ) =  $\tau_{21}$  = variance in pressure slopes

The results from the model above are reported in Analysis 3b in Table 7. Commitment was significantly related to both positive influence ( $B = 0.311$ ,  $t = 8.18$ , ( $d.f. = 111$ ),  $p < .05$ ) and pressure ( $B = -0.108$ ,  $t = -3.08$ , ( $d.f. = 111$ ),  $p < .05$ ). The  $R^2$  for this final model was .32. Therefore, 32% of the within-group variance in commitment was explained by the combination of positive influence and pressure. Also, it is worth noting that the intercept variance estimate was significant ( $U_{0j} = 0.046$ ,  $\chi^2(81) = 106.08$ ,  $p < .05$ ), indicating sufficient variance to justify the inclusion of level-2 predictors. However, modeling additional variables was beyond the scope of testing the study hypotheses. It is also worth noting that estimates of slope variances were not significant for positive influence ( $U_{1j} = 0.042$ ,  $\chi^2(81) = 90.82$ ,  $p > .05$ ) and pressure ( $U_{2j} = 0.010$ ,  $\chi^2(81) = 78.15$ ,  $p > .05$ ), indicating no cross-level interactions associated with either of these predictors. Therefore, the distributions of level-1 intercepts and slopes were best illustrated by Figure 12b.

#### *Comparative OLS Regression Analysis*

As previously explained, inclusion of all the predictors into a single RCM analysis severely limits the number of groups used to estimate the variance components (due to small group sizes). Because the chi-square tests of the variance components are used to calculate

effect sizes, the more groups included in the calculations the more reliable the effect size estimates. Therefore, the RCM analysis proceeded in stages to limit the number of predictors included in a single analysis. As a result, no model was tested in which all potentially relevant predictors were simultaneously present. For comparison purposes, Hypotheses 2/4, 3/5, 6, and 8 were also tested using traditional OLS regression. The advantage of using OLS regression was that all predictors could be entered into a single hierarchical regression analysis without adversely impacting the estimations of the effect sizes, thereby allowing for tests of significance to occur when all theoretically relevant predictors were modeled simultaneously. However, the disadvantage of employing OLS regression with nested data was that the standard errors were calculated based upon the total variance rather than only upon the within-group variance. As a result, OLS regression did not account for nonindependence due to the nested structure of the data. Because the nonindependence assumption of OLS regression was not met by the current data, the OLS results are presented for comparison purposes only (and not as the primary test of the study hypotheses). The OLS regression results are presented in Table 8.

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Insert Table 8 about here  
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Prior to conducting the regression analysis, all predictor variables were grand-mean centered to reduce the multicollinearity between predictor components and interaction terms. In step 1 of the hierarchical regression analysis, commitment was regressed onto positive influence, pressure, ILT prototypical, and ILT tyranny. Consistent with the RCM results, positive influence

demonstrated a positive relationship with commitment ( $B = 0.347, t = 9.617, p < .05$ ). None of the other predictors were significant, though pressure was marginally significant ( $B = -0.069, t = -1.915, p = .056$ ). The  $R^2$  for the model was .287, indicating that nearly 29% of the variance in commitment was explained by the set of predictors. In step 2, the positive influence\*ILT prototypical and pressure\*ILT tyranny variables were added to the regression model. With these interaction terms included, positive influence remained a significant predictor of commitment ( $B = 0.349, t = 9.701, p < .05$ ). Interestingly, the pressure variable, which demonstrated a marginally significant relationship with commitment in step 1, was a statistically significant predictor of commitment in step 2 ( $B = -0.075, t = -2.013, p < .05$ ). The change of the pressure variable from marginally significant to significant appeared to be due to the presence of a suppressor variable. The pressure\*ILT tyranny variable, while not significantly related to commitment ( $r = -.003, p > .05$ ), was significantly correlated with pressure ( $r = .284, p < .05$ ). A portion of the irrelevant variance in pressure (i.e., the pressure variance not associated with commitment) was accounted for by pressure\*ILT tyranny, thereby “pushing” the pressure variable from marginally significant to significant. Finally, the positive influence\*ILT prototypical variable was statistically significant ( $B = -0.101, t = -2.010, p < .05$ ) and the form of the interaction is plotted in Figure 13.

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Insert Figure 13 about here  
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The high and low values in Figure 13 represent one standard deviation above and below the variable means, respectively. The plot indicates follower ILT prototypical scores were irrelevant when leader positive influence was high. However, as leader positive influence scores decreased, follower ILT prototypical scores differentiated followers with regard to commitment. Specifically, followers with lower ILT prototypical scores and lower ratings of leader positive influence demonstrated the lowest levels of commitment. While the interaction term was significant, the form of the interaction was not consistent with Hypothesis 3/5. It was not a mismatch between leader behavior and follower ILT that predicted low commitment, but rather a “piling on” effect in which low expectations of leaders (i.e., low ILT prototypical ratings) and low ratings of leader positive influence behavior resulted in the least committed followers.

### Discussion

The current study contributed to the influence literature in multiple ways. First, the study provided *initial* evidence that proactive leader influence behaviors function as individual-level constructs. Second, the study provided additional support of the extant literature regarding the relationships between PLIBs and commitment. Third, the study served as an initial effort to include ILTs variables as potential moderators of the relationships between PLIBs and commitment.

#### *PLIBs as Individual-Level Constructs*

Several factors were expected to facilitate within-unit perceptual similarity of PLIBs. Specifically, followers collectively interacted with their leaders at least some of the time. Also, followers communicated with one another regularly, providing opportunities to share information about their leader and influence one another’s evaluations of the leader. Finally, anecdotal evidence gathered from leadership assessments of and interviews with many of the

leaders had suggested a lack of leadership versatility. Despite these factors, meaningful amounts of within-unit similarity of PLIBs perceptions were not observed.

In retrospect, perhaps the impact of these factors was over-estimated. While collective interactions between leaders and followers (e.g., Managers' Meetings and "Alley Rallies") occurred regularly, they likely constituted only a fraction of the leader-follower interactions. Therefore, followers had ample opportunities to interact with their leaders in the absence of their fellow followers. Also, while followers working within the same unit did communicate with one another regularly regarding work responsibilities, the extent to which they shared information about their leader and specifically about the leader's influence behavior is unknown. It is known that sharing of information and interaction can exert powerful influences on the perceptions and behaviors of individuals, even when they are unaware of it (Pronin, Berger, & Molouki, 2007). However, if interaction time was limited and the topic of leader influence behavior was rarely discussed, then social influence on perceptions of PLIBs was likely limited. Finally, while data gathered from psychological assessments of (e.g. personality, cognitive abilities, and leadership behavior/practices) and interviews with many of the GMs indicated an overall lack of leadership versatility, it is worth noting that all such data was self-report in nature. Perhaps leaders lacked self-awareness of their leadership versatility. That is, they may have demonstrated greater versatility (or at least variability) in their behavior than they reported (or than they were able to report) through the psychological assessments and interviews.

While the agreement and *ICC* results for positive influence did not justify aggregation, some results were at least marginally supportive of aggregation. For example, the *ICC(1)* value for positive influence of .15 was within the range of *ICC(1)* values previous researchers have used to justify aggregation (James, 1982; Ostroff & Schmitt, 1993). Also, over two-thirds of the

units had  $r_{wg(j)un}$  values that exceeded the a priori criterion of .60. Therefore, while the entire pattern of results from the similarity indices did not justify aggregation, it seems accurate to characterize the similarity evidence as marginal. By comparison, the results from the pressure similarity indices provided relatively strong and clear justification for *not* aggregating the pressure variable. Stated alternatively, there was little perceptual similarity of leaders' use of the pressure tactic among unit members. In retrospect, an absence of within-unit perceptual similarity with regard to leaders' use of pressure is not altogether surprising. Leaders may have considered pressure tactics, such as threats and demands, to be a "last resort" to only be used with problem performers and non-compliant team members. As a result, leaders may have exhibited pressure behavior even more discretionarily than positive influence behaviors.

Also, it was discovered that the participating organization had a policy about reprimanding, chastising, and criticizing employees. The policy stated that, when possible, leaders were to address performance issues, and other situations requiring redirection of followers, in private. As a result, the conditions which were expected to contribute to within-group similarity of ratings of PLIBs were largely absent when the pressure tactics were likely utilized. That is, because reprimands and write-ups were likely to involve frequent monitoring of follower behavior and perhaps necessitate certain demands be made of the follower (elements of the pressure tactic), use of the pressure tactic was more likely to occur individually with followers than in a collective setting. Therefore, the shared perceptions upon which to base perceptions of leaders' use of the pressure tactic were even less prevalent than shared perceptions of other leader behaviors, such as positive influence behaviors. Also, followers might have been less inclined to communicate with their unit peers about the leader's use of pressure tactics because such discussions would likely have involved discussing their own performance issues,

shortcomings, or mistakes, which may have been embarrassing or uncomfortable topics to broach.

A final potential explanation for the lack of within-group agreement with regard to leader use of the pressure tactic was that followers may have been differentially sensitive to pressure. What one follower considered good follow-up and follow-through on the part of the leader, may have been perceived by another follower as excessive and suffocating micromanagement. *Extremely limited anecdotal evidence* supported this explanation. A survey was returned with a comment made in the column next to the pressure item related to the leader constantly checking on the follower. The comment, which read “Its called follow-up,” suggested the respondent did not perceive the behavior to be negative, but rather considered it to be expected and appropriate leadership behavior. Perhaps differential sensitivity to and interpretation of pressure behaviors contributed to a lack of within-unit perceptual similarity.

#### *The PLIBs – Commitment Relationships*

The RCM and OLS results from the current study indicate positive influence is an important predictor of follower commitment. The relationship between positive influence and commitment found in the current study was consistent with the extant influence literature. The tactics comprising positive influence (rational persuasion and inspirational appeal) involve attempts to change the attitude or perspective of the target. The use of such tactics is consistent with popular perspectives of leadership which focus on meaningful change in followers’ attitudes, perspectives, and values (Zaleznik, 1977).

Conclusions regarding ILT prototypical as a moderator of the positive influence – commitment relationship should be drawn with caution. The RCM analysis indicated that a significant interaction between positive influence and ILT prototypical existed but that the

interaction term did not explain significant variance in commitment beyond that explained by positive influence and pressure. The OLS analysis indicated that the positive influence\*ILT prototypical interaction term was significant, even in the presence of the PLIB and ILT variables. Once again, the incremental variance explained by the interaction terms was non-significant (1%). Also, it is worth mentioning that the form of the interaction was not supportive of Hypothesis 3/5. The hypothesis stated that commitment would be greatest when positive influence and ILT prototypical were both rated high. However, the results illustrated in Figure 13 show that ILTs have virtually no impact on commitment when leaders exhibit the highest levels of positive influence.

The results from the RCM and OLS analyses produce slightly divergent results with regard to the relationship between pressure and follower commitment. The RCM analysis indicated a significant negative relationship between pressure and commitment, whereas pressure was only significantly related to commitment in the OLS analysis when a suppressor variable (pressure\*ILT tyranny) was present. While overall the results regarding pressure were mixed, I believe greater weight should be given to the RCM results. Given the nested nature of the data, the standard errors associated with the predictor variables were more appropriately estimated with RCM than with OLS regression. The RCM-based pressure results are consistent with the extant literature and with the perspective that pressure is designed to produce behavioral change (i.e., compliance) rather than commitment. Discretionary use of pressure is consistent with the notion that pressure may be used as a “last resort” rather than as a standard and consistent part of a leader’s style. Therefore, while the underlying leader motives associated with positive influence and pressure may differ dramatically, both appear to be related to follower commitment. While the current study was correlational in nature and therefore did not allow for

causal relationships to be inferred with confidence, the results suggest attitude-changing, positive influence tactics may be effective in creating and/or maintaining commitment within followers. Conversely, pressure, which is likely employed by leaders to attain behavior compliance, appears to reduce follower commitment.

Unfortunately, ILT tyranny did not serve as a moderator of the pressure – commitment relationship. The conceptual “fit” between pressure and ILT tyranny made ILT tyranny attractive as a potential explanatory variable. The absence of a significant interaction between the two variables indicates that the direction and magnitude of the relationship between pressure and commitment were unaffected by the tyranny component of followers’ ILTs.

Lending greater weight to the RCM results (because it is a superior analytical technique given the nested nature of the data) provides the following interpretation of the results: Commitment demonstrates a positive relationship with positive influence and a negative relationship with pressure. Interpreting the results with Occam’s Razor in mind suggests that the marginally significant interaction between positive influence and ILT tyranny was less critical than the positive influence and pressure main effects because the interaction did not explain significant variance in commitment above and beyond the variance explained by the PLIBs main effects. However, these conclusions are based upon a single study and therefore are stated tentatively. The current study constituted merely an initial effort to integrate the influence domain with more mainstream leadership research – specifically ILT research. Further investigation of the relationships between PLIBs, ILTs, and commitment are warranted and, in fact, necessary.

### *Broad versus Specific Operationalizations of Leadership Constructs*

The results of the exploratory factor analyses supported the empirical amalgamation of the rational persuasion and inspirational appeal items. While rational persuasion and inspirational appeal are defined in conceptually distinct terms, the extensive covariation of rational persuasion and inspirational appeal items in the current study raised questions regarding their practical distinctiveness. Perhaps in some instances (such as the context of the current study), rational persuasion and inspirational appeal are employed in a seamless and integrated manner. For example, when a leader and a follower are both rational people who value logic and reason, the leader may (a) utilize logic and reason to gain commitment (i.e., rational persuasion tactic) and (b) appeal to the follower's values – in this case, the follower values logic and reason – to inspire her (i.e., inspirational appeal tactic). Yukl and Tracey (1992; citing Yukl, Lepsinger, & Lucia, 1990) reported finding support for a 9-factor structure to the original IBQ items (which were designed to measure nine distinct influence tactics). Yukl, et al. (2005) developed two additional IBQ scales and evaluated the factor structure of the revised IBQ. They found an 11-factor solution to be superior to 9-factor (based upon the original nine influence dimensions) and 3-factor (based upon rational, hard, and soft influence meta-categories) solutions. Also, Yukl and Tracey reported the correlation between the rational persuasion scale and the inspirational appeal scale to be .55 ( $p < .05$ ), suggesting the scales measured related but distinct constructs. However, the results from Yukl and Tracey (1992) and Yukl, et al. (2005) were based upon responses from a mixture of targets that included upward, lateral, and downward influence attempts. While Yukl and his colleagues often provide comparative analyses based upon the target groups, there do not appear to be any published studies that report multiple correlation matrices (based upon downward, lateral, and upward influence groups) of the IBQ scales.

However, it is known that downward influence attempts (i.e., leaders attempting to influence subordinates) differ from lateral and upward influence attempts in some ways. Yukl and Tracey (1992) reported relatively similar group means of rational persuasion and inspirational appeal for the downward influence group (3.19 and 3.05, respectively) in comparison to the lateral influence group (3.31 and 2.83, respectively) and the upward influence group (3.72 and 2.82, respectively) – indicating the *possibility* that rational persuasion and inspirational appeal are more strongly linked in downward influence situations than in lateral or upward influence situations. While a pattern of group mean differences does not directly speak to covariation, the pattern of means reported by Yukl and Tracey (1992) is consistent with what would be expected if rational persuasion and inspirational appeal are more strongly related in downward influence situations than in lateral or upward influence situations. The degree of covariation among IBQ dimensions might be conditional upon contextual factors, such as the direction of the influence rated (upward, lateral, or downward).

Whether the covariation among rational persuasion and inspirational appeal items was primarily due to the behavior of the leaders, the perceptual processes of the followers, or some combination of the two, the factor analytic results served as a justification for the *empirical* amalgamation of the scale items but not as a justification for the *conceptual* integration of the underlying constructs. In other words, the rational persuasion and inspirational appeal items were used to create a composite positive influence variable, not because rational persuasion and inspirational appeal were deemed to be conceptual redundant, but rather because, *within the context of the current study*, utilizing separate rational persuasion and inspirational appeal variables would have presented serious issues of multicollinearity. Rational persuasion and inspirational appeal are conceptually distinct and yet both represent “positive” forms of

influence. Therefore, the creation of a positive influence variable was appropriate and necessary for the purposes of the current study but did not constitute a reconceptualization of Yukl's taxonomy of influence tactics. However, the results of the EFA suggest further investigation of the conditions impacting the covariation of the influence tactics is warranted.

Similar to the amalgamation of the positive PLIBs variables, prototypical ILT dimensions were also amalgamated. The intelligence and dynamism items from the ILT measure clearly loaded on a common factor. It is interesting to note the influence tactics and ILT dimensions expected to interact with one another were in fact the variables that were subsequently amalgamated. That is, the intelligence dimension of ILTs was expected to moderate the relationship between rational persuasion and commitment. Similarly, dynamism was expected to moderate the relationship between inspirational appeal and commitment. Subsequent to the EFAs, ILT intelligence and ILT dynamism were combined and rational persuasion and inspirational appeal were combined. Perhaps the previous experiences of followers, upon which they have formed their ILTs, included significant covariation between observed leader behavior associated with intelligence and observed leader behavior associated with dynamism. Such covariation would explain the covariation of the ILT intelligence and ILT dynamism item responses in the current study. Epitropaki and Martin's (2004) initial validation efforts indicated that second-order "prototypical" and "antiprototypical" factors provided a good fit to their data. Within the context of the current study, broader factors better captured the nature of the covariation among ILT items than did specific ILT dimensions. Subsequent to their 2004 validation study, Epitropaki and Martin (2005) used their ILT measure and tested hypotheses using ILT variables operationalized at the prototypical/antiprototypical-level rather than at the specific dimension-level. Therefore, while *specific* dimensions of ILTs have been conceptually

delineated, substantive research questions involving ILTs may best be answered using the *broad* operationalizations of these constructs. Consistent with the discussion of the factor structure of the PLIB variables, it is important to note that the results reported in the current study were not considered justification for *conceptualizing* ILTs as broad constructs, but rather as justification for *operationalizing* ILTs as broad variables in order to maintain conceptual links to the PLIBs variables and to represent the nature of the item covariation *existing in the current study*. The “broad approach” was initially included in neither the design of the current study nor the generation of the study hypotheses because of what was considered unique, specific, and meaningful conceptual “fit” between the selected *specific* PLIBs and ILT dimensions (e.g., rational persuasion’s fit with intelligence, inspirational appeal’s fit with dynamism). However, the compelling empirical evidence indicating that the original study hypotheses were based upon construct distinctions that simply did not exist *within the current data*, justified amalgamating the PLIB and ILT items into broader leadership variables. Additionally, while the amalgamation of specific PLIBs and ILT dimensions into broad dimensions, or meta-categories, resulted in the loss of some conceptual specificity that was largely at the center of the study, the broad operationalizations did retain meaning with regard to the study hypotheses. For example, while the conceptual specificity and clarity of evaluating the moderating role of ILT dynamism on the relationship between inspirational appeal and commitment was greater than the conceptual clarity involved in evaluating the moderating role of ILT prototypical on the relationship between positive influence on commitment, the latter was still considered to represent a logical relationship between conceptually meaningful psychological constructs.

### *Limitations*

A total of 365 participants from 112 stores constituted the study sample – meaning the average number of participants per unit was 3.26. James, et al. (1984) indicated small group sizes attenuate  $r_{wg}$  values. Ideally, they suggest groups of 10 or more should be used to avoid attenuation. Also, the calculation of  $a_{wg(j)}$  values was based upon only 48 of the 112 units due to small unit sizes. Finally, the impact of the number of raters on  $ICC(2)$  values is equivalent to the impact of the number of items on internal consistency reliability values (Bliese, 2000). Therefore, there is reason to believe the modest number of participants within units impacted the assessments of similarity and perhaps the conclusions regarding within-unit agreement and/or consistency.

Hoffmann (1997) states 30 groups of 30 participants provide the necessary power for estimating multilevel models. Power can be retained with smaller groups by increasing the number of groups – and such was the case with the current study. However, the inclusion of more groups did not completely “make up for” the small group sizes. That is, the sample was comprised of only 365 subjects – far fewer than the 900 subjects recommended by Hoffmann (1997). Also, as previously stated, the calculations of model effect sizes were limited by the relatively small groups. Larger groups would have allowed for the inclusion of more predictors into a single analysis while utilizing all or most of the groups for the estimation of the variance components and effect sizes. Therefore, the conclusions drawn from the results should be considered cautiously and with the understanding that replication with larger samples is needed. Perhaps future investigations will make use of larger work units. For example, moving one level down in the authority hierarchy of the participating organization would have resulted in treating the AMs as leaders and hourly staff (approximately 100 per restaurant) as followers.

Unfortunately, such a sample was not available for the current study because the participating organization was specifically interested in the relationship dynamics of GMs and AMs. It is also worth noting that the use of a three-stage longitudinal design inevitably impacted the response rate of participants and the size of the obtained sample.

Another limitation of the study was the unexpected results from the initial stages of data analysis. Prior to testing hypotheses regarding the relationships between PLIBs and commitment, the results of exploratory factor analyses and the assessments of similarity necessitated making unexpected changes to the operationalizations of study constructs. First, rational persuasion and inspirational appeal were combined into a single positive influence variable. Second, ILT intelligence and ILT dynamism were combined to form a single ILT prototypical variable. Third, the ILT sensitivity items were removed from the study. Finally, positive influence and pressure were treated as individual-level variables rather than as unit-level variables. These changes were made as the result of compelling empirical data. Nonetheless, these changes rendered some hypotheses irrelevant (i.e., Hypothesis 7), forced others to be tested using general rather than specific variables (i.e., Hypotheses 2/4 and 3/5), and required that all hypotheses be tested at the individual-level rather than at the unit-level. At this point, it is not known whether the construct dimensionality and level-of-analysis changes made in the current study represent meaningful phenomena that will generalize to other organizations, functional areas, and organizational levels or are simply anomalies due to sampling error. Hopefully, the findings of the current study can serve to help shape the design of future studies and more can be learned about the dimensionality of the study constructs as well as the appropriate levels-of-analysis at which the variables should be conceptualized and operationalized. Regardless, the

current study results should be interpreted cautiously given the empirically-based changes made to the study variables.

### *Future Directions*

Future investigations might further explore the relationships between PLIBs, ILTs, and commitment in a variety of ways. First, individual-level investigations utilizing non-nested data might be helpful in learning more about dyadic leader – follower relationships and the potential importance of PLIBs and ILTs to follower commitment. Such investigations would provide an extension of work within the domain of leadership categorization theory and implicit leadership theories by isolating the impact of ILTs and PLIBs on followers' reactions and outcomes. For example, replicating Epitropaki and Martin's (2005) study with the inclusion of PLIBs would provide a valuable *direct* test of leadership categorization theory by evaluating the relationships between ILTs and perceived leader *behavior* (i.e., PLIBs) rather than ILTs and perceived leader *traits* – as has been the case in previous investigations.

Second, given the amalgamation of specific dimensions of leadership constructs in the current study, future studies might measure a more inclusive set of PLIBs (see Table 1 for descriptions of all eleven influence dimensions measured by Yukl, et al.'s (2005) IBQ) and ILT dimensions (dedication and masculinity were excluded from the current study). Evaluating broad versus specific operationalizations of leadership constructs when a full range of PLIBs and ILT dimensions are included may be very telling. When the full range of PLIBs and ILT dimensions are included, do broad constructs continue to best explain the item covariances or are specific dimensions more meaningful? If broad constructs are optimal, are they consistent with the broad constructs identified in the current study (i.e., positive and negative influence; ILT prototypical and antiprototypical)?

Third, alternative conceptualizations of PLIBs as group-level variables may be explored. Within the current study, PLIBs were evaluated as potential shared unit properties (Klein & Kozlowski, 2000) based upon a direct-consensus models (Chan, 1998). As such, choices about treating PLIBs as group-level or individual-level variables were made based upon the degree of within-group similarity of ratings. However, the possibility exists that the importance of PLIBs as group-level variables does not rest upon *establishing within-group similarity* of perception, but rather upon investigating the *prevalence and importance of within-group similarity*. That is, treating PLIBs as configural team properties (Klein & Kozlowski, 2000) by utilizing a dispersion model (Chan, 1998) might provide insight into the importance of followers' perceptual similarity/leader's behavioral consistency. In depth and theory-driven efforts to explore the substantive importance of within-unit perceptual agreement of leaders' PLIBs are warranted. Are their differences in within-group perceptual agreement among different PLIBs? Is *dispersion* of followers' perceptions more important than mean *levels* of followers' perceptions with regard to the impact of PLIBs? Leadership versatility research suggests leaders who are able to adapt their behavior to fit situations and who do not overuse behavior tend to be more effective than their inflexible counterparts (Kaplan & Kaiser, 2006). Future studies may be designed to evaluate leaders' behavioral consistency, not only across followers, but also across situations. Additionally, leader personality traits may be evaluated as potential antecedents of behavioral flexibility and versatility. While traits such as self-monitoring have demonstrated significant though modest linear relationships with leadership flexibility (Kenny, et al., 1991), other traits (such as dominance) might demonstrate curvilinear relationships with leadership flexibility and versatility. For example, a person exhibiting moderate dominance might be more likely to possess the capability to adjust his influence behavior to fit a situation and/or target,

whereas a person exhibiting extremely high dominance might have difficulty “turning the volume down” on his influence behavior (e.g., he consistently uses the pressure tactic regardless of the situation or influence target). Such studies may serve to integrate the leader influence literature with the leader versatility literature.

While the current study appears to have raised more questions than it answered, it does constitute a first step in integrating the largely overlooked influence literature with other domains of leadership research. Hopefully, future studies can and will be conducted to further explore and explain the roles of influence behavior and tactics in organizational leadership.

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## Appendix A

### *Yukl, et al.'s (2005) Influence Behavior Questionnaire – sample items*

Person to be described: General Manager

**Instructions:** The purpose of this questionnaire is to learn more about the different ways people try to influence each other in work organizations. Please describe how much your General Manager uses each type of behavior in an effort to influence you. For each behavior item, select one of the following response choices, and write the number for your choice on the line provided.

- 1 I can't remember him/her ever using this tactic with me
- 2 He/she very seldom uses this tactic with me
- 3 He/she occasionally uses this tactic with me
- 4 He/she uses this tactic moderately often with me
- 5 He/she uses this tactic very often with me

If an item does not apply to your situation, then use the #1 response. Please try to avoid letting general impressions of the person bias your answers.

My General Manager . . .

#### **Rational Persuasion**

Uses facts and logic to make a persuasive case for a request or proposal.

#### **Inspirational Appeal**

Says a proposed activity or change is an opportunity to do something really exciting and worthwhile.

#### **Pressure**

Demands that I carry out a request.

## Appendix B

*Epitropaki and Martin's (2004) Prototypicality Scale*

Instructions: Please use the rating scale below to describe how characteristic each of the following terms is of *business leaders in general*.

1 = Not at all characteristic, 5 = Extremely characteristic

## Intelligence

1. Intelligent
2. Educated
3. Clever

## Dynamism

4. Energetic
5. Strong
6. Dynamic

## Sensitivity

7. Helpful
8. Understanding
9. Sincere
10. Knowledgeable

## Tyranny

11. Domineering
12. Pushy
13. Manipulative
14. Loud
15. Conceited
16. Selfish

## Appendix C

*Adapted Version of Yukl, et al.'s (2005) Commitment Scale*

1. How committed (i.e., enthusiastic/willing to make the extra effort) are you to the leadership decisions made by your General Manager? (Responses range from 'completely' to 'not at all')
2. I am completely committed to the leadership decisions made by my General Manager. (Responses range from 'strongly agree' to 'strongly disagree')
3. Which of the following best describes your typical reaction to the leadership decisions made by your General Manager?
  - a. Open resistance (refuse to go along with decisions)
  - b. Passive resistance (agree to think about it some more but *not* inclined to go along with decisions)
  - c. Indecision (*not* ready to decide yet and want more time to think about it)
  - d. Compliance (agree to go along with decisions but is *not* enthusiastic and will make only a minimum effort)
  - e. Commitment (enthusiastic and willing to make a strong effort to support decisions)

## Appendix D

*Demographic Questionnaire*

Please answer each of the following items.

1. Sex:

1 = Male

2 = Female

2. Age

3. Ethnicity:

1 = African-American

2 = Asian

3 = Caucasian

4 = Latino

5 = Other (please specify)

4. How long have you worked for this company?

Years and months: \_\_\_\_\_

5. How long have you worked in your current job/position?

Years and months: \_\_\_\_\_

6. How long have you worked for your current General Manager?

Years and months: \_\_\_\_\_

Table 1

*Definitions of Influence Tactics*

Tactic	Definition
Rational Persuasion	The agent uses logical arguments and factual evidence to show a proposal or request is feasible and relevant for attaining important task objectives.
Apprising	The agent explains how carrying out a request or supporting a proposal will benefit the target personally or help advance the target person's career.
Inspirational Appeals	The agent makes an appeal to values and ideals or seeks to arouse the target person's emotions to gain commitment for a request or proposal.
Consultation	The agent encourages the target to suggest improvements in a proposal or to help plan an activity or change for which the target person's support and assistance are desired.
Collaboration	The agent offers to provide relevant resources and assistance if the target will carry out a request or approve a proposed change.
Ingratiation	The agent uses praise and flattery before or during an influence attempt, or expresses confidence in the target's ability to carry out a difficult request.
Personal Appeals	The agent asks the target to carry out a request or support a proposal out of friendship, or asks for a personal favor before saying what it is.
Exchange	The agent offers an incentive, suggests an exchange of favors, or indicates willingness to reciprocate at a later time if the target will do what the agent requests.
Coalition Tactics	The agent seeks the aid of others to persuade the target to do something, or uses the support of others as a reason for the target to agree.
Legitimizing Tactics	The agent seeks to establish the legitimacy of a request or to verify the authority to make it by referring to rules, policies, contracts, or precedent.
Pressure	The agent uses demands, threats, frequent checking, or persistent reminders to influence the target to carry out a request.

*Note.* Source: Yukl, Seifert, & Chavez (2005)

Table 2

*Factor Loadings from Initial Exploratory Factor Analysis of Study Variables*

Questionnaire items	Factor Loadings				
	1	2	3	4	5
Rational persuasion item 2	.816				
Inspirational appeal item 2	.812				
Rational persuasion item 4	.767				
Rational persuasion item 3	.765				
Inspirational appeal item 1	.749				
Inspirational appeal item 3	.747				
Rational persuasion item 1	.730				
Inspirational appeal item 4	.684				
Tyranny item 2		.902			
Tyranny item 3		.808			
Tyranny item 1		.779			
Tyranny item 5		.747			
Tyranny item 4		.645			
Tyranny item 6		.642			
Sensitivity item 2		-.514	.444		
Sensitivity item 3		-.501			
Intelligence item 1			.641		
Intelligence item 2			.597		
Dynamism item 1			.595		
Dynamism item 2			.552		
Intelligence item 3			.546		
Dynamism item 3			.536		
Intelligence item 4			.524		
Sensitivity item 1			.467		
Commitment item 1				.907	
Commitment item 2				.788	
Commitment item 3				.618	
Pressure item 4					-.824
Pressure item 2					.674
Pressure item 1					-.592
Pressure item 3					-.426

*Note.* Only factors loadings  $\geq .40$  are displayed.

Table 3

*Factor Loadings from Second Exploratory Factor Analysis of Study Variables (ILT Sensitivity Items Removed)*

Questionnaire items	Factor Loadings				
	1	2	3	4	5
Rational persuasion item 2	.821				
Inspirational appeal item 2	.809				
Rational persuasion item 4	.769				
Rational persuasion item 3	.765				
Inspirational appeal item 1	.743				
Inspirational appeal item 3	.743				
Rational persuasion item 1	.730				
Inspirational appeal item 4	.688				
Tyranny item 2		.891			
Tyranny item 3		.812			
Tyranny item 5		.766			
Tyranny item 1		.762			
Tyranny item 6		.668			
Tyranny item 4		.645			
Pressure item 4			.820		
Pressure item 2			.675		
Pressure item 1			.594		
Pressure item 3			.428		
Commitment item 1				-.904	
Commitment item 2				-.782	
Commitment item 3				-.614	
Intelligence item 1					.655
Intelligence item 2					.602
Dynamism item 2					.581
Dynamism item 1					.577
Intelligence item 4					.558
Intelligence item 3					.548
Dynamism item 3					.540

*Note.* Only factors loadings  $\geq .40$  are displayed.

Table 4

*Individual-Level Study Variable Means, Standard Deviations, Reliability Coefficients, and Intercorrelations (n=365)*

Scales	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Pos. Inf.	3.72	0.88	.93													
2. Pressure	2.08	0.83	-.15**	.73												
3. ILT Proto.	4.01	0.59	.37**	-.02	.79											
4. ILT Tyr.	1.86	0.85	-.13**	.24**	-.11**	.89										
5. Com.	4.32	0.65	.52**	-.18**	.26**	-.15**	.83									
6. Age	41.70	8.41	-.06	-.14**	-.07	.08	.02	--								
7. Org. Ten.	5.34	4.55	.01	-.07	-.02	.00	.04	.28**	--							
8. Pos. Ten.	3.61	3.23	-.05	.03	-.01	.09	-.02	.34**	.72**	--						
9. Dyad Ten.	1.87	1.80	-.01	.04	-.04	-.05	.02	.13**	.40**	.35**	--					
10. RP	3.95	0.88	.93**	-.19**	.35**	-.14**	.50**	-.06	-.01	-.04	-.01	.90				
11. IA	3.49	0.99	.95**	-.10*	.35**	-.10	.48**	-.06	.03	-.05	.01	.77**	.88			
12. ILT Int.	4.08	0.59	.35**	-.03	.89**	-.11**	.21**	-.10	-.05	-.04	-.05	.34**	.32**	.70		
13. ILT Dyn.	3.92	0.76	.30**	.00	.88**	-.08	.25**	-.03	.02	.01	-.03	.27**	.30**	.57**	.69	
14. ILT Sens.	4.12	0.76	.24**	-.08	.46**	-.55**	.22**	-.03	.04	.02	.07	.26**	.21**	.42**	.39**	.82

*Note.* Reliability coefficients ( $\alpha$ ) are reported on the diagonal. Pos. Inf. = positive influence, Com. = commitment, RP = rational persuasion, IA = inspirational appeal.

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

Table 5

*Inter-rater Similarity Statistics for the Proactive Leader Influence Behavior Variables*

Variable	Inter-rater Agreement					Intra-class Correlations	
	Index <sup>a</sup>	<i>M</i>	<i>Median</i>	<i>SEM</i>	% ≥ .60	<i>ICC(1)</i>	<i>ICC(2)</i>
Positive Influence						.151	.366
	<i>a</i> <sub>wg(j)</sub>	.509	.542	.028	39.6		
	<i>r</i> <sub>wg(j)un</sub>	.633	.726	.027	68.7		
	<i>r</i> <sub>wg(j)ss</sub>	.460	.528	.032	44.6		
Pressure						.107	.281
	<i>a</i> <sub>wg(j)</sub>	.327	.378	.037	14.6		
	<i>r</i> <sub>wg(j)un</sub>	.601	.681	.030	58.0		
	<i>r</i> <sub>wg(j)ss</sub>	.421	.436	.035	42.9		

*Note.* <sub>un</sub> = uniform, <sub>ss</sub> = slightly skewed.

<sup>a</sup>*a*<sub>wg(j)</sub> statistics were calculated using only groups with 4 or more raters ( $n = 48$ ). *r*<sub>wg(j)</sub> statistics were calculated on the full sample (112 groups; number of raters ( $k$ ) ranged from 2 to 6). However, the *r*<sub>wg(j)</sub> results should be interpreted with *extreme* caution and skepticism, given the extremely small group sizes.

Table 6

*Skewness Statistics for Study Variables*

Variable	Skewness Value	Standard Error of Skewness	Z-score (comparing skewness to zero)
Positive Influence	-0.627	0.128	-4.90*
Positive Influence Square Root Transformation	-.220	0.128	-1.72
Pressure	.861	.128	6.73*
Pressure Log Transformation	.113	.128	0.88
ILT Prototypical	-.293	.128	-2.29
ILT Tyranny	1.047	.128	8.18*
ILT Tyranny Inverse Transformation	.105	.128	0.82
Commitment	-1.182	.128	-9.23*
Commitment Log Transformation	-.346	.128	-2.70*

\*  $p < .01$ .

Table 7

*Random Coefficient Model Results for Commitment*

Analysis	Variable	Coefficient	SE	<i>t</i> ( <i>d.f.</i> )	Model $R^{2a}$
Analysis 1					.35
	intercept	4.352	0.033	130.81* (111)	
	positive influence	0.299	0.040	7.43* (111)	
	ILT prototypical	0.110	0.060	1.84 (111)	
	positive influence*ILT prototypical	-0.116	0.054	2.16* (111)	
Analysis 2					.13
	intercept	4.313	0.043	101.37* (111)	
	pressure	-0.144	0.042	-3.412* (111)	
	ILT tyranny	-0.067	0.038	-1.73 (111)	
	pressure*ILT tyranny	0.057	0.040	1.44 (111)	
Analysis 3a					.37
	intercept	4.350	0.033	131.02* (111)	
	positive influence	0.301	0.035	8.62* (111)	
	pressure	-0.112	0.036	-3.10* (111)	
	positive influence*ILT prototypical	-0.071	0.060	-1.19 (111)	
Analysis 3b					.32
	intercept	4.340	0.033	131.96* (111)	
	positive influence	0.311	0.038	8.18* (111)	
	pressure	-0.108	0.035	-3.08* (111)	

\*  $p < .05$ .<sup>a</sup>Represents the proportion of within-group variance in commitment accounted for by the level-1 predictor(s).

Table 8

*OLS Regression Results for Commitment*

Step	Variable	<i>B</i>	<i>SE</i>	<i>d.f.</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$
Step 1				4, 360	.287*	.287*
	intercept	4.316*	0.029			
	positive influence	0.347*	0.036			
	pressure	-0.069	0.036			
	ILT prototypical	0.089	0.053			
	ILT tyranny	-0.047	0.035			
Step 2				2, 358	.297*	.010 <sup>a</sup>
	intercept	4.330*	0.031			
	positive influence	0.349	0.036			
	pressure	-0.075*	0.037			
	ILT prototypical	0.075	0.054			
	ILT tyranny	-0.046	0.035			
	positive influence*ILT prototypical	-0.101*	0.050			
	pressure*ILT tyranny	0.030	0.038			

\*  $p < .05$ .<sup>a</sup>  $p = .086$ .

Figure 1

*Conceptual Illustration of the Expected Relationships between Leader Influence Behaviors, ILT Dimensions, and Commitment*

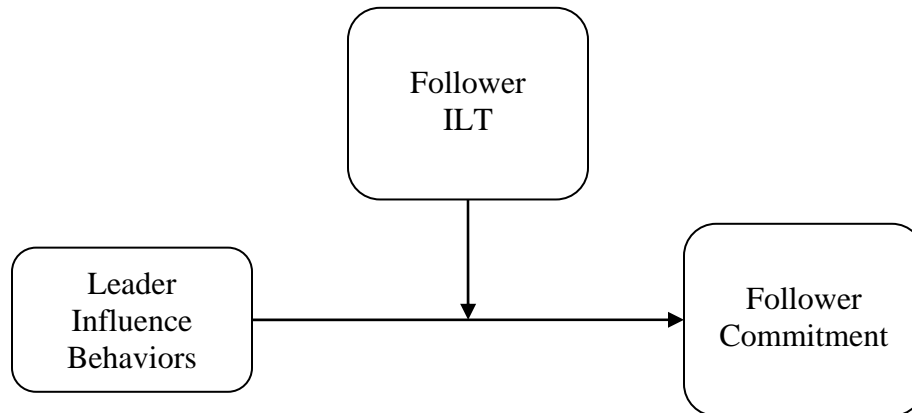


Figure 2

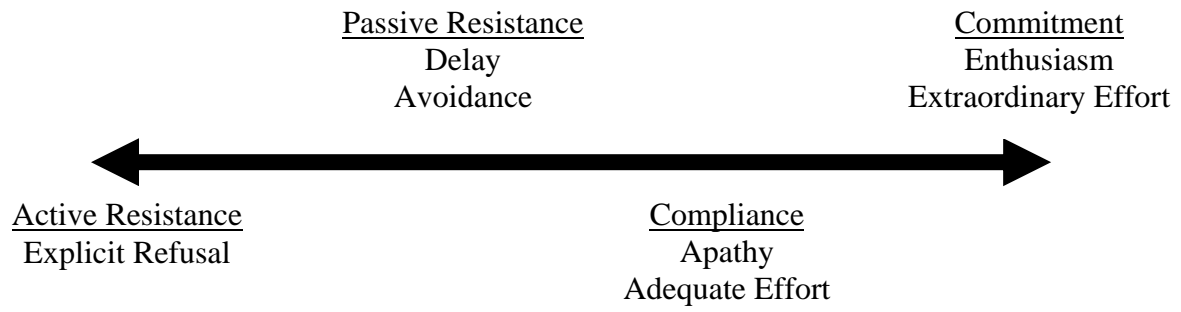
*The Commitment Continuum*

Figure 3

*Multilevel Conceptual Model of Hypothesized Relationships*

Level

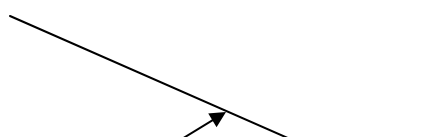
Group

PLIBs:  
Rational Persuasion<sup>a</sup>  
Inspirational Appeal<sup>b</sup>  
Pressure<sup>c</sup>

Individual

Follower ILT Dimensions:  
Intelligence<sup>a</sup>  
Dynamism<sup>b</sup>  
Sensitivity<sup>c</sup>  
Tyranny<sup>c</sup>

Follower  
Commitment



*Note.* Variables sharing a superscript were hypothesized to interact with one another.

Figure 4

*Scree Plot of Eigenvalues from Initial Exploratory Factor Analysis of Study Variables*

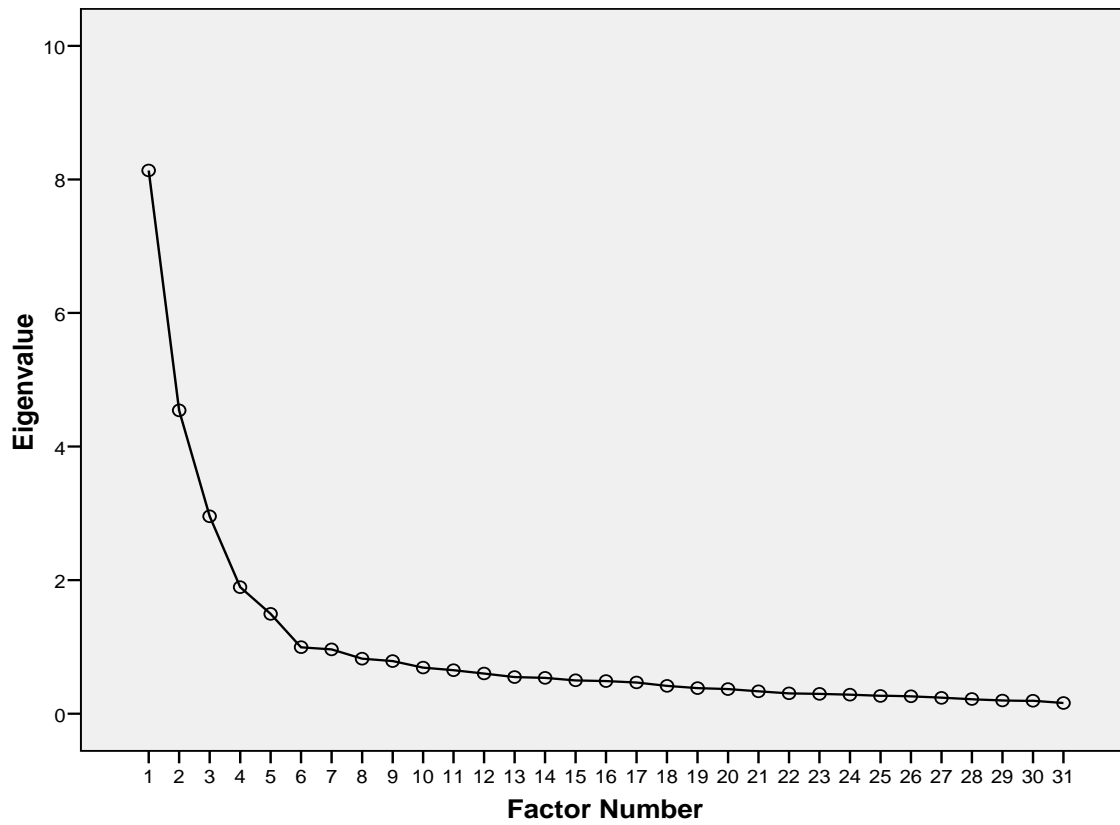


Figure 5

*Scree Plot of Eigenvalues from Second Exploratory Factor Analysis of Study Variables (ILT Sensitivity Items Removed)*

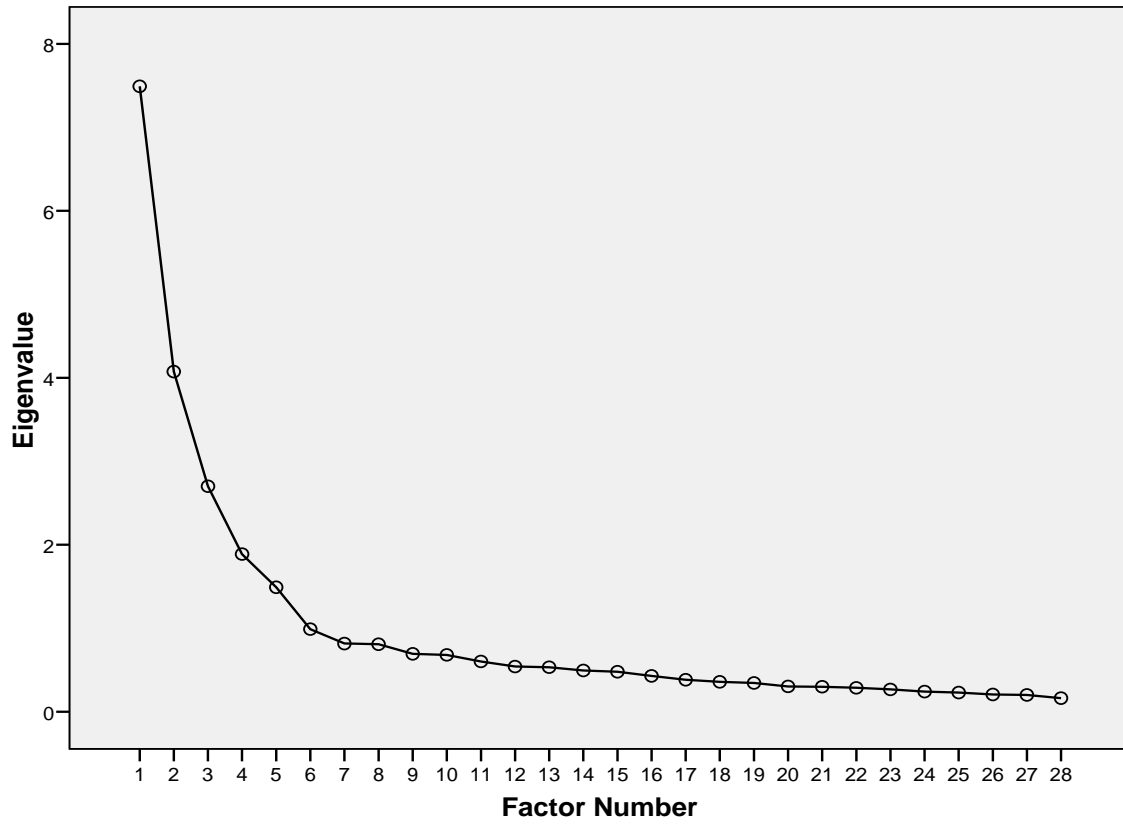


Figure 6

*Visual Representation of Revised Analysis Strategy Employed to Test Study Hypotheses*

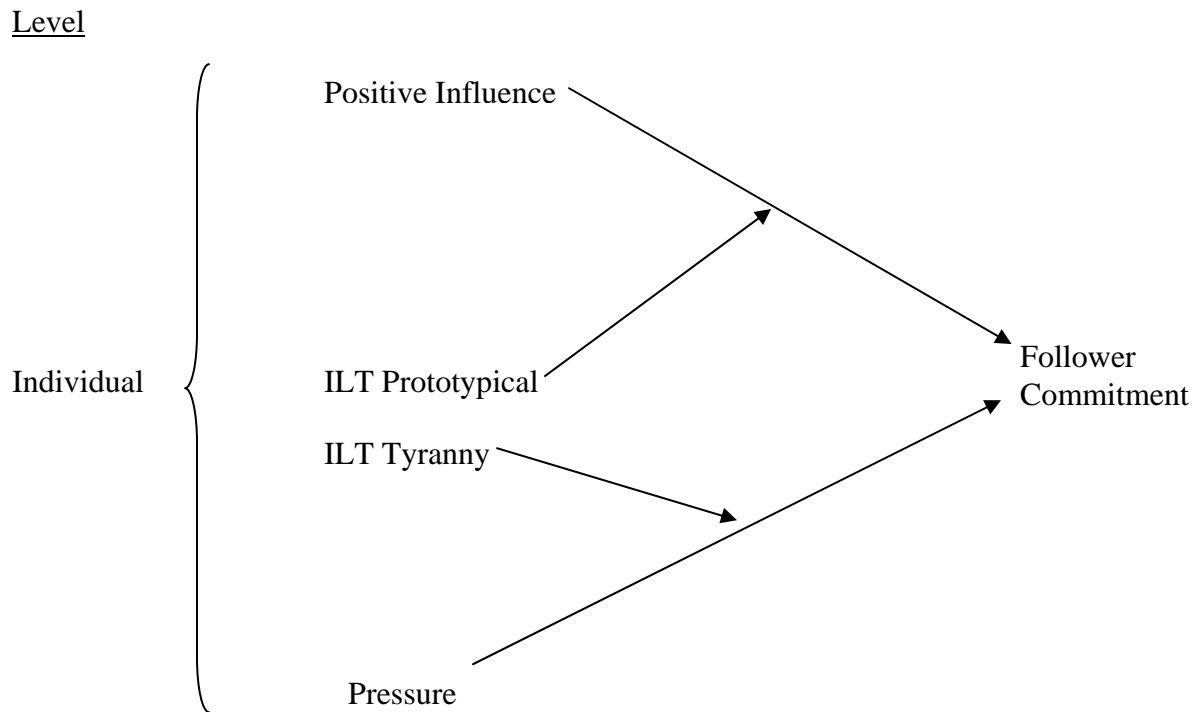


Figure 7

*Pre- and Post-Transformation Histograms of Positive Influence Variable*

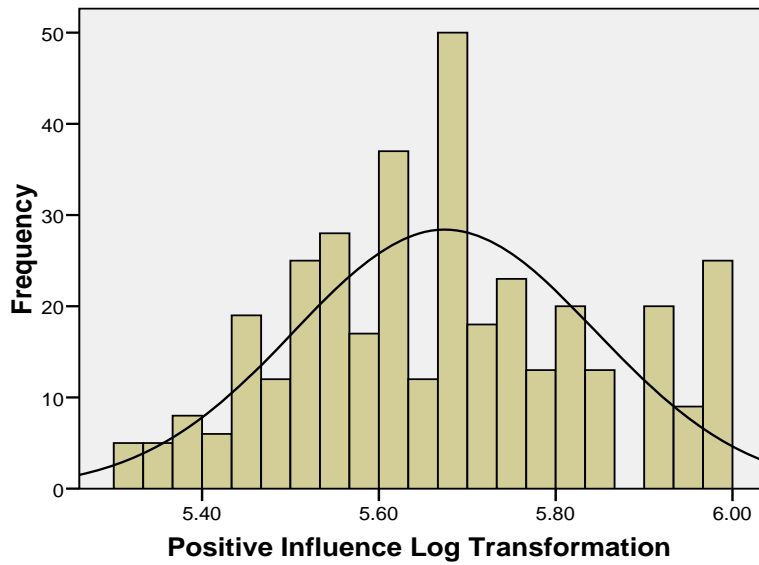
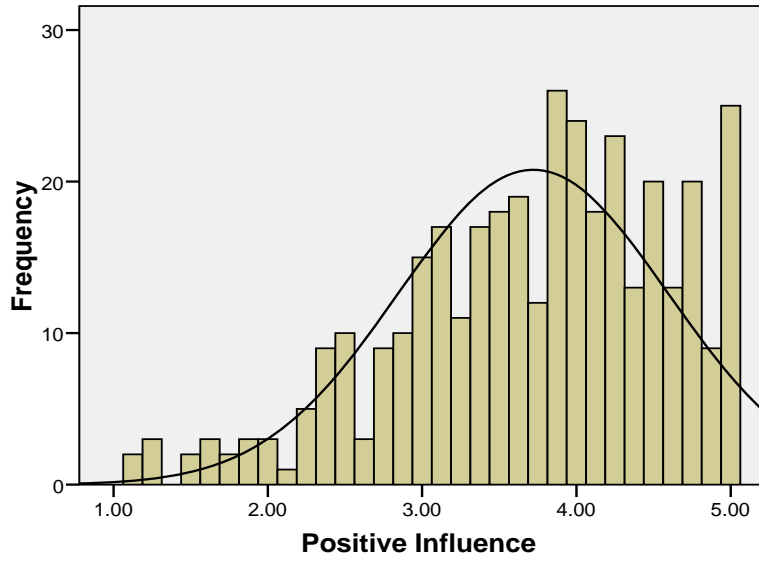


Figure 8

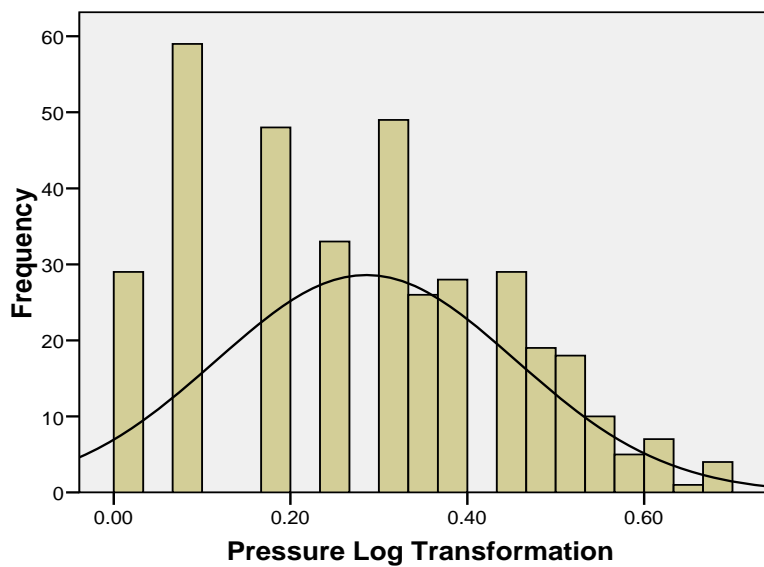
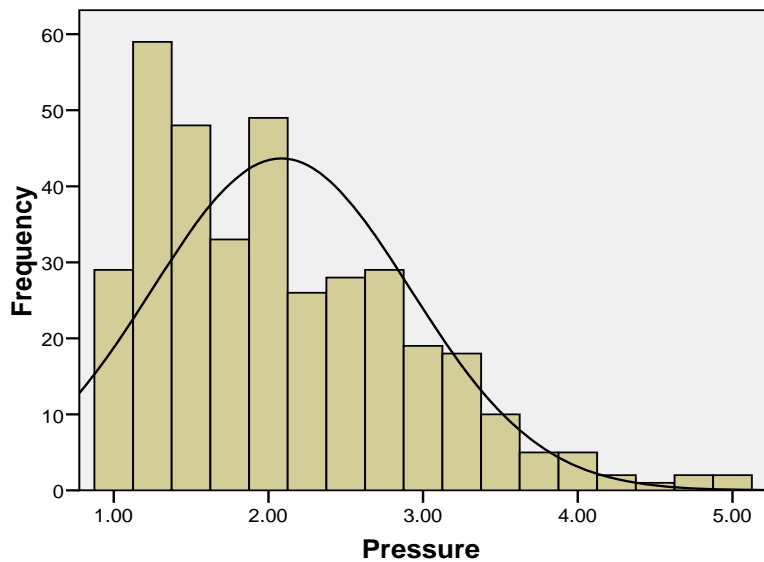
*Pre- and Post-Transformation Histograms of Pressure Variable*

Figure 9

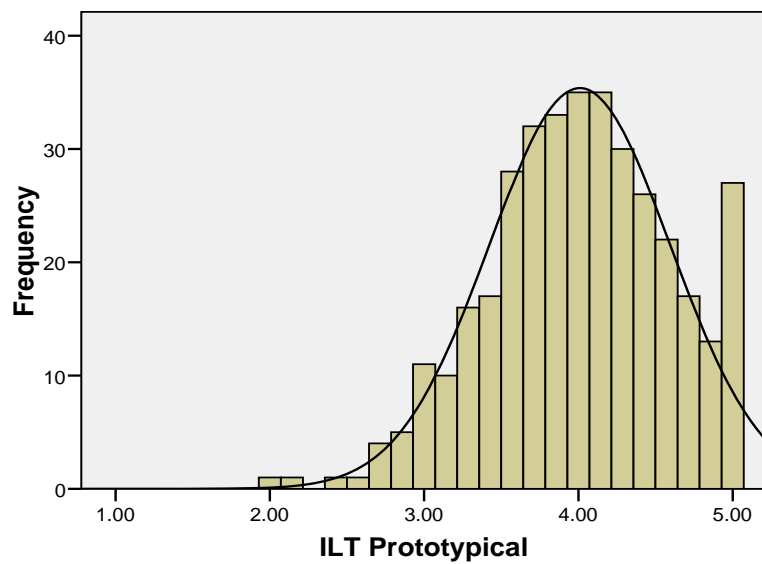
*Histogram of ILT Prototypical Variable*

Figure 10

*Pre- and Post-Transformation Histograms of ILT Tyranny Variable*

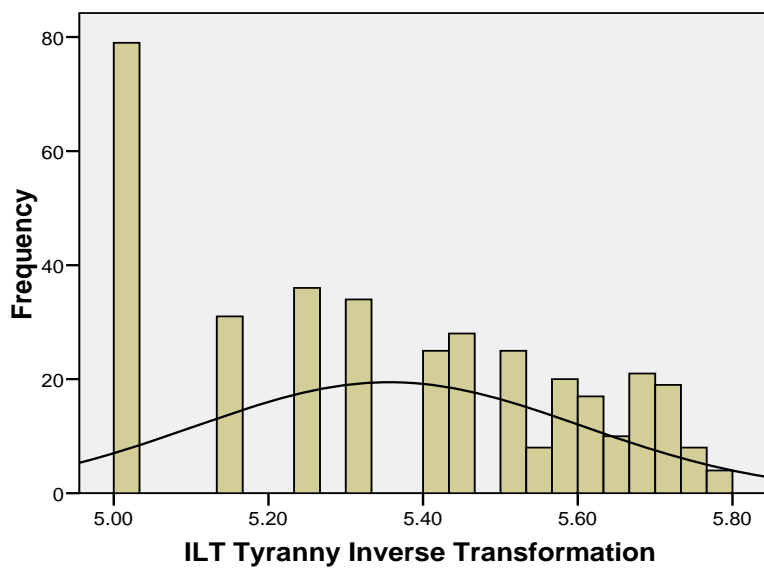
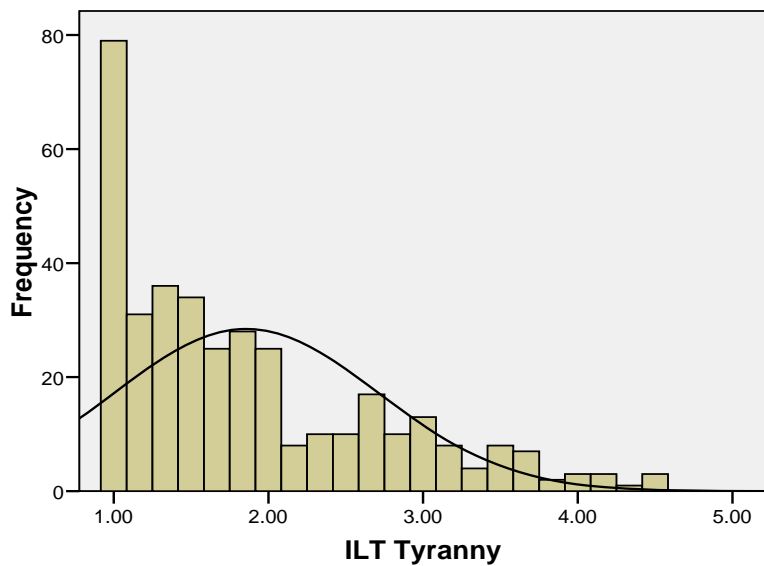


Figure 11

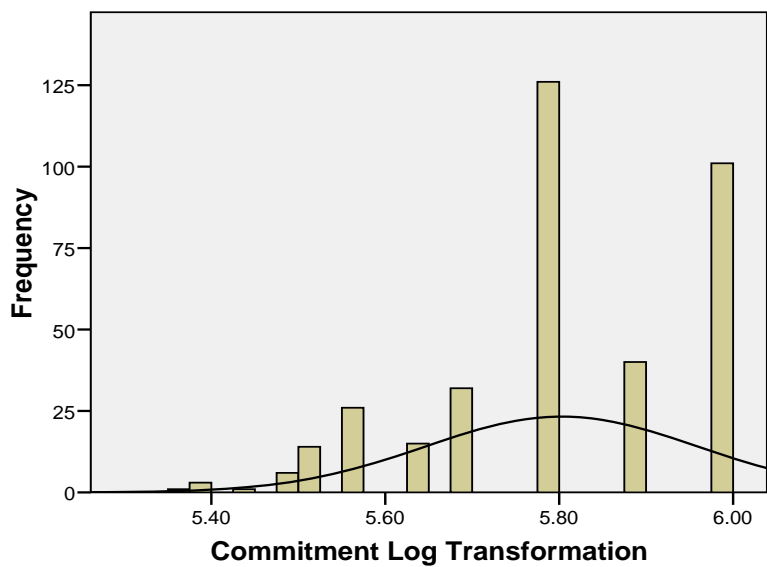
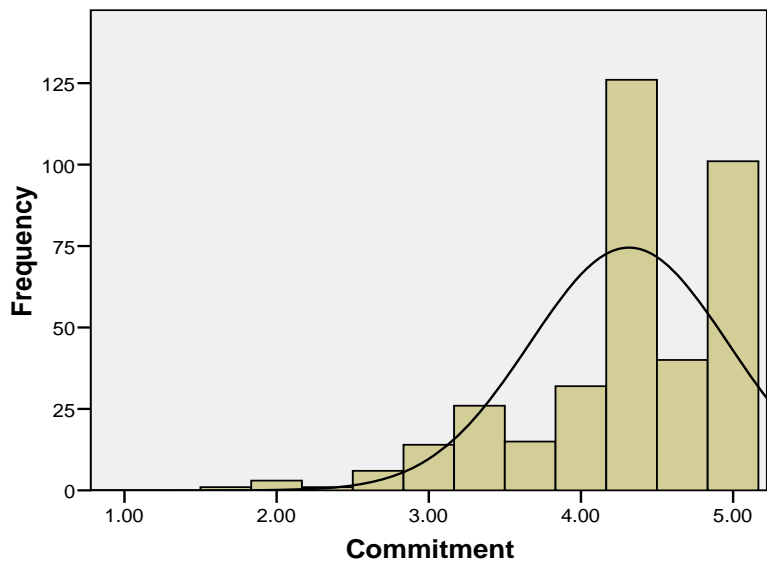
*Pre- and Post-Transformation Histograms of Commitment Variable*

Figure 12

*Possible Distributions of Level-1 Intercepts and Slopes Across Level-2 Units*

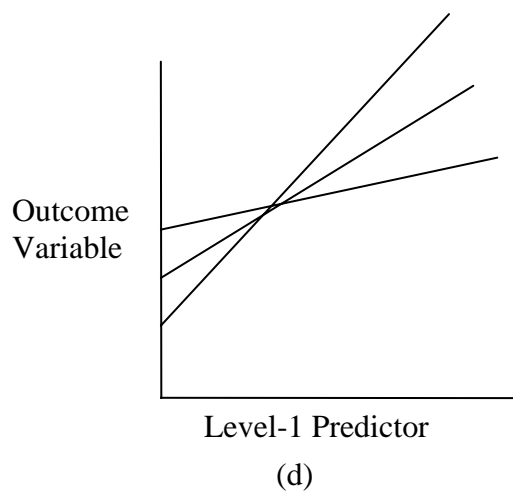
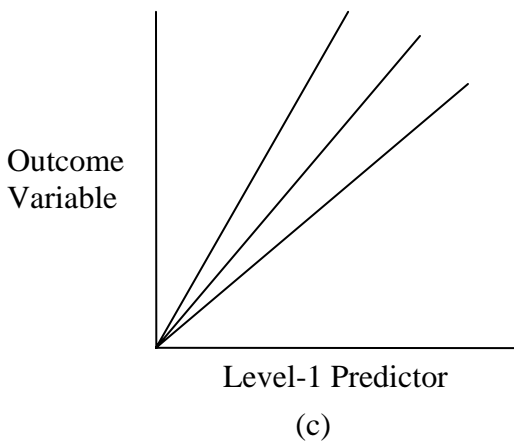
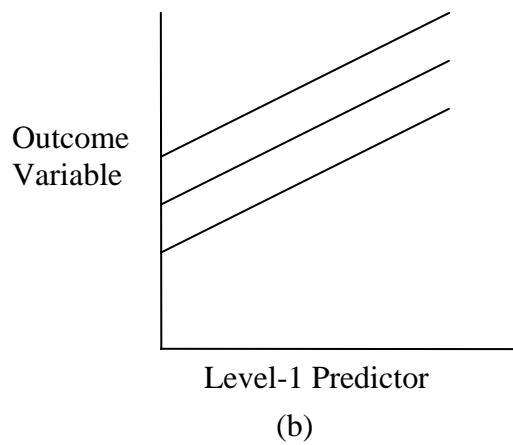
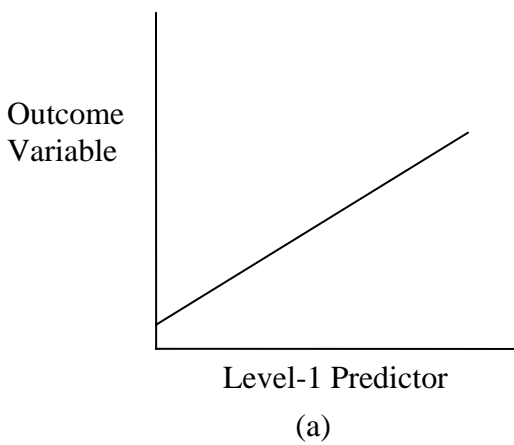


Figure 13

*Plot of OLS Regression-based Interaction between Positive Influence and ILT Prototypical*

