EMPLOYEE COACHING:
THE IMPORTANCE OF THE SUPERVISOR/SUBORDINATE RELATIONSHIP
AND RELATED CONSTRUCTS

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EMPLOYEE COACHING:
The Importance of the Supervisor/Subordinate Relationship
And Related Constructs

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Dissertation

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ABSTRACT

Employee coaching, which we consider to be a critical part of the performance management process, is coaching done by a manager or supervisor with his or her direct reports. The current paper seeks to further our understanding of employee coaching in several ways. First and foremost, the current paper addresses the absence of a solid definition of employee coaching by drawing on existing definitions and conceptualizations of employee coaching to establish a new, all-encompassing definition. The paper also focuses specifically on the importance of the supervisor-subordinate coaching relationship as a foundation for effective employee coaching. A definition of the employee coaching relationship is presented. A new measure of the Perceived Quality of the Coaching Relationship (PQCR) is developed in the pilot study. Finally, several supervisor individual differences and other variables are examined as possible predictors of PQCR in the focal study. The focal study uses a multi-level modeling approach to test 13 hypotheses and other exploratory analyses. Limitations, practical implications, and directions for future research are also discussed.
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The practice of coaching is becoming increasingly prevalent and popular in organizational settings. Coaching within organizations can largely be divided into two camps: executive coaching and coaching found within the performance management process. Within the performance management process the coaching role is filled by an employee’s direct supervisor. Kinlaw (1996) defines this type of coaching relationship as “disciplined conversation, using concrete performance information, between a leader and an individual… that results in the continuous improvement of performance” (p. 21). The current paper refers to this type of coaching as employee coaching, as employees are on the receiving end of coaching.¹

While this type of coaching continues to grow in applied settings, little empirical research exists to inform the practice. The purpose of the current paper is to further our understanding of this managerial form of coaching by exploring the nature and importance of the coaching relationship formed between the supervisor and subordinate. The “act” of coaching is highly subjective and could even be considered discretionary, depending on the organizational context. Vast differences in approaches to and frequency

¹ The adoption of this terminology is based largely on the labeling of executive coaching, in which executives receive coaching from professional coaches.
of coaching may be evident at all levels: across organizations, across supervisors within a single organization, and across subordinates reporting to a single supervisor. Both the process and perceived effectiveness of coaching are contingent on the relationship between the supervisor and subordinate. As the leader-member exchange literature would suggest, such relationships are unique to the supervisor/subordinate dyad (Graen & Uhl-Bien, 1995).

In examining the supervisor/subordinate coaching relationship, this study will explore several specific, related constructs, including both individual differences and contextual variables. Overall, the desired outcome of this study is to develop a model of the coaching relationship, including a “nomological net” of related constructs and, in so doing, fill a theoretical void in our understanding of the coaching relationship.

Employee Coaching

As noted, the focus of this paper is on managers or supervisors coaching employees as part of an ongoing performance management process. Performance management systems, which are more holistic and dynamic than traditional performance appraisal “events,” focus on motivating employees and improving future performance rather than just assessing performance for administrative purposes. DeNisi and Pritchard (2006) define this process as “a broad set of activities aimed at improving employee performance” (p. 255), which typically includes a formal appraisal process, regular informal feedback, goal setting, coaching, and development opportunities (Den Hartog, Boselie, & Paauwe, 2004; London, Mone, & Scott, 2004; Silverman, 1991).
Much recent coaching research has focused on external, professional coaches, who are usually matched to executives or higher-level managers (Hamlin, Ellinger, & Beattie, 2006). Yet employees at all levels of the organization require some form of coaching to truly maximize the performance management process. While external coaches may be desirable for their objectivity and undivided attention (Hall, Otazo, & Hollenbeck, 1999), providing all employees with regular access to external coaches is impractical and costly. Additionally, external coaches may not be effective in meeting non-executive employees’ needs, which may include informal job-specific training (Graham, Wedman, & Garvin-Kester, 1994), facilitating personal change (Grant, 2007), or simply providing advice (Kirkpatrick, 1982). Therefore, in many organizations, the responsibilities of the supervisor have been expanded to include the role of coach (Waldroop & Butler, 1996).

Coaching, when executed effectively, supports the delivery and use of feedback, aides in goal setting, and helps employees work toward and gauge progress against those goals (London, Mone, and Scott, 2004). London and colleagues suggest that regular coaching interchanges and the feedback included therein “play key roles in determining whether goals will lead to performance… [and] allow an employee to assess progress toward a goal and make necessary shifts in strategy as appropriate” (p. 333). However, coaching involves more than simply providing positive and negative feedback about employee performance (London & Smither, 2002). For example, London and Smither suggest that a coaching supervisor may use the results of formal appraisals to help subordinates identify areas for performance improvement as well as opportunities for development or career advancement. While a coaching supervisor may provide
encouragement, feedback, and information about expectations, he or she can also demonstrate how to perform tasks effectively and provide an opportunity for subordinates to comfortably “practice” new skills. Effective coaching can provide an opportunity for informal training and development that is focused precisely on the employee’s needs, which may include anything from increasing self-efficacy and self-awareness to helping employees to become more proactive, or empowering employees to change their own behavior and achieve performance goals (Latham, Almost, Mann, & Moore, 2005).

The Coaching Relationship and Related Constructs

London and Smither (2002) note that coaching, like performance management overall, is not a “one-time, one-way” (p. 87) interaction, but an ongoing collaborative process. Because of the one-on-one, customized, and collaborative nature of coaching, the foci of coaching relationships can vary based on the individuals involved (Garman, Whitson, & Zlatoper, 2000). In other words, coaching managers may find that the nature or quality of their coaching relationships differ across individual subordinates (Ting & Riddle, 2006). A number of researchers have noted the value of the supervisor-subordinate relationship in coaching, yet little research has examined the role of this relationship in affecting the effectiveness of coaching. For example, Evered and Selman (1989) noted that coaching occurs in an “action-oriented, results oriented, and person-oriented relationship” (p. 23) and that “coaching is a dyad… [and] cannot be separated from the actions of the partners in the relationship” (p. 28). Similarly, Graham, Wedman, and Garvin-Kester (1993) suggested that one important element of successful coaching is the manager/employee relationship. These same authors later deemed a “warm
relationship” (p. 91) between the supervisor and subordinate one of eight important factors in good coaching (Graham et al., 1994). Finally, Gyllensten and Palmer (2007) noted that the relationship between the coach and coachee is “one of the most essential aspects of coaching” and that this relationship is “the basis upon which the coaching [is] built and without a relationship the coaching would not be as effective as it could be” (p. 173).

The current study posits that individual difference and contextual variables play a critical role in shaping the coaching relationship, which has been identified as a precondition for coaching effectiveness. London and Smither (2002) suggest that coaching may come naturally to some people, and some evidence does exist regarding the effects of supervisor individual differences on effectiveness in coaching employees. Heslin, Latham, and VandeWalle (2006) illuminate the importance of examining supervisor individual differences with regard to coaching, noting that the “stark reality is that managers often differ substantially in their inclination to coach their subordinates” (p. 1). The current study focuses on four important supervisor individual difference and contextual variables: transformational leadership, emotional intelligence, implicit person theory (IPT), and the organizational feedback environment. In addition to these variables, the influential roles of three subordinate-rated variables will be examined as well, including trust in one’s supervisor, subordinate implicit person theory (IPT), and subordinate feedback orientation. The full proposed model is presented in Figure 1 below.

The current study will also draw on research regarding the individual consideration dimension of transformational leadership (Levy, Cober, & Miller, 2002;
Eagly, Johannsen-Schmidt, & Van Engen, 2003), which corresponds specifically to coaching, mentoring, developing, and interacting with employees. Levy, Cober, and Miller (2002) found that employees reported being more likely to seek feedback from transformational than transactional leaders and that individual consideration, specifically, contributes to feedback seeking above and beyond transformational leadership style.

Figure 1. The full model proposed in the current paper. Note: IPT stands for Implicit Person Theory.

Similarly, Eagly and colleagues (2003) note that individual consideration pertains to a supervisor’s focus on employee development and general attention to their individual needs. Thus, theory would suggest that supervisors who exhibit a transformational leadership style and manage their employees according to individual consideration more effectively enact performance management dimensions of informal feedback, coaching, and development. Leading with a transformational style might relate to both supervisor
propensity to coach subordinates, as well as subordinate perceptions of that coaching behavior.

Another individual difference -- emotional intelligence -- has been touched upon in the realm of executive coaching. Whereas Passmore (2007) discusses the value of emotional intelligence in nurturing the relationship between a coach and coachee in order to facilitate the coaching process, Grant (2007) notes that coaching skills are “inextricably related to emotional intelligence” (p. 258). Overall, emotional intelligence entails both the ability to monitor one’s own emotions, as well as detect and interpret the emotions of others. George (2000) suggests that leaders high in emotional intelligence can better predict subordinates’ reactions to particular situations or changes within the organization. Supervisors who possess a keen ability to assess, anticipate, and influence their subordinates’ emotions, as well as regulate their own emotional responses, may exercise greater control over the process and outcomes of the coaching relationship. As a result, subordinates of emotionally intelligent supervisors may have higher perceptions of the quality of the coaching relationship.

Heslin and colleagues (2006) were some of the first authors to empirically examine how supervisor individual differences influence the coaching process. These authors specifically investigated the role of supervisor implicit person theory (IPT) in coaching dyads. In their results, IPT predicted not only the extent to which a supervisor coached his or her subordinates, but also subordinates’ evaluations of coaching effectiveness. The current study seeks to replicate these authors’ results. We anticipate that supervisor IPT will influence subordinates’ perceptions of the coaching relationship.
The influence of subordinate IPT on the perceived quality of the coaching relationship will also be examined.

With regard to context, the current paper will investigate the role of the organizational feedback environment on coaching relationships. The feedback environment comprises the extent to which an organization encourages, provides, and follows-through on feedback (Steelman, Levy, & Snell, 2004). London and Smither suggest that visible, accessible, and effective coaching is “likely to be a hallmark” (p. 86) of strong, positive feedback environments. The feedback environment, which is shaped in part by supervisors, provides a context for coaching (London & Smither, 2002). Whereas frequent and effective coaching strengthens a feedback environment, an already strong feedback environment may set the stage for coaching within the performance management context.

Several authors have discussed the importance of trust in coaching relationships (Graham et al., 1994; Gyllensten & Palmer, 2007). In an examination of several models of coaching, Smither and Reilly (2001) found that one clear emergent theme was the “critical role” (p. 5) of trust in the supervisor. In order for a meaningful and productive coaching relationship to be established, subordinates must perceive their supervisors as trustworthy. Overall, a subordinate’s trust in his or her supervisor appears to be an essential prerequisite to the coaching relationship (Graham et al., 1994; Smither & Reilly, 2001). The current paper will examine not only the direct influence of trust on subordinate perceptions of the coaching relationship, but also a unique mediational effect between transformational leadership and perceived quality of the coaching relationship.
Feedback orientation is one subordinate-rated individual difference that may impact perceptions of the coaching relationship. Feedback orientation is defined as a multi-dimensional construct that influences the extent to which individuals might seek, value, mindfully process, and feel accountable to use feedback (Linderbaum & Levy, under review; London & Smither, 2002). London and Smither (2002) suggest that individuals who have a strong feedback orientation are likely to be receptive to coaching. Therefore, the current paper seeks to examine the role of subordinate feedback orientation on perceptions of the quality of the coaching relationship.

The Current Study

As noted previously, the primary purpose of this paper is to develop a model of employee coaching relationships, with a specific focus on related constructs and employee perceptions. We also seek to better define employee coaching and distinguish it from related development activities. A secondary goal of the current paper is to develop a measure of the perceived quality of the coaching relationship, as reported by subordinates. This measure will serve as the main dependent variable for the study. To date, no sound measure of perceptions of the coaching relationship exists; the creation of such a tool in the current paper will fill an important void in coaching literature and practice.

The model outlined in the current paper will be tested with a multilevel modeling or “nested” data approach. This analysis allows us to explore both group- and individual-level effects, where the “group” represents several subordinates “nested” under one supervisor. Hypotheses will examine both group- (e.g., differences across group
averages, also referred to as “level two”) and individual-level (e.g., differences across individual within a single group, also referred to as “level one”) effects. For example, the effect of subordinates’ ratings of trust in their supervisor on perceptions of the quality of the coaching relationship can be examined in terms of differences in average levels of trust and average perceptions of the coaching relationship across groups (group level), as well as differences in individual ratings of trust and individual perceptions of the coaching relationship within each group (individual level). It is worth noting that independent variables in the current model are comprised of both supervisor self-reported variables and subordinate-rated variables. Only subordinate-rated variables can explain within-group differences, as these variables are explaining why individuals working for the same supervisor (e.g., in one group) differ in their perceptions of the coaching relationship, for example. Supervisor-rated variables will only explain significant differences across groups.

The theoretical basis for this study is derived from an assortment of both established and growing literatures. Evidence for the current model is drawn from what practice- and research-based literature does exist for employee coaching (e.g., Graham et al., 1994; Gyllensten & Palmer, 2007; Heslin et al., 2006; Hunt & Weintraub, 2002; Smither & Reilly, 2001), as well as from independent literatures on the constructs of interest and the emerging literature on executive coaching (e.g., David, 2005; Gegner, 1997; Passmore, 2007). This investigation will fill an important void in the coaching literature. As noted by Hamlin and colleagues (2006), “little published research exists that identifies specific coaching behaviors… or demonstrates what differentiates a ‘good’ coach from a ‘poor’ coach” (p. 307). It is important that the study of coaching catch up to
the practice, as many professionals already have a picture of what “good coaching” looks like (Hamlin et al., 2006). The development of the current model will expand on our preliminary understanding of the role of supervisor individual differences in coaching, a research stream recently initiated by Heslin and colleagues (e.g., Heslin et al., 2006). Most of all, the current study will begin to shed light on the nature of the coaching relationship, which is thought to play a critical role in the effectiveness of employee coaching.
CHAPTER II
LITERATURE REVIEW

The following sections provide a general overview of coaching, beginning with a “taxonomy” of coaching and including a review of the extant coaching literature that is relevant to our investigation of employee coaching relationships. Additionally, the current paper reviews related research on the individual difference and contextual variables expected to influence coaching relationships and coaching effectiveness. This literature will provide the theoretical backbone for the hypothesized model regarding employee coaching relationships.

Coaching: A Taxonomy

Over the past few decades, the meaning of the word “coaching” has become a context-dependent concept. Prior to approximately 1950, the mention of “coaching” conjured up images of a baseball cap-wearing, whistle-blowing sports team coach. That simple, singular meaning first diverged when Mace (1950) prescribed coaching as an effective management tool for guiding and developing subordinates (Gegner, 1997). Despite Mace’s best efforts, the concept of coaching in organizational settings did not take hold until the late 1970’s, with the release of Fournies’ (1978) “how-to” book on coaching in organizations (Gegner, 1997). Coaching grew slowly in practice and the
literature throughout the 1980’s and early 1990’s (Gegner, 1997), at which point it suddenly “took off” as a new hot-topic in management practice. In these early days, however, the concept of “coaching” was still rather anomalous, with the most common criticism being a lack of concept clarity and universally accepted definition (Ives, 2008).

Even today, as coaching has become commonplace in many organizations and has begun to accrue a strong literature, confusion persists on the true meaning and identity of coaching. For example, a simple mention of coaching could trigger images of – most commonly – a sports coach, as well as an executive coach, a coaching manager (as in employee coaching), a peer coach, a “life” coach, or a romantic relationship coach, among many others. In order to assuage this matter, the current paper seeks to carefully define the type of coaching that is being studied herein: employee coaching.

**Employee Coaching Defined**

Bennett (2006) argues that one obstacle to coaching research is the lack of agreement on a definition of coaching. This observation is evidenced by the various conceptualizations of coaching presented in the literature. Focusing predominantly on context, Evered and Selman (1989) define coaching as “the managerial activity of creating, by communication only, the climate, environment, and context that empowers individuals and teams to generate results” (p. 18). Similarly, Graham et al. (1994) note that coaching “means creating a climate of communication, mutual respect, ongoing observation, feedback, trust, and a focus on performance objectives” (p. 82).

Placing less emphasis on context and more on general leadership, Heslin and colleagues (2006) draw on earlier work by London (2002) and Yukl (2002) in defining
employee coaching as “managers providing one-on-one feedback and insights aimed at
guiding and inspiring improvements in [employees’] work performance” (p. 872).
Relatedly, Hunt and Weintraub (2002) focus on the developmental aspects of coaching in
their definition: “an interaction between two people, usually a manager and employee,
aimed at helping the employee learn from the job in order to promote his or her
development” (p. 5). Finally, Kinlaw (1996) offers a straightforward definition that is
widely referenced in the coaching and performance management literature (London,
information, between a leader and an individual… that results in the continuous
improvement of performance” (p. 21). Drawing on the work of these authors, the current
paper defines employee coaching as:

A developmental activity in which an employee works one-on-one with his/her
direct manager to improve current job performance and enhance his/her
capabilities for future roles and/or challenges, the success of which is based on the
relationship between the employee and manager, as well as the use of objective
information, such as feedback, performance data, or assessments.

Ideally, employee coaching occurs as part of the organization’s ongoing
performance management system (Gregory & Levy, 2009), which also includes
performance appraisals, formal and informal feedback, goal setting, and development
opportunities (Gregory & Levy, 2008b). Interest in employee coaching continues to
spread, a change that some researchers and practitioners attribute to the prevalence of
executive coaching (Smither & Reilly, 2001). Despite its continued growth in
organizations, minimal research has been conducted on employee coaching (Bowles,
Cunningham, De La Rosa, & Picano, 2007; Gyllensten & Palmer, 2007; Hamlin et al.,
2006; Stober & Parry, 2005).
In the definition of employee coaching offered above, we call particular attention to the importance of the relationship between the supervisor and subordinate. As noted previously, this relationship is the focus of the current paper, wherein we seek to model and identify important correlates of the employee coaching relationship. We specifically define this relationship as a working partnership between an employee and his/her direct supervisor that is focused on addressing the performance and development needs of that employee. We reiterate that this relationship occurs specifically between an employee and his or her formally appointed direct supervisor, thereby excluding other types of coaching relationships, such as executive or peer coaching, as well as formal and informal mentoring relationships.

**Differentiating Employee Coaching**

It is important to distinguish employee coaching, which is the focus of this paper, from other related concepts. First and foremost, coaching and mentoring are often misconstrued as the same developmental activity. Though the two concepts are related in their developmental nature, the current paper seeks to differentiate the two in terms of degree of directiveness. Specifically, Ives (2008) points out that formal mentoring relationships tend to be directive or instructional in nature, whereby the mentor offers directive advice and specific instructions. Coaching, Ives argues, is more collaborative and guided, as opposed to directive. Coaching managers work closely with their employees to help them identify ways to improve performance and engage in personal development. Rather than telling employees what to do, coaching managers help employees figure it out for themselves. Additionally, an employee’s formal mentor can
be any person from the organization, whereas employee coaching specifically dictates that the coaching role be filled by an employee’s direct supervisor.

It is also important to distinguish employee coaching from the other common form of coaching within organizations: executive coaching. Executive coaches are typically external consultants brought in to an organization to aide the professional and/or personal development of individuals who have “managerial authority and responsibility” within the organization (Kilburg, 1996; p. 142). This type of coaching relationship is distinct from employee coaching, in which an employee’s manager or supervisor fulfills the coaching role. Some organizations also employ “peer coaching,” wherein employees work collaboratively with peers to learn, improve performance, etc. The “lateral” nature of the relationship (e.g., the coach is a hierarchical equal, as opposed to a superior or authority figure) makes peer coaching distinct from employee coaching. Finally, “life coaching” and “relationship coaching” are distinct from employee coaching because they occur beyond the bounds of organizational settings and address personal matters that are broader in nature than job performance or work-related development.

Coaching in Organizations: A Review of the Relevant Literature

While coaching continues to grow in popularity and practice, there is a general consensus that research lags behind. The continued practice of coaching seems to rest on the assumption that coaching has a positive impact on job performance (Ellinger, Ellinger, & Keller, 2003). Ellinger and colleagues note that “limited published research” (p. 436) exists that examines the behaviors or practices of coaching managers and, in particular, what of these behaviors and practices actually lead to perceptions of effective
coaching. What research does exist is based largely on “best practice,” as opposed to “best evidence” (Hamlin et al., 2006). Thus, the purpose of the current study is to develop a model of the coaching relationship, which is expected to be a precursor to coaching effectiveness. The current model focuses on the importance of the coaching relationship established between a supervisor and subordinate, including the role of some individual difference, contextual, and moderating variables that might influence this relationship.

Before elaborating on this model, a review of relevant coaching literature is presented.

Two decades ago, Evered and Selman (1989) wrote that “the view of manager as coach… is a new paradigm for management” (p. 16), suggesting that coaching was set to become the core of effective management. Since then, the prevalence of coaching in organizations has increased significantly, with some organizations outright replacing the title of “manager” with “coach” (Smither & Reilly, 2001). As noted previously, research indicates that coaching first appeared in management literature in the 1950’s, whereupon a sort of “master-apprentice” relationship emerged between superiors and subordinates (Evered & Selman, 1989; Gegner, 1997; Mace & Mahler, 1958). Since then, coaching has expanded beyond a management paradigm into a field all its own with the ever-increasing popularity of external professional coaches, such as executive coaches.

**Coaching Outcomes**

Despite variable opinions on the definition of coaching, many authors are in agreement on the positive outcomes that can result from coaching. Little empirical evidence exists concerning the outcomes of employee coaching, but an examination of related research on executive coaching broadens our understanding of coaching.
outcomes. In one empirical study of employee coaching, however, Ellinger and colleagues (2003) found that supervisory coaching behavior was directly related to both employee job performance and employee job satisfaction. Specifically, the more supervisors engaged in coaching behaviors, the higher their subordinates’ job performance and job satisfaction were. Another interesting result of their study was inconsistency in perceptions of coaching behavior between supervisors and subordinates. Specifically, these authors found that supervisors reported engaging in coaching behaviors significantly more than was perceived by their subordinates.

In their study of coaching middle managers, Bowles and colleagues (2007) discuss the value of coaching as a transfer of training tool, noting that while training alone does not always lead to enhanced performance, coaching can provide an opportunity to receive feedback on and practice skills acquired in training. Through their research, these authors support the notion that coached employees show greater improvements in performance than do their non-coached counterparts. Like Ellinger and colleagues (2003), Olivero, Bane, and Kopelman (1997) found strong evidence for coaching as a transfer of training tool. The authors found an average increase in productivity of approximately 22% following training alone, but an average increase in productivity of 88% following training coupled with coaching. Additionally, two studies provide support for the value of executive coaching in achieving desirable outcomes after receiving multi-source feedback. Seifert, Yukl, and McDonald (2003) found that working through multi-source feedback with a coach and creating action plans for improvement lead to higher subsequent ratings. Additionally, Smither, London, Flautt, Vargas, and Kucine (2003) concluded that working with a coach on interpreting and using multi-
source feedback led to setting more specific goals, sharing feedback with others, and soliciting suggestions for improvement.

In their review of the executive coaching literature, Feldman and Lankau (2005) indicated that coaching could lead to such positive outcomes as increased self-confidence, self-awareness, and sensitivity to others. More specifically, Gegner (1997) found that 32% of executive coaching clients experienced improved performance and 24% reported personal growth, such as openness to change and greater self-confidence. Similarly, in a large-scale survey of executive coaching clients, Wasylyshyn (2003) found that 48% of coachees reported increased self-awareness and understanding, 63% experienced sustained behavior change after coaching sessions had ceased, and 45% reported being better leaders. Though these outcomes are drawn from work beyond employee coaching, they provide some insight into the possible benefits of coaching as a practice.

Factors that Contribute to the Success of Coaching

The positive outcomes of coaching, such as improved performance and increased self-awareness, may be unattainable if certain conditions necessary for coaching success are not present. Several authors have outlined their notions of the particular factors that are essential to such coaching success. For example, Grant (2007) notes five factors that lead to successful, goal-focused coaching: 1) coaching sessions that result in valuable outcomes, 2) the development of a “strong, collaborative working alliance” (p. 258) between the coach/manager and subordinate, 3) placing an emphasis on solutions rather
than the problem, 4) effective goal setting, and 5) managing the coaching process over
time and holding the subordinate accountable to take agreed-upon action.

Graham and colleagues (Graham et al., 1993; 1994) articulate eight behaviors that
are imperative to successful coaching. These eight behaviors include 1) communicating
clear performance expectations, 2) providing regular performance feedback, 3)
considering all relevant information when appraising performance, 4) observing
performance with clients or customers, 5) helping employees develop self-improvement
plans, 6) recognizing and rewarding high performance, 7) helping, training, and
providing guidance to improve performance, and 8) building a warm relationship.
Similarly, Kilburg (2001) defines coaching effectiveness in terms of eight success factors,
including 1) the coachee’s and 2) coach’s commitment to progressive development, 3)
the nature of the focal issues, 4) the structure of the coaching engagement, 5) the
relationship between the coach and coachee, 6) the quality of the coaching intervention,
7) a protocol or expectations for adherence to coaching, and 8) the organizational setting
or context. Upon examination of several models of coaching, Smither and Reilly (2001)
outlined five key themes for coaching success. These five themes include: 1) establishing
a relationship between the coach and coachee, 2) assessing the coachee and the context in
which the coachee works, 3) engaging in goal setting and developmental planning, 4)
focusing on implementation, and 5) monitoring and evaluating the coachee’s progress, as
well as the coaching relationship.

One common theme that emerges across these various success factors is the value
of an effective coaching relationship between the supervisor and subordinate. To review,
Grant (2007) calls out the value of a “strong, collaborative working alliance” (p. 258).
Graham and colleagues (1993; 1994) include building a “warm relationship” (p. 91) as one of their eight behaviors for coaching success. In his discussion of the importance of the coaching relationship as one of eight factors for effectiveness, Kilburg (2001) emphasizes the value of trust, mutual respect, empathy, and authenticity, among others. Finally, Smither and Reilly (2001) noted that establishing a coaching relationship emerged “first and foremost” (p. 224) as a theme throughout their review of existing coaching models. In addition to these few lists of important factors, a number of other authors have noted the importance of the coaching relationship. In fact, Gegner (1997) defines coaching as a relationship, which is “oriented towards helping individuals improve performance” (p. 4).

The Coaching Relationship

A number of authors consider an effective relationship between coach and coachee (e.g., supervisor and subordinate) as not only important, but a prerequisite to coaching success. Smither and Reilly (2001) note that the development of a productive relationship “sets the stage for success” (p. 8) throughout the coaching relationship. In a recent review, Gyllensten and Palmer (2007) cited the coaching relationship as “the basis upon which coaching [is] built” (p. 173), noting that, without a relationship, a coaching program will not be as effective as it could have been otherwise. Similarly, Hunt and Weintraub (2002) suggest that the effectiveness of coaching depends on the “nature of the relationship” (p. 51) between a supervisor and subordinate. Finally, Ting and Riddle (2006) suggest that a “trusting relationship” (p. 36) is a precondition to effective coaching. The current paper adopts a similar perspective, suggesting that the coaching
relationship is critical for effective employee coaching and the achievement of desired results.

Several authors not only acknowledge the importance of the coaching relationship, but also specifically call out the need to examine it through research. Gyllensten and Palmer (2007), for example, note that while the coaching relationship is the real “vehicle” for change (p. 168), research-based investigations of the relationship are lacking. They also suggest investigating the factors that contribute to an effective coaching relationship. Additionally, in a recent review and agenda for future coaching research, Bennett (2006) identifies the coaching relationship as a specific area on which coaching research should focus. In their discussion of current challenges and future directions for coaching research, Stober & Parry (2005) note the need for theory development regarding the coaching relationship. These authors also identify a need for research on the characteristics of both coaches and coachees that contribute to a successful coaching relationship, as well as the contextual or environmental factors that affect the coaching relationship. Like Stober and Parry, Bennett also suggests researchers investigate what characteristics and competencies of managers contribute to effective coaching.

The current paper is a direct response to these and other authors’ calls for rigorous research on the coaching relationship and variables (individual, contextual) that impact it. As noted previously, several individual difference and contextual variables have been implicated as playing roles in both the coaching relationship and effective employee coaching. The specific roles of many of these variables are discussed in detail in the
pages that follow. A secondary purpose of the current paper is to develop a measure of the perceived quality of the coaching relationship.

Reviewing this past research, several common themes emerge regarding important elements of the coaching relationship. For example, Gegner (1997) indicated that the coaching relationship should include genuine care for and interest in the other person and an orientation toward help, improvement, and continuous learning for the subordinate. Additionally, Graham and colleagues (1994) discuss the importance of comfort with the relationship, which they suggest stems from a supervisor who is genuine and has effective interpersonal skills. Similarly, Kilburg (2001) notes the importance of mutual respect, empathy, authenticity and genuineness for an effective relationship, while Ting and Riddle (2006) list rapport, commitment, and collaboration as key to an effective coaching relationship. Several authors also discuss the critical role of effective communication for the coaching relationship (Graham et al., 1994; Orth, Wilkinson, & Benfari, 1987). Hunt and Weintraub (2002) note that an effective coaching relationship must entail such elements as commitment from both parties, encouraged growth and learning, and generally “good chemistry” (p. 10) between the supervisor and subordinate. These authors also note the unique nature of each relationship, such that supervisors may have different relationships with each of their subordinates. They also suggest that higher perceived similarity between the supervisor and subordinate may enhance the relationship.

Based on these and other examples from the literature, the current paper highlights five dimensions identified as part of the coaching relationship. The first of these dimensions is the Distinctiveness of the Relationship, or the extent to which the
coaching relationship is tailored to the subordinate’s needs. The second dimension, Genuineness of the Relationship, pertains to how genuine the subordinate perceives the supervisor and relationship to be. The third dimension, Effective Communication, pertains to how well the supervisor communicates with the subordinate, as well as how “available” the subordinate perceives the supervisor to be. The fourth dimension is Comfort with the Relationship, which addresses the subordinate’s level of comfort working with his/her supervisor and discussing his/her needs or goals with the supervisor. Finally, the fifth dimension, Facilitating Development, addresses the extent to which the coaching relationship facilitates learning and development in the subordinate. These dimensions will be used to guide the development of the perceived quality of the coaching relationship scale, which is further discussed in Chapter 3 (Pilot Study). These dimensions are also listed in Table 1 below.

Table 1. Five dimensions of the perceived quality of the coaching relationship scale.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Distinctiveness of the Relationship</td>
<td>The extent to which the coaching relationship is tailored to the subordinate’s needs</td>
</tr>
<tr>
<td>Genuineness of the Relationship</td>
<td>How genuine the subordinate perceives the supervisor and relationship to be</td>
</tr>
<tr>
<td>Effective Communication</td>
<td>How well the supervisor communicates with the subordinate, as well as how “available” the subordinate perceives the supervisor to be</td>
</tr>
<tr>
<td>Comfort with the Relationship</td>
<td>How comfortable the subordinate is working with his/her supervisor and discussing his/her needs or goals with the supervisor</td>
</tr>
<tr>
<td>Facilitating Development</td>
<td>The extent to which the coaching relationship facilitates learning and development for the subordinate</td>
</tr>
</tbody>
</table>
Individual Differences and Context in Employee Coaching

Several authors (Garman et al., 2000; Ting & Riddle, 2006) suggest that coaching relationships differ as a function of the individuals involved. A supervisor who engages in coaching activity with two subordinates may find one working relationship to be highly effective, whereas the other fails to produce any positive outcomes. Under the supervision of a different manager, however, the latter subordinate may form a trusting and productive coaching relationship that leads to dramatic improvements in performance and personal development. Similarly, Hunt and Weintraub (2002) suggest that a manager might be “very effective at coaching someone whom another manager would find to be absolutely recalcitrant” (p. 51). Based on this notion, we suggest that the attitudes and individual differences that both supervisor and subordinate bring to the coaching relationship have implications for the effectiveness of that relationship. Thus, the moderating role of certain subordinate attitudes and individual differences on perceptions of the coaching relationship will be examined.

As noted previously, London and Smither (2002) suggest that coaching may come naturally to some people. We contend that certain individual differences contribute to this “natural” inclination to coach. In addition to this inclination, however, it is important to note that several researchers have produced evidence that coaching skills can be trained and/or developed (Graham et al., 1993; Grant, 2007; McLean, Young, Kuo, Tolbert, & Larkin, 2005; Orth et al., 1987). Specifically, Graham and colleagues found improvement in coaching skills among 70% of managers who participated in a five-day coaching skills program. Additionally, Grant (2007) found that both short-term and long-term training resulted in enhanced coaching skills among managers. Hunt and Weintraub (2002)
support both perspectives, noting that some managers may simply be “natural” coaches, whereas others will have to learn and develop their coaching skills. While we do not discount the value of training and development for improved coaching skills, this domain is outside the scope of the current paper, which is focused specifically on the influence of individual differences and contextual variables.

With regard to context, several authors have touched on the importance of an environment that is conducive to effective coaching. Waldroop and Butler (1996) note that no behavior -- coaching included -- ever “takes place in a vacuum” (p. 111). Orth and colleagues (1987) suggest that some organizational climates may not be conducive to coaching, noting that coaching may be facilitated by organizational climates that allow for “free and open exchange of ideas” (p. 68). They also suggest that coaching may be more effective when a climate for growth has been cultivated. Interestingly, Hunt and Weintraub (2002) indicate that the coaching context is shaped by the coach. They suggest that the context for coaching is not entirely dependent on the organizational context, and that a manager’s openness to feedback can help shape a “coaching-friendly” (p. 90) context. Though context has been discussed in the extant literature, researchers have yet to examine exactly what role context plays in the effectiveness of coaching relationships. In the pages that follow, several constructs that are expected to influence the effectiveness of coaching relationships are discussed in detail. The 13 hypothesized relationships discussed below can be seen in Figure 2.
Primary Constructs of Interest

As noted previously, the independent variables included in the current model contain both supervisor self-reported and subordinate-rated variables. This array of constructs will be described in detail in the pages that follow.

Supervisor Self-Reported Variables

The following three constructs – transformational leadership, emotional intelligence, and implicit person theory – will be reported by supervisors in the focal study.

*Transformational Leadership.* Leadership style represents the first of several important individual differences that could have implications for an effective coaching relationship. Specifically, transformational leadership and individual consideration -- a subfacet of transformational leadership -- are related to developing and devoting individualized attention to subordinates. Bass (1985) conceptualizes a transformational leader as one who “motivates us to do more than we originally expected to” (p. 20) by adopting a developmental orientation toward leading his or her subordinates. It is important to distinguish this transformational leadership style from leading with a more transactional approach. Specifically, leaders who enact a transactional leadership style govern their subordinates with a traditional contingent reward approach in which rewards are furnished for effort or good performance. It is important to note that transformational and transactional leadership styles do not comprise opposite ends of a continuum (Bass, 1985); many leaders employ both styles as appropriate to a given situation.
Heslin and colleagues (2006) note that coaching differs from transactional leadership and, specifically, the “initiating structure” aspect of transactional leadership in which managers define subordinates’ roles and establish formal patterns of communication (Fleischman, 1957). They draw on Fleishman’s work, noting that coaching is about demonstrating respect, concern, and support for subordinates. As such, they begin to bridge employee coaching with the individual consideration dimension of transformational leadership, suggesting that coaching is an “expression of consideration for employees” (p. 874). Supervisors who lead with individual consideration attend to subordinates’ needs, capabilities, and interests. Specifically, the individual consideration dimension of transformational leadership corresponds to coaching, mentoring, developing, and providing feedback to subordinates (Avolio & Bass, 1995). Eagly and colleagues (2003) elaborate on the meaning of individual consideration, noting that it pertains specifically to a supervisor’s focus on employee development and careful attention to each subordinate’s individual needs. Several authors have pointed out the importance of supervisors attending to individual needs and genuinely caring about subordinates for a functional coaching relationship (Gegner, 1997). Similarly, Waldroop and Butler (1996) note that, like leading with individual consideration, effective coaches need to adopt a helping or teaching approach and also see feedback and/or criticism as a means of helping an employee improve.

Relatedly, in their study of feedback-seeking behavior, Levy and colleagues (2002) found evidence that subordinates would be more likely to seek feedback from transformational than transactional leaders, based on participant self-reports. They also found that individual consideration, specifically, contributes to feedback seeking above
and beyond general leadership style. Because feedback is an essential part of coaching (Ellinger & Bostrom, 1999; Gegner, 1997; Graham et al., 1994), Levy and colleagues’ theory could be extended to include perceptions of coaching effectiveness. Specifically, supervisors who lead with a transformational leadership style, generally, and individual consideration, specifically, may not only encourage more feedback seeking from their subordinates, but may also be perceived as more effective coaches.

These theories suggest that the act of employee coaching seems to be inherent in the general concept of individual consideration, given its focus on feedback, development, and customization to individual needs. Supervisors who adopt a transformational approach to leading and developing employees may not only be more inclined to coach subordinates, but more effective at coaching, as well. Previous research has not focused specifically on relating leadership style to effective coaching, however. Extending what we know about transformational leadership, we predict that supervisor transformational leadership style overall, and individual consideration, specifically, will be positively related to average subordinate perceptions of the coaching relationship.

**Hypothesis 1a:** Supervisor self-reported transformational leadership style will be positively related to average subordinate perceptions of the quality of the coaching relationship.

**Hypothesis 1b:** Supervisor self-reported individual consideration will be positively related to average subordinate perceptions of the quality of the coaching relationship.

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2 Because a nested data approach is being used, supervisor individual differences will predict averaged perceptions of the “group” of subordinates working with each supervisor.
Emotional Intelligence. Emotional intelligence is another individual difference that has been alluded to in coaching research, both at the executive level and with regard to employee coaching. In terms of executive coaching, Passmore (2007) suggests that a coach’s emotional intelligence adds value to the coaching relationship, which, in turn, facilitates the coaching process. He suggests that coaches need to attend to three aspects of emotions in the coaching relationship. These include (1) attending to [the coach’s] own emotions and behaviors, (2) attending to the emotions and behaviors of the executive client, and (3) managing [the coach’s] own emotions and adapting behavior in such a way that he/she can maintain “professional detachment while offering personal intimacy” (p. 71). Emotional intelligence includes the ability to not only attend to and monitor one’s own emotions, but also detect and interpret the emotions of others.

Though several definitions and conceptualizations of emotional intelligence have been established in recent years (Zeidner, Matthews, & Roberts, 2004), the current paper adopts Mayer and Salovey’s (1997) concept of emotional intelligence as our working definition. They define emotional intelligence as follows:

Emotional intelligence involves the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth (p. 10).

It is worth noting that four distinct dimensions can be gleaned from this definition: 1) perceiving and expressing emotion, 2) using emotion to facilitate thoughts, 3) understanding emotion, and 4) managing or regulating emotion.

Previous research has explored the value of emotional intelligence for effective leadership. For example, George (2000) contends leaders who can accurately identify,
appraise, and subsequently influence their subordinates’ emotions garner more support from those subordinates. She also suggests that leaders high in emotional intelligence can better predict subordinates’ reactions to particular situations or changes within the organization. Focal issues of coaching have the potential to be sensitive in nature, such as identifying and improving upon subordinates’ shortcomings (both performance-related and personal) or confronting career challenges (missed promotions, stagnant career paths) (Giglio, Diamante, & Urban, 1998; Gregory, Levy, & Jeffers, 2008; London & Smither, 2002). Because these focal issues can provoke affective reactions from both the supervisor and subordinate (Giglio et al., 1998; Gregory et al., 2008), this ability to control and detect emotions should be critical for supervisors, who are responsible for “driving” the coaching relationship.

Many authors have discussed the role of emotional intelligence in coaching, but none have yet to investigate this relationship. For example, David (2005) mentions the need for both a coach and coachee (in this case, a supervisor and subordinate) to “recognize, understand, and assess” (p. 57) the impact of emotions on the coaching relationship, and goals and outcomes included therein. David’s notion of recognizing, understanding, and assessing is reminiscent of Mayer and Salovey’s (1997) definition of emotional intelligence, which includes, among others, both perceiving and understanding emotion. Similarly, Grant (2007) boldly states that coaching skills are “inextricably related” (p. 258) to emotional intelligence, and that coaching behaviors are largely “a manifestation of the individual’s emotional intelligence” (p. 259). He goes on to note that effective coaches must be able to regulate not only their behavior, but thoughts and emotions as well. Finally, both Hunt and Weintraub (2002) and Kram and Ting (2006)
discuss the need for coaching managers to have high emotional intelligence or emotional competence, respectively. Specifically, Hunt and Weintraub emphasize the importance of empathy in coaching subordinates, whereas Kram and Ting suggest that coaching managers must have a “baseline of emotional competence” (p. 198) in order to be able to help others develop and grow.

The general takeaway from this existing work is that the ability to predict, identify, and influence subordinates’ emotions, as well as manage and understand one’s own emotions, is essential to building an effective coaching relationship. Based on this existing work and the overarching theory that emotional intelligence is necessary to be an effective coach, we predict that a supervisor’s level of emotional intelligence will be positively related to subordinate perceptions of the quality of the coaching relationship. In other words, the higher a supervisor’s level of emotional intelligence, the more positive his or her subordinates’ perceptions of the coaching relationship will be.

Hypothesis 2: Supervisor self-reported emotional intelligence will be positively related to average subordinate perceptions of the quality of the coaching relationship.

Implicit Person Theory. Another construct that has recently received more attention in the domain of performance management activities is Implicit Person Theory (IPT). This individual difference construct pertains to beliefs about whether or not people can change. In other words, individuals who possess an entity theory are more likely to believe that individual abilities are concrete or unchangeable (Heslin et al., 2006). On the other hand, individuals who hold an incremental IPT believe that abilities and attributes are malleable, that people can change. Supervisors’ IPTs are important because, as
demonstrated by Heslin and colleagues (2006), they influence the propensity of supervisors to coach and develop their subordinates. More specifically, Heslin et al. found that supervisors with an incremental IPT (those who believe that people can change) were more likely to see their subordinates as “coachable.” That is, these supervisors were more likely to believe their subordinates’ abilities and performance could be enhanced and improved through development activity. Additionally, supervisors with an incremental IPT, as opposed to entity, are more effective at perceiving behavior change in their subordinates. Supervisors with an entity IPT are more inclined to believe that abilities are set, that performance will not be enhanced through coaching and development.

As evidenced by Heslin and colleagues’ (2006) work, having an incremental IPT is essential for effective employee coaching. Nearly a decade earlier, Gegner (1997) noted that adopting a coaching management style requires supervisors to believe that “individuals are capable and willing to perform at higher levels” (p. 5). In other words, in order to be an effective coach, supervisors must be of the mindset that their subordinates are able to perform better than they currently are, to improve, and to change. In other words, it is essential that managers demonstrate an incremental IPT.

Heslin and colleagues (2006) provided substantial support for the role of IPT in coaching activity with their two studies, one of which yielded a correlation of $r = .46$ between incrementalism and extent of coaching engagements. However, they also advocated replication of their work in order to build theory and “facilitate progress in organizational scholarship” (p. 896). Specifically, they cite Eden’s (2002) call for careful replication of research as opposed to “one-time minitheories… that are never revisited”
Therefore, in direct response to this call, we aim to expand upon Heslin and colleagues’ findings concerning the role of IPT in coaching by examining the effect of supervisor IPT on the coaching relationship. We anticipate that supervisor incrementalism will be positively related to subordinate perceptions of the quality of the coaching relationship.

**Hypothesis 3**: Supervisor self-reported incremental IPT will be positively related to average subordinate perceptions of the quality of the coaching relationship.

![Figure 2. The full hypothesized model.](image-url)

**Subordinate-Rated Variables**

Although the primary focus of the current paper is on the influence of certain supervisor individual differences on the coaching relationship, failing to attend to the subordinate would be shortsighted. Given our discussion of the importance of the
coaching relationship, it is imperative to study the influence of both the supervisor and subordinate. Overall, we contend that the effects of the three focal variables presented above (transformational leadership, emotional intelligence, and implicit person theory) on the coaching relationship will be contingent on particular attitudes and beliefs of the subordinate. Specifically, we examine the influences of subordinate perceptions of the feedback environment (a contextual variable rated by subordinates), feedback orientation, implicit person theory, and trust on perceived quality of the coaching relationship.

**Feedback Environment.** The organizational feedback environment is a contextual variable that is expected to have implications for employee coaching. Steelman and colleagues define an organization’s feedback environment as “the contextual aspects of day-to-day supervisor-subordinate and coworker-coworker feedback processes” (p. 166). Similarly, London and Smither (2002) conceptualize a positive feedback culture as one in which “individuals continuously receive, solicit, and use formal and informal feedback to improve their job performance” (p. 84). Both authors’ conceptualizations emphasize the supervisor’s role in shaping and contributing to this context. With regard to coaching, London and Smither note that “widespread availability of coaching” is “likely to be a hallmark” (p. 68) of organizations that have a strong, positive feedback environment. We have identified the organizational feedback environment as the focal contextual variable for influencing the coaching relationship.

As noted previously, Hunt and Weintraub (2002) suggest that a manager’s openness to feedback directly affects the context for coaching. Consequently, the feedback environment specifically entails the contextual characteristics of the feedback process (Steelman et al., 2004). A feedback environment is created by employees’ direct
supervisors and includes the quality and frequency of coaching and informal feedback
delivery (London & Smither, 2002). A supervisor, for example, creates a feedback
environment by the way he or she handles feedback delivery to subordinates, whether he
or she encourages feedback seeking and provides support for using feedback, and the
extent to which he or she follows-through on feedback provided to subordinates (London
& Smither, 2002). All of these are inextricably involved in coaching. By shaping this
context, supervisors influence subordinates’ attitudes toward feedback and the extent to
which they rely on feedback to improve performance. Thus, the feedback environment
provides the background for effective coaching and feedback exchanges. The current
paper posits that subordinates’ perceptions of the feedback environment created by their
supervisors will be positively related to their perceptions of their coaching relationships.
Specifically, the more positive the feedback environment is, the more positive
subordinate perceptions of the coaching relationship.

_Hypothesis 4:_ Subordinate perceptions of the feedback environment will
be positively related to perceptions of the quality of the coaching
relationship.

Subordinate perceptions of the feedback environment are also expected to be
related to one previously mentioned individual difference variable: the supervisor’s
implicit person theory (IPT). Anseel and VandeWalle (2008) recently demonstrated that a
supervisor’s IPT can influence the feedback environment that is perceived by his or her
subordinates. Specifically, Anseel and Vandewalle found that that supervisors’ IPT was
significantly related to credibility as a feedback source, consideration in feedback
delivery, and encouragement of feedback seeking, all of which are facets of the feedback
environment. These findings suggest that a supervisor’s IPT is an important part of the
day-to-day feedback interactions between supervisors and subordinates that shape the
feedback environment. The current paper seeks to build on Anseel and Vandewalle’s
theory by examining the relationship between a supervisor’s IPT and subordinate
perceptions of the feedback environment. We suggest that a supervisor’s IPT is an
important predictor of subordinates’ perceptions of the feedback environment.

_Hypothesis 5:_ Supervisor self-reported IPT will be positively related to average
subordinate perceptions of the feedback environment.

**Trust.** A number of authors have cited the essential role of trust in the success of
coaching relationships (Graham et al., 1994; Gyllensten & Palmer, 2007; Hunt &
Weintraub, 2002; Ting & Riddle, 2006), yet minimal research has examined this role
empirically. Gyllensten and Palmer (2007), for example, identified a supervisor’s ability
to imbue trust into the coaching relationship as one of the main factors for predicting
coaching success. Phillips (1998) notes that establishing mutual trust is one of the
primary steps involved in the coaching process. Similarly, Hunt and Weintraub (2002)
note that trust in the supervisor/subordinate relationship is “probably the most important
element” of a context for coaching. In other words, a trusting relationship between the
supervisor and subordinate is an important foundation or precursor for effective coaching.

The current paper adopts McAllister’s (1995) conceptualization of trust – one that
includes both cognitive and affective components. The development of trust in a
coaching supervisor appears to be a critical precondition for an effective coaching
relationship. Smither and Reilly (2001) suggest that the coaching relationship provides
the foundation for subsequent coaching activity. They note that in addition to being seen
as likeable and competent, supervisors must also be seen as trustworthy by subordinates in order to establish an effective coaching relationship. Likewise, Ting and Riddle (2006) note that a trusting relationship is “a precursor to effective coaching” (p. 36), and that the success of coaching is contingent on the development of trust between the coaching supervisor and subordinate.

The current paper seeks to build on this theory of trust as a precondition to an effective coaching relationship. We predict that trust in one’s supervisor, as perceived by a subordinate, will be directly related to perceptions of coaching. Specifically, the higher a subordinate’s trust in his or her supervisor, the more positive his or her perceptions of the quality of the coaching relationship.

**Hypothesis 6:** Subordinate trust in his or her supervisor will be positively related to his or her perceptions of the quality of the coaching relationship.

It is important to note that Hypotheses 4 and 6 can be tested for both level two (i.e., group level) and level one (i.e., individual level) effects. Specifically, while the average level of trust (H6; feedback environment – H4) found in a group of subordinates nested under a single supervisor should predict their average group-level perceptions of the coaching relationship, it is also possible that individual differences in trust (H6; feedback environment – H4) could help to explain within-group variability in perceptions of the coaching relationship. In other words, two subordinates who report to the same supervisor may have variable levels of trust in that supervisor, which thereby impact their
individual perceptions of the coaching relationship. Such level-one effects will be examined on an exploratory basis, should there be within-group variability.3

While Smither and Reilly (2001) discuss the importance of trust to an effective coaching relationship, they also raise the question of how effective coaching managers establish trust. Research has consistently demonstrated the influence of one previously discussed construct on subordinate trust: transformational leadership. Dirks and Ferrin’s (2002) meta-analysis yielded a corrected correlation of $r = .79 \ (p < .01)$ for transformational leadership and trust in one’s supervisor. Both these authors and Burke and colleagues (Burke, Sims, Lazzara, & Salas, 2007) conceptualize this relationship as causal, such that transformational leadership is an important antecedent to the development of supervisor trust. Additionally, Jung and Avolio (2000) posited a mediational relationship for transformational leadership and trust on certain outcomes. Specifically, these authors found that supervisor trust partially mediated the relationship between transformational leadership and outcomes such as quality and quantity of subordinate job performance and subordinate satisfaction. They cite Podsakoff and colleagues’ (Podsakoff, Mackenzie, Moorman, & Fetter, 1990) contention that followers’ trust in their leaders has been considered “one of the most important variables that can mediate the effectiveness of transformational leadership (Jung & Avolio, 2000, p. 951).

Thus, we expand on Hypothesis 6, which deems trust an essential precursor to effective coaching relationships, by including transformational leadership as an antecedent to trust. In doing so, we propose that the effect of transformational leadership

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3 Demonstrating within-group variability is a precondition to investigating within-group or level-one effects.
on the coaching relationship is partially mediated by subordinates’ trust in their supervisors. Previous research (Jung & Avolio, 2000) has demonstrated that the mediating role of trust on the relationship between transformational leadership and outcome variables (e.g., satisfaction, performance) is only partial. In other words, transformational leadership still has a direct effect on outcomes, above and beyond the indirect effect via trust. Following from this theory, Hypothesis 7 proposes that subordinates’ trust in their supervisors partially mediates the effect of transformational leadership on subordinate perceptions of the coaching relationship.

**Hypothesis 7:** Subordinate trust partially mediates the effect of supervisor self-reported transformational leadership on subordinate perceptions of the quality of the coaching relationship.

**Interactive empathy.** Another subordinate-rated variable – interactive empathy – is expected to partially mediate the effect of supervisor emotional intelligence on subordinate perceptions of the coaching relationship. Recent research has begun to explore a “darker” side of emotional intelligence, one characterized by manipulative tendencies, cunning, and cleverness (Austin, Farrelly, Black, & Moore, 2007; Carr, 2000). Although Austin and colleagues (2007) did not find a relationship between Machiavellianism and emotional intelligence, they contend that high emotional intelligence could be wielded in devious or anti-social ways, such as emotional manipulation. Kellet, Humphrey, and Sleeth (2006) found that interactive empathy mediated the effect of emotional intelligence on leadership ratings. They not only emphasize the importance of a leader’s ability to understand and influence a follower’s emotions, but also suggest that a lack of empathy may lead to subordinate perceptions of
the leader as “keen” and “Machiavellian” (Kellet et al., p. 151). In other words, if subordinates do not feel as though their supervisors are empathic and concerned with their emotional well-being, highly emotional intelligent supervisors may come across as cunning or manipulative.

Thus, if high emotional intelligence has potentially negative implications, it is possible that a subordinate’s perceptions of empathy in his or her supervisor is critical for supervisor emotional intelligence to have positive effects on subordinates’ perceptions. Drawing from these pieces of research, the current paper contends that subordinate perceptions of empathy in one’s supervisor is an important mediator in the relationship between supervisor emotional intelligence and subordinate perceptions of the quality of the coaching relationship. Specifically, we suggest the effect of supervisor emotional intelligence on subordinate perceptions of the coaching relationship occurs via subordinate perceptions of supervisor empathy, where higher perceptions of empathy relate positively to subordinate perceptions of the coaching relationship.

**Hypothesis 8:** Subordinate perceptions of supervisor empathy will mediate the relationship between supervisor self-reported emotional intelligence and subordinate perceptions of the quality of the coaching relationship.

**Subordinate Implicit Person Theory.** As previously noted, an individual’s implicit person theory (IPT) entails beliefs about whether or not people can change (Heslin et al., 2006). Research has demonstrated that supervisor IPT is significantly related to the extent of coaching activity ($r = .46, p < .01$; Heslin et al., 2006), such that having a stronger incremental IPT translates to engaging in greater coaching activity with
subordinates. In other words, when supervisors believe their employees can change, they are more likely to engage in coaching and developmental activity.

Given the relatively stable nature of this individual difference variable, it is likely that an individual’s IPT will also play a role in the extent to which that person believes in the value of developmental activity for him- or herself. Previous research has demonstrated that an individual’s IPT impacts his or her own behavior, in addition to judgments about others’ ability (or inability) to change. For example, research has shown that, compared to those with an entity IPT, individuals with an incremental IPT are more inclined to adopt learning goals (as opposed to performance goals) (VandeWalle, 1997). Individuals with an incremental IPT have also been demonstrated to be more likely to initially develop and maintain high self-efficacy, even in the face of setbacks (Martocchio, 1994; Wood & Bandura, 1989).

Because IPT appears to be a robust individual difference variable, we suspect that an individual’s IPT will impact his or her perceptions of the coaching relationship. Subordinates with a strong incremental IPT may be more inclined to see the value in coaching and be more receptive to engaging in the coaching relationship with their supervisors than employees with an entity IPT. On the other hand, employees with an entity IPT who believe that their abilities and behaviors are “set” and therefore not able to be developed may perceive coaching activity as an ineffective waste of time. Despite their best efforts, supervisors may be unable to initiate a successful coaching relationship with employees governed by an entity IPT. In other words, the effect of supervisor IPT on subordinate perceptions of the coaching relationship (Hypothesis 3) will be contingent on the subordinate’s IPT. Thus, it is expected that subordinate incrementalism will be
positively related to perceptions of the coaching relationship, such that subordinates with a stronger incremental IPT have more positive perceptions of coaching activity.

*Hypothesis 9:* Subordinates’ incrementalism will be positively related to their perceptions of the quality of the coaching relationship.

It is also possible that there could be an interactive relationship between supervisor IPT and subordinate IPT. Specifically, if subordinates do not believe that they can change and develop, the potentially positive effects of supervisor incrementalism on the coaching relationship may be nullified. On the other hand, a combination of high supervisor and subordinate incrementalism should translate to positive subordinate perceptions of the coaching relationship. Hypothesis ten examines the potential moderating effect of subordinate IPT on the relationship between supervisor IPT and subordinates’ perceived quality of the coaching relationship. Because it includes both a level one (subordinate IPT) and a level two (supervisor IPT) variable, hypothesis ten is an example of a cross-level interaction.

*Hypothesis 10:* Subordinate incrementalism will moderate the effect of supervisor self-reported incrementalism on subordinate perceptions of the quality of the coaching relationship.

*Feedback Orientation.* Finally, a subordinate’s feedback orientation will have important implications for the effectiveness of a coaching relationship. Within the past decade, researchers have begun to explore the role of an individual’s feedback orientation in his or her desire to obtain and seek out feedback. This feedback orientation influences the extent to which an individual might seek, value, mindfully process, and feel accountable to use feedback (Linderbaum & Levy, under review; London & Smither,
Specifically, Linderbaum and Levy demonstrated that a feedback orientation is comprised of four distinct dimensions: a) beliefs in the utility of feedback, b) accountability beliefs for using feedback, c) social awareness regarding feedback, and d) feedback self-efficacy.

In addition to feedback, London and Smither also note that one’s feedback orientation affects his or her receptivity to coaching, such that the stronger one’s feedback orientation, the more open and receptive that person will be to coaching. Specifically, London and Smither suggest that an individual’s feedback orientation determines “the extent to which the individual welcomes guidance and coaching” (p. 83). The few researchers who have discussed this multi-dimensional construct suggest that it can be developed through effective performance management to increase openness to coaching (Linderbaum & Levy, under review; London & Smither, 2002). Additionally, London and Smither suggest that enhancing an individual’s feedback orientation can be a focus for employee coaching. They note that while individuals with a strong feedback orientation will be receptive to coaching, being “the recipient of effective coaching” (p. 87) can also enhance an individual’s feedback orientation over time. In sum, the current paper suggests that individuals with a strong feedback orientation may have more positive perceptions of coaching than their counterparts with weaker feedback orientations.

Hypothesis 11: Subordinate feedback orientation is positively related to perceptions of the quality of the coaching relationship.

The current study also suggests that subordinate feedback orientation may be influenced by the organizational feedback environment. In their 2002 paper, London and
Smither suggested that a strong, positive feedback environment can enhance individuals’ feedback orientations, making them more receptive to and appreciative of constructive feedback. They note that an individual’s feedback orientation is generally stable in the short term, but can developed and enhanced over time. An employee’s weak feedback orientation can be strengthened over time by an organizational context that is rich with constructive feedback, in which supervisors provide frequent developmental feedback and encourage feedback seeking, among other things.

To date, Gregory and Levy (2008a) have conducted the only empirical study to test the relationship between subordinate feedback orientation and the organizational feedback environment. These authors found a moderate correlation between these two constructs ($r = .45, p < .001$). The relationship was also supported with a regression analysis ($\beta = .53$, $R^2 = .27, p < .001$), providing evidence for the influence of the organizational feedback environment on employees’ feedback orientation. The current paper will expand on this preliminary finding by revisiting the influence of the organizational feedback environment on employee feedback orientation. Thus, we predict that the effect of the feedback environment on subordinate perceptions of the coaching relationship will be partially mediated by subordinate feedback orientation. This hypothesized partial mediation suggests that the organizational feedback environment will have a direct effect on subordinate perceptions of the coaching relationship, above and beyond the indirect effect via subordinate feedback orientation.

**Hypothesis 12**: Subordinate ratings of the organizational feedback environment influence subordinate feedback orientation.
Hypothesis 13: The effect of subordinate ratings of the organizational feedback environment on subordinate perceptions of the quality of the coaching relationship is partially mediated by subordinate feedback orientation.

In sum, the purpose of the current study is to develop and test a model of the antecedents to effective coaching relationships. These antecedents include supervisor individual differences, the context, and subordinate individual differences. The thirteen hypotheses outlined above are summarized in table 2 below.

A secondary purpose of the current research is to develop a measure of the perceived quality coaching relationship to be used as the primary dependent variable. Few sound measures exist for understanding the outcomes of coaching – at both the employee coaching and executive coaching levels. The current paper seeks to develop a sound measure of employee perceptions of this relationship, drawing on the extant coaching literature to identify the important elements, as discussed previously. This development process is discussed in the Pilot Study that follows.

Overall, the current paper will provide much needed contributions to the employee coaching literature. First and foremost, the current paper draws on strong theory and employs rigorous methodology, two factors that are nearly absent in what employee coaching literature currently exists. Very little empirical work has been done on employee coaching; the current paper seeks to fill this void and advance this literature through sound scientific methodology and the use of supervisor/subordinate pairs in a large manufacturing organization. Second, the current paper will contribute to the coaching literature by carefully examining the coaching relationship and the influences of
certain supervisor and subordinate individual differences and context on that relationship.

Finally, the current paper seeks to produce a reliable and useful measure of the perceived quality of the coaching relationship that can be used both in future research, as well as in practice.

Table 2. A summary of the 13 hypotheses presented in the current study.

<table>
<thead>
<tr>
<th>Hypothesis</th>
</tr>
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<tbody>
<tr>
<td>1a Supervisor self-reported transformational leadership style will be</td>
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<td>positively related to average subordinate perceptions of the quality of</td>
</tr>
<tr>
<td>the coaching relationship.</td>
</tr>
<tr>
<td>1b Supervisor self-reported individual consideration will be positively</td>
</tr>
<tr>
<td>related to average subordinate perceptions of the quality of the coaching</td>
</tr>
<tr>
<td>relationship.</td>
</tr>
<tr>
<td>2 Supervisor self-reported emotional intelligence will be positively</td>
</tr>
<tr>
<td>related to average subordinate perceptions of the quality of the coaching</td>
</tr>
<tr>
<td>relationship.</td>
</tr>
<tr>
<td>3 Supervisor self-reported incremental IPT will be positively related to</td>
</tr>
<tr>
<td>average subordinate perceptions of the quality of the coaching relationship</td>
</tr>
<tr>
<td>4 Subordinate perceptions of the feedback environment will be positively</td>
</tr>
<tr>
<td>related to perceptions of the quality of the coaching relationship.</td>
</tr>
<tr>
<td>5 Supervisor self-reported IPT will be positively related to average</td>
</tr>
<tr>
<td>subordinate perceptions of the feedback environment.</td>
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<tr>
<td>6 Subordinate trust in his or her supervisor will be positively related</td>
</tr>
<tr>
<td>to his or her perceptions of the quality of the coaching relationship.</td>
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<tr>
<td>7 Subordinate trust partially mediates the effect of supervisor self</td>
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<tr>
<td>reported transformational leadership on subordinate perceptions of the</td>
</tr>
<tr>
<td>quality of the coaching relationship.</td>
</tr>
<tr>
<td>8 Subordinate perceptions of supervisor empathy will mediate the</td>
</tr>
<tr>
<td>relationship between supervisor self-reported emotional intelligence and</td>
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<tr>
<td>subordinate perceptions of the quality of the coaching relationship.</td>
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<tr>
<td>9 Subordinates’ incrementalism will be positively related to their</td>
</tr>
<tr>
<td>perceptions of the quality of the coaching relationship.</td>
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<tr>
<td>10 Subordinate incrementalism will moderate the effect of supervisor self-</td>
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<tr>
<td>reported incrementalism on subordinate perceptions of the quality of the</td>
</tr>
<tr>
<td>coaching relationship.</td>
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<tr>
<td>11 Subordinate feedback orientation is positively related to perceptions</td>
</tr>
<tr>
<td>of the quality of the coaching relationship.</td>
</tr>
<tr>
<td>12 Subordinate ratings of the organizational feedback environment</td>
</tr>
<tr>
<td>influence subordinate feedback orientation.</td>
</tr>
<tr>
<td>13 The effect of subordinate ratings of the organizational feedback</td>
</tr>
<tr>
<td>environment on subordinate perceptions of the quality of the coaching</td>
</tr>
<tr>
<td>relationship is partially mediated by subordinate feedback orientation.</td>
</tr>
</tbody>
</table>
CHAPTER III
PILOT STUDY

The purpose of the pilot study was to develop and refine a measure of the perceived quality of the coaching relationship (PQCR). As previously noted, very few sound measures of coaching outcomes exist. The current study seeks to contribute to the coaching literature by developing a subordinate-rated measure of the quality of the employee coaching relationship that subordinates share with their supervisors. The final measure reported in this pilot study serves as the primary dependent variable in the focal study, which follows in Chapter 4.

Before discussing item development we recall our working definition of the employee coaching relationship that exists between a supervisor and subordinate. As noted previously, we define this relationship as a working partnership between an employee and his/her direct supervisor that is focused on addressing the performance and development needs of that employee. This type of relationship pertains specifically to an employee and his/her direct supervisor. As discussed in Chapter 2, the current paper identified five dimensions of the coaching relationship based on existing coaching literature. These five dimensions include: 1) distinctiveness of the relationship, or the extent to which the coaching relationship is tailored to the subordinate’s needs; 2) genuineness of the relationship, or how genuine the subordinate perceives the supervisor
and relationship to be; 3) effective communication, which pertains to how well the supervisor communicates with the subordinate and how “available” the subordinate perceives the supervisor to be; 4) comfort with the relationship, which addresses the subordinate’s level of comfort working with his/her supervisor and discussing his/her needs or goals with the supervisor; and finally 5) facilitating development, which concerns the extent to which the coaching relationship facilitates learning and development for the subordinate. These five dimensions provided a framework to guide initial item development for the perceived quality of the coaching relationship measure. Initial item development and the development of the final measure are discussed in the section that follows.

Method

Development of the PQCR scale included a number of steps, including initial item development, item refinement following subject matter expert (SME) review, piloting refined items with full-time working adults, and evaluating the factor structure and internal consistency of the items. Each of these steps in discussed in detail in the pages that follow.

Initial Item Development

Preliminary items for the perceived quality of the coaching relationship scale were written to capture each of the five dimensions of employee coaching relationships listed above. A total of twenty-eight (28) initial items were written, with at least five
items per dimension. It should be noted that no reverse-worded items were written. A complete list of initial items for this measure can be found in Appendix A.

Subject Matter Expert Review. Twenty-five (25) graduate students in Industrial/Organizational Psychology were recruited as subject matter experts (SMEs) for a preliminary review of the items. SMEs were provided with descriptions of the five dimensions of employee coaching relationships, as well as the twenty-eight preliminary items. SMEs were asked to sort the randomly ordered items into the five dimensions of the PQCR. The purpose of this task was to examine content validity of the items with respect to their overarching dimensions. SMEs were also asked to provide their feedback on the comprehensibility and readability of items. Materials given to SMEs can be found in Appendix B.

SMEs correctly sorted seventy-seven percent (77%) of the items into their intended categories. Of the twenty-three percent (23%) incorrectly sorted, four items were dropped entirely. Overall, no changes or eliminations were made to the “distinctiveness of the relationship” dimension. One item was dropped from the “comfort with the relationship” dimension, as it was incorrectly sorted into several different dimensions. A new item was written for this dimension, based on suggestions from SMEs. Two items were dropped from the “genuineness of the relationship” category, as they were consistently miscategorized; however, two new items were written for this dimension, based on suggestions from SMEs. One item was dropped from the “facilitates development” dimension due to consistent miscategorization; additionally, one item that was deemed “awkward” or “hard to understand” was reworded based on suggestions from SMEs. These changes based on SME feedback resulted in a revised pool of twenty-
seven (27) perceived quality of the coaching relationship (PQCR) items. These items were then used in an online pilot study, which is discussed in the section that follows.

**Pilot Data Collection**

Following the revision of the initial items based on SME feedback, the remaining twenty-seven perceived quality of the coaching relationship items were piloted to full-time working adults via an online survey. In the online survey participants were asked to rate the extent to which they agreed or disagreed with each of the items. Responses were made on a five-point scale, ranging from *strongly disagree* to *strongly agree*.

**Participants.** Pilot study participants were recruited via online social networking tools (e.g., Facebook and LinkedIn) and through email communication. Specifically, the researcher emailed requests for participants in the online study to various friends and colleagues, who, in turn passed the survey link onto other friends and associates. This means of recruiting participants was approved by the University of Akron Institutional Review Board (IRB). Participants were instructed that the survey was completely anonymous and confidential (see Appendix C for instructions and informed consent). Participants were asked to provide some basic demographic data, such as industry, tenure, age, gender, and hours worked per week, but no other identifying information was collected. Participants were informed that they must meet two criteria to participate: 1) work a minimum of 40 hours per week and 2) have a direct supervisor to whom they report at work.

A total of 200 full-time working adults in the United States completed the online survey. Data from 42 of these 200 participants were eliminated from the final dataset.
because they failed to meet a particular criterion for inclusion (e.g., working a minimum of forty hours per week or having a direct supervisor), had worked with their supervisor for less than one year, or had excessive missing data (e.g., over 75% of questions left blank), thereby resulting in a final pilot sample of 158 participants.

Of the 158 participants included in pilot data analysis, 61% were female. Five percent (5%) of participants were between the ages of 18 and 25, 53% of participants were between the ages of 26 and 35, 21% were between the ages of 36 and 45, 16% were between the ages of 46 and 55, and 5% were older than 55. The average number of hours worked per week was $M = 45.44$ ($sd = 8.22$). Average tenure at participants’ current place of work was $M = 6.61$ ($sd = 6.82$) years and average tenure with participants’ current supervisors was $M = 3.24$ ($sd = 3.16$) years. Participants reported working in a wide variety of industries and job titles. Sample industries include finance, retail, business consulting, tourism, non-profit, information technology, civil engineering, and print media, among others. Sample job titles included sales executive, software engineer, marketing coordinator, attorney, associate consultant, manager, and staff scientist, among many others.

Results

Because a priori expectations were made about items mapping onto particular dimensions, data were analyzed with confirmatory factor analysis using Mplus version 5.2 (Muthén & Muthén, 2007). At least five items had been written for each of the five dimensions. The goal for the final PQCR scale was to have approximately three items per
Following preliminary tests of the model, those individual items that had the lowest factor loadings or loaded negatively were discarded.

We conceptualize the PQCR as a latent construct with the dimensions acting as manifest indicators. In other words, each of the five dimensions represents a type of behavior that is caused by the latent construct called the PQCR. The five factors representing these five dimensions should demonstrate strong, positive loadings onto a single, higher-order factor, which represents the latent construct of PQCR. Therefore, a higher-order factor model was tested, which specified individual PQCR items loading on five lower-order factors, which, in turn, loaded onto the single, higher-order factor.

An initial test of this higher-order model revealed mediocre model fit (CFI = .91, RMSEA = .11, SRMR = .23) and generally strong factor loadings for both the lower-order factors (see Table 3 below) and the single higher-order factor (see Table 4). However, the model also revealed an unexpected relationship. Specifically, the lower-order factor “distinctiveness of the relationship” loaded negatively onto the higher-order factor, while each of the other four factors loaded positively. Additionally, the standardized loading estimate (StdXY) for this factor was considerably lower than the other four factors (-.60, compared to .89-1.0). Further analysis revealed negative and largely non-significant correlations between the distinctiveness factor and the other four factors (whereas the other four factors were highly and significantly correlated with one another; see Table 5).
Table 3. Results of the confirmatory factor analysis – five lower-order factors.

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1 (Distinctiveness)</th>
<th>Factor 2 (Genuineness)</th>
<th>Factor 3 (Communication)</th>
<th>Factor 4 (Comfort)</th>
<th>Factor 5 (Facilitates)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dist1</td>
<td>.956</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dist4</td>
<td>.697</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dist5</td>
<td>.531</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gen1</td>
<td></td>
<td>.885</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gen2</td>
<td></td>
<td></td>
<td>.860</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gen4</td>
<td></td>
<td></td>
<td>.814</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comm1</td>
<td></td>
<td></td>
<td></td>
<td>.822</td>
<td></td>
</tr>
<tr>
<td>Comm2</td>
<td></td>
<td></td>
<td></td>
<td>.849</td>
<td></td>
</tr>
<tr>
<td>Comm3</td>
<td></td>
<td></td>
<td></td>
<td>.859</td>
<td></td>
</tr>
<tr>
<td>Comf1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.883</td>
</tr>
<tr>
<td>Comf2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.810</td>
</tr>
<tr>
<td>Comf4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.886</td>
</tr>
<tr>
<td>Facil1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.790</td>
</tr>
<tr>
<td>Facil3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.915</td>
</tr>
<tr>
<td>Facil4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.857</td>
</tr>
</tbody>
</table>

Note: all factor loadings are significant at $p<.001$.

Table 4. Results of the confirmatory factor analysis – higher-order factor.

<table>
<thead>
<tr>
<th>Loading on Higher-order factor (StdXY)</th>
<th>Factor 1 (Distinct.)</th>
<th>Factor 2 (Genuine)</th>
<th>Factor 3 (Comm.)</th>
<th>Factor 4 (Comfort)</th>
<th>Factor 5 (Facilitate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- .609</td>
<td>1.00</td>
<td>.925</td>
<td>.970</td>
<td>.893</td>
<td></td>
</tr>
</tbody>
</table>

Note: all factor loadings are significant at $p<.001$.

These negative relationships (with both the latent PQCR construct and the other factors) suggest that the distinctiveness factor may not be an appropriate representation of the PQCR. In other words, we concluded that the distinctiveness dimension is not a true behavioral manifestation of the latent PQCR, but instead represents another construct altogether. We suspect that participants may have interpreted distinctiveness items in terms of favoritism or being singled-out, as opposed to having a unique, tailored relationship with one’s supervisor as intended. In an effort to obtain the best possible model to represent the PQCR, Factor 1 (distinctiveness) was dropped altogether.
Table 5. Correlations among the five factors of the PQCR Scale.

<table>
<thead>
<tr>
<th></th>
<th>F1 (Distinctiveness)</th>
<th>F2 (Genuineness)</th>
<th>F3 (Communication)</th>
<th>F4 (Comfort)</th>
<th>F5 (Facilitates)</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>-</td>
<td>-.14</td>
<td>-.17*</td>
<td>-.21*</td>
<td>-.10</td>
</tr>
<tr>
<td>F2</td>
<td></td>
<td>-</td>
<td>.82**</td>
<td>.92**</td>
<td>.72**</td>
</tr>
<tr>
<td>F3</td>
<td></td>
<td></td>
<td>-</td>
<td>.97**</td>
<td>.73**</td>
</tr>
<tr>
<td>F4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.83**</td>
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<tr>
<td>F5</td>
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Note: * = p < .05, ** = p < .01.

Subsequent tests of the higher-order model with four lower-order factors demonstrated improved model fit. Fit for the final model was strong, with a CFI of .96, RMSEA of .10, and SRMR of .04. All three of these fit indices are more desirable than those obtained for the initial model, which included five lower-order factors, indicating that this model is a better fit to the data. Individual indicators again loaded strongly and significantly onto the four lower-order factors. No large, significant cross-loadings were included in the final model, though some individual indicators were permitted to correlate. Loadings of the four lower-order factors onto the single, higher-order factor were all strong and significant, ranging from .88 to 1.0. All loadings are included in Figure 3, which features the final PQCR model.

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4 Specifically, two genuineness items (gen2 and gen4) and two comfort items (comf3 and comf4) were permitted to correlate.
Evaluation of Internal Consistency

Internal consistency reliability was evaluated for the final twelve items in the perceived quality of the coaching relationship scale. The overall internal consistency reliability for all twelve items was very strong, with a coefficient alpha of $\alpha = .95$. Though the scale is intended to be used as a whole, each of the four individual dimensions were also evaluated for exploratory purposes. These coefficients were also high, ranging from $\alpha = .85$ to $.91$. Specifically, the coefficients for the four dimensions are as follows: 1) genuineness of the relationship: $\alpha = .88$, 2) effective communication: $\alpha = .85$, 3) comfort with the relationship: $\alpha = .91$, and 4) facilitating development: $\alpha = .87$.

In sum, the final PQCR scale consists of twelve items, representing four dimensions: genuineness of the relationship, effective communication, comfort with the
relationship, and facilitating development. The four dimensions serve as manifest indicators of the latent PQCR construct. The final scale can be found in Appendix H.

Discussion

In sum, the purpose of the current pilot study was to create a measure of the perceived quality of the coaching relationship (PQCR) to be used as the dependent variable in the focal study, which follows. Through a process of item refinement and data collection and analysis, a sound, 12-item measure reflecting 4 dimensions was developed. The final model of PQCR demonstrated a strong factor structure, and the scale showed high internal consistency reliability. Both the factor structure and reliability will be re-examined with focal study data to further support (or challenge) the viability of this measure.

The elimination of the “distinctiveness” dimension was unexpected, yet beneficial to the integrity of the measure. A review of the “distinctiveness” items suggests that participants may have interpreted the meaning of the dimension differently than intended. Specifically, the distinctiveness dimension was intended to capture a “tailoring” of the coaching relationship to individuals’ needs. It is possible that participants instead interpreted the items negatively – as if they referred to being singled out by a supervisor, or experiencing or witnessing acts of favoritism.

The other four dimensions of the perceived quality of the coaching relationship (PQCR) scale demonstrated a strong structure – including high item loadings on the four lower-order factors and high loadings on the single, higher-order factor. Though the five-dimension structure was specified a priori, those dimensions were largely based on the
small and developing literature that currently exists on employee coaching. As noted previously, one of the goals of this paper is to improve the rigor and quality of employee coaching research. The four-dimension perceived quality of the coaching relationship (PQCR) scale will make a more sound contribution to this research stream than a five-dimension model with weaker structure. The final twelve-item PQCR scale can be found in Appendix G.
CHAPTER IV
FOCAL STUDY

The focal study for the current paper uses the measure of the perceived quality of the coaching relationship (PQCR) developed in the pilot study in an investigation of the variables that play a role in employee coaching relationships. Both supervisor and subordinate data will be used to examine the previously outlined 13 hypotheses.

Method

Data were collected from employees of a large manufacturing organization via online survey. Demographic information regarding the sample, as well as the procedure, measures used, and examination of the PQCR measure are discussed in the pages that follow.

Participants

Participants were recruited from a large (approximately 25,000 employees) Fortune 500 global manufacturing organization. A total of 221 supervisors and 1290 of their direct reports were selected to participate in the current study. Supervisors were selected based on several decision criteria. First, only supervisors within a particular level of management in the organization were included. Specifically, only supervisors who
have “front-line” management duty and whose subordinates are considered to be “individual contributors” (e.g., do not supervise others) were included. Second, only those supervisors who work in the United States were included in the final participant pool. After identifying the final group of supervisors for the study, a list was generated that included all of those supervisors’ direct reports. Only those direct reports who were classified in “professional grade” positions were included in the sample. In other words, any direct reports who were considered to be in hourly, contingent, or temporary positions were removed from the participant pool. Any direct reports located outside of the United States were also removed from the participant pool. The number of direct reports per supervisor varied widely, from as few as one direct report to as many as 27 per supervisor.

A total of 155 supervisors and 729 direct reports completed the survey, for response rates of 73% and 56%, respectively. Some supervisor and direct report data were discarded from the sample because their direct reports or supervisor, respectively, failed to respond. In other words, data were only used if both the supervisor and at least one direct report completed the survey. After discarding these data points, the final sample consisted of 146 supervisors and 556 of their direct reports. As expected, the total number of direct reports per supervisor varied widely, with an average of three subordinates per supervisor. Table 6 below provides a breakdown of the number of direct reports per supervisor.
Table 6. Breakdown of the number of subordinates per supervisor.

<table>
<thead>
<tr>
<th>Number of direct reports per supervisor</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 subordinate per supervisor</td>
<td>34</td>
</tr>
<tr>
<td>2 subordinates per supervisor</td>
<td>30</td>
</tr>
<tr>
<td>3 subordinates per supervisor</td>
<td>25</td>
</tr>
<tr>
<td>4 subordinates per supervisor</td>
<td>12</td>
</tr>
<tr>
<td>5 subordinates per supervisor</td>
<td>11</td>
</tr>
<tr>
<td>6 subordinates per supervisor</td>
<td>11</td>
</tr>
<tr>
<td>7 subordinates per supervisor</td>
<td>9</td>
</tr>
<tr>
<td>8 subordinates per supervisor</td>
<td>2</td>
</tr>
<tr>
<td>9 subordinates per supervisor</td>
<td>3</td>
</tr>
<tr>
<td>10 subordinates per supervisor</td>
<td>1</td>
</tr>
<tr>
<td>11 or more subordinates per supervisor</td>
<td>8</td>
</tr>
</tbody>
</table>

NOTE: Frequency refers to the number of supervisors/subordinate groups that include the specified number of subordinates.

Eighty-one percent (81%) of the 146 supervisors were male. Ninety-five percent (95%) identified themselves as white or Caucasian, 1% as African-American, 1% as Asian, 1% as Latino, and 2% as “other.” The average age of supervisors was $M = 47.2$ years ($sd = 7.8$). Forty percent (40%) of supervisors indicated that they had received college degrees as their highest level of education completed, 30% had graduate degrees, 11% had completed some graduate school, 8% had completed some college, 6% had received a high school degree, and 5% had completed an Associate’s degree. Supervisors’ average tenure with the organization was $M = 18.7$ years ($sd = 10.8$), and average tenure in their current jobs was $M = 4.0$ years ($sd = 3.9$).

Similarly, 72% of the 556 subordinates were male. Ninety percent (90%) of subordinates identified themselves as white or Caucasian, 4% as African-American, 2% as Latino, 1% as Asian, 1% as Native American, and 2% as “other.” The average age of subordinates was $M = 45.2$ ($sd = 10.0$). Twenty-eight percent (28%) of subordinates indicated that they had completed a college degree as their highest level of education,
20% had completed some college, 18% had received a high school degree, 14% had completed an Associate’s degree, 14% had completed a graduate degree, 5% had completed some graduate school, and 1% had completed some high school.

Subordinates’ average tenure with the organization was $M = 15.5$ years ($sd = 11.6$), average tenure in their current jobs was $M = 6.0$ years ($sd = 6.1$), and average tenure with their current supervisors was $M = 2.8$ years ($sd = 3.3$). Subordinates were also asked to report the extent to which they interacted with their supervisors in an average week.

These responses are reported in Table 7 below.

Table 7. Subordinate reports of the extent to which they interact with their supervisors in an average week.

<table>
<thead>
<tr>
<th>Extent to which subordinates interact with their supervisors in an average week</th>
<th>Percent of subordinates indicating this response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrequently or Not at all</td>
<td>6%</td>
</tr>
<tr>
<td>Somewhat infrequently</td>
<td>17%</td>
</tr>
<tr>
<td>Somewhat frequently</td>
<td>25%</td>
</tr>
<tr>
<td>Frequently</td>
<td>36%</td>
</tr>
<tr>
<td>Very frequently or all the time</td>
<td>16%</td>
</tr>
</tbody>
</table>

Note: $N = 556$

**Procedure**

All participants completed survey measures online at their convenience during working hours\(^5\). The measures included in the surveys are listed in the section that follows. The instructions and informed consent that accompanied the surveys can be found in Appendices H and J. Participants were given two weeks to complete the survey. They were also provided with the option to save their progress and complete the survey at a later time during that two-week window. Each participant was emailed a unique URL

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\(^5\) Participants were given permission by their employer to complete the surveys during working hours.
(web address) for completing the survey, thereby allowing supervisor and subordinate data to be matched in the final data set. Once supervisor and subordinate data were matched, all identifying information was deleted from the data set.

**Measures**

The following measures were included in either supervisor or subordinate surveys, or both, as indicated below. Each measure is included in the Appendix and a summary of the measures is provided in Table 8.

*Demographics.* Both subordinates and supervisors provided demographic and job-related information. Demographic variables included age, race, gender, and level of education. Job-related information included job title, tenure (in years) with the current organization, tenure in their current job/position, and tenure with the current supervisor (for subordinates only). Additionally, supervisors provided the number of subordinates who report to them and subordinates rated the extent to which they interact with their supervisor in an average week. The full array of demographic questions and response options can be found in Appendices L and M.

*Transformational leadership.* Transformational leadership behaviors were assessed using the Mutli-factor Leadership Questionnaire short form (MLQ-5X) (Bass & Avolio, 1995). Permission for use was purchased by the author in April, 2009. While the factor structure of the MLQ has been called into question (Bycio, Hackett & Allen, 1995; Tejeda, Scandura, & Pillai, 2001), it is the most widely used measure of transformational leadership to date. The current study specifically uses the five subscales that correspond to transformational leadership, including idealized influence - attributed, idealized
influence - behavior, inspirational motivation, intellectual stimulation, and individualized consideration. Each subscale in the short form is comprised of four items; all items were rated using a five point scale where 1 = *not at all* and 5 = *frequently if not always*. Sample items can be found in Appendix N. Overall transformational leadership scores were calculated by summing scores on each subscale. This measure was completed by supervisors only. Internal consistency reliability in the current study was acceptable, with an alpha of $\alpha = .86$ for the entire scale, and an alpha of $\alpha = .72$ for the Individual Consideration dimension, which is the only individual dimension that is examined in the current study.

*Emotional Intelligence.* Emotional intelligence was measured with Wong and Law’s (2002) sixteen-item self-report measure. This measure aligns with Mayer and Salovey’s (1997) conceptualization of emotional intelligence, with items mapping onto their four dimensions: self-emotion appraisal, others’ emotion appraisal, regulation of emotion, and use of emotion. Internal consistency reliability for the overall scale was acceptable, with an alpha of $\alpha = .85$. Sample items include “I have a good sense of why I have certain feelings” (self-emotion appraisal), “I always know my friends’ emotions from their behavior” (others’ emotion appraisal), “I am able to control my temper and handle difficulties rationally” (regulation of emotion), and “I would always encourage myself to try my best” (use of emotion). Items were rated on a seven-point scale, where 1 = *strongly disagree* and 7 = *strongly agree*. The full measure can be found in Appendix O. The emotional intelligence measure was completed by supervisors only.

*Implicit Person Theory.* Implicit Person Theory (IPT) was assessed using Chiu, Hong, and Dweck’s (1997) 8-item measure. This measure was completed by both
supervisors and subordinates. Internal consistency reliability for this measure was acceptable, with alphas of $\alpha = .90$ and $\alpha = .91$ for supervisors and subordinates, respectively. The scale contains items phrased in terms of both entity and incremental IPT. A sample entity item includes: “everyone is a certain kind of person, and there is not much they can really change about that.” A sample incrementalism items includes: “people can substantially change the kind of person they are.” Items were rated on a six point scale where $1 = strongly agree$ and $6 = strongly disagree$. Responses to entity items were reverse scored and total IPT score calculated for each participant, where lower scores correspond to lower incremental beliefs. While some authors advocate classifying participants as either “entity” or “incremental” based on their scores, IPT was used as a continuous variable in the current study, as it was in Heslin et al.’s (2006) study of IPT and coaching behaviors. The full measure can be found in Appendix P.

**Feedback environment.** A 21-item shortened version of Steelman et al.’s (2004) Feedback Environment Scale was used to assess subordinate perceptions of the feedback environment (Rosen, 2006). As such, only subordinates completed this measure. This short-form version included three items for each of the seven facets of the feedback environment, including supervisor credibility, frequency of favorable feedback, frequency of unfavorable feedback, supervisor availability, quality of feedback, feedback delivery, and promotion of feedback seeking. The feedback environment scale can be completed with respect to either a supervisor or coworker. In the current study, subordinates completed the scale with their direct supervisors in mind. Sample items include: “My supervisor gives me useful feedback about my job performance” and “My supervisor encourages me to ask for feedback whenever I am uncertain about my job
performance.” All items were rated on a five point scale, where 1 = strongly disagree and 5 = strongly agree. Internal consistency reliability was acceptable, was an alpha of $\alpha = .95$ for the full scale. The short form Feedback Environment Scale can be found in Appendix Q.

**Trust.** Subordinate trust in their supervisors was assessed using McAllister’s (1995) 11-item measure. Each item was rated on a five point scale, where 1 = strongly disagree and 5 = strongly agree. Items are intended to capture both the cognitive and affective components of trust. Sample items include: “I can talk freely to my supervisor about difficulties I am having at work and know that he/she will want to listen” and “I would have to say that my supervisor and I have both made considerable emotional investments in our working relationship.” The measure yielded acceptable internal consistency reliability, with an alpha of $\alpha = .92$. A factor analysis resulted in the two expected dimensions (cognitive and affective). The trust measure was completed by subordinates only. The full measure can be found in Appendix R.

**Interactive Empathy.** Interactive empathy was assessed using an adaptation of Kellet, Humphrey, & Sleeth’s (2006) 5-item measure. The original measure was intended to assess interactive empathy among peers; the measure was adapted to be in reference to one’s supervisor for the current study. Each item was rated on a 7-point scale, where 1 = not at all characteristic and 7 = very characteristic. Sample items include: “my supervisor shares my feelings of happiness” and “my supervisor feels emotions that I experience.” The measure had acceptable internal consistency reliability, with an alpha of $\alpha = .87$. Only subordinates completed the interactive empathy measure, which can be found in Appendix S.
Feedback orientation. Feedback orientation was assessed using Linderbaum and Levy’s (under review) 20-item measure. This measure includes five items for each of the four dimensions of feedback orientation: a) utility of feedback, b) accountability to use feedback, c) social awareness, and d) feedback self-efficacy. Overall feedback orientation was determined as the sum of these 20 items. Sample items include: “Feedback from supervisors can help me advance in a company” and “I hold myself accountable to respond to feedback appropriately.” All items were rated on a five point scale, where 1 = strongly disagree and 5 = strongly agree. The FOS demonstrated acceptable internal consistency reliability in the current study, with an alpha of $\alpha = .90$. This measure was completed by subordinates only. The full Feedback Orientation Scale can be found in Appendix T.

Perceived Quality of the Coaching Relationship. Subordinates also completed the perceived quality of the coaching relationship (PQCR) measure developed in the pilot study. The measure serves as the primary dependent variable for the current study. As noted in the pilot study, the final measure consisted of twelve (12) items, with three items for each of four dimensions representing the latent PQCR construct. These dimensions include genuineness of the relationship, effective communication, comfort with the relationship, and facilitating development. The measure demonstrated acceptable internal consistency reliability in the current study, with an alpha of $\alpha = .96$. An examination of the factor structure of the PQCR with focal study data can be found in the pages that follow. Specifically, we feel it necessary to demonstrate that the factor structure of the PQCR with focal study data replicated the findings of the pilot study. The full perceived quality of the coaching relationship scale can be found in Appendix G.
Table 8. Summary of measures included in the current study.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Measure</th>
<th>Completed By:</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transformational Leadership</td>
<td>Multi-Factor Leadership Questionnaire (MLQ)</td>
<td>Supervisors</td>
<td>α=.86</td>
</tr>
<tr>
<td></td>
<td>20 items</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td>Wong &amp; Law (2002)</td>
<td>Supervisors</td>
<td>α=.85</td>
</tr>
<tr>
<td></td>
<td>16 items</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implicit Person Theory</td>
<td>Chiu, Hong, and Dweck (1997)</td>
<td>Supervisors &amp; Subordinates</td>
<td>α=.90</td>
</tr>
<tr>
<td></td>
<td>8 items</td>
<td></td>
<td>α=.91</td>
</tr>
<tr>
<td>Feedback Environment</td>
<td>The Feedback Environment Scale (FES)</td>
<td>Subordinates</td>
<td>α=.95</td>
</tr>
<tr>
<td></td>
<td>Steelman, Levy, &amp; Snell (2004); Rosen (2006)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>21 items</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td>McAllister (1995)</td>
<td>Subordinates</td>
<td>α=.92</td>
</tr>
<tr>
<td></td>
<td>11 items</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interactive Empathy</td>
<td>Kellet, Humphrey, &amp; Sleeth (2006)</td>
<td>Subordinates</td>
<td>α=.87</td>
</tr>
<tr>
<td></td>
<td>5 items</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feedback Orientation</td>
<td>The Feedback Orientation Scale (FOS)</td>
<td>Subordinates</td>
<td>α=.90</td>
</tr>
<tr>
<td></td>
<td>Linderbaum &amp; Levy (under review)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>20 items</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Quality of the Coaching Relationship</td>
<td>PQCR Scale</td>
<td>Subordinates</td>
<td>α=.96</td>
</tr>
<tr>
<td></td>
<td>Pilot Study, current paper</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12 items</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional Measures

Several additional measures were also included in the focal study for various reasons, which will be detailed below. These measures include leader-member exchange (LMX), learning goal orientation, and Heslin et al.’s (2006) measure of supervisor coaching behaviors.

Leader-member exchange and liking. A measure of leader-member exchange was also included for two reasons. First and foremost, because it is a relationship variable, PQCR – the primary dependent variable in the current study – is expected to be highly correlated with LMX. Therefore, LMX will be measured on an exploratory basis simply to see how it relates to the PQCR. Second, Brown and Keeping (2005) have demonstrated that ratings on the MLQ (transformational leadership) are highly correlated with liking.
one’s supervisor and suggest controlling for liking in analyses using transformational leadership as a predictor. The “affect” subscale of Liden and Maslyn’s (1998) measure of LMX is commonly used to assess liking. Thus, Liden and Maslyn’s measure was used to assess both LMX and liking. This twelve-item measure was completed by subordinates only. Items were rated on a five point scale, where 1 = strongly disagree and 5 = strongly agree. Sample questions include: “I like my supervisor very much as a person” and “my supervisor would defend me to others in the organization if I made an honest mistake.” The measure demonstrated acceptable internal consistency reliability, with an alpha of $\alpha = .90$ for both the full measure and liking scale. The full measure can be found in Appendix U.

Learning goal orientation. Recent research has suggested that individuals’ state goal orientation can be influenced by their perceptions of the climate created by their leader (Dragoni, 2005). In other words, leader goal orientation is expected to induce the same motivation in followers or work group members. Learning goal orientation has important implications for coaching, which emphasizes learning and development. Therefore, learning goal orientation was included on an exploratory basis. Both supervisors and subordinates completed Button, Mathieu, and Zajac’s (1996) 8-item measure of learning goal orientation. Sample items include, “the opportunity to learn new things is important to me.” All items were rated on a five-point scale where 1 = strongly disagree and 5 = strongly agree. The measure yielded acceptable internal consistency reliability for both supervisors and subordinates, with alphas of $\alpha = .86$ and $\alpha = .89$, respectively. The full learning goal orientation measure can be found in Appendix V.
Coaching behaviors. In addition to our measure of perceptions of the quality of the coaching relationship, subordinates also completed a measure assessing their supervisors’ coaching behaviors. This measure was developed by Heslin and colleagues (2006) for their study of supervisor IPT and employee coaching. It is possible that subordinate perceptions of the quality of the coaching relationship will be highly correlated with their reports of supervisor coaching behaviors. The measure consists of 10 items, which Heslin et al. break into three dimensions: guidance, facilitation, and inspiration. Sample items include: “to what extent does your supervisor encourage you to continuously develop and improve?” (inspiration dimension) and “to what extent does your supervisor provide constructive feedback regarding areas for improvement?” (guidance dimension). Items were rated on a five point scale where 1 = not at all and 5 = to a very great extent. A sum of the ratings provided an overall coaching outcomes score. The measure yielded acceptable internal consistency reliability, with an alpha of $\alpha = .96$. This measure, which can be found in Appendix W, was completed by subordinates only.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Measure</th>
<th>Completed By:</th>
<th>$\alpha$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leader-member Exchange</td>
<td>Liden &amp; Maslyn (1998)</td>
<td>Subordinates</td>
<td>$\alpha = .90$</td>
</tr>
<tr>
<td></td>
<td>12 items</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Learning Goal Orientation  | Button, Mathieu, & Zajac (1996)             | Supervisors & Subordinates | $\alpha = .86$ 
|                            | 8 items                                      |                        | $\alpha = .89$ |
| Coaching Behaviors         | Heslin, Latham, & VandeWalle (2006)          | Subordinates           | $\alpha = .96$ |
|                            | 10 items                                     |                        |          |

Correlations between key variables can be found in tables 10 and 11 below.

Correlations are presented separately for supervisor- and subordinate-rated variables. Because of the nested nature of the data, these two sets of items cannot be combined, as
the data violate many key assumptions of regression-type analyses, such as homoscedasticity and independence of observations (Hoffman, 1997).

Table 10. Means, standard deviations, and correlations for key subordinate-rated variables.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Frequency of Interaction</td>
<td>3.40</td>
<td>1.22</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2. Liking</td>
<td>10.79</td>
<td>2.30</td>
<td>.27</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>3. Trust</td>
<td>39.73</td>
<td>7.42</td>
<td>.31</td>
<td>.76</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>4. Feedback Orientation</td>
<td>75.45</td>
<td>7.98</td>
<td>.13</td>
<td>.26</td>
<td>.28</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>5. Feedback Environment</td>
<td>77.79</td>
<td>12.14</td>
<td>.44</td>
<td>.66</td>
<td>.82</td>
<td>.31</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>6. Implicit Person Theory</td>
<td>27.35</td>
<td>5.45</td>
<td>.13</td>
<td>.15</td>
<td>.16</td>
<td>.21</td>
<td>.16</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>7. Empathy</td>
<td>16.84</td>
<td>3.23</td>
<td>.32</td>
<td>.75</td>
<td>.80</td>
<td>.25</td>
<td>.76</td>
<td>.10</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>8. PQCR</td>
<td>45.22</td>
<td>9.26</td>
<td>.36</td>
<td>.71</td>
<td>.88</td>
<td>.23</td>
<td>.82</td>
<td>.12</td>
<td>.78</td>
<td></td>
</tr>
<tr>
<td>9. Coaching Behaviors</td>
<td>32.41</td>
<td>9.03</td>
<td>.42</td>
<td>.52</td>
<td>.69</td>
<td>.31</td>
<td>.79</td>
<td>.15</td>
<td>.65</td>
<td>.64</td>
</tr>
</tbody>
</table>

Note: All correlations significant at \( p < .01 \); SD = standard deviation; PQCR = perceived quality of the coaching relationship; only variables included in hypotheses are included in this table.

Table 11. Means, standard deviations, and correlations for key supervisor-rated variables.

<table>
<thead>
<tr>
<th></th>
<th>Mean, SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Education</td>
<td>5.50, 7.87</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2. Organizational Tenure</td>
<td>17.35, 10.36</td>
<td>-.25**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3. Number of subordinates</td>
<td>10.89, 8.60</td>
<td>-.16</td>
<td>.01</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4. Transformational Leadership</td>
<td>82.04, 7.97</td>
<td>.14</td>
<td>-.20**</td>
<td>-.01</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5. Individual Consideration</td>
<td>17.13, 2.15</td>
<td>.14</td>
<td>-.15</td>
<td>.06</td>
<td>.68**</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6. Emotional Intelligence</td>
<td>65.90, 5.84</td>
<td>.29**</td>
<td>-.22**</td>
<td>-.05</td>
<td>.57**</td>
<td>.36**</td>
<td>-</td>
</tr>
<tr>
<td>7. Implicit Person Theory</td>
<td>28.25, 4.93</td>
<td>.01</td>
<td>.07</td>
<td>.18*</td>
<td>.16</td>
<td>.10</td>
<td>.04</td>
</tr>
</tbody>
</table>

Note: * = significant at \( p < .05 \), ** = significant at \( p < .01 \); SD = standard deviation; only variables included in hypotheses are included in this table.

Properties of the PQCR with Focal Study Data

The primary dependent variable for the current study – the perceived quality of the coaching relationship (PQCR) – was developed in the pilot study of the current paper. Before examining the results of hypothesis tests for the current study, the factor structure and relationships of this scale with other related constructs will be discussed.

Confirmatory factor analysis was used to test the fit of the focal study data to the expected higher-order factor model of the PQCR. Specifically, a model was specified in which the 12 PQCR items loaded onto four lower-order factors, which, in turn, loaded
onto a single higher-order factor representing the latent construct of the PQCR. An initial test of this model demonstrated satisfactory model fit (CFI = .88, RMSEA = .17, SRMR = .06). Subsequent models were tested that incorporated correlations between items guided by model modification indices (MIs)\(^6\) that were theoretically justifiable. While some items were allowed to correlate, there were no large, significant cross-loadings included in the model. The final model demonstrated a good fit (CFI = .96, RMSEA = .10, SRMR = .03) and strong, significant loadings for both the lower-order and higher-order factors. Thus, the factor structure for the PQCR identified in the pilot study was successfully replicated using focal study data from 559 subordinates. Loadings and item correlations are illustrated in figure 4 below.

The relationship between the PQCR and LMX was also examined. Because PQCR was so highly correlated with LMX (r = .75, \(p < .001\)), the relationship between these two variables was examined using multi-level modeling. Specifically, multi-level modeling was used to determine if subordinate ratings of LMX explain all of the variability in subordinates’ perceived quality of the coaching relationship (a level-one, or individual-level effect). Results indicated that subordinate ratings of LMX predicted their ratings of PQCR, but that significant variance in PQCR remained after taking LMX into account. In other words, while LMX and PQCR are related, they are also distinct constructs, as LMX ratings only account for some of the variability in ratings of PQCR. Individuals still vary significantly in their ratings of PQCR even after their ratings of LMX are taken into account.

\(^6\) The final model specified 4 item correlations (comf3 with comf4, facil1 with facil3, comm2 with comm3, and gen2 with gen4). Two of these item correlations were also specified in the pilot study (gen2 with gen4 and comf3 with comf4).
PQCR was also shown to be distinct from Heslin et al.’s (2006) measure of coaching behaviors. These two constructs were also strongly related ($r = .73$, $p < .001$), but distinct, as PQCR accounted for some, but not all, of the individual variability in ratings of coaching behaviors when examined with multi-level modeling. This relationship will be discussed in greater detail in the “exploratory analyses” section.

**Data Analytic Strategy**

Data were analyzed in SPSS version 15 using multilevel linear modeling (MLM), which allows for an examination of effects at both the group/supervisor and individual/subordinate level. Specifically, in the current study, individual-level, or level one variables are those reported by subordinates, whereas level two variables are those reported by supervisors. Subordinates are grouped or “nested” according to their
supervisors. In other words, subordinates reporting to the same supervisor comprise one
“group.” The goal of hypothesis testing in MLM is to explain significant within-group
and between-group variance on the dependent variable. Thus, in the current study,
within-group variance represents differences among subordinates who report to the same
supervisor, whereas between-group variance represents differences in average scores
across groups (e.g., groups differ in their average ratings of PQCR). Hypotheses in the
current study are framed in terms of both level-two (e.g., supervisors-rated variables) and
level-one effects (e.g., subordinate-rated variables). Because the study is primarily
interested in the effects of supervisor-level variables (level two), results focus on
between-group differences. However, within-group effects are also discussed.

Sample MLM Equations

The tables below feature sample MLM equations. Specifically, one equation with
a level-one predictor and one equation with a level-two predictor are included, as these
two types of equations represent the majority of the hypotheses in the current study. The
meaning of notation used in each equation is included.
Table 12. A sample level-one (individual level) equation.

**Individual Equations:**

\[ Y_{ij} = \beta_{0j} + \beta_{1j}(X_{ij}) + e_{ij} \]

Where:
- \( Y_{ij} \) = an individual subordinate’s DV (e.g., PQCR)
- \( \beta_{0j} \) = the group mean on the DV (e.g., PQCR, Feedback Orientation)
- \( \beta_{1j} \) = the group slope for the relationship between the IV and DV
- \( X_{ij} \) = the individual subordinate’s IV (e.g., trust, IPT)
- \( e_{ij} \) = the extent that individual varies from group mean on the DV

\[ \beta_{0j} = \gamma_{00} + \mu_{0j} \]

Where:
- \( \beta_{0j} \) = the group mean on the DV (e.g., PQCR, Feedback Orientation)
- \( \gamma_{00} \) = the grand mean (for all groups) on the DV
- \( \mu_{0j} \) = the extent that group mean on the DV varies from grand mean

\[ \beta_{1j} = \gamma_{10} * \]

Where:
- \( \beta_{1j} \) = the group’s slope for the relationship between the IV and DV
- \( \gamma_{10} \) = the overall (across groups) slope for the relationship between the IV and DV

*These individual equations combine to create the full decomposed equation:*  

\[ Y_{ij} = \gamma_{00} + \mu_{0j} + \gamma_{10}(X_{ij}) + e_{ij} \]

Note: \( i \) = individual-level, \( j \) = group level; * = because all effects in the current study are fixed, the slope between the IV and DV is the same for all groups. Had random effects been expected, an additional term would have been included in the equation for \( \beta_{ij} \) that adds group variability around the overall slope.
Table 13. A sample level-two (group level) equation.

**Individual Equations:**

\[ Y_{ij} = \beta_{0j} + e_{ij} \]

Where:
- \( Y_{ij} \) = an individual subordinate’s DV (e.g., PQCR)
- \( \beta_{0j} \) = the group mean on the DV (e.g., PQCR)
- \( e_{ij} \) = the extent that individual varies from group mean on the DV

\[ \beta_{0j} = \gamma_{00} + \gamma_{01}W_j + \mu_{0j} * \]

Where:
- \( \beta_{0j} \) = the group mean on the DV (e.g., PQCR)
- \( \gamma_{00} \) = the grand mean (for all groups) on the DV
- \( \gamma_{01} \) = the overall (across groups) slope for the relationship between the IV and DV
- \( W_j \) = the level-two IV – a supervisor variable (e.g., transformational leadership, emotional intelligence, supervisor IPT)
- \( \mu_{0j} \) = the extent that group mean on the DV varies from grand mean

*These individual equations combine to create the full decomposed equation:*

\[ Y_{ij} = \gamma_{00} + \gamma_{01}W_j + \mu_{0j} + e_{ij} \]

Note: \( i \) = individual-level, \( j \) = group level; * = because all effects in the current study are fixed, the slope between the IV and DV (\( \gamma_{01} \)) is the same for all groups.

**A Few Points Regarding MLM**

In order to facilitate the reader’s understanding of the MLM results that are presented in the pages that follow, a few points regarding MLM analyses are worth noting. First, effects in MLM can be specified as either “fixed” or “random” (Kreft & DeLeeuw, 1998). These terms apply to potential differences in the expected relationship between an independent variable (IV) and dependent variable (DV). In other words, a fixed effect implies that the slope of the relationship between the IV and DV is consistent across groups, whereas a random effect implies that that slope varies across groups.
Differences across groups are certainly expected in both cases, but a random effect suggests that the relationship between the IV and DV may be very different in different groups. The current study is interested solely in fixed effects. Specifically, consistent relationships are expected between the IV’s and DV’s included in the thirteen hypotheses. Some random effects were tested for exploratory purposes and will be discussed in the exploratory analyses section.

A second key point regarding MLM analyses is the precursor for all hypothesis tests: the intercepts-only model. The intercepts-only model essentially demonstrates whether or not significant group differences on the dependent variable exist (Kreft & de Leeuw, 1998). Inasmuch, it is a critical prerequisite to any hypothesis testing. If no group differences exist, then there is nothing to predict, as the goal of MLM is to reduce or explain group differences on the dependent variable with predictor variables. For example, the intercepts-only model for PQCR (which is the dependent variable for 11 of the 13 hypotheses in the current study) must demonstrate that there is significant between-group variance for average group ratings of PQCR. If the between-group variance is not significant, then there is nothing to predict and hypothesis testing cannot be done for between-group differences. It is likely that the intercepts-only model will always show within-group differences, however. Within-group variance is exceptionally difficult to reduce to a point of non-significance, as innumerable individual differences – such as personality, mood, past life experiences, etc. – could be contributing to within-group differences.

A third key point regarding MLM analysis pertains to effect sizes. Effect sizes in MLM are not as clear-cut as those in, for example, regression models. In fact, some
authors advise against examining individual coefficients and simply focusing on overall model fit (Kreft & de Leeuw, 1998). The two aspects of MLM output that are of the greatest interest are 1) the log likelihood and 2) the variances of the residual and intercept.

The log likelihood, which Kreft and de Leeuw (1998) refer to as the “most important feature in the output” (p. 65), is an index of model fit, wherein the smaller the log likelihood, the better the model fit. The goal of hypothesis testing in MLM is to reduce the value of the log likelihood compared to the intercepts-only model. The significance of the difference in log likelihood between two models can be determined with a chi-square table, using the change in estimated parameters between the two models as the degrees of freedom ($df$). A significant change in log likelihood across two models indicates that the second model is a significantly better fit to the data. In sum, a smaller log likelihood value indicates better model fit, and hypothesized models with significantly smaller log likelihood values from the intercepts-only model are desired.

Regarding the variances of the residual and the intercept, significant variances indicate that meaningful within-group (residual variance) and between-group (intercept variance) differences still exist. Another goal of hypothesis testing in MLM is to reduce these variances to a point of non-significance. A non-significant variance term for the intercept indicates that group differences on the dependent variable no longer exist, that all group differences have been accounted for by predictor variables. Likewise, a non-significant residual variance indicates that all within-group differences have been

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7 This is, arguably, the ultimate goal of MLM – to explain away all between-group and – if possible – within-group differences.
explained or that differences among group members no longer exist. In other words, whatever predictor variables have been included in a model that yields non-significant residual and intercept variance terms have accounted for all of the within-group or between-group differences, respectively, on the dependent variable.

The difference in variance terms from one model to the next can be used to calculate the proportion reduction (PR) in those variance terms (Raudenbush & Bryk, 2002; Singer & Willett, 2003). When using fixed effects the PR can be interpreted as an effect size, the significance of which is determined by demonstrating that the change in variance (for either residual or intercept) is greater than twice the change in estimated parameters from one model to the next (e.g., from the intercepts-only or baseline model to a hypothesized model; Kreft & de Leeuw, 1998). The PR is calculated by dividing this difference in variances by the baseline variance (e.g., from the intercepts-only model). The PR can then be interpreted as the percent of variance accounted for or a “pseudo” $R^2$ (Singer & Willett, 2003). This equation is presented in Table 14 below.

Table 14. Equation for calculating the proportion reduction in variance.

| Proportion Reduction (PR) = $\frac{\sigma^2(\text{intercepts-only model}) - \sigma^2(\text{hypothesized model})}{\sigma^2(\text{intercepts-only model})}$ |
| Note: the same equation is used for both residual and intercept variances. |

In sum, these two pieces of information – log likelihood values and variance terms – will be presented for each hypothesis test. It is important to note that – based on the recommendation of MLM researchers (Kreft & de Leeuw, 1998) – hypotheses will be tested one at a time, as opposed to testing the full model presented in figure 2. These authors caution against testing large models (e.g., the full model with all independent
variables, such as the one presented in figure 2) and advocate testing hypotheses individually. Additionally, these authors recommend focusing on the results of each individual hypothesized model as a whole (wherein a “hypothesized model” includes the variables outlined in one specific hypothesis, such that thirteen hypotheses equate to thirteen models), as opposed to the effects of individual predictors included in each model. Thus, the results presented in the pages that follow are different in nature from the results of – for example – regression equations. Effects of whole models (where a model corresponds to a single hypothesis), as opposed to individual effects of variables (such as $B$ weights in regression), are presented in both the text and tables. In the event that a hypothesized predictor variable is not significant despite good results for the overall model (e.g., the covariates and the predictor lead to improved model fit, but the effect of the predictor variable is non-significant), this non-significant effect will be noted in the text (for an example, see the results of hypothesis 1a).

Results

The Perceived Quality of the Coaching Relationship (PQCR) is the dependent variable for eleven of the thirteen hypotheses outlined in the current study. Therefore, the first step in hypothesis testing was to examine the intercepts-only model for the PQCR. To review, the intercepts-only model does not include any predictor variables, but simply demonstrates that significant between-group and within-group differences exist for PQCR. A test of the intercepts-only model for PQCR revealed that significant between-group differences do, in fact, exist. This was evidenced by the significant variance of the intercept. As expected, there were also significant within-group differences, as evidenced
by the significant residual variance. The results of this intercepts-only model are first presented in Table 15, which also includes the results of hypotheses 1a, 1b, 2, 3, and 4. The tests of these hypotheses will be discussed in the pages that follow, but were combined into one table in order to best illustrate the efficacy of each predictor in explaining the between-group variability in PQCR.

**Covariates**

Based on correlations with independent and dependent variables, only one variable was identified as an important covariate: the frequency with which supervisors and subordinates interact. Specifically, subordinates were asked to rate the extent to which their supervisors interact with them in an average week. This variable, which will be hereafter referred to as “frequency of interaction,” proved to be a significant predictor of PQCR, feedback environment, and feedback orientation, which represent the dependent variables included in the thirteen hypotheses. In other words, the frequency with which supervisors interact with their subordinates is one significant predictor of those subordinates’ perceived quality of the coaching relationship. Frequency of interaction was also correlated with all of the level-one predictor variables. Therefore, frequency of interaction was included as a covariate in each hypothesis test. The effects of hypothesized independent variables, therefore, should be considered effects “above and beyond” the extent of supervisor / subordinate interactions.⁸

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⁸ Frequency of interaction was also examined as a potential moderating variable – rather than a covariate – for each hypothesis. The inclusion of this variable as a moderator did not significantly improve any of the hypothesized models. Therefore, frequency of interaction was retained as a covariate for each hypothesized relationship.
Tests of Hypotheses

Hypothesis 1a posited that supervisors’ self-reported transformational leadership would predict subordinates’ ratings of PQCR. This relationship represents a level-two, or supervisor-level effect since we are examining the impact of a supervisor’s individual difference on their subordinates’ average ratings of PQCR. In addition to controlling for frequency of interaction, two other variables were identified (a priori) as important covariates. Past research has shown that both liking (e.g., subordinates’ reported liking of the manager) and manager gender are strongly related to transformational leadership. Specifically, Brown and Keeping (2005) demonstrated a strong correlation between scores on the MLQ (which was used here to measure transformational leadership) and liking. Eagly and colleagues (2003) also demonstrated a strong effect for manager gender and transformational leadership, such that female leaders tend to be higher on transformational leadership.

The test of hypothesis 1a indicated that this model, which included three covariates and transformational leadership, was significantly better than the intercepts-only model for PQCR ($\Delta$ in log likelihood = 437.16, $p < .001^9$). However, transformational leadership specifically was not significant above and beyond the three covariates ($F = 2.52, p > .05$), all of which were significant. Thus, although the model

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9 To review, the significance of the change in log likelihood is determined using a chi-square distribution, wherein the difference in number of parameters estimated provides the degrees of freedom (df). Degrees of freedom for hypothesis was $df = 4$, as seven parameters were estimated for hypothesis 1a and three parameters were estimated for the intercepts-only model. Only significance ($p$) values will be reported for tests of subsequent hypotheses, as the change in degrees of freedom never exceeds 4 in these analyses. Changes in log likelihoods in these model tests far exceed changes in estimated parameters or degrees of freedom.
overall showed significantly better fit, hypothesis 1a was not supported. Additionally, significant between-group variance remained, indicating that this model does not explain all of the between-groups differences in PQCR. The results of hypotheses 1a and 1b compared to the intercepts-only model can be found in Table 15.

Table 15. The results of hypotheses 1-4 predicting PQCR compared to the intercepts-only model for PQCR.

<table>
<thead>
<tr>
<th>Model</th>
<th>Log Likelihood</th>
<th>∆ in Log Likelihood</th>
<th>Variance</th>
<th>Intercept ∆ in variance</th>
<th>PR</th>
<th>Residual Variance</th>
<th>Residual ∆ in variance</th>
<th>PR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercepts-only</td>
<td>4043.28</td>
<td>-</td>
<td>15.24**</td>
<td>-</td>
<td>-</td>
<td>70.36**</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Frequency of Interaction</td>
<td>3943.00</td>
<td>100.28**</td>
<td>14.12**</td>
<td>1.12</td>
<td>.08</td>
<td>60.67**</td>
<td>9.69*</td>
<td>.14</td>
</tr>
<tr>
<td>H1a</td>
<td>3606.12</td>
<td>437.16**</td>
<td>4.73**</td>
<td>10.51*</td>
<td>.69</td>
<td>35.00**</td>
<td>35.36*</td>
<td>.50</td>
</tr>
<tr>
<td>H1b</td>
<td>3599.69</td>
<td>443.59**</td>
<td>4.67**</td>
<td>10.57*</td>
<td>.69</td>
<td>34.78**</td>
<td>35.58*</td>
<td>.50</td>
</tr>
<tr>
<td>H2</td>
<td>3946.05</td>
<td>97.23**</td>
<td>14.39**</td>
<td>.85</td>
<td>.06</td>
<td>60.65**</td>
<td>9.71</td>
<td>.14</td>
</tr>
<tr>
<td>H3</td>
<td>3945.78</td>
<td>97.50**</td>
<td>14.38**</td>
<td>.86</td>
<td>.06</td>
<td>60.65**</td>
<td>9.71</td>
<td>.14</td>
</tr>
<tr>
<td>H4</td>
<td>3420.03</td>
<td>623.25**</td>
<td>3.81**</td>
<td>11.43*</td>
<td>.75</td>
<td>24.31**</td>
<td>46.05*</td>
<td>.65</td>
</tr>
</tbody>
</table>

NOTE: ∆ in Log Likelihood is change compared to the intercepts-only model; ∆ in variance is the change in the variance compared to the intercepts-only model; PR = proportion reduction in variance; significant PRs are in bold; significance of PR based on a significant decrease in variance across models; intercept variance corresponds to between-group differences; residual variance corresponds to within-group differences; *p < .05; **p < .01

Hypothesis 1b expands on hypothesis 1a by stating that the individual consideration dimension of transformational leadership would predict subordinates’ ratings of PQCR. Like hypothesis 1a, hypothesis 1b represents a level-two effect and also includes liking and manager gender as covariates. As with each hypothesis, frequency of interaction was also included as a covariate. This model was significantly better than the intercepts-only model for PQCR (Δ in log likelihood = 443.59, p < .001). Additionally, individual consideration proved to be a significant predictor above and beyond the effects of the three covariates, thereby providing full support to hypothesis 1b. The proportion
reduction in variance (PR) calculation showed that this model accounted for 69% of the between-group variance in ratings of PQCR. In other words, when individual consideration and its corresponding covariates are taken into account, over two-thirds of the differences across groups disappear. Comparing this finding with the results of hypothesis 1a suggests that leading with individual consideration is more important in forming high-quality coaching relationships than having an overall transformational leadership style. This disparity will be addressed in the discussion section.

Although individual consideration significantly predicted average group ratings of PQCR, it did not explain all between-group variability, as significant between-group differences in PQCR still remained (as evidenced by significant variance in the intercept). Finally, it is worth noting that the within-group variance in PQCR (that is, differences in PQCR among subordinates who report to the same supervisor) was reduced in the models for hypotheses 1a and 1b. This reduction in variance is attributable to the two level-one covariates included in these models: liking and frequency of interaction. Subordinates reporting to the same supervisor varied in their reports of both liking and frequency of interaction, a finding that is not at all surprising. Although these models did reduce the within-group variance, significant residual variance still remained.

Hypothesis 2 stated that supervisor emotional intelligence would explain significant group differences in PQCR. Like hypotheses 1a and 1b, hypothesis 2 also represents a level-two effect. This model showed an improvement over the intercepts-only model (Δ in log likelihood = 97.23, \( p < .001 \)), including a significant reduction in between-groups variance (see table 15). However, examination of individual effects showed that emotional intelligence was non-significant (\( F = .081, \ p > .05 \)), indicating that
the improvement in model fit is solely attributable to the effect of the covariate frequency of interaction. Thus, hypothesis 2 was not supported.

Hypothesis 3 posited that supervisor implicit person theory (IPT) would explain significant group differences in PQCR – another level-two effect. Like hypothesis 2, this model was an improvement over the intercepts-only model ($\Delta \text{ in log likelihood} = 97.50, p < .001$), including a reduction in between-groups variance. Also like hypothesis 2, this effect was attributable solely to frequency of interaction, as supervisor IPT did not have a significant effect ($F = .05, p > .05$). Hypothesis 3 was not supported, as supervisor IPT\textsuperscript{10} did not predict PQCR.

Hypothesis 4 examined the predictive relationship between subordinate perceptions of the feedback environment and their ratings of PQCR. Because both of these variables are subordinate-rated, this hypothesis represents a level-one, or individual level, effect. This model was a vast improvement over the intercepts-only model ($\Delta \text{ in log likelihood} = 623.25, p < .001$), accounting for approximately 75% of between-group variance. Additionally, the feedback environment was such a strong predictor of PQCR that it cancelled out the effect of frequency of interaction, making it non-significant. Results also revealed a significant reduction in within-group variance, with individuals’ perceptions of the feedback environment accounting for 65% of within-group differences in PQCR. This suggests that although several subordinates work in the same feedback environment created by their shared supervisor, they have different perceptions of that

\textsuperscript{10} Supervisor IPT was intended to be used as a continuous variable, but dichotomized and trichotomized versions of the variable were also used to test hypothesis 3 after the continuous variable proved to be non-significant. Neither the dichotomous or trichotomous version of IPT yielded an improvement in the model.
feedback environment, which contribute to their varying perceptions of their coaching relationships. Overall, strong support was found for hypothesis 4. Despite this strong effect, however, significant between-group differences still remained; perceptions of the feedback environment did not explain all between-group variability in PQCR\textsuperscript{11}.

For exploratory purposes another version of hypothesis 4 was tested, in which individual subordinate perceptions of the feedback environment were centered around the group mean rating of feedback environment (where the group is defined as all subordinates who report to the same supervisor). Group mean centering provides a different perspective on individual responses by making them “relative” to the rest of the group. For example, an individual may have a generally high rating of the feedback environment, but if all other members of the group have even higher ratings, the individual’s rating is actually below the group mean, suggesting that the individual has lower perceptions of the feedback environment created by his/her supervisor compared to other group members. A test of hypothesis 4 using group mean centered scores yielded a worse fitting model ($\Delta$ in log likelihood $= 457.12$, $p < .001$) and explained less between-group variance than the raw ratings of feedback environment, suggesting that the raw ratings of feedback environment are preferable.

Hypothesis 5 posited that supervisor IPT would predict subordinate perceptions of the feedback environment. The intercepts-only model showed that significant group

\textsuperscript{11} Significant within-group differences still existed, as well, but within-group differences are far more difficult to explain to the point of non-significance than are between-group differences. Innumerable individual difference variables could be impacting within-group differences – an investigation that is far beyond the scope of the current paper. Additionally, the focus of the current paper is on explaining the between-group differences in PQCR, therefore less time will be devoted to within-group differences.
differences exist for perceptions of the feedback environment, thereby opening the door for testing hypothesis 5. While this hypothesized model showed an improvement over the intercepts-only model ($\Delta$ in log likelihood = 138.88, $p < .001$), supervisor IPT was not a significant predictor of PQCR ($F = .43, p > .05$). The improvement in model fit was attributable only to the control variable frequency of interaction. Thus, hypothesis 5 was not supported.

Table 16. The intercepts-only model for feedback environment and hypothesis 5.

<table>
<thead>
<tr>
<th>Model</th>
<th>Log Likelihood</th>
<th>$\Delta$ in Log Likelihood</th>
<th>Intercept Variance</th>
<th>$\Delta$ in variance PR</th>
<th>Residual Variance</th>
<th>$\Delta$ in variance PR</th>
</tr>
</thead>
<tbody>
<tr>
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<td>20.45**</td>
<td>-</td>
<td>-</td>
<td>126.74**</td>
</tr>
<tr>
<td>H5</td>
<td>4217.06</td>
<td>138.88</td>
<td>15.11**</td>
<td>5.34*</td>
<td>103.74**</td>
<td>23.00*</td>
</tr>
</tbody>
</table>

NOTE: $\Delta$ in Log Likelihood is change compared to the intercepts-only model; $\Delta$ in variance is the change in the variance compared to the intercepts-only model; PR = proportion reduction in variance; significant PRs are in bold; significance of PR based on significant difference in variance across models; intercept variance corresponds to between-group differences; residual variance corresponds to within-group differences; *$p < .05$; **$p < .01$

Hypothesis 6 states that subordinate perceptions of trust will predict their ratings of PQCR. Because both trust and PQCR are subordinate-rated variables, hypothesis 6 represents a level-one effect. A test of this model (which also included the covariate, frequency of interaction) revealed the biggest improvement over the intercepts-only model yet ($\Delta$ in log likelihood = 846.25, $p < .001$). Subordinate trust significantly predicted PQCR above and beyond frequency of interaction. More importantly, no between-groups variance on PQCR remained after taking frequency of interaction and trust into consideration, as the model accounted for 98% of between-groups differences in PQCR. In other words, trust appears to be a critical factor in predicting PQCR. When
trust is taken into account, groups have essentially equal perceptions of the coaching relationship.

Trust also accounted for 74% of within-group variance. This indicates that subordinates working for the same supervisor vary extensively in how much they trust that supervisor and that within-group differences in PQCR are dramatically reduced when trust is accounted for. However, significant within-group differences in PQCR still existed, indicating that other factors above and beyond trust play important roles in subordinates’ perceptions of the coaching relationship. The results of hypothesis 6 can be seen in table 17. Overall, hypothesis 6 was strongly supported.

Table 17. The results of hypotheses 6, 9, 10, and 11\textsuperscript{12} predicting PQCR compared to the intercepts-only model for PQCR.

<table>
<thead>
<tr>
<th>Model</th>
<th>Log Likelihood</th>
<th>Δ in Log Likelihood</th>
<th>Intercept Variance</th>
<th>Δ in variance</th>
<th>PR</th>
<th>Residual Variance</th>
<th>Δ in variance</th>
<th>PR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercepts-only</td>
<td>4043.28</td>
<td>-</td>
<td>15.24**</td>
<td>-</td>
<td></td>
<td>70.36**</td>
<td>-</td>
<td></td>
</tr>
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<td>Frequency of Interaction</td>
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<td>100.28**</td>
<td>14.12**</td>
<td>1.12</td>
<td>.08</td>
<td>60.67**</td>
<td>9.69*</td>
<td>.14</td>
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<td>.18</td>
<td>15.06*</td>
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<td>.60</td>
<td>.04</td>
<td>60.43**</td>
<td>9.93</td>
<td>.14</td>
</tr>
<tr>
<td>H11</td>
<td>3922.94</td>
<td>120.34**</td>
<td>14.62**</td>
<td>.62</td>
<td>.04</td>
<td>57.60**</td>
<td>12.74*</td>
<td>.18</td>
</tr>
</tbody>
</table>

NOTE: Δ in Log Likelihood is change compared to the intercepts-only model; Δ in variance is the change in the variance compared to the intercepts-only model; PR = proportion reduction in variance; significant PRs are in bold; significance of PR based on significant reductions in variance across models; intercept variance corresponds to between-group differences; residual variance corresponds to within-group differences; *p < .05; **p < .01

As with hypothesis 4, hypothesis 6 was also tested with the IV (trust) centered around the group mean, thereby converting the variable to trust relative to other group

\textsuperscript{12} These hypotheses are grouped together because they are all predicting the same dependent variable (PQCR).
members. However, like hypothesis 4, a test of this model with the group mean centered variable did not yield improved model fit, but, rather, worse model fit ($\Delta$ in log likelihood = 574.83, $p < .001$) and remaining significant between-groups variability (as opposed to the elimination of between-group variability in the original test of hypothesis 6). Within-group differences were also less favorable with the centered model. Thus, the original model for hypothesis 6 demonstrates the best fit.

Hypothesis 7 posited a meditational model in which the effect of supervisor transformational leadership on PQCR functions through subordinate trust. Thus, this hypothesis draws on the relationships that were tested in hypotheses 1a (transformational leadership predicting PQCR) and 6 (trust predicting PQCR). While hypothesis 6 received strong support, hypothesis 1a was not supported. Additionally, a test of the relationship between transformational leadership and trust showed that these two variables were unrelated, thereby negating the predicted meditational chain. Drawing on Baron and Kenny’s (1986) steps, two key steps for mediation were unsupported: the relationship between the IV (transformational leadership) and the mediator (trust) and the relationship between the IV (transformational leadership) and the DV (PQCR). Thus, hypothesis 7 was not supported. Because hypothesis 1b was supported, an exploratory test of this hypothesis was done using the individual consideration dimension of transformational leadership in place of transformational leadership. However, individual consideration was also unrelated to trust, therefore providing no additional support.\(^{13}\)

\(^{13}\) Additionally, both hypotheses 6 and 7 were examined with trust at the dimensional (e.g., cognitive and affective) level. The use of trust dimensions did not enhance the outcomes of these hypothesis tests.
Like hypothesis 7, hypothesis 8 also builds on earlier hypotheses to create a meditational chain. Specifically, hypothesis 8 predicts that the effect of emotional intelligence on PQCR is mediated by subordinates’ perceptions of empathy in their supervisors. Hypothesis 2, which posited that supervisor emotional intelligence predicts PQCR, was unsupported, thereby negating the meditational model before even considering the role of empathy. Supervisor emotional intelligence and subordinate perceptions of empathy were also unrelated. Thus, given that the data fail to conform to Baron and Kenny’s (1986) requirements that the IV predict both the mediator and DV, the meditational relationship is proved invalid. Although hypothesis 8 was not supported, one meaningful effect did arise from this meditational model. Subordinate perceptions of supervisor empathy explained significant between-group and within-group variability in PQCR. A model that included only empathy (and the covariate frequency of interaction) resulted in improved model fit compared to the intercepts-only model of PQCR ($\Delta$ in log likelihood = 543.55, $p < .001$). This model also accounted for 73% of between-group differences and 60% of within-group differences in PQCR. This unexpected result suggests that what subordinates perceive about supervisor emotional abilities may be more predictive of their coaching relationships than supervisors’ own perceptions of their emotional abilities.

Hypothesis 9 stated that subordinates’ self-reported implicit person theory (IPT) would predict their ratings of PQCR, another level-one relationship. This effect proved to be marginally significant ($p = .06$), but accounted for only 7% of between-group differences and 14% of within-group differences in PQCR (which is no different from frequency of interaction on its own). This model demonstrated better fit than the
intercepts-only model for PQCR (Δ in log likelihood = 100.29, p < .001). However, the effect of subordinate IPT above and beyond frequency of interaction was quite small, indicating that the improved model fit can be attributed primarily to the significant effect of frequency of interaction. Therefore, we conclude that hypothesis 9 was not supported.

Hypothesis 10 builds on previous hypotheses (specifically, hypotheses 3 and 9) to investigate an interactive effect of supervisor IPT and subordinate IPT on PQCR. Neither hypothesis 3 nor hypothesis 9 was supported, but hypothesis 10 was tested regardless. Neither the independent variables nor the interaction term significantly predicted PQCR. Though the model resulted in better fit than the intercepts-only model (Δ in log likelihood = 90.26, p < .001), there were no significant changes in between-group variance on PQCR. Thus, hypothesis 10 was not supported. The results of hypotheses 9 and 10 can be found in table 17.

Hypothesis 11 examined another level-one relationship: the effect of subordinate feedback orientation on PQCR. This model yielded better fit than the intercepts-only model for PQCR (Δ in log likelihood = 120.34, p < .001). Subordinate feedback orientation significantly predicted PQCR above and beyond the effect of frequency of interaction, however the 4% reduction in between-group variance was not significant. Because it is a level-one variable, feedback orientation plays an important role in explaining within-group differences in PQCR, as this model accounted for 18% of the variance in the residual (within-group variance). In other words, individual subordinates’ feedback orientations may influence their perceptions of their coaching relationships. The lack of between-group significance suggests that there are not strong group effects of feedback orientation – that this construct is truly an individual difference variable. Thus,
hypothesis 11 received support for explaining level-one or within-group differences in PQCR.

Hypothesis 12, another level-one relationship, examined the effect of subordinate perceptions of the feedback environment on their self-reported feedback orientation. The intercepts-only model for feedback orientation (a precondition for testing hypothesis 12) revealed significant within-group differences, but not significant between-group differences. The non-significant between-groups variance in feedback orientation indicates that groups do not differ in their average feedback orientations. This finding is not entirely surprising, as feedback orientation is considered a relatively stable individual difference variable that has been shaped by past experiences and is related to personality and other individual difference variables (London & Smither, 2002).

A test of the hypothesized model resulted in significantly better model fit compared to the intercepts-only model ($\Delta$ in log likelihood = 72.29, $p < .001$). Individuals’ perceptions of the feedback environment significantly reduced the residual variance, accounting for 10% of within-group variability in feedback orientation. However, a great deal of within-group variability remained, indicating that perceptions of the feedback environment play only a small part in determining individuals’ feedback orientations. Additionally, it is worth noting that frequency of interaction was not a significant predictor of subordinate feedback orientation in the current model. Overall, hypothesis 12 was supported.
Table 18. The intercepts-only model for feedback orientation and hypothesis 12.

<table>
<thead>
<tr>
<th>Model</th>
<th>Log Likelihood</th>
<th>∆ in Log Likelihood Variance</th>
<th>Intercept ∆ in variance PR Variance</th>
<th>Residual ∆ in variance PR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercepts-only</td>
<td>3906.82</td>
<td>-</td>
<td>2.01</td>
<td>-</td>
</tr>
<tr>
<td>H12</td>
<td>3834.53</td>
<td>72.29**</td>
<td>2.18</td>
<td>-.17</td>
</tr>
</tbody>
</table>

NOTE: ∆ in Log Likelihood is change compared to the intercepts-only model; ∆ in variance is the change in the variance compared to the intercepts-only model; PR = proportion reduction in variance; significant PRs are in bold; significance of PR based on a significant reduction in variance across models; intercept variance corresponds to between-group differences; residual variance corresponds to within-group differences; *p < .05; **p < .01

Finally, hypothesis 13 draws on previous hypotheses (specifically, hypotheses 4, 11, and, 12) to propose a meditational chain linking feedback environment perceptions, feedback orientation, and PQCR. Specifically, this model suggests that the effect of feedback environment on PQCR supported in the test of hypothesis 4 is mediated by subordinate feedback orientation. The test of this meditational relationship was guided by Baron and Kenny’s (1986) steps for testing mediation. Step 1 (effect of IV on mediator) was tested with hypothesis 12, which showed that perceptions of the feedback environment significantly predicted feedback orientation. Step 2 (effect of IV on DV) was tested with hypothesis 4, which showed that perceptions of the feedback environment significantly predicted ratings on the PQCR. Step 3 (effect of mediator on DV) was tested with hypothesis 11, which showed that subordinate feedback orientation significantly predicted ratings of the PQCR. Step 4 (effect of IV and mediator on DV) was tested by including both feedback environment and feedback orientation as predictors of PQCR. This model resulted in a significantly better fit than the intercepts-only model for PQCR (∆ in log likelihood = 618.63, p < .001) and resulted in significant decreases in both between-group (76%) and within-group (65%) variance. However, the
results of this model are not significantly different than the results of a model using only feedback environment to predict PQCR (e.g., hypothesis 4 and step 2 of the test of mediation). The effect of feedback environment in predicting PQCR was so strong that feedback orientation became non-significant in predicting PQCR, even at the within-group level. In other words, the effect of perceptions of the feedback environment for predicting PQCR were so powerful that feedback orientation was no longer a meaningful predictor. Thus, hypothesis 13 was not supported.

Table 19. Results of hypothesis 13 according to Baron and Kenny’s steps for testing mediation.

<table>
<thead>
<tr>
<th>Model</th>
<th>Log Likelihood: Mediator</th>
<th>Δ in Log Likelihood: Mediator</th>
<th>Intercept Variance</th>
<th>Δ in variance</th>
<th>PR Variance</th>
<th>Δ in variance</th>
<th>PR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercepts-only</td>
<td>3906.82</td>
<td>-</td>
<td>2.01</td>
<td>-</td>
<td>-</td>
<td>61.73**</td>
<td>-</td>
</tr>
<tr>
<td>Step 1: IV (Feedback Environment)</td>
<td>3834.53</td>
<td>72.29**</td>
<td>2.18</td>
<td>-.17</td>
<td>-</td>
<td>55.58**</td>
<td>6.15*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>Log Likelihood: DV</th>
<th>Δ in Log Likelihood: DV</th>
<th>Intercept Variance</th>
<th>Δ in variance</th>
<th>PR Variance</th>
<th>Δ in variance</th>
<th>PR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercepts-only</td>
<td>4043.28</td>
<td>-</td>
<td>15.24**</td>
<td>-</td>
<td>-</td>
<td>70.36**</td>
<td>-</td>
</tr>
<tr>
<td>Step 2: (IV) (Feedback Environment)</td>
<td>3420.03</td>
<td>623.25**</td>
<td>3.81**</td>
<td>11.43*</td>
<td>.75</td>
<td>24.31**</td>
<td>46.05*</td>
</tr>
<tr>
<td>Step 3: mediator (Feedback Orientation)</td>
<td>3922.94</td>
<td>120.34**</td>
<td>14.62**</td>
<td>.62</td>
<td>.04</td>
<td>57.60**</td>
<td>12.74*</td>
</tr>
<tr>
<td>Step 4: IV and mediator</td>
<td>3424.65</td>
<td>618.63**</td>
<td>3.73**</td>
<td>11.51*</td>
<td>.76</td>
<td>24.34**</td>
<td>45.98*</td>
</tr>
</tbody>
</table>

NOTE: Δ in Log Likelihood is change compared to the intercepts-only model; Δ in variance is the change in the variance compared to the intercepts-only model; PR = proportion reduction in variance; significant PRs are in bold; significance of PR based on a significant reduction in variance across models; intercept variance corresponds to between-group differences; residual variance corresponds to within-group differences; *p < .05; **p < .01
Overall, five hypotheses were supported. Implications for the supported hypotheses, as well as evaluation of the unsupported hypotheses will be addressed in the discussion section. A summary of the results of hypothesis testing can be found in table 20 below.

Table 20. A summary of the results of hypothesis testing.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor self-reported transformational leadership style will be positively related to average subordinate perceptions of the quality of the coaching relationship.</td>
<td>Not supported</td>
</tr>
<tr>
<td>Supervisor self-reported individual consideration will be positively related to average subordinate perceptions of the quality of the coaching relationship.</td>
<td>Supported</td>
</tr>
<tr>
<td>Supervisor self-reported emotional intelligence will be positively related to average subordinate perceptions of the quality of the coaching relationship.</td>
<td>Not supported</td>
</tr>
<tr>
<td>Supervisor self-reported incremental IPT will be positively related to average subordinate perceptions of the quality of the coaching relationship.</td>
<td>Not supported</td>
</tr>
<tr>
<td>Subordinate perceptions of the feedback environment will be positively related to perceptions of the quality of the coaching relationship.</td>
<td>Supported</td>
</tr>
<tr>
<td>Supervisor self-reported IPT will be positively related to average subordinate perceptions of the feedback environment.</td>
<td>Not supported</td>
</tr>
<tr>
<td>Subordinate trust in his or her supervisor will be positively related to his or her perceptions of the quality of the coaching relationship.</td>
<td>Supported</td>
</tr>
<tr>
<td>Subordinate trust partially mediates the effect of supervisor self-reported transformational leadership on subordinate perceptions of the quality of the coaching relationship.</td>
<td>Not supported</td>
</tr>
<tr>
<td>Subordinate perceptions of supervisor empathy will mediate the relationship between supervisor self-reported emotional intelligence and subordinate perceptions of the quality of the coaching relationship.</td>
<td>Not supported</td>
</tr>
<tr>
<td>Subordinates’ incrementalism will be positively related to their perceptions of the quality of the coaching relationship.</td>
<td>Not supported</td>
</tr>
<tr>
<td>Subordinate incrementalism will moderate the effect of supervisor self-reported incrementalism on subordinate perceptions of the quality of the coaching relationship.</td>
<td>Not supported</td>
</tr>
<tr>
<td>Subordinate feedback orientation is positively related to perceptions of the quality of the coaching relationship.</td>
<td>Supported</td>
</tr>
<tr>
<td>Subordinate ratings of the organizational feedback environment influence subordinate feedback orientation.</td>
<td>Supported</td>
</tr>
<tr>
<td>The effect of subordinate ratings of the organizational feedback environment on subordinate perceptions of the quality of the coaching relationship is partially mediated by subordinate feedback orientation.</td>
<td>Not supported</td>
</tr>
</tbody>
</table>
Exploratory Analyses

In addition to the 13 hypotheses outlined above, several exploratory analyses were also conducted. These analyses include testing a “best predictors” model of PQCR, attempting to replicate the results from Heslin et al.’s (2006) coaching study, examining the relationship between PQCR and ratings of supervisor coaching behaviors, examining the effect of learning goal orientation on ratings of PQCR, and an examination of some random effects models.

“Best predictors” model. The results of several hypotheses were combined in an effort to establish a “best predictors” model for explaining group differences in PQCR. Variables included in this exploratory model included the covariate frequency of interaction, the individual consideration dimension of transformational leadership (and the corresponding covariates, manager gender and liking; H1b), trust (H6), empathy (part of H8), and perceptions of the feedback environment (H4). These predictors were selected because, independently, they demonstrated the best model fit and accounted for the greatest reductions in variance (both between-group/intercept and within-group/residual). Although Kreft and de Leeuw (1998) caution against tests of large models, this model was examined simply for exploratory purposes. Figure 5 below includes a model representing these relationships.
The model demonstrated the most improved fit over the intercepts-only model yet, with a change in log likelihood of 925.61 ($p < .001$). All three covariates (frequency of interaction, manager gender, liking) included in this exploratory model were non-significant, but each of the four predictors (individual consideration, trust, empathy, feedback environment) was significant. This model explained 96% of the between-group variance in PQCR. The remaining between-group variance (intercept variance) in PQCR was no longer significant, indicating that when these variables are accounted for, groups no longer differ in their average ratings of PQCR. Although the model accounted for 78% of the within-group differences, significant within-group variance (residual variance) remained, indicating that individuals nested under one supervisor still differ in their ratings of PQCR even after these variables have been accounted for.

Based on these results with the current dataset, the best model for explaining group differences in average ratings of PQCR includes supervisor’s self-reported individual consideration, subordinates’ trust in their supervisors, subordinates’ perceptions of empathy in their supervisors, and subordinates’ perceptions of the feedback environment.
feedback environment created by their supervisors. These variables also accounted for a substantial amount of within-group variance. The inability to explain within-group variability to a point of non-significance (e.g., explain all of the within-group variance) is not surprising, as innumerable individual difference variables could play a role in within-group differences. Additionally, explaining between-group differences was most important to the current paper.

Table 21. The “best predictors” model for PQCR and individual tests of effects of those predictors.

<table>
<thead>
<tr>
<th>Model</th>
<th>Log Likelihood</th>
<th>Δ in Log Likelihood</th>
<th>Variance</th>
<th>Δ in variance</th>
<th>Intercept PR</th>
<th>Residual PR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercepts-only</td>
<td>4043.28</td>
<td>-</td>
<td>15.24**</td>
<td>-</td>
<td>-</td>
<td>70.36**</td>
</tr>
<tr>
<td>“Best predictors”</td>
<td>3117.67</td>
<td>925.61**</td>
<td>.54</td>
<td>14.70*</td>
<td>.96</td>
<td>15.20**</td>
</tr>
<tr>
<td>Individual Consideration</td>
<td>3599.69</td>
<td>443.59**</td>
<td>4.67**</td>
<td>10.57*</td>
<td>.69</td>
<td>34.78**</td>
</tr>
<tr>
<td>Trust</td>
<td>3197.03</td>
<td>846.25**</td>
<td>.18</td>
<td>15.06*</td>
<td>.98</td>
<td>18.03**</td>
</tr>
<tr>
<td>Supervisor Empathy</td>
<td>3499.73</td>
<td>543.55**</td>
<td>4.15**</td>
<td>11.09*</td>
<td>.73</td>
<td>28.37**</td>
</tr>
<tr>
<td>Feedback Environment</td>
<td>3420.03</td>
<td>623.25**</td>
<td>3.81**</td>
<td>11.43*</td>
<td>.75</td>
<td>24.31**</td>
</tr>
</tbody>
</table>

NOTE: Frequency of interaction is included in each model test as a covariate; Individual consideration also includes manager gender and liking as covariates; The “Best Predictors” model contains all four independent variables listed in the table; Δ in Log Likelihood is change compared to the intercepts-only model; Δ in variance is the change in the variance compared to the intercepts-only model; PR = proportion reduction in variance; significant PRs are in bold; significance of PR based on a significant reduction in variance across models; intercept variance corresponds to between-group differences; residual variance corresponds to within-group differences; *p < .05; **p < .01

Supervisor IPT and coaching behaviors. Another exploratory analysis was an attempt at replicating Heslin and colleagues’ (2006) findings regarding the effect of supervisor IPT on subordinate ratings of supervisor coaching behaviors. A test of this effect proved to be not only non-significant (e.g., no significant change in variance, no
significant effect of IPT), but also worse than the intercepts-only model\textsuperscript{14} for supervisor coaching behaviors (increase in log likelihood value of 1.50, $p > .05$). Several iterations of the model were tested, including models that sought to mimic Heslin et al.’s model as closely as possible. For example, Heslin et al. included manager age and management experience as important covariates; our test of a similar model yielded results worse than the single predictor (IPT) model. The inability to replicate this effect could be attributable to a number of factors, such as the sample (which will be considered in the discussion) or our use of a multi-level design with multiple subordinates per supervisor, as opposed to the dyadic, regression-based approach used by Heslin and colleagues.

\textit{PQCR and supervisor coaching behaviors.} Despite an inability to replicate Heslin et al.’s findings, other exploratory analyses showed value for the coaching behaviors measure. The PQCR was strongly correlated with the coaching behaviors measure ($r = .73$, $p < .001$), indicating that subordinates who perceived a good relationship with their supervisors were also more likely to report their supervisors engaging in more coaching behaviors. For exploratory purposes, the current study proposes the possibility of a causal model for these two constructs. Previous research has called the coaching relationship a precursor to or precondition for coaching outcomes (Gyllensten & Palmer, 2007; Smither & Reilly, 2001). Because an effective relationship “sets the stage” for good coaching (Smither & Reilly, 2001), we would argue that positive perceptions of the relationship lead to positive perceptions of the supervisor’s behavior. Specifically, we suggest that

\textsuperscript{14} The test of the intercepts-only model for coaching behaviors revealed significant variance in the intercept, indicating that between-group differences do exist. As noted previously, significant between-group variability in the intercepts-only model is a precondition to testing models with predictor variables.
perceptions of relationship quality precede perceptions of the supervisor’s actual coaching behaviors.

A test of this model resulted in improved fit over the intercepts-only model for supervisor coaching behaviors ($\Delta$ in log likelihood = 468.63, $p < .001$). Frequency of interaction was also included as a covariate. This model accounted for 61% of the between-group variability and 55% of the within-group variability in ratings of supervisor coaching behaviors. Regarding between-group differences, this result indicates that when the average PQCR for subordinates nested under one supervisor is taken into account, groups differ less in their average ratings of supervisor coaching behaviors. The remaining between-group variance was still significant, however, suggesting that even after accounting for PQCR, groups still vary in their ratings of supervisor coaching behaviors.

Regarding within-group differences, the results of this model suggest that several subordinates who report to the same supervisor not only have different perceptions of their coaching relationships, but also different experiences of their supervisor’s actual coaching behaviors. This finding provides strong evidence that supervisors and subordinates have unique relationships, that these relationships affect the supervisor’s actual coaching behaviors and the subordinates’ perceptions of those behaviors, and that one supervisor can have different relationships with different subordinates. The implications of this model will be addressed further in discussion section.
Table 22. The intercepts-only model and effect of PQCR on supervisor coaching behaviors.

<table>
<thead>
<tr>
<th>Model</th>
<th>Log Likelihood: Mediator</th>
<th>Δ in Log Likelihood: Mediator</th>
<th>Intercept Variance</th>
<th>Δ in variance</th>
<th>PR</th>
<th>Residual Variance</th>
<th>Δ in variance</th>
<th>PR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercepts-only</td>
<td>4029.67</td>
<td>-</td>
<td>10.26**</td>
<td>-</td>
<td>-</td>
<td>71.31**</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>PQCR</td>
<td>3561.04</td>
<td>468.63**</td>
<td>4.05*</td>
<td>6.21*</td>
<td>.61</td>
<td>31.94**</td>
<td>39.37*</td>
<td>.55</td>
</tr>
</tbody>
</table>

NOTE: Frequency of interaction was also included as a covariate in the PQCR model; Δ in Log Likelihood is change compared to the intercepts-only model; Δ in variance is the change in the variance compared to the intercepts-only model; PR = proportion reduction in variance; significant PRs are in bold; significance of PR based on a significant reduction in variance across models; intercept variance corresponds to between-group differences; residual variance corresponds to within-group differences; *p < .05; **p < .01.

**Learning goal orientation.** Learning goal orientation (LGO) was included as an exploratory variable for both supervisors and subordinates. Learning goal orientation and coaching are expected to be related because they are both developmentally focused. Additionally, as noted previously, research has suggested that supervisors can create a “climate” for learning goal orientation that influences subordinates’ goal orientations (Dragoni, 2005). Three exploratory analyses were conducted with learning goal orientation. First, a model based on Dragoni’s theory tested the impact of supervisor LGO on subordinate LGO. The first step in testing this model was to examine an intercepts-only model for subordinate LGO. Unfortunately, this model revealed non-significant between-group variance, indicating that groups were not significantly different in their average goal orientations. Without between-group variance to explain, the model based on Dragoni’s work could not be tested.

The next two analyses examined the effect of 1) supervisor and 2) subordinate LGO on PQCR. The first model, which included supervisor LGO and frequency of interaction as a covariate had significantly better fit than the intercepts-only model for PQCR (Δ in log likelihood = 98.18, p < .001), but did not explain significant between-
groups variance. Additionally, supervisor LGO was a non-significant predictor. Thus, supervisor LGO was unrelated to subordinates’ PQCR. The next model, which examined the level-one effect of subordinates’ LGO on their PQCR, also resulted in significantly better model fit than the intercepts-only model of PQCR (Δ in log likelihood = 120.15, p < .001). This model resulted in a significant 18% reduction in within-group variance, but no significant reduction in between-groups variance. This finding indicates that when learning goal orientation is taken into account, subordinates working for the same supervisor have less discrepant perceptions of their coaching relationships.

Tests of random effects models. Finally, random effects models were examined for exploratory purposes. As stated previously, the relationships between variables discussed throughout the paper are expected to be consistent across nested groups, which is why only fixed effects were tested. To review, fixed effects specify the same relationship between variables – the slope – for each group. A random effect allows each group to have a unique slope or relationship between variables. In order for random effects to be tested, groups must have sufficient variability in the relationships between variables. In other words, a test of a random model will not run if groups do not actually differ in their slopes. This was the case with nearly every model in the current study. The inability of these models to run indicates that specifying fixed effects was the right decision – that the relationships between variables specified herein are actually consistent across groups. Some random effects models could be tested (e.g., there was

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15 All dyadic data had to be dropped in order to random effects models. In order for random effects to be tested, groups must have unique relationships between variables. These relationships cannot be examined unless a group is comprised of two or more subordinates. With only one subordinate, unique relationships among variables cannot be examined. Thus, a total of 34 dyads were dropped, leaving a total of 112 groups.
some variability in slopes) – but revealed non-significant effects for the random components (e.g., the variability in slopes was not significant).

One model did reveal a significant random effect. This model revisited hypothesis 4 (feedback environment predicting PQCR), which provided one of the strongest findings in the current paper. Results of this model indicated that groups vary not only in their slopes, but also in the relationship between the slope and the intercept. Regarding varying slopes, this finding indicates that the relationship between perceptions of the feedback environment and ratings of PQCR varies across groups.

The second finding – that groups vary in the relationship between the slope and the intercept – indicates that the magnitude of the slope differs according to the group’s average PQCR (intercept). This effect was also negative, suggesting that the higher a group’s average PQCR, the flatter the slope. A flatter slope indicates a smaller relationship between feedback environment and PQCR. On the other hand, this negative effect also suggests that groups with a low average PQCR (intercept) have a steeper slope, or stronger relationship between feedback environment and PQCR. Specifically, if one group has a high average PQCR, then the effect of the feedback environment is not as strong as it is for groups with a low average PQCR. This suggests that there could be a “ceiling effect” for the impact of feedback environment on PQCR: if perceived quality of the coaching relationship is already high, a good feedback environment can only contribute so much more. On the other hand, an individual’s perception of a good feedback environment matters even more to their individual ratings of PQCR when they are in a group that has low average PQCR. In other words, if an individual works with a team that has overall low perceived quality of the coaching relationship, then that
individual’s perceptions of a positive feedback environment correspond to his or her higher-than-average ratings of PQCR. Figure 6 below provides an example of what a negative varying relationship between slopes and intercepts look like.

Figure 6. An example of a negative varying relationship between slopes and intercepts.

In sum, these exploratory analyses build on the results of the hypothesis tests by exploring additional relationships and variables that impact subordinate perceptions of the coaching relationship. The implications of these exploratory analyses will be addressed along with the results of hypothesis tests in the discussion section that follows.

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16 A sample figure, rather than actual data, is used here in order to facilitate the interpretability of this effect and the graph. Graphing the actual data from the current study would result in an unreadable figure. Such a graph would have 112 lines – one for each group, rather than four (which are used in the sample figure).
CHAPTER V
DISCUSSION

Conclusions regarding individual hypotheses and exploratory analyses will be addressed in detail in the pages that follow, along with implications for practice and research. Limitations and final thoughts will also be presented.

Discussion of Hypotheses

In an effort to facilitate understanding of the results, similar hypotheses will be discussed together. As a result, the discussion of individual hypotheses will be at times out of order.

Supervisor Leadership Style

Hypotheses 1a and 1b examined the role of supervisor leadership style on subordinates’ perceptions of the coaching relationship. Specifically, hypothesis 1a predicted that supervisor transformational leadership behavior would predict PQCR, whereas hypothesis 1b focused on the individual consideration dimension of transformational leadership for explaining differences in PQCR. Hypothesis 1a was not supported, but hypothesis 1b received strong support. Also, it is worth noting that an additional analysis that included both constructs significantly reduced the already
negligible effect of transformational leadership, indicating that any effect of transformational leadership is attributable to the individual consideration dimension. In other words, the individual consideration aspect of transformational leadership is what matters in employee coaching. Individual consideration pertains specifically to developing, mentoring, and coaching subordinates, as well as generally focusing on their unique needs, as opposed to taking a “one size fits all” approach to leadership (Avolio & Bass, 1995; Eagly et al., 2003). The results of hypothesis 1b suggest that supervisors who adopt an individual consideration approach will foster more effective coaching relationships in the eyes of their subordinates. Supervisors can do this by taking time to understand subordinates’ unique needs, focusing on these unique needs through coaching, and showing genuine interest in and concern for individual subordinates’ needs, goals, and challenges, among other things (Avolio & Bass, 1995).

Because leadership style can change (Jung & Avolio, 2000), organizations can use this information to train and encourage supervisors to adopt an individual consideration approach to working with their subordinates. It is the general contention of this paper that a good coaching relationship sets the stage for good coaching and that, ideally, good coaching leads to improved performance. Supervisors who are able to tailor their interactions with subordinates to the subordinates’ unique needs should be more effective in coaching their subordinates to a higher level of performance. Future research should seek to replicate this effect, and also to revisit the non-significant effect of transformational leadership.

Future research could also assess different styles of leadership, such as transactional leadership, to determine how they relate to coaching behaviors and the
coaching relationship. Dirks and Ferrin (2002) note that transactional leaders are less likely to emphasize relationships with their subordinates, who, in turn, might have lower perceptions of the coaching relationship. Therefore, a negative relationship could exist between transactional leadership style and perceived quality of the coaching relationship. Future research should also extend beyond the coaching relationship and examine the link between leadership style and coaching outcomes. The links between quality of the coaching relationship, actual coaching behaviors, and coaching outcomes will be addressed later in the Discussion section.

**Supervisor Emotional Intelligence**

Hypothesis 2 posited that supervisor emotional intelligence would predict average subordinate ratings of PQCR. This hypothesis was unsupported. There are a number of potential reasons why this relationship was non-significant. First and foremost is the possibility that there truly is no link between supervisor emotional intelligence and employee coaching relationships. However, the strong relationship between perceptions of supervisor empathy and PQCR (as demonstrated in hypothesis 8) suggests that this is likely not the case. Specifically, subordinate ratings of the extent to which their supervisors understand and experience their emotions were influential in their perceptions of the coaching relationship. This finding suggests that perhaps the failure to support hypothesis 2 rests in either the measurement of emotional intelligence or low self-awareness. Self-report measures of emotional intelligence may be susceptible to “faking” and socially-desirable responding (Brackett, Rivers, Shiffman, Learner, & Salovey, 2006). In other words, supervisors may indicate through their responses that they
understand and care about their own and others’ emotions because it seems appropriate, when in fact, they have low emotional abilities.

Past research has demonstrated the inferiority of self-report measures of emotional intelligence compared with other performance-based measures. Brackett and colleagues (2006) demonstrated that performance-based and self-report approaches to assessing emotional intelligence are not strongly related ($r = .19$), and interpret this discrepancy as stemming from problems with self-report measures. For example, self-report measures have the potential to be somewhat inflated by positive illusions or skewed by low self-awareness regarding emotional abilities. Supervisors with low self-awareness may not actually realize that they have low emotional abilities, thereby leading them to overestimate their emotional intelligence on a self-report measure. The strong effect for empathy (which was rated by subordinates rather than supervisors) and lack of relationship between empathy and emotional intelligence suggest that supervisors may not be effective in perceiving and rating their own emotional abilities. This issue will be explored further in the discussion of hypothesis 8.

Hypothesis 8 specified a meditational chain between supervisor emotional intelligence, subordinate perceptions of supervisor empathy, and subordinate PQCR. This hypothesis was also unsupported, as the relationship between emotional intelligence and PQCR was non-existent. Despite the inability to support the predicted mediation, an interesting effect emerged regarding subordinate perceptions of supervisor empathy. Specifically, subordinate perceptions of supervisor empathy significantly predicted PQCR. This effect raises questions about the “accuracy” of supervisor self-reported emotional intelligence, as noted in the discussion of hypothesis 2. The empathy-PQCR
relationship indicates that when subordinates believe that their supervisors truly care about and even experience their own emotions, they are likely to have a higher-quality coaching relationship.

This role of perceived empathy was not expected to be particularly important – simply a step along the way in the tie between emotional intelligence and PQCR. However, the results of the current study suggest that empathy is a very important component in subordinates’ perceptions and experience of coaching relationships. This finding, like hypothesis 7 above, suggests that subordinate perceptions are more important than supervisors’ self-reported behaviors. In other words, a supervisor may think that he/she is effective in understanding and responding to others’ emotions, but if others do not feel the same way, the supervisors’ ratings are irrelevant. On the other hand, supervisors may actually be very effective in understanding others’ emotions, but simply do not convey interest in or concern for others’ emotions. Katz (1963) notes that an empathizer becomes “personally involved and conveys reassurance, recognition, and acceptance” (p. 8). Similarly, Kellett et al. (2006) note that interactive empathy (which was used as the measure of empathy in the current study) only occurs when subordinates see that their supervisor cares and is concerned about their emotions. In other words, interactive empathy requires that the supervisor create a shared emotional experience (Kellett et al., 2006). Even emotionally intelligent supervisors may fail to fully convey their empathy to subordinates.

In sum, we suspect that the failure to support hypotheses 2 and 8 is a measurement or participant-response issue. This role of supervisor emotional intelligence in employee coaching should be re-examined in future research. Future research could
account for measurement concerns by using a performance-based measure, such as the MSCEIT (Mayer, Salovey, & Caruso, 2002). Wong and Law’s (2002) self-report measure was used in the current study in the interest of practicality and expense. Specifically, self-report measures are short and simple to administer, making them the practical choice for the design and data collection procedures (e.g., survey-based, in an organization) of the current study. The performance-based MSCEIT is both costly to administer and takes significantly longer for participants to complete, but given appropriate research constraints, would be a more effective choice.

The strong effect for empathy suggests that emotions play an important role in perceptions of the coaching relationship. A common theme throughout this discussion is that subordinate perceptions of supervisor behavior may be more important in shaping their perceptions of the coaching relationship than supervisors’ self-reported behavior – an issue that is demonstrated in the disparity between ratings of empathy and emotional intelligence. Future research should focus on both of these emotional components of coaching and coaching relationships – revisiting the role of emotional intelligence (including use of performance-based, as opposed to self-report measures) and taking a closer look at previous work on and implications of perceived empathy.

**Supervisor and Subordinate Implicit Person Theory**

Hypothesis 3, which stated that supervisor IPT would predict subordinate PQCR, was also unsupported. This hypothesis was largely based on Heslin et al.’s (2006) robust findings regarding the relationship between IPT and actual coaching behaviors – a finding that was also unsupported when replication was attempted in the current study.
Regarding the failure to replicate Heslin et al.’s findings, care was taken to precisely recreate this relationship. Specifically, the current study used the same measures of both IPT and coaching behaviors, and even controlled for the same variables that were controlled for in Heslin et al.’s examination (see the discussion of exploratory analyses). Additionally, for both hypothesis 3 and this exploratory analysis, the relationship was explored using three different “versions” of IPT: IPT scores as continuous variables, IPT dichotomized (e.g., supervisors categorized as “entity” or “incremental” based on a median split) and IPT trichotomized (e.g., supervisors one standard deviation above and below the median plus a mid-range group).

The inability to find meaningful relationships with supervisor IPT was surprising. IPT pertains to whether or not one believes that people can change (e.g., “people can substantially change the kind of person they are”). The theory adopted in the current study is that supervisors who believe people can change (e.g., incremental theory) will be more likely to invest time and energy into trying to develop (change) their subordinates, whereas supervisors who do not think people can change (e.g., entity theory) are unlikely to invest time and energy into developing subordinates through employee coaching. The non-significant effect of IPT here is puzzling. The means and standard deviations for supervisor IPT were consistent with previous research, indicating that participants in the current study were not unusual in their responses. It is possible, of course, that supervisors could have inflated their responses – giving the illusion that they have an incremental IPT when, in fact, they do not, because having an incremental IPT may seem more desirable. It is also possible that supervisors like to believe that “people in general” can change (which is how the measure items were worded), but fail to see the potential in
specific individuals whom they supervise. For example, a supervisor may honestly indicate an incremental IPT, but have stereotypes or pre-existing beliefs about particular subordinates being “set in their ways” and therefore not working to coach and develop them.

Another possible explanation is that supervisors who have an incremental IPT somehow lack the time or resources to fully invest in coaching relationships with their subordinates. Although supervisors may intend to coach and develop their subordinates, they may not actually get around to it. Research has shown that intentions do not consistently predict behavior (Ajzen & Madden, 1986). Thus, supervisors who have an incremental IPT and would like to develop their subordinates fail to make the appropriate plans for the actual behavior of employee coaching. Additionally, supervisors with good intentions simply may not know how to go about coaching their subordinates, and therefore not cultivate perceptions of a good coaching relationship among subordinates. In this case, organizations should ensure that they are communicating the importance of employee coaching by both training and rewarding supervisors for coaching their employees.

Hypothesis 5 predicted that supervisor IPT would influence subordinates’ perceptions of the feedback environment. As noted in the discussion of hypothesis 3 above, the performance of supervisor IPT in the current study was disappointing, as neither hypothesis 3 nor a replication of Heslin et al.’s IPT-coaching behaviors relationship were supported. Similarly hypothesis 5 was not supported. Because other relationships with feedback environment were robustly supported (as will be discussed in the pages that follow), it is likely that the failure to support hypothesis 5 can be attributed
to problems with supervisor IPT. Anseel and VandeWalle (2008) found strong support for the relationship between supervisor IPT and subordinate ratings of the feedback environment.

The inability to also replicate this finding could be attributable to the use of multi-level data (as opposed to a regression-based approach with dyadic data, which was used by Anseel and VandeWalle), or could be a result of problems with supervisor IPT. Based on the lack of effect in hypothesis 3, it is likely that the failure to replicate this effect is attributable to problems with IPT in the current dataset. As with hypothesis 3, the relationship between IPT and the feedback environment should be investigated in future research.

Hypothesis 9 also investigated the relationship between IPT and PQCR, but this time subordinate IPT was the variable of interest. Specifically, hypothesis 9 predicted that subordinates’ IPT would explain significant variance in their PQCR. This effect was marginally significant. The theory behind this hypothesis was that IPT, as an individual difference variable, should determine the extent to which subordinates think they can change, and perhaps whether or not they want to change and develop. Since coaching is an inherently developmental activity, focused on performance improvement and personal growth, an individual’s IPT should be a critical component in predicting perceptions of or attitudes toward coaching-related activity – including the coaching relationship.

The failure to find strong, significant support for this relationship at both the between-group and within-group levels was surprising. Past research has shown that IPT and learning goal orientation (LGO) tend to be related, though with a correlation of only about $r = .14$ for adults (VandeWalle, 1997). In the current study these two variables
were significantly correlated ($r = .19$, $p < .01$), but only LGO was significantly related to ratings of PQCR. Exactly why IPT did not have a significant effect is unclear. One possible explanation is low variability in IPT scores. Specifically, the standard deviation for mean subordinate IPT was lower than in other studies, and, more importantly, an intercepts-only model of subordinate IPT revealed no significant between-group differences in average IPT. Though group members did vary in their individual ratings of IPT (e.g., within-group), the relationship between individual IPT and PQCR was not strong enough to explain significant within-group variability. As with supervisor IPT, subordinate IPT was examined in three ways: as a continuous variable, dichotomized, and trichotomized. In this case, IPT used as a continuous variable provided the marginally-significant effect; the dichotomous and trichotomous versions produced completely non-significant effects.

Subordinate IPT has not been previously examined (or even discussed) in a coaching context; this variable should be taken into consideration in future coaching research and included in investigations of a “nomological net” of variables that contribute to both receptiveness to coaching and coaching outcomes. The marginally significant effect suggests that a relationship may exist between subordinate IPT and perceptions of coaching. Future research should seek to specifically examine this relationship, as IPT – or beliefs about whether or not people can change – has important implications for a developmental activity like coaching.

Hypothesis 10 built on hypotheses 3 and 9 to explore and interactive effect of supervisor and subordinate IPT on PQCR. Because neither supervisor nor subordinate IPT were significantly related to PQCR, this hypothesis, too, was unsupported. The
general theory behind this hypothesis was that if both a supervisor AND subordinate have a strong incremental IPT, the coaching relationship should be significantly better than a coaching relationship between a supervisor and subordinate who have inconsistent IPTs or both have entity IPTs. When both members of the dyad believe that people can change and are interested in learning and development, they should share a more meaningful, satisfying, and productive coaching relationship. Additionally, like Dragoni’s (2005) propositions concerning a “climate” for learning goal orientation, supervisors could have an impact on subordinate IPT by creating a “climate” for incremental IPT. Past research has demonstrated that IPT is malleable or trainable (Heslin et al., 2006); future research could examine longitudinal effects of supervisor IPT on subordinate IPT. Regardless of the non-significant effects for IPT found in the current study, future research should continue to investigate the role of supervisor and subordinate IPT in coaching.

Subordinate Trust

One of the best predictors of PQCR in the current study was subordinate trust. Hypothesis 6 stated that subordinate trust would predict perceptions of the coaching relationship. This hypothesis received very strong support at both the within- and between-group level. A great deal of past coaching research has discussed the importance of trust for effective coaching and coaching relationships (Graham et al., 1994; Gyllensten & Palmer, 2007; Hunt & Weintraub, 2002; Phillips, 1998; Ting & Riddle, 2006), yet this relationship had yet to be carefully examined empirically. The current study provides convincing evidence of the critical role of trust in employee coaching. Trust was so important, in fact, that no significant between-group variance remained in
perceived quality of the coaching relationship when trust was taken into account. In other words, when subordinate trust was accounted for, no significant differences existed across group average perceptions of the coaching relationship. While other variables proved to be important to the perceived quality of coaching relationships, one could argue that trust was the most important variable.

Trust also explained significant within-group differences in PQCR, indicating that, although groups have meaningful “average” levels of trust that explain their average ratings of PQCR, individual subordinates within each group also differ significantly in their ratings of trust. When trust was taken into account, 74% of the within-group variability in ratings of PQCR was explained. While the remaining variance was still significant, it is clear that individual ratings of trust are driving the variability in perceptions of the coaching relationship across subordinates nested under a single supervisor. Interestingly, a random effects model for this relationship would not run, indicating that the slope (relationship between trust and PQCR) did not differ significantly across groups. In other words, the relationship between trust and PQCR is linear and consistent. Where there is not trust, there is most likely the perception of a low-quality coaching relationship.

Thus, future employee coaching research should devote particular attention to the role of subordinate trust. The general contention of the current paper is that the coaching relationship is a prerequisite to effective coaching. Without sufficient trust, a high-quality coaching relationship maybe be impossible to achieve, in which case effective coaching and performance improvement will be stifled. Organizations can educate supervisors on engaging in behaviors that build or foster trust among their subordinates. Research has
shown that treating subordinates with respect and genuine concern can build trust (Jung & Avolio, 2000), as can engaging in practices and making decisions that are deemed just or fair (Dirks & Ferrin, 2002). Another leader behavior that has typically predicted trust is leading with a transformational style (Podsakoff et al., 1990). However, this construct was unrelated to trust in the current study, a matter that will be discussed below.

Hypothesis 7 built on the results of hypotheses 1a and 6 to test a meditational chain with transformational leadership, trust, and PQCR. As discussed previously, hypothesis 1a (transformational leadership predicting PQCR) was not supported. Additionally, transformational leadership was not related to subordinate trust. This relationship was also tested using the individual consideration dimension of transformational leadership; however, individual consideration was also unrelated to trust. It is unclear exactly why transformational leadership and trust were unrelated. A number of authors (Burke et al., 2007; Dirks and Ferrin, 2002; Jung & Avolio, 2000; Podsakoff et al., 1990) have discussed and demonstrated the causal relationship between transformational leadership and trust. Specifically, in their meta-analysis on the role of trust in leadership research, Dirks and Ferrin noted that trust has been discussed most often in the transformational leadership literature. Theory suggests that transformational leaders engage in behaviors – such as showing genuine care, concern, and respect (Jung & Avolio, 2000) – that build trust among their subordinates (Dirks & Ferrin, 2002).

The inability to replicate such a consistent effect is surprising. One highly probable explanation is the measurement of trust and transformational leadership. Specifically, both variables were reported by subordinates in previous research (Jung & Avolio, 2000). Perhaps having supervisors self-report their leadership style prevented
replication of this effect. It is possible – as with emotional intelligence – that supervisors are not entirely aware of the effect of their leadership style on subordinates. Thus, supervisors’ opinions of their leadership behaviors may be very different from subordinates’ perceptions of leader behavior.

In addition to low self-awareness, supervisors may have simply engaged in socially-desirable responding when completing the MLQ (as discussed by Bass & Yammarino, 1991). For example, supervisors may have felt inclined to respond positively to items such as “I act in ways that build others’ respect for me” or “I consider moral and ethical consequences of decisions,” (sample items from the MLQ; Bass & Avolio, 1995), even if they did not honestly feel this way. Given the tumultuous climate at the organization during data collection – a matter that will be addressed later in the Discussion section, supervisors may have inflated their responses in fear that the survey would be used in downsizing decisions. Subordinate ratings of trust may have also been impacted by downsizing fears. Specifically, subordinates may have had diminished trust in their supervisors as each day they feared the possibility of a lay-off. These issues will be discussed in greater detail in the Limitations section.

It is worth noting that significant differences in trust existed not only at the between-group level, but also at the within-group level. In other words, subordinates nested under the same supervisor varied significantly in the extent to which they trusted that supervisor. As noted previously, significant within-group variability is almost always expected and is difficult to explain to a point of non-significance, as a whole host of individual difference variables could be contributing to those within-group differences. However, it is possible that some systematic differences existed in trust levels within
groups. As demonstrated in the current study, individual subordinates share unique relationships with their supervisors. As such, those subordinates are likely to have unique attitudes toward their supervisors, trust included. The between-group differences in trust and the ability of trust to explain all significant between-group differences in PQCR indicate that groups do have strong “norms” for trust, even though those trust ratings vary at the individual level.

Overall, future research should seek to reexamine the relationship between trust and transformational leadership in the coaching context. Past research has demonstrated a strong link between these two constructs, but the lack of effect here suggests that the relationship might be between perceptions of transformational leadership behavior and trust. A future study could look at the effects of both supervisor and subordinate ratings of transformational leadership on trust. A discrepancy between the two transformational leadership scores would indicate that subordinates’ perceptions of transformational leadership are more important for trust. In an organizational context, such a discrepancy would be an excellent conversation-starter for supervisor development. Specifically, a supervisor who believes he/she is a strong transformational leader may be surprised to learn that subordinates do not feel the same way about him/her. Learning about such a discrepancy could motivate increased self-awareness and behavior change.

The Feedback Environment and Subordinate Feedback Orientation

Hypothesis 4 demonstrated the importance of the feedback environment to subordinate perceptions of the coaching relationship. In their seminal paper on performance management, London and Smither (2002) noted that the feedback
environment is the context in which coaching occurs and that a positive feedback environment sets the stage for effective coaching. Indeed, the strong effect found for hypothesis 4 provides some of the first empirical support for this proposition. Subordinate perceptions of the feedback environment were one of the strongest predictors of PQCR. This effect was significant at both the within- and between-group levels, indicating that not only are group average perceptions related to average ratings of PQCR, but that individual variability in perceptions of the feedback environment explain differences in ratings of PQCR among group members. In other words, there is a group “norm” for perceptions of the feedback environment, as well as individual uniqueness in those perceptions among subordinates nested under the same supervisor.

The results of hypothesis 4 highlight the importance of not only context, but also feedback for effective employee coaching. As noted previously, feedback is one of the critical components of coaching. These results clearly demonstrate that supervisors’ feedback-related behavior creates a culture that influences perceptions of coaching for the entire workgroup, and that subordinates’ perceptions of this environment differ somewhat. Future research should seek to replicate and further investigate this relationship, which underscores the importance of a “context for coaching.” Feedback environment will be discussed further with hypotheses 12 and 13.

Hypothesis 11 examined the effect of subordinates’ feedback orientations on their perceptions of the coaching relationship. This hypothesis was supported at the within-group level, suggesting that subordinates’ personal attitudes toward feedback influence their perceptions of the coaching relationship they share with their supervisor. In other words, subordinates who value, seek, and use feedback are more likely to perceive a
high-quality coaching relationship. This finding supports London and Smither’s (2002) notion that feedback orientation determines one’s receptivity to coaching. It could be that subordinates with a strong feedback orientation genuinely appreciate receiving feedback through employee coaching with their supervisor, thereby leading them to be more appreciative and satisfied with that coaching relationship.

The inability to explain significant between-group variability with this hypothesis was not surprising, as feedback orientation is considered to be a stable individual difference variable – not something that is closely shared with other group members. Therefore, it was unlikely that groups would have significantly different means for feedback orientation. Because feedback orientation is a true individual difference variable, individuals come into an organization with a pre-existing feedback orientation – how they generally think and feel about feedback – that has been shaped throughout their life and work experience (Linderbaum & Levy, under review; London & Smither, 2002). Research has demonstrated that feedback orientation is closely tied to other individual difference variables, such as personality variables, trait affect, regulatory focus, and goal orientation, among others (Gregory & Levy, 2008a; Linderbaum & Levy, under review). It is not surprising that group means for feedback orientation did not vary significantly, as feedback orientation was not expected to be consistent across work groups.

Feedback orientation is also linked to the feedback environment, a relationship that will be discussed next (hypothesis 12). This effect has important implications for organizations. Feedback orientation researchers (Linderbaum & Levy, under review; London & Smither, 2002) suggest that feedback orientation is malleable over time. Not only can strong feedback environments enhance individuals’ feedback orientations, but
coaching and development activity can also specifically focus on enhancing individuals’ feedback orientations. As demonstrated here, one’s feedback orientation is not just important for feedback-related activity, but also for participating in a high-quality, effective coaching relationship. Research on feedback orientation in general is relatively new; we suggest that this stream should carefully consider the impact and implications of feedback orientation on coaching.

Future research could even examine the effect of supervisor feedback orientation on their coaching behaviors. Gregory and Levy (2008a) predicted that, because it is a stable individual difference variable, supervisor feedback orientation would influence the feedback environment that those supervisors create for their subordinates. Though this prediction was not supported, the authors suggested that future research should reexamine this relationship. Their theory suggests that if someone with a strong feedback orientation values, seeks, and uses feedback to improve his/her own performance, they he/she would also see great value in it for others, thereby making him/her more likely to engage in behaviors that shape a positive feedback environment (e.g., giving frequent formal and informal, positive and negative feedback in a constructive way). Thus, future research should consider the impact of both supervisor and subordinate feedback orientation on perceptions of the coaching relationship and actual coaching behaviors.

Hypothesis 12 examined the relationship between subordinates’ feedback orientations and perceptions of the feedback environment. Specifically, this hypothesis posited that the feedback environment predicts individual feedback orientation. Like hypothesis 11, support for this hypothesis was strong at the within-group level, with feedback environment explaining significant within-group variability in feedback
orientation. The intercepts-only model for feedback orientation indicated that there were no significant between-group differences for feedback orientation, however. As noted in the discussion of hypothesis 11, this lack of between-group differences in feedback orientation was not entirely surprising, as feedback orientation is a stable individual difference that has been shaped by past experiences with other jobs, organizations, and even supervisors. Though the feedback environment is expected to influence feedback orientation over time (London & Smither, 2002), feedback orientation is considered to be stable in the short-term. The within-group differences, however, were expected, as subordinates’ thoughts and feelings toward feedback were expected to be closely linked with their individual perceptions of the feedback environment.

Past research has discussed the relationship between feedback environment and feedback orientation as reciprocal (London & Smither, 2002), but in the current paper this relationship was specified as unidirectional. While individuals’ feedback orientations may shape the feedback environment over time, the more immediate effects are likely in the other direction. In other words, the current study contended that the feedback environment - the day-to-day work context as it pertains to feedback – can enhance or diminish individuals’ feedback orientations. The results of hypothesis 12 supported this notion, as individuals varied less in their feedback orientations once their perceptions of the feedback environment had been taken into consideration. This finding has important implications for practice: employees’ inclination to value, use, and seek feedback is tied to the feedback environment that is created by their supervisors. If new employees have weak feedback orientations, a strong, positive feedback environment can help to develop and improve their feedback orientations over time.
It is important to note, however, that this effect was modest; perceptions of the feedback environment accounted for only 10% of the variance in feedback orientation. It is possible that the opposite effect could be occurring. Specifically, rather than examine the effect of the feedback environment on feedback orientation – which is considered to be stable in the short-term – perhaps individuals’ feedback orientations are influencing their perceptions of the feedback environment. A number of hypotheses in the current study have focused on the importance of perception – such as the inability to replicate the relationship between transformational leadership and trust (hypothesis 7) and the importance of empathy rather than supervisor emotional intelligence (hypothesis 8). It is possible that individuals’ feedback orientations “color” their perceptions of the feedback environment created by their supervisors. London and Smither (2002) suggest a reciprocal relationship between feedback orientation and feedback environment; perhaps the short-term effect is in feedback orientation predicting perceptions of the feedback environment, whereas the long-term effect is in feedback environment shaping feedback orientation. There is clearly a consistent relationship between these two variables ($r = .30$), as demonstrated by a number of researchers (the current study, Gregory & Levy, 2008a; Linderbaum & Levy, under review). Future work in this domain should focus primarily on fleshing out theory on the directional nature of this relationship.

Relatedly, hypothesis 13 drew on the results of hypotheses 4, 11, and 12 in testing a meditational relationship for feedback environment, feedback orientation, and PQCR, such that feedback orientation partially mediates the effect of feedback environment on PQCR. Despite finding support for each of these three previous hypotheses, the meditational model was not supported. Specifically, the effect of feedback environment
for predicting PQCR was so robust that when it was added to the model with feedback orientation, the effect of feedback orientation became non-significant. The effect of feedback orientation was essentially subsumed by the feedback environment in this model.

Feedback environment appears to be a critical component in shaping subordinate perceptions, most likely because both variables (feedback environment and PQCR) correspond to supervisor behaviors, whereas feedback orientation is simply an individual difference variable. Although feedback orientation is important, its role in the relationship between perceptions of the feedback environment created by the supervisor and the perceived quality of the coaching relationship is not significant. This effect simply reiterates the importance of the feedback environment for subordinate perceptions of the coaching relationship – a finding that should be researched further and also taken into consideration for organizations.

Exploratory Analyses

Several exploratory analyses were also conducted, including the test of a “best predictors” model, an attempt at replicating Heslin et al.’s (2006) findings, an examination of the relationship between PQCR and coaching behaviors, an examination of the role of learning goal orientation, and tests of some random effect models. The results of each of these analyses will be discussed in the pages that follow.
The “Best Predictors” Model

Drawing on the results of hypothesis tests, a “best predictors” model for PQCR was tested for exploratory purposes. This model included four of the best predictors of PQCR: individual consideration (H1b), feedback environment (H4), trust (H6), and empathy (H8). As with hypothesis tests, frequency of interaction was also included. Manager gender and liking were also included on the basis of their relationship with individual consideration (H1b – controlled for these two variables). The fit of this model was much better than the intercepts-only model of PQCR and also explained all of the between-groups variance in PQCR. In other words, there were no longer significant differences in PQCR after taking these variables into consideration. This model illustrates the most essential influences on subordinate perceptions of the coaching relationship based on the current data. Despite the strong effect for the model, however, these results should be interpreted cautiously. This specific model was not supported by theory, but tested merely for exploratory purposes. As noted previously, multilevel model testing should be done on a hypothesis-by-hypothesis basis, with effects interpreted for the model as a whole (Kreft & de Leeuw, 1998). Thus, it is important that each model be steeped in theory and carefully planned.

The best predictors model simply combined the individual predictors that had the strongest effects. Whether considered independently or in concert, these variables can be targeted in organizations wishing to improve their employee coaching. Organizations can focus management interventions or development activities on leadership style (individual consideration), creating an effective feedback environment, cultivating trust with subordinates, and displaying genuine empathy and concern for subordinates.
Replicating Heslin et al.’s (2006) Findings

Another exploratory analysis was aimed at replicating Heslin et al.’s (2006) findings regarding supervisor IPT and coaching behaviors. In their series of studies, Heslin et al. found that supervisor IPT significantly predicted subordinate perceptions of supervisor coach behaviors. The current study failed to replicate this effect, even though the very same measures of both variables were used, IPT conceptualized the same way (continuous), and the same control variables accounted for (supervisor age and experience/tenure).

The failure to replicate this finding may be attributed to the multilevel nature of the data. Specifically, Heslin et al. used a dyadic approach, in which data were collected from a supervisor and only one subordinate. Perhaps the nested data approach and examination of group effects prevented replication of Heslin et al.’s finding. It is possible that examining the “average” perceptions among all subordinates resulted in less-pronounced differences in ratings of coaching behaviors. However, because all of the hypotheses that included IPT (both supervisor and subordinate) failed to work out, it is likely that the inability to replicate this finding can be attributed to problems with responses to the IPT measure in the current study. Supervisors may have inflated their ratings of IPT items in an attempt to look like better managers. As will be discussed, the organization in which data were collected was in the midst of lay-offs during data collection, creating a climate that could foster great uncertainty among employees. This matter will be addressed in greater detail in the limitations section.
The Relationship Between PQCR and Coaching Behaviors

An exploratory analysis was also conducted for the relationship between PQCR and supervisor coaching behaviors. As noted throughout the paper, the coaching relationship is considered a pre-condition or foundation for coaching. The direction of this exploratory model drew on this contention but suggesting that PQCR would predict ratings of supervisor coaching behaviors. The test of the model demonstrated that perceptions of a high-quality coaching relationship did, in fact, predict both between- and within-group variability in perceptions of supervisor coaching behaviors. These two constructs were highly correlated \( r = .73, p < .001 \), so a test of a model proposing the opposite relationship (e.g., coaching behaviors predicting PQCR) would have also revealed strong effects. The direction of the model that was tested was based solely on the notion that the coaching relationship precedes the actual coaching. In reality, it is possible that these two constructs are reciprocal, such that a good relationship does predict coaching behaviors, but that frequent, effective coaching behaviors also strengthen the relationship. Regardless of this direction, it is imperative that future research continue to investigate the link between perceptions of the coaching relationship and actual coaching behaviors. Additionally, future research should seek to extend this relationship to the next step by also examining outcomes of coaching.

Learning Goal Orientation

Exploratory analyses were also conducted using supervisor and subordinate learning goal orientation (LGO). Three effects were tested. First, Dragoni’s (2005) proposition that supervisors create a climate for LGO, which impacts subordinate LGO,
was examined. This model could not be tested, as there were no significant between-group differences in average LGO. There were, however, significant within-group differences. These findings indicate that – in this dataset – supervisor learning goal orientation either a) did not create a climate for learning goal orientation for the work group or b) subordinate goal orientation was not affected by that climate. Second, supervisor LGO was used to predict between-group differences in PQCR. A test of this model indicated that supervisor LGO was not related to group average ratings of PQCR. The third model examined the effect of subordinate LGO on ratings of PQCR. This level-one effect demonstrated that subordinate LGO significantly predicts within-group variability in ratings of PQCR. This effect was not unexpected, as LGO pertains specifically to learning and development (Dragoni, 2005) – two important elements of coaching, which is inherently developmental in nature.

The inability to support Dragoni’s (2005) proposition is most likely attributable to the framing of the LGO items. The Button et al. (1996) measure used in the current study was framed in “general” terms – e.g., “the opportunity to do challenging work is important to me.” Dragoni’s proposition pertained specifically to state goal orientation, as opposed to trait goal orientation (Vandewalle & Cummings, 1997). The general items included in the Button et al. measure represent trait goal orientation – how people are in general. Had the measure more precisely captured state goal orientation (e.g., “the opportunity to do challenging work in your current position, with your current supervisor, etc.”), a test of Dragoni’s proposition may have worked.

The relationship between subordinate LGO and PQCR is another that should be explored in future research. It is likely that having a strong learning goal orientation leads
one to be more open and receptive to coaching. Individuals with a strong learning goal orientation tend to be interested in learning and developing their skills and abilities (Dweck, 1986; VandeWalle & Cummings, 1997). Because coaching is focused largely on individual development (e.g., personal development, performance improvement, behavior change), it seems logical that learning goal orientation would affect one’s response to coaching.

**Random Effects Models**

Finally, exploratory analyses were conducted for random effects models of the some of the hypotheses outlined in the current study. As noted in the results section, most of these models could not be tested because there was not enough variability in slopes across groups. This finding reinforced the decision to focus on fixed effects. To review, fixed effects models specify consistent slopes (the relationship between the IV and DV) for each group. The inability to test random models (and the non-significant effects found in those that could be tested) demonstrates that most of the relationships between IVs and DVs were consistent across groups.

The one exception to this finding was the random effects model for the relationship between feedback environment and PQCR. The results of this model test showed that groups varied in both a) their slopes and b) the relationship between the slope and the intercept. These two findings indicated that a) the relationship between perceptions of the feedback environment and ratings of PQCR varied across groups and b) the magnitude of the slopes differed based on the group’s average PQCR (intercept). The negative relationship between the slope and intercept indicated groups with higher
average PQCR had flatter slopes, whereas groups with lower average PQCR had steeper slopes. In terms of practical application, this finding suggests that when an individual is in a workgroup with an overall low average PQCR, perceptions of a good feedback environment matter even more to their individual ratings of PQCR. Variability like this could arise from supervisors displaying favoritism or coworkers not being receptive to development and coaching.

Regarding favoritism, a subordinate who is favored by his/her supervisor may perceive a very different feedback environment and coaching relationship than his/her coworkers, who do not benefit from the supervisor’s favoritism. Those coworkers may, in turn, have low perceived quality of their coaching relationship – contributing to a low intercept or average PQCR for the group. Because feedback environment and PQCR are so strongly related, having low (midrange, high) perceptions of the feedback environment would likely correspond to low (midrange, high) PQCR. Having coworkers who are not receptive to development and coaching would also result in a low average PQCR for the group. Coworkers who are not interested in development would probably also be unreceptive to feedback from the supervisor (a proposition that could be examined with feedback orientation) and also have little interest in a coaching relationship with that supervisor.

Another possible explanation for the negative relationship between the slope and intercept is a ceiling effect on PQCR and the feedback environment. Specifically, if the group average on PQCR is already very high, then the role of the feedback environment in contributing to PQCR matters less. Ratings of PQCR can only get “so good;” when perceptions of PQCR are already very positive, other variables cannot boost those
perceptions much higher. Thus, in a group with a high average rating of PQCR, perceptions of the feedback environment do not have as strong an effect on individual ratings of PQCR as it does for groups with low average ratings of PQCR. Overall, the random effect of feedback environment on PQCR was unexpected, but still very meaningful. Future research should seek to re-examine this relationship to determine if it is a viable effect or simply a product of the current dataset.

Limitations

Several limitations to the current research are worth noting. Of greatest significance is the issue of the state of the organization during data collection. Data collection coincided with tumultuous events at the organization, as will be discussed in the following paragraphs. However, this type of research is far better suited to organizational populations, as opposed to student research. Thus, the organizational sample came with both benefits and detriments.

The organization in which this research was conducted was in the midst of a turbulent economic period. The two-week timeframe in which data were collected was sandwiched between two rounds of layoffs. The first round of layoffs had been small in scope and resulted primarily in the expected elimination of low-performing employees and some early retirements. The second round of layoffs, which began the day after data collection ended, presents a greater concern. This restructuring resulted in average downsizing of 10-15% across departments. Employees knew about the restructure and were expecting to learn about lay-off decisions in the weeks following data collection.
Thus, the timing of data collection was unfortunate. Employees were reminded that the current study was unrelated to the restructuring, but open-ended comments indicated that some employees were skeptical and paranoid – they suspected that the data from the current study would be used to inform restructuring decisions. As a result, it is likely that the current state of affairs at the focal organization influenced participants’ responses to survey items. Specifically, participants – both supervisors and subordinates alike – may have engaged in some socially-desirable responding in an effort to make themselves “look better” to the organization. Fear and paranoia that the study would be used to inform lay-off decisions may have led some supervisors to inflate their responses to measures like transformational leadership and implicit person theory, which have items that relate to developing and inspiring others – two facets of the organization’s competencies for effective managers. Additionally, as noted in the discussion of hypothesis 7, subordinates may have had legitimately diminished trust in their supervisors because of management’s role in lay-off decisions, thereby leading subordinates to have lower responses to the trust measure.

Considering the potential impact that such organizational turmoil could have had, the results of the current study are even more noteworthy. While not all hypotheses were supported, many important findings resulted from the current study. The results of the study suggest that even in times of organizational uncertainty supervisors continue to coach and develop their subordinates. In sum, it is likely that the state of the organization during data collection did have some impact on participant responding, which may have been a factor in the inability to support or replicate some expected effects. However, the
ability to uncover meaningful effects in such a tumultuous environment suggests that the
effects that were supported may be even more robust in stable workplaces.

Another important limitation of the study was the means by which data were
collected. Participants were emailed a link to the study, which they could complete
during the workday. While this method was convenient for both participants and
researcher, it sacrificed the control that would come with a laboratory study. Specifically,
participants could have been talking on the phone or multitasking while completing the
survey. They may have been interrupted or distracted while completing the survey and
therefore not thought carefully about each item. Some participants may have felt
obligated to complete the survey and therefore selected arbitrary responses (e.g., click
“3” on the Likert scale for each item). Because participants were distributed across the
country and across various departments, they may have felt removed from the purpose of
the study and may not have truly understood the value of such research. Attitudes like
this were evidenced by some open-ended comments, such as: “What do these clever
psycho tests have to do with being a worldwide leader in bearings and steel?” or “I don’t
understand what emotions have to do with work, but I guess that’s why I’m an engineer
and not a psychologist."

In addition to participants not fully understanding some of the items, it is also
possible that some of the measures were subject to socially-desirable responding. For
example, self-report measures of emotional intelligence are easier to distort than
performance-based measures (Brackett et al., 2006). Based on the constraints of
collecting data during work hours with several hundred employees, performance-based
measures were simply not feasible, as they tend to be time-consuming, as well as costly.
Additionally, even though participants were assured that their data were confidential and for research purposes only, some participants may have distorted their responses for fear that the data were being used for upcoming lay-offs. For example, participants may have responded more favorably to questions about liking one’s supervisor, supervisor behaviors (coaching, feedback, etc.), and individual attitudes/behavior (feedback orientation, IPT) than they would have under different conditions at the organization (e.g., prosperity & job security). In addition to the specific organizational turmoil, it is also worth noting that the United States was currently in a recession, which may have also influenced participant responding.

Another limitation with the current sample involves the lack of diversity among participants. Specifically, 81% of supervisors and 72% of subordinates were men, and 95% and 90% of supervisors and subordinates, respectively, were white. While demographic variables were not shown to be important covariates, having more diversity would have been preferable for the generalizability of the results. The organization in which data were collected is predominantly white and male, which is most likely why the participants were also predominantly white and male.

Finally, the results of the study would have been more meaningful if performance data had been included. One limitation of this and many other coaching studies is the lack of evidence that coaching actually results in improved performance. The coaching literature is generally based on the assumption that coaching leads to good outcomes. Some research studies have demonstrated positive effects of coaching (Ellinger et al., 2003; Seifert et al., 2003, Smither et al., 2003), but far more investigations into the impact of coaching on actual performance are needed if the coaching literature (and
practice) is to be sustained. The link between coaching and performance was beyond the scope of the current study, but certainly warrants attention in future research.

Final Thoughts

While not all hypotheses were supported, the current study has contributed to the coaching literature in three ways. First and foremost, new definitions of both employee coaching and the employee coaching relationship were presented. One obstacle to employee coaching has been the lack of construct clarity and an accepted definition (Ives, 2008). Additionally, many researchers have discussed the coaching relationship, but none had defined it or begun to investigate it. Second, a new measure of the perceived quality of the coaching relationship (PQCR) was developed in the pilot study and used successfully in the focal study. Prior to the current study, no published, empirically-driven measures of the employee coaching relationship existed. Third, the current study identified a number of variables that contribute to the coaching relationship. By using a multilevel modeling approach, these results could be evaluated in terms of group and individual effects, thereby allowing for a better understanding of the role of supervisor and subordinate individual differences.

The structure of the PQCR measure held up well in the focal study, but future research should continue to evaluate the psychometric properties of the measure. Future research should also use the PQCR scale to further our understanding of employee coaching relationships and their role in effective coaching. An exploratory analysis showed that PQCR predicted actual coaching behaviors. Future research should not only seek to replicate this effect, but also expand on it by examining the relationship between
coaching behaviors and outcomes (e.g., behavior change, performance improvement, personal development). A supervisor and subordinate may have a high-quality coaching relationship that leads the supervisor to engage in active coaching behaviors, but if that coaching produces no fruitful outcomes or behavior change, it is of little or no value. As noted previously, investigations of the effects of employee coaching on performance are essential to the survival of coaching as a legitimate developmental activity.

The current study also contributes to the current literature by identifying particular variables that are critical for the development of an effective coaching relationship. Based on a “best predictors” model of the PQCR, the current study particularly demonstrated the importance of individual consideration in leadership, trust, supervisor empathy, a strong feedback environment, and regular supervisor-subordinate interaction, for high-quality coaching relationships. Each of these predictors is within the control of the supervisor. Supervisors can learn to lead with individual consideration. They can engage in behaviors that foster trust among their subordinates, such as treating subordinates fairly, being reliable, following through on commitments, and encouraging open communication. They can demonstrate genuine empathy in response to subordinates’ emotional displays. Supervisors can also shape the feedback environment that is perceived by subordinates. By providing both positive and negative feedback often and in a constructive way, supervisors help to create the context for coaching. Finally, and most simply, supervisors need to ensure that they are interacting regularly with their subordinates. Organizations can encourage these behaviors through training and linkages to performance management systems (e.g., holding supervisors accountable to engage in these behaviors).
A number of suggestions for future research and practice were outlined in the discussion of the individual hypotheses. To review, future research should focus largely on three things: making use of the PQCR measure, replicating supported effects, and re-examining unsupported effects. Supported effects that should continue to be evaluated and expanded upon in future research include the relationships between PQCR and individual consideration, trust, empathy, feedback environment, and feedback orientation. Specifically, research should seek to replicate and elaborate on the powerful effects of individual consideration, trust, and feedback environment. The role of subordinates’ feedback orientation in coloring their perceptions of the coaching relationship should also be further explored. Additionally, the surprising effect of empathy coupled with the lack of effect for emotional intelligence raises many questions for future research. Do perceptions of empathy matter more than supervisors’ self-reported emotional abilities? Does this disparity disappear when performance-based measures of emotional intelligence are used instead of self-report? Revisiting the original purpose of hypothesis 8, does high supervisor emotional intelligence come across as manipulative or Machiavellian? An entire research stream could be devoted simply to the role of emotions in coaching.

In addition to the unsupported effect for emotional intelligence, future research should seek to re-examine other unsupported hypotheses, such as the relationships between PQCR and leadership style, supervisor IPT, and subordinate IPT. As noted previously, subordinate ratings of supervisor transformational leadership may lead to different results than the supervisor self-report used herein. Of greater interest is the role of IPT, which failed to be a meaningful predictor of both PQCR and supervisor coaching.
behaviors. The inability to support any of these three effects (supervisor IPT on PQCR and coaching behaviors, subordinate IPT on PQCR) suggests that there may have been a problem with the measurement of IPT in the current study. Future research should re-examine these effects to determine if there truly is no effect, or if the lack of effect was merely an idiosyncrasy of the current study. Future research should also probe further into the effect of frequency of interaction on PQCR, particularly in this age of virtual teams and remote work. Research could seek to determine if face-to-face interaction is essential to coaching relationships, or if virtual (e.g., phone, webcam, email) interaction is equally as effective in cultivating a high-quality coaching relationship.

All in all, the results of the current study are encouraging. They suggest that certain factors clearly relate to supervisor/subordinate coaching relationships. The literature on coaching is full of open doors where extensive research is needed. The ultimate contribution of the current study depends on the willingness of other researchers to explore the relationships and effects investigated herein. Ideally, this paper is part of the beginning, not the premature end, of empirical research on employee coaching relationships, the variables that contribute to them, and their effects on performance and behavior change.
REFERENCES


APPENDICES
APPENDIX A

INITIAL POOL OF ITEMS FOR THE PQCR SCALE

Distinctiveness of the relationship
1. The guidance that my supervisor gives me is different from the guidance my coworkers receive from their supervisors.
2. The relationship I share with my supervisor is different from the relationships some of my coworkers share with their supervisors.
3. My supervisor is attuned to my individual needs at work.
4. My supervisor demonstrates interest in both my individual needs and those of my coworkers.
5. I have noticed that the way my supervisor interacts with me is different than the way my coworkers’ supervisors interact with them.
6. I have noticed that my supervisor focuses on different needs and goals with each of his/her direct reports, including myself.

Genuineness of the relationship
1. I believe that my supervisor truly cares about me.
2. My supervisor and I have mutual respect for one another.
3. Since I’ve been working with my supervisor, he/she has made the effort to build a personal relationship with me.
4. My supervisor honors confidentiality when we discuss matters relating to my job performance, development needs, or personal concerns.
5. I believe my supervisor feels a sense of commitment to me.
6. My supervisor really cares about my development.

Effective communication
1. My supervisor is effective at communicating with me.
2. My supervisor is a good listener.
3. My supervisor makes an effort to touch base with me regularly throughout the workweek.
4. If I need to talk to my supervisor, he/she makes time to meet with me.
5. My supervisor is easy to talk to.
Comfort with the relationship
1. I feel comfortable talking with my supervisor about my career and personal development.
2. I am satisfied with the interactions I have with my supervisor.
3. I am content to discuss my concerns or troubles with my supervisor.
4. I feel at ease talking with my supervisor about my job performance.
5. I feel safe being open and honest with my supervisor.

Facilitating development
1. My supervisor regularly coaches me to improve my job performance.
2. My supervisor enables me to develop as a person and as an employee of our organization.
3. My supervisor engages in activities that help me to unlock my potential.
4. My supervisor encourages me to engage in continuous learning.
5. My supervisor helps me to identify and build upon my strengths.
6. My supervisor works with me to help me learn from my past performance or experiences.

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APPENDIX B

MATERIALS PROVIDED TO SUBJECT MATTER EXPERTS (SMES)

Hello fellow I/O grad students,

I need your help as subject matter experts! I am creating a measure for my dissertation and would like your input on the initial items. Instructions for completing the attached forms are below. Please complete and return your packet to me by the end of the day on Tuesday, March 31st (the day before many of us leave for SIOP!). You can either fill it out electronically, save it, and email it back to me, OR you can print it out and complete it the old fashioned way – with a pen or pencil. Feel free to stick it in my mailbox (#26). This should take you 15-20 minutes to complete.

Instructions:

- Part 1: On pgs 2-4 I need your help sorting the items I have written into their five dimensions. Descriptions of these dimensions can be found in the table below. Please place an “X” in the column of the dimension that you think best fits each item.

- Part 2: On pgs. 5 and 6 I need you to actually rate the items. You will be rating your “direct supervisor” on these items. You may either a) refer to your advisor here at school or b) refer to a supervisor at another job if you have one. You do not need to indicate who you are rating, but make sure you refer to the same person as you complete each item. Please place an “X” under the column that best represents how you feel (agree/disagree). Don't worry – I'm the only person who will ever see your responses and will never link your responses with your name.

- Part 3: Finally, on pg. 7 please provide your comments or suggestions about the items. In addition to answering the three questions on pg. 7, feel free to note any additional comments. Your comments can be about the language used in a particular item, grammatical or spelling errors, general “readability,” issues with the dimensions, etc. I welcome ALL of your input – it’s a huge help to me and will help make the items more “reader friendly” for my data collection.

Thank you for your help!
- Brodie
Part 1: Please indicate with an “X” the dimension in which you believe each item best fits. Descriptions of the dimensions are listed on the previous page.

<table>
<thead>
<tr>
<th>Dimensions:</th>
<th>Distinctiveness of the Relationship</th>
<th>Comfort with the Relationship</th>
<th>Effective Communication</th>
<th>Genuineness of the Relationship</th>
<th>Facilitating Development</th>
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<td>I feel comfortable talking with my supervisor about my career and personal development.</td>
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<td>I am content to discuss my concerns or troubles with my supervisor.</td>
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<td>My supervisor regularly coaches me to improve my job performance.</td>
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<td>I feel safe being open and honest with my supervisor.</td>
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<td>My supervisor honors confidentiality when we discuss matters relating to my job performance, development needs, or personal concerns.</td>
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<td>My supervisor and I have mutual respect for one another.</td>
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<td>My supervisor is a good listener.</td>
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<td>My supervisor is easy to talk to.</td>
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<td>My supervisor encourages me to engage in continuous learning.</td>
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<td>I believe that my supervisor truly cares about me.</td>
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<td>Since I’ve been working with my supervisor, he/she has made the effort to build a personal relationship with me.</td>
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<td>The relationship I share with my supervisor is different from the relationships some of my coworkers share with their supervisors.</td>
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<td>I believe my supervisor feels a sense of commitment to me.</td>
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<td>My supervisor really cares about my development.</td>
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<td>I am satisfied with the interactions I have with my supervisor.</td>
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<td>My supervisor enables me to develop as a person and as an employee of our organization.</td>
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<td>My supervisor engages in activities that help me to unlock my potential.</td>
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<td>My supervisor is effective at communicating with me.</td>
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<td>My supervisor works with me to help me learn from my past performance or experiences.</td>
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<td>My supervisor demonstrates interest in both my individual needs and those of my coworkers.</td>
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<td>If I need to talk to my supervisor, he/she makes time to meet with me.</td>
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<td>My supervisor makes an effort to touch base with me regularly throughout the workweek.</td>
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PART 2: Your own ratings (refer to your advisor or a direct supervisor at work)

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<td>I have noticed that my supervisor focuses on different needs and goals with each of his/her direct reports, including myself.</td>
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<td>My supervisor helps me to identify and build upon my strengths.</td>
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<td>I feel comfortable talking with my supervisor about my career and personal development.</td>
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<td>I have noticed that the way my supervisor interacts with me is different than the way my coworkers’ supervisors interact with them.</td>
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<td>I am content to discuss my concerns or troubles with my supervisor.</td>
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<td>Dimensions:</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Neither Agree Nor Disagree</td>
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<td>My supervisor regularly coaches me to improve my job performance.</td>
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<td>10</td>
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<td>I feel safe being open and honest with my supervisor.</td>
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<td>My supervisor honors confidentiality when we discuss matters relating to my job performance, development needs, or personal concerns.</td>
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<td>My supervisor and I have mutual respect for one another.</td>
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<td>13</td>
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<td>My supervisor is a good listener.</td>
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<td>My supervisor is easy to talk to.</td>
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<td>My supervisor encourages me to engage in continuous learning.</td>
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<td>16</td>
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<td>I believe that my supervisor truly cares about me.</td>
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<td>Since I’ve been working with my supervisor, he/she has made the effort to build a personal relationship with me.</td>
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<td>The relationship I share with my supervisor is different from the relationships some of my coworkers share with their supervisors.</td>
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<td>I believe my supervisor feels a sense of commitment to me.</td>
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<td>20</td>
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<td>My supervisor really cares about my development.</td>
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<td>Dimensions:</td>
<td>Strongly Disagree</td>
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<td>Neither Agree Nor Disagree</td>
<td>Agree</td>
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<td>Items:</td>
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<td>21</td>
<td>I am satisfied with the interactions I have with my supervisor.</td>
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<td>22</td>
<td>My supervisor enables me to develop as a person and as an employee of our organization.</td>
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<td>23</td>
<td>My supervisor engages in activities that help me to unlock my potential.</td>
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<td>24</td>
<td>My supervisor is effective at communicating with me.</td>
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<td>25</td>
<td>My supervisor works with me to help me learn from my past performance or experiences.</td>
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<td>26</td>
<td>My supervisor demonstrates interest in both my individual needs and those of my coworkers.</td>
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<td>27</td>
<td>If I need to talk to my supervisor, he/she makes time to meet with me.</td>
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<td>28</td>
<td>My supervisor makes an effort to touch base with me regularly throughout the workweek.</td>
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Part 3: Comment section

*Note: The items are numbered the same in both the initial sorting activity (part 1) and your own ratings (part 2).

1. Please note any items that you felt were difficult to respond to. Please indicate the item number, the specific issue with that item, and/or your suggestions for improvement.

2. Please note any spelling or grammatical errors that you discovered. Please provide the item number as well as the error.

3. Please note any items that you believe will be difficult for “non I/O” people to understand or make sense of. Please provide the item number as well as the issue and/or your suggestions for improvement.

Please add ANY other comments or suggestions that you have about individual items or this research in general.
APPENDIX C

PILOT STUDY INSTRUCTIONS AND INFORMED CONSENT

The purpose of this survey is to develop a measure of work relationships with supervisors. This survey should take you about 10 minutes to complete. Please note that your responses are completely anonymous and confidential. Aside from some basic demographic questions (your gender, job type, tenure, etc.), no personal information about you will be collected.

Please note that you must be employed full time AND have a direct supervisor (boss, manager) to participate in the survey. Please refer to this supervisor as you think about each question. If you have more than one direct supervisor, please select the one with whom you interact the most. It is essential that you think about the same supervisor for every question.

If you have any questions or comments about the survey, please feel free to contact Brodie Gregory, doctoral student at the University of Akron, at jbg13@uakron.edu or 301.639.8950.

By selecting the "begin survey" button below, you consent that your responses may be used for this research.
APPENDIX D

PILOT STUDY DEBRIEF

The purpose of this research is to enhance our understanding of coaching relationships that exist between supervisors and their direct reports. Employee coaching is an important developmental activity that continues to grow in management practices. Through your participation in this survey, you have helped to create a measure of "perceived quality of the coaching relationship."

If you would like to learn more about employee coaching in general or this research, specifically, please feel free to contact Brodie Gregory, doctoral student at the University of Akron, at jbg13@uakron.edu or 301.639.8950.
APPENDIX E

PILOT STUDY DEMOGRAPHIC QUESTIONS

1. Please indicate your gender.
2. Please indicate your age.
3. On average, how many hours do you work per week?
4. What is your job title?
5. In what industry do you work?
6. How long have you worked in your current organization (in years)?
7. How long have you worked for your current supervisor (in years)?
APPENDIX F

PQCR ITEMS INCLUDED IN THE PILOT STUDY

Note: Items were presented in random order, so as not to influence responding

I. Distinctiveness of the relationship
   1. The guidance that my supervisor gives me is different from the guidance my coworkers receive from their supervisors.
   2. My supervisor is attuned to my individual needs at work.
   3. I have noticed that my supervisor focuses on different needs and goals with each of his/her direct reports, including myself.
   4. I have noticed that the way my supervisor interacts with me is different than the way my coworkers’ supervisors interact with them.
   5. The relationship I share with my supervisor is different from the relationships some of my coworkers share with their supervisors.
   6. My supervisor demonstrates interest in both my individual needs and those of my coworkers.

II. Genuineness of the relationship
   1. My supervisor and I have mutual respect for one another.
   2. I believe that my supervisor truly cares about me.
   3. Since I’ve been working with my supervisor, he/she has made the effort to build a personal relationship with me.
   4. I believe my supervisor feels a sense of commitment to me.
   5. Because we have a good relationship, my supervisor and I can be open and honest with each other.
   6. My supervisor is sincere when providing me with guidance and input.

III. Effective communication
   1. My supervisor is a good listener.
   2. My supervisor is easy to talk to.
   3. My supervisor is effective at communicating with me.
   4. If I need to talk to my supervisor, he/she makes time to meet with me.
   5. My supervisor makes an effort to touch base with me regularly throughout the work week.
IV. Comfort with the relationship
   1. I feel at ease talking with my supervisor about my job performance.
   2. I feel comfortable talking with my supervisor about my career and personal development.
   3. I am content to discuss my concerns or troubles with my supervisor.
   4. I feel safe being open and honest with my supervisor.
   5. I have good rapport with my supervisor.

V. Facilitating development
   1. My supervisor helps me to identify and build upon my strengths.
   2. My supervisor encourages me to engage in continuous learning.
   3. My supervisor enables me to develop as an employee of our organization.
   4. My supervisor engages in activities that help me to unlock my potential.
   5. My supervisor works with me to help me learn from my past performance or experiences.
APPENDIX G

FINAL PERCEIVED QUALITY OF THE COACHING RELATIONSHIP (PQCR)

SCALE

1. My supervisor and I have mutual respect for one another.
2. I believe that my supervisor truly cares about me.
3. I believe my supervisor feels a sense of commitment to me.
4. My supervisor is a good listener.
5. My supervisor is easy to talk to.
6. My supervisor is effective at communicating with me.
7. I feel at ease talking with my supervisor about my job performance.
8. I am content to discuss my concerns or troubles with my supervisor.
9. I feel safe being open and honest with my supervisor.
10. My supervisor helps me to identify and build upon my strengths.
11. My supervisor enables me to develop as an employee of our organization.
12. My supervisor engages in activities that help me to unlock my potential.

Items 1-3: Genuineness of the relationship dimension
Items 4-6: Effective communication dimension
Items 7-9: Comfort with the relationship dimension
Items 10-12: Facilitating development dimension
APPENDIX H

FOCAL STUDY INSTRUCTIONS AND INFORMED CONSENT: MANAGERS

The survey that you are about to complete will help provide direction to future leadership development and coaching initiatives here at Timken. We thank you in advance for completing the survey and providing your honest input.

Please note that your responses to this survey will be completely confidential. Data from the survey will only be used in aggregate. In other words, we are not interested in your individual responses, but overall average responses from all survey participants. Only those individuals responsible for analyzing the data will have access to your data. No one else from Timken will ever have access to these data.

If you have questions about this survey or would like additional information, please send us an email at tperform@Timken.com.

In addition to Timken’s leadership development research, data from this survey will also be used for dissertation research by Brodie Gregory – a PhD student in Industrial/Organizational Psychology at The University of Akron in Akron, Ohio. If you would like to learn more about Brodie’s dissertation research, please contact her at jbg13@uakron.edu.

This survey will take you approximately 10-15 minutes to complete. Please respond to all items, and answer as accurately and honestly as you are able. The only correct answers are your honest thoughts and opinions.

In the event that you are unable to complete the survey in one sitting, please note that you can save your progress and finish the survey later. When you save your progress, it is critical that you save the link provided to complete the survey.

By clicking “Begin Survey” at the bottom of the page you are agreeing to participate in this survey.
APPENDIX I

FOCAL STUDY DEBRIEF: MANAGERS

Thank you for participating in this survey!

Your input will help to shape future leadership development and coaching initiatives here at Timken.

If you have any questions about the survey, please send an email to Tperform@Timken.com.

If you have questions about the use of this data for dissertation research, please contact Brodie Gregory, doctoral student at The University of Akron, at jbg13@uakron.edu.

Thank you again for your time and honest input!
APPENDIX J

FOCAL STUDY INSTRUCTIONS AND INFORMED CONSENT: SUBORDINATES

The survey that you are about to complete will help provide direction to future leadership development and coaching initiatives here at Timken. We thank you in advance for completing the survey and providing your honest input.

In this survey you will be asked a number of questions about your supervisor. If you have changed supervisors within the past month, please answer the questions in regard to your previous supervisor.

Please note that your responses to this survey will be completely confidential. Data from the survey will only be used in aggregate. In other words, we are not interested in your individual responses, but overall average responses from all survey participants. Only those individuals responsible for analyzing the data will have access to your data. No one else from Timken will ever have access to these data. If you have questions about this survey or would like additional information, please send us an email at tperform@Timken.com.

In addition to Timken’s leadership development research, data from this survey will also be used for dissertation research by Brodie Gregory – a PhD student in Industrial/Organizational Psychology at The University of Akron in Akron, Ohio. If you would like to learn more about Brodie’s dissertation research, please contact her at jbg13@uakron.edu.

This survey will take you approximately 20-25 minutes to complete. Please respond to all items, and answer as accurately and honestly as you are able. The only correct answers are your honest thoughts and opinions.

In the event that you are unable to complete the survey in one sitting, please note that you can save your progress and finish the survey later. When you save your progress, it is critical that you save the link provided to complete the survey.

Finally, you may notice that some of the questions seem redundant. This is simply because we are trying to measure some dimensions from every possible angle, and do so in a valid way. By clicking “Begin Survey” at the bottom of the page you are agreeing to participate in this survey.
APPENDIX K

FOCAL STUDY DEBRIEF: SUBORDINATES

Thank you for participating in this survey!

Your input will help to shape future leadership development and coaching initiatives here at Timken.

If you have any questions about the survey, please send an email to tperform@Timken.com.

If you have questions about the use of this data for dissertation research, please contact Brodie Gregory, doctoral student at The University of Akron, at jbg13@uakron.edu.

Thank you again for your time and honest input!
APPENDIX L

DEMOGRAPHIC QUESTIONS: MANAGERS

1. Please indicate your age: (open ended)

2. Please indicate your gender:
   a. Male
   b. Female

3. Please indicate your race:
   a. African-American
   b. Asian
   c. Caucasian/White
   d. Latino
   e. Native American
   f. Other

4. Please indicate your level of education:
   a. Some high school
   b. High school degree
   c. Associates degree
   d. Some college
   e. College degree
   f. Some graduate school
   g. Graduate degree (Masters, PhD, JD, MD, etc.)

5. How long have you worked for The Timken Company? (open ended)

6. What is your job title? (open ended)

7. In what part of the business do you work (open ended)

8. How long have you been in your current job? (open ended)

9. How long have you worked with your current supervisor? (open ended)

10. How many direct reports do you supervise? (open ended)
APPENDIX M

DEMOGRAPHIC QUESTIONS: SUBORDINATES

1. Please indicate your age: (open ended)
2. Please indicate your gender: (Male/Female)
3. Please indicate your race:
   a. African-American
   b. Asian
   c. Caucasian/White
   d. Latino
   e. Native American
   f. Other
4. Please indicate your level of education:
   a. Some high school
   b. High school degree
   c. Associates degree
   d. Some college
   e. College degree
   f. Some graduate school
   g. Graduate degree (Masters, PhD, JD, MD, etc.)
5. How long have you worked for The Timken Company? (open ended)
6. What is your job title? (open ended)
7. In what part of the business do you work (open ended)
8. How long have you been in your current job? (open ended)
9. How long have you worked with your current supervisor? (open ended)
10. How often do you interact with your supervisor in an average week?
    a. Infrequently or Not at all
    b. Somewhat infrequently
    c. Somewhat frequently
    d. Frequently
    e. Very frequently or all the time
APPENDIX N

TRANSFORMATIONAL LEADERSHIP (MLQ)

(Bass & Avolio, 1995)

NOTE: The copyright agreement for the MLQ stipulates that a maximum of five (5) sample items can be included in a proposal, thesis, or dissertation. Thus, the following five items were selected to represent the five dimensions of transformational leadership included in the MLQ.

Instructions: The purpose of the following questions is to describe your personal leadership style. Please rate the extent to which each statement fits you. When a question refers to "others," think about direct reports and peers here at Timken. Remember, there are no right answers, only your honest thoughts and feelings.

1. I instill pride in others for being associated with me. (Idealized Influence – Attributed)
2. I talk about my most important values and beliefs. (Idealized Influence – Behavior)
3. I talk optimistically about the future. (Inspirational Motivation)
4. I seek differing perspectives when solving problems. (Intellectual Stimulation)
5. I treat others as individuals rather than just as a member of a group. (Individual Consideration)
APPENDIX O

EMOTIONAL INTELLIGENCE

Wong & Law (2002)

Instructions: Please indicate the extent to which you agree or disagree with each of the following statements. Remember that there are no right answers, only your honest thoughts and feelings.

1. I have a good sense of why I have certain feelings most of the time.
2. I have good understanding of my own emotions.
3. I really understand what I feel.
4. I always know whether or not I am happy.
5. I always know my friends’ emotions from their behavior.
6. I am a good observer of others’ emotions.
7. I am sensitive to the feelings and emotions of others.
8. I have good understanding of the emotions of people around me.
9. I always set goals for myself and then try my best to achieve them.
10. I always tell myself I am a competent person.
11. I am a self-motivated person.
12. I would always encourage myself to try my best.
13. I am able to control my temper and handle difficulties rationally.
14. I am quite capable of controlling my own emotions.
15. I can always calm down quickly when I am very angry.
16. I have good control of my own emotions.
APPENDIX P

IMPLICIT PERSON THEORY

Chiu, Hong, and Dweck (1997)

Instructions: Please rate the extent to which you agree or disagree with each of the following statements. Remember that there are no right answers, just your honest thoughts and feelings.

___________________________________________________________________

1. The kind of person someone is, is something very basic about them and it can't be changed very much.
2. People can do things differently, but the important parts of who they are can’t really be changed.
3. Everyone is a certain kind of person and there is not much that can be done to really change that.
4. People can’t change their deepest attributes.
5. People can substantially change the kind of person they are.
6. People can change even their most basic qualities.
7. No matter what kind of person someone is, they can always change a great deal.
8. As much as I hate to admit it, you can’t teach an old dog new tricks.
APPENDIX Q

THE FEEDBACK ENVIRONMENT SCALE

Steelman, Levy, & Snell (2004)\textsuperscript{17}

Instructions: Please rate the extent to which you agree or disagree with each of the following statements.

1. My supervisor is generally familiar with my performance on the job.
2. My supervisor is fair when evaluating my job performance.
3. I have confidence in the feedback my supervisor gives me.
4. My supervisor gives me useful feedback about my job performance.
5. The performance feedback I receive from my supervisor is helpful.
6. I value the feedback I receive from my supervisor.
7. My supervisor is supportive when giving me feedback about my job performance.
8. When my supervisor gives me performance feedback, he or she is considerate of my feelings.
9. My supervisor is tactful when giving me performance feedback.
10. When I do a good job at work, my supervisor praises my performance.
11. My supervisor generally lets me know when I do a good job at work.
12. I frequently receive positive feedback from my supervisor.
13. My supervisor tells me when my work performance does not meet organizational standards.
14. On those occasions when my job performance falls below what is expected, my supervisor lets me know.
15. On those occasions when I make a mistake at work, my supervisor tells me.
16. My supervisor is usually available when I want performance information.
17. My supervisor is too busy to give me feedback. (R)
18. I interact with my supervisor on a daily basis.
19. My supervisor is often annoyed when I directly ask for performance feedback. (R)
20. When I ask for performance feedback, my supervisor generally does not give me the information right away. (R)
21. My supervisor encourages me to ask for feedback whenever I am uncertain about my job performance.

\textsuperscript{17} Rosen’s (2006) adapted short-form version of Steelman et al.’s original scale was used in the current study.
APPENDIX R

TRUST

McAllister (1995)

Instructions: Please rate the extent to which you agree or disagree with each of the following statements. Remember that there are no right answers, just your honest thoughts and feelings.

1. My supervisor and I have a sharing relationship. We can both freely share our ideas, feelings, and hopes.
2. I can talk freely to my supervisor about difficulties I am having at work and know that he/she will want to listen.
3. My supervisor and I would both feel a sense of loss if one of us was transferred and we could no longer work together.
4. If I shared my problems with my supervisor, I know he/she would respond constructively and caringly.
5. I would have to say that my supervisor and I have both made considerable emotional investments in our working relationship.
6. My supervisor approaches his/her job with professionalism and dedication.
7. Given my supervisor’s track record, I see no reason to doubt his/her competence and preparation for the job.
8. I can rely on my supervisor not to make my job more difficult by careless work.
9. Most people, even those who aren’t close friends of my supervisor, trust and respect him/her as a coworker.
10. Other work associates of mine who must interact with my supervisor consider him/her to be trustworthy.
11. If people know more about my supervisor and his/her background, they would be more concerned and monitor his/her performance more closely.
APPENDIX S

INTERACTIVE EMPATHY

Kellett, Humphrey, & Sleeth (2006)

Instructions: Please rate the extent to which you agree or disagree with each of the following statements. Remember that there are no right answers, just your honest thoughts and feelings.

_______________________________________________________________________

1. My supervisor values me as an individual.
2. My supervisor feels emotions that I experience.
3. My supervisor makes me feel understood.
4. My supervisor shares my feelings of happiness.
5. My supervisor encourages me to talk about how I feel.
APPENDIX T

FEEDBACK ORIENTATION

Linderbaum & Levy (under review)

Instructions: Please rate the extent to which you agree or disagree with each of the following statements. Remember that there are no right answers, just your honest thoughts and feelings.

1. Feedback contributes to my success at work.
2. To develop my skills at work, I rely on feedback.
3. Feedback is critical for improving performance.
4. Feedback from supervisors can help me advance in a company.
5. I find that feedback is critical for reaching my goals.
6. It is my responsibility to apply feedback to improve my performance.
7. I hold myself accountable to respond to feedback appropriately.
8. I don’t feel a sense of closure until I respond to feedback.
9. If my supervisor gives me feedback, it is my responsibility to respond to it.
10. I feel obligated to make changes based on feedback.
11. I try to be aware of what other people think of me.
12. Using feedback, I am more aware of what people think of me.
13. Feedback helps me manage the impression I make on others.
14. Feedback lets me know how I am perceived by others.
15. I rely on feedback to help me make a good impression.
16. I feel self-assured when dealing with feedback.
17. Compared to others, I am more competent at handling feedback.
18. I believe that I have the ability to deal with feedback effectively.
19. I feel confident when responding to both positive and negative feedback.
20. I know that I can handle the feedback that I receive.
APPENDIX U

LEADER-MEMBER EXCHANGE

Liden & Maslyn (1998)

Instructions: Please rate the extent to which you agree or disagree with each of the following statements. Remember that there are no right answers, just your honest thoughts and feelings.

1. I like my supervisor very much as a person.
2. My supervisor is the kind of person one would like to have as a friend.
3. My supervisor is a lot of fun to work with.
4. My supervisor defends my work actions to a superior, even without complete knowledge of the issue in question.
5. My supervisor would come to my defense if I were "attacked" by others.
6. My supervisor would defend me to others in the organization if I made an honest mistake.
7. I do work for my supervisor that goes beyond what is specified in my job description.
8. I am willing to apply extra efforts, beyond those normally required, to meet my supervisor's work goals.
9. I do not mind working my hardest for my supervisor.
10. I am impressed with my supervisor's knowledge of his/her job.
11. I respect my supervisor's knowledge of and competence on the job.
12. I admire my supervisor's professional skills.
APPENDIX V

LEARNING GOAL ORIENTATION

Button, Mathieu, & Zajac (1996)

Instructions: Please rate the extent to which you agree or disagree with each of the following statements. Remember that there are no right answers, just your honest thoughts and feelings.

1. The opportunity to do challenging work is important to me.
2. When I fail to complete a difficult task, I plan to try harder the next time I work on it.
3. I prefer to work on tasks that force me to learn new things.
4. The opportunity to learn new things is important to me.
5. I do my best when I’m working on a fairly difficult task.
6. I try hard to improve on my past performance.
7. The opportunity to extend the range of my abilities is important to me.
8. When I have difficulty solving a problem, I enjoy trying different approaches to see which one will work.
APPENDIX W

COACHING BEHAVIORS

Heslin, Latham, & VandeWalle (2006)

Instructions: Please rate the extent to which your supervisor does each of the following. Remember, there are no right answers, just your honest thoughts and feelings.

“To what extent does your supervisor…”

1. Provide guidance regarding performance expectations?
2. Help you to analyze your performance?
3. Provide constructive feedback regarding areas for improvement?
4. Offer useful suggestions regarding how you can improve your performance?
5. Act as a sounding board for you to develop your ideas?
6. Facilitate creative thinking to help solve problems?
7. Encourage you to explore and try out new alternatives?
8. Express confidence that you can develop and improve?
9. Encourage you to continuously develop and improve?
10. Support you in taking on new challenges?
APPENDIX X

IRB APPROVAL FOR RESEARCH WITH HUMAN SUBJECTS

Date: February 15, 2009
To: Jane Brodie Gregory
71 Nottoway Ct.
Akon, Ohio 44313

From: Sharon McWhorter, IRB Administrator

Re: IRB Number 20090312 "Employee Coaching: The Role of the Supervisor-Subordinate Relationship"

Thank you for submitting your Exemption Request for the referenced study. Your request was approved on March 23, 2009. The protocol represents minimal risk to subjects and matches the following federal category for exemption:

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

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

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

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

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

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

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

Please retain this letter for your files. If the research is being conducted for a master’s thesis or doctoral dissertation, the student must file a copy of this letter with the thesis or dissertation.

Cc: Paul Levy - Advisor
Cc: Stephanie Woods - IRB Chair

☒ Approved consent forms enclosed

Office of Research Services and Sponsored Programs
Akon, OH 44313-2102
330-972-7666 • 330-972-6281 Fax
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