

The performance effects of coaching: a multilevel analysis using hierarchical linear modeling

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Drawing on the conceptual foundations of feedback and behavior modeling we investigate the effects of managers' coaching intensity on the performance of those they supervise, at multiple levels of an organizational hierarchy. Data from 328 sales associates reporting to 114 middle managers, and 93 middle managers reporting to 32 executive managers are used to test the research hypotheses. Using hierarchical linear modeling we find that managers' coaching intensity influences the performance of their subordinates after controlling for job satisfaction, and this effect weakens at greater hierarchical levels. Surprisingly, we do not observe any cross-level moderating effects of coaching intensity on the satisfaction–performance relationship. We discuss the implications of our findings for future research and practice.

Keywords: coaching; HLM; job satisfaction; performance

Introduction

It has been suggested that effective organizational response to the pressures of an increasingly dynamic and unpredictable environment demands that organizations abandon the classical authority-based hierarchy that dominated relationships between superiors and subordinates for decades. As individual initiative and entrepreneurship arguably become more important to organizational success than a prescriptive, control-oriented mode of operation, it is not surprising that scholars and practitioners alike are exploring new models of organizational culture, roles, and work practices that can positively affect individual attitudes (Macky and Boxall 2007) and enable superior employee performance. The envisioned evolution in organizational design is one where there is a reconfiguration of the managerial role, a shift in the relationship between employee and supervisor, and an extensive use of coaching to provide performance feedback to subordinates (Bartlett and Ghoshal 1997). Indeed, as observed by Ellinger, Ellinger and Keller (2003, p. 436) 'the concept of coaching has emerged as a new paradigm or metaphor for management.' In contrast to a traditional command-and-control form of managerial supervision, coaching is characterized by an emphasis on constructive and developmental feedback for improving employees' work performance, and their ability to cope with routine and non-routine problems, e.g. Ellinger et al. (2003).

Within the growing academic and practitioner literature on coaching, two main streams of research can be identified; one focused on executive coaching and a second on developmental coaching. Executive coaching is typically viewed as an activity performed

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within a limited period of time, where an internal or external consultant supports an executive manager in the development of specific competencies or in solving specific problems (Hall, Otazo and Hollenbeck 1999). An executive coach 'provides executives important feedback that they would normally never get about personal, performance, career, and organizational issues' (Hall et al. 1999, p. 40) and helps the executive manager to become more self-aware through the use of action learning methods. In contrast to the limited time span of executive coaching interventions, a second form of coaching (i.e. developmental coaching) occurs in the day-to-day relationship between supervisor and subordinates (Evered and Selman 1989; Ellinger and Bostrom 1999; Yukl 2002).

In spite of its mounting importance in management discourse, and although there exists a reasonably robust body of research focused on executive coaching, few scholars have studied the effects of developmental coaching on subordinate performance (Ellinger and Bostrom 1999; Yukl 2002). Further, the process of feedback-giving typically occurs at both individual and team levels of the organizational structure (Sully de Luque and Sommer 2000) but extant research has not investigated the impact of developmental coaching from a multi-level perspective. A cross-level theoretical perspective is important for another reason, when a coaching culture permeates multiple levels of an organizational hierarchy, supervisors in middle management positions not only engage in developmental coaching themselves as team leaders, they are the recipients of it as well. And to the degree that differences among managers yield variations in the effects of coaching across the individuals each manager supervises, a research perspective involving different hierarchical layers facilitates the investigation of these critical differences.

Our objective in this paper is to examine the influence of coaching intensity behavior on subordinate performance across multiple hierarchical levels of the supervisor-subordinate relationship. We limit our analysis to a specific facet of subordinates' performance: sales performance. This metric has been identified as the most relevant aspect for evaluating salesperson activity (Corcoran, Peterson, Baitch and Barrett 1995). Drawing on prior work, we view coaching intensity as a supervisor's ability to provide effective developmental feedback to subordinates. Our study addresses two broad research questions: (1) Does a supervisor's coaching intensity have an impact on the performance outcomes of subordinates? (2) Does the coaching intensity of executive managers influence the coaching intensity of middle managers? In addressing these questions we are thus able to study not only how leader behaviors influence important individual outcomes, but also how the behaviors of leaders influence other leaders.

Theoretical background and hypothesis

Developmental coaching

Developmental coaching occurs in the on-going and persistent interaction between a supervisor and employee in which the supervisor provides constructive and developmental feedback, helps subordinates handle difficult problems or situations, and creates opportunities for practicing complex procedures before using them in the work setting in order to improve employees' performance (Hunt and Weintraub 2002; Stone 2002; Yukl 2002). Extant literature on developmental coaching has its theoretical foundations in the 'feedback' stream of research, and can be traced back to the explication of supervisors' behaviors for guiding employees' outcome improvements (Yukl 2002; London 2003). Consistent with this definition of developmental coaching, Lindbom (2007) pointed out

that coaching reflects a one-to-one approach between coach and coachee to facilitate individual learning and behavioral change, focusing more on *how* to face a particular situation rather than indicating *what* actions should be taken by the coachee. Thus, coachees learn and develop through jointly reflecting with the coach about the way through which they confronted challenges and problems in their day-to-day job activity (Wood Daudelin 1996). Developmental coaching is not an episodic interaction, but rather a mechanism to help employees reflect on their actions on a regular basis (Lindbom 2007; Rao 2007). Because of its on-going and continuous nature, it has been suggested that coaching may yield positive effects over and above traditional managerial training programs in developing individuals' productivity (Olivero, Bane and Kopelman 1997).

However, despite the fact that developmental coaching is rapidly becoming a critical issue for organizations that view it as a task that has to be accomplished by their managers (Bartlett and Ghoshal 2002; Heslin and Latham 2004; Latham, Almost, Mann and Moore 2005) evidence in support of the value of developmental coaching for employee development and performance improvement is mixed (Heslin, Vandewalle and Latham 2006). As observed by Heslin et al. (2006) and Heslin and Latham (2004) although organizations and managers recognize the potential of coaching for improving performance, it is often the case that the introduction of a developmental coaching program does not show the expected results. Whitmore (2003) argues that coaching effectiveness could be limited by organizational and behavioral barriers. For example, coaching effectiveness could be constrained by the lack of an organizational environment that supports coaching oriented behaviors (Whitmore 2003). Firms may introduce coaching following a managerial fashion or fad (Abrahamson 1996) without explicating and supporting its usefulness and strategic value within the firm (Lindbom 2007). In such an environment, managers are likely to consider developmental coaching as an obstacle rather than an opportunity to develop employees reporting to them. Thus, coaching would represent a new formal label for indicating performance appraisal, without any real change within the organization (Fraser 2001; White, Hill, McGovern, Mills and Smeaton 2003). White et al. (2003) demonstrate that employees do not always benefit from high performance work practices such as teamwork, developmental programs, and coaching because for some individuals, being more involved in work groups or having the opportunity of work flexibility may accentuate the perceived pressure on results, stress, and instability (Worrall, Cooper and Campbell 2000; Danford 2001).

Another explanation for poor outcomes from coaching is the possibility that in the absence of a supporting environment that signals commitment to coaching, both coaches and coachees would perceive coaching as an obstacle which distracts them from the day-to-day activities they need to perform. With respect to developmental coaching practices, Whitmore (2003) notes that managers feel they do not have time for regularly engaging in coaching oriented behaviors. Increased time pressure and workloads (Green 2001, 2006) lead managers to be more focused on their business-related activities rather than on developing the relationship with their employees and developing a foundation for long-term performance. Further, the introduction of high performance practices such as developmental coaching may be perceived as a way through which organizations become more demanding, disguising the request for increasing work demands through offering opportunities for development, motivation and empowerment (Appelbaum, Bailey, Berg and Kalleberg 2000).

Thus, extant research on the effects of coaching and high performance practices is equivocal. On the one hand, coaching can be perceived as a practice that represents a benefit both for organizations and employees; on the other hand, coaching can be

perceived as a practice through which organizations push for an increase in the work demand. We adopt the perspective of Whitmore (2003) who argues that coaching can be beneficial both for the organization and for the employees only if it is associated with managerial interventions for developing a supportive environment. In other words, organizations should support and train managers in developing awareness about the strategic value of coaching for long-term organizational success (Lindbom 2007), for improving individuals' effectiveness in managing their tasks and their work-life balance (Whitmore 2003), and for becoming better and more proactive learners (Redshaw 2000). Thus, coaching oriented behaviors can be effectively observed in those organizational contexts that proactively construct the foundation for effectively changing toward a developmental managerial style.

In order to accomplish our goal of studying the effect of developmental coaching on individuals' performance, two primary theoretical perspectives are relevant, research on feedback that provides insights into the nature of the feedback-giving process between supervisors and subordinates, and behavior modeling, which illuminates how the actions of organizational actors influence each other. We briefly review key findings from both streams before proposing the specific hypotheses that guide our empirical analysis.

Research on feedback in organizational settings

Researchers have used the term *feedback* to refer to the information provided by external agent(s) regarding some aspect(s) of one's task performance (Kluger and DeNisi 1996). Previous studies on feedback have contributed to the management and leadership literatures by incorporating diverse theoretical and empirical perspectives. Kinicki, Prussia, Wu and Mckee-Ryan (2004) observe that research on feedback has evolved within at least two distinct streams. One stream focuses on the drivers which lead individuals to proactively engage in feedback-seeking behaviors (e.g. Renn and Fedor 2001; Sully de Luque and Sommer 2000). In a second stream, scholars investigate the characteristics of the source and the outcomes which derive from the feedback (Albright and Levy 1995; Ilgen, Fisher and Taylor 1979; Goodman and Wood 2004). For example, it has been noted that individuals prefer to be evaluated by their direct supervisor (Gosselin, Werner and Halle 1997) rather than other sources, such as peers. Other studies have highlighted the relationship between the type of feedback, motivational aspects, and individual goal regulation (Ilies and Judge 2005). In spite of the fact that a majority of studies suggest a positive relationship between feedback and performance, in their meta-analysis of this research, Kluger and DeNisi (1996) point out the somewhat equivocal nature of this relationship. They suggest that the linkage between feedback and performance can be traced back to the differences in the feedback-giving behaviors performed by the leader toward the subordinates, the range of behaviors exhibited can be viewed as a continuum from those that are authoritarian, i.e. more 'telling' to those that are didactic and focus on offering constructive information.

Constructive behavior is typically associated with a feedback-giving process between leader and subordinates that has developmental purposes (Lee and Akhtar 1996; London, Larsen and Thisted 1999). Such behaviors are consistent with the coaching definition which revolves around the ability of the supervisor to give feedback oriented towards subordinates' development (Yukl 2002; Ellinger et al. 2003). By contrast, a 'telling' behavior in the process of feedback-giving tends to simply inform the subordinates about their performance gap, pointing out their errors and limitations (Kopelman 1986).

Such a 'telling' approach where 'management too often merely gives ratees their feedback reports and lets them figure out what to do with the results,' (London, Smither and Adsit 1997, p. 166) is inconsistent with the envisioned shift in the supervisor–subordinate relationship described earlier.

To the extent that a supervisor is able to provide effective and coaching-oriented feedback to the subordinates, their performance should exhibit improvement. Thus, feedback giving offers a conceptual rationale for investigating the relationship between the intensity of coaching behavior and subordinate performance. Furthermore, as we argue subsequently, because a leader's upward relationship affects the downward relationship as well (Graen, Cashman, Ginsburgh and Schiemann 1978) the coaching and feedback-giving behaviors of managers at higher levels of the organizational hierarchy should influence the behaviors of managers at lower levels.

Social cognitive theory and behavior modeling

A second theoretical lens that is relevant for a multi-level study of coaching behaviors is Bandura's (1977) influential social cognitive theory. According to social cognitive theory, in addition to learning from actual performance of a behavior and personally experiencing the associated consequences, individuals' vicarious learning from observing others' behaviors constitutes a key mechanism driving behavioral change. The essence of social cognitive theory is that modeling is a dominant process through which individuals learn (Bandura 1977, 1986). Thus, knowledge and skills may be acquired not only through the individual's direct experience, but are also attained through observation and emulation of others (Wood and Bandura 1989). It is important to note that modeling is not a behavior reflective of mere imitation, but rather it represents a process through which individuals select, codify, and perform the observed behaviors (Bandura 1977). As might be expected, behaviors which are recognized to be related to positive consequences are more likely to be performed (Manz and Sims 1980).

Wood and Bandura (1989) posit that one of the most significant ways in which social cognitive theory can be observed in organizational contexts is related to the development of competencies through mastery modeling. A common application of mastery modeling in such settings is for improving supervisors' skills (Latham and Saari 1979). Since often the explanation concerning how to solve a problem is not enough (Manz and Sims 1980) mastery modeling is adopted to illustrate different rules to handle different situations, guide the perfection of the new skills through practice, and to provide effective feedback. This process has to be pursued in day-to-day routines and activities (Wood and Bandura 1989) and each supervisor has the potential to influence subordinates' behavior by acting as a model in such daily interactions (Manz and Sims 1980). Substantively then, social cognitive theory suggests that two types of behavior modeling are likely to be present in organizations. In the first, subordinates will master new competencies and modify their performance behaviors based on emulating a supervisor who effectively performs coaching-oriented behaviors. And in the second, the coaching behaviors of managers at higher levels are likely to be emulated by those in supervisory positions at lower levels.

Conceptual model

Building on the literatures reviewed above, Figure 1 depicts our conceptualization of the relationships in a hierarchical coaching model. The model spans three levels of an organizational hierarchy, where front-line employee teams, staff are nested within middle

managers based on reporting relationships, and middle managers are nested within executive managers. The conceptualization of relationships is based on a direct consensus model (Chan 1998; Klein, Buhl Conn, Smith and Sorra 2001) where managerial coaching behavior at different levels of analysis is theorized to be a function of individual perceptions of their supervisees. Klein and Kozlowski (2000) note that such models typically describe the shared properties of an organizational unit, in this case the team supervised by a specific manager.

The key cross-level variable in our model is the coaching intensity of managers. Leadership scholars have vigorously debated whether the perceptions of leader behaviors are similar or different across members of a team, Dansereau and Yammarino 1998, and presented arguments in support of both consensus and disagreement. We follow the perspective of Seibert, Silver and Randolph 2004, who argue that individuals belonging to the same team are likely to be exposed to the same work practices, which leads to a shared perception of the contextual conditions in which they operate that are distinct from those of other teams. Conceptually, our expectation of shared perceptions among team members in regard to their leader’s behavior is predicated on the belief that is likely to be difficult to sustain a leader-as-coach approach to management with some team members and not others. The model, as shown in Figure 1, involves two levels of analysis, the team supervised by a specific manager and the individual supervisee.

Arguments supporting the specific hypotheses are developed below.

The antecedents of performance

We first examine the determinants of performance. Performance is viewed as being driven by two key antecedents, job satisfaction that represents an individual’s overall affect toward the job, and coaching intensity, capturing the degree of the supervisor’s ability to provide effective developmental feedback to the subordinates.

A literature review and meta-analysis conducted by Judge, Bono, Thoresen and Patton (2001) identifies seven different approaches to modeling the relationship between satisfaction and performance. They observe that previous results concerning this relationship are not consistent, underscoring the need for further research on this topic. In our theorizing we adopt one of the classical and dominant approaches to the

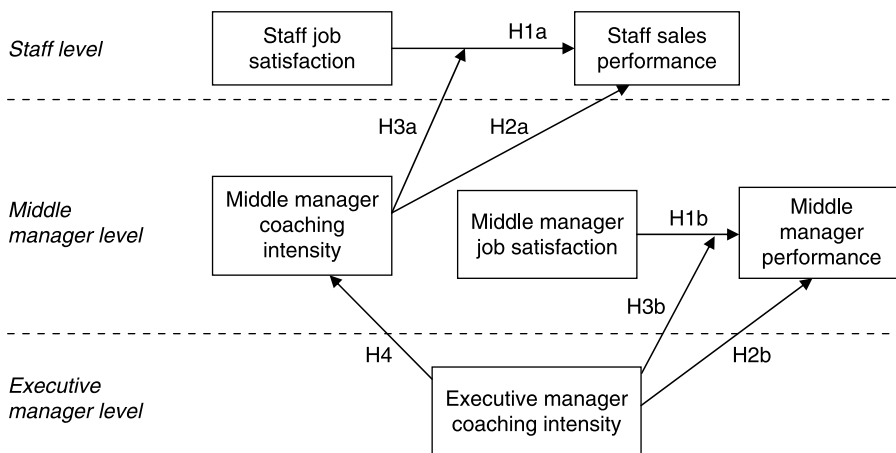


Figure 1. Conceptual model.

satisfaction–performance relationship that posits a causal effect of job satisfaction on performance. This relationship has its roots in theory from social psychology that relates individuals' attitudes to corresponding behaviors (Fishbein and Ajzen 1975). Since an attitude represents an evaluative disposition toward a certain situation or object, individuals who have a positive attitude are likely to behave consistently with the attitude (Judge et al. 2001). Hence, individuals who are more satisfied with their jobs will be more motivated to excel, and will therefore exhibit higher performance (Keaveney and Nelson 1993; Shore and Martin 1989). Extending these arguments to different levels of the organizational hierarchy we propose:

Hypothesis 1a: Staff job satisfaction is positively related to staff sales performance.

Hypothesis 1b: Middle management job satisfaction is positively related to middle management sales performance.

As argued earlier, the essence of coaching is developmental, i.e. geared towards eliciting improvements in performance. According to Hackman (2003) work team effectiveness is a function of three performance processes: effort expended by team members; the match between the task, situation, and performance strategies employed by team members; and the level of knowledge and skills possessed by the team. Empirical evidence suggests that coaching behavior addresses all three performance processes in a variety of ways.

A supportive and coaching-oriented leader allows individuals to perceive a safer environment which permits them to improve their knowledge and skills (Edmondson 1999). For example, developmental feedback facilitates an open discussion of errors which can improve individual performance (Edmondson 1999). Moreover, a coaching-oriented leader who provides constructive and developmental feedback will reduce environmental ambiguity (Johlke and Duhan 2001) enhancing subordinate performance (Kacmar, Witt, Zivnuska and Gully 2003). Development-oriented behaviors provide more guidance to subordinates enhancing their feelings of self-determination and personal initiative, and leading to a performance benefit (Oldham and Cummings 1996). Thus, coaching not only provides developmental feedback that improves performance, it can also accentuate self-confidence. This assertion is further supported by social cognitive theory, where 'models' are viewed as instrumental in enhancing self-efficacy beliefs (Bandura 1977). Self-efficacy beliefs, in turn, provide the motivation to exert effort.

Therefore we predict:

Hypothesis 2a: After controlling for staff job satisfaction, middle management coaching intensity is positively related to staff sales performance.

Hypothesis 2b: After controlling for middle manager job satisfaction, executive management coaching intensity is positively related to middle management sales performance.

Cross-level effects: amplifying the satisfaction–performance link

In addition to a direct relationship between coaching intensity and performance, it is likely that individuals' job satisfaction and their manager's coaching behaviors interact in their effects on performance. In fact, anecdotal evidence from the field suggests that it is the manager–subordinate dyad that acts as a single unit in its effect on performance, rather than either in isolation (Bain 2001). Following a logic similar to that underlying the coaching–performance link, supervisors who are more coaching oriented will tend

to provide more supportive, enabling environments replete with learning opportunities (Redshaw 2000) that facilitate superior performance. Although more satisfied workers will tend to perform better, the critical feedback imparted through coaching is likely to play a significant role in equipping employees with the capabilities to excel. For example, coaching frequently involves feedback on strengths and weaknesses and insights into the appropriate behaviors to deal with difficult work situations (Evered and Selmon 1989) rather than simple reward or censure. Thus, for similar levels of job satisfaction, the subordinates of coaching-oriented supervisors will tend to perform better than those whose supervisors follow a more telling-oriented behavior (London et al. 1999). Building on these arguments we predict the following cross-level effects:

Hypothesis 3a: Middle management coaching intensity moderates the relationship between staff job satisfaction and staff sales performance such that increased coaching intensity strengthens the satisfaction–performance link.

Hypothesis 3b: Executive management coaching intensity moderates the relationship between middle management job satisfaction and middle management sales performance such that increased coaching intensity will lead to a stronger satisfaction–performance link.

Cross-level effects: learning from others

According to Bandura (1977) individuals learn through the observation of salient others. In particular, Bandura posits that ‘modeling’ represents an important pathway for the diffusion of innovative behaviors and new social practices. Following from this perspective, modeling is the underlying causal mechanism through which coaching behavior can be transmitted from executives to middle managers. Individuals are more likely to emulate role models when their experience with the supervisor is characterized by a developmental relationship (Manz and Sims 1980). Moreover, individuals are more likely to adopt a new behavior if they can see its positive consequences. To the degree that middle managers experience the benefits of coaching through the development and performance improvement opportunities offered to them by the coaching behaviors of their direct executive supervisors, they are more likely to emulate such behaviors in their own management activities. Therefore we predict:

Hypothesis 4: Executive management coaching intensity is positively related to middle management coaching intensity.

Cross-level effects: the attenuation of coaching influence

Bartlett and Ghoshal (1997) describe emergent shifts in managerial roles at different levels of the organization. They argue that in a turbulent economic environment, middle managers have to change their goals and related behaviors to be more focused on coaching support rather than administrative control. They also suggest that this role shift must pervade all levels of management. Specifically, executive managers have to create a challenging environment which facilitates the development of individual entrepreneurial initiatives. But managers at different levels of the organizational hierarchy also need to allocate their managerial resources of time and attention differentially. As suggested by Yukl 2002, high level managers spend more time on strategic decision making, networking, and interacting with outsiders (Luthans, McCaul and Dodd 1985; Michael

and Yukl 1993). In contrast, lower level managers spend more time training and managing subordinates (Yukl 2002). Furthermore, managerial roles at higher levels of the organizational hierarchy tend to be less structured and less circumscribed by tight job definitions, and entail greater discretion in the performance of tasks (Fiol 1994; Kraut, Pedigo, McKenna and Dunette 2005). Lastly, to the extent that senior managers have more well-formed beliefs and attitudes about their work practices – honed through experiential factors – we argue that it will be more difficult to influence their performance through coaching intensity. Therefore, direct supervisory influence at lower levels of the organizational hierarchy is likely to be more potent. Based on these arguments we predict:

Hypothesis 5: As the hierarchical management layer increases within an organization, the dyadic influence imparted to subordinates decreases, i.e. the strength of the relationship between executive manager coaching intensity and middle manager sales performance will be weaker than the strength of the relationship between middle manager coaching intensity and staff sales performance.

Method

The study context and sample

The setting for this study is a large, multinational, manufacturing company, hereafter, ‘Zeta’ with offices in the United States. Zeta’s products are sold in large part through a direct sales force that has specific geographic and product responsibilities. The sample for this study is drawn from a segment of Zeta’s sales force that had recently completed a required training course related to management coaching. The program, designed for individuals with supervisory and managerial responsibilities was offered by a third party as an intensive, two-day interactive learning workshop followed by specific goal setting activities. The overall objective of the training was to improve the effectiveness of the sales force by developing a coaching-oriented management style for supervisors and for developing awareness about the benefits of effective coaching-oriented behaviors. Heslin and colleagues (2006) suggest that incremental training interventions have a positive effect on managers’ inclination to perform coaching oriented behaviors; thus, we considered Zeta to be the ideal setting for our research objectives.

Data for the study were collected through surveys distributed to the participants 3 months after the training program. Three hierarchical levels of management completed the training and subsequent survey. In addition to the three layers of management, survey data were also collected from the staff-level direct sales force (the individuals who call on the customers). The reporting structure, shown in Figure 2, is such that the staff employees,

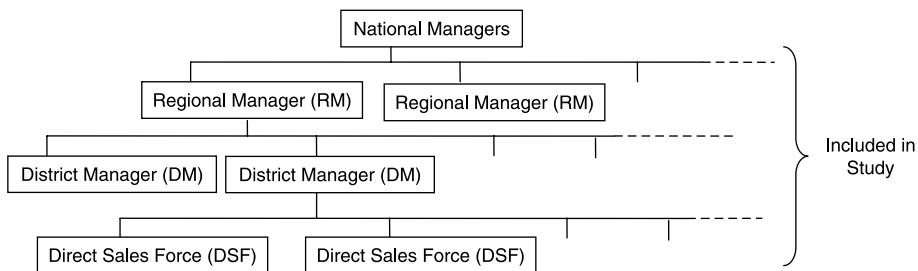


Figure 2. Reporting structure at Zeta.

Table 1. Response rate.

| | <i>Participants</i> | <i>Excluded</i> | <i>Effective included</i> |
|--------------------------|---------------------|-----------------|---------------------------|
| Direct sales force (DSF) | 482 | 154 | 328 |
| District manager (DM) | 282 | 189 | 93 |

direct sales force (DSF) are organized in sales teams and report to middle managers, district managers (DM) who report to executive managers and regional managers (RM) who report to national managers. We excluded the national-level manager data because the managers numbered less than 10 and the data were sparse.

The sample size and response rate is shown in Table 1. Some explanation is warranted to interpret the values in the response rate table. Out of 482 DSF participants 154 questionnaires were excluded from the analysis because these were single responses and we required that at least two subordinate surveys be completed for each supervisor. Thus, a total of 328 questionnaires filled out by DSF employees were used belonging to 114 teams, each one supervised by a DM. With respect to the DMs, out of 282 questionnaires, we excluded 189 questionnaires for the same reason. A total of 93 DM questionnaires were used belonging to 32 groups, each one supervised by an RM. We conducted t-tests of key variables to test that there were no inherent biases between those respondents whose surveys we used versus those that we did not use and found no significant differences.

The DSF group was given a paper-based survey, along with other sales material, at the end of a sales meeting which took place approximately 3 months after the coaching seminar. The DMs, on the other hand, were required to login to a dedicated, company wide training website on a weekly basis to provide coaching updates and they were prompted to complete the survey online approximately 3 months after the training. We waited 3 months to survey the subjects to allow time for changes in coaching to become more persistent and move beyond the initial anticipated spike associated with implementing new programs.

The questionnaire was upwardly unidirectional in that it asked each subject to consider the frequency and intensity with which he was coached by his/her manager and respond to questions related to his/her personal sales performance and satisfaction. Demographic data were not available.

In addition to the survey data collected as part of the study, we also obtained data from a software tool that longitudinally tracked the feedback associated with both the coaching workshop and the subsequent follow up relative to coaching behavior. The comments captured in this tool provide a qualitative assessment of employee reactions to the training and follow up. Coaches were required to enter open-ended comments about their subordinates as a means of developmentally coaching them for a period of 3 months. Coachees were also provided with access to the tool but were only asked to provide their perceptions of the effectiveness of the coaching. Even though the coaching workshop was required, there were instances of non-participation as evident from survey non-completion and a lack of coaching follow up.

While a complete qualitative analysis of the open-ended text is beyond the scope of this paper, our inspection of the data indicated a variety of opinions about the effectiveness of coaching behavior by coaches and coachees alike. For example, one employee commented:

I received coaching on how to approach one of my [subordinates] that was not meeting the desired [product] training goals that are required of our [subordinates] to successful launch

this [product]. The coaching I received resulted in a very positive but necessary conversation that needed to take place between myself and my [subordinate]. This [subordinate] is quickly back on track and performing well.

Another commented that her boss was:

Helping me arrive at solutions rather than just telling me the solution.

Finally, a third person noted:

My coach has empowered me to achieve my objectives by enabling me to uncover the best way to achieve my goal, rather than directing me on how to achieve the goal. As a result, I don't feel like I am following an order so I am more motivated.

Yet other employees felt that little had changed as a result of the coaching. For example, several employees, when asked to provide an example of how they were coached noted 'None that I can think of at this time' – and – 'She's been too busy to interact.'

In direct contrast to the developmental coaching provided in the examples above, some feel that they are on left to figure things out on their own,

In my new position, my manager has expected me to step up and run my team as well as another. I have done this with very little help from her.

These comments are consistent with the on-going debate in the literature about the ability of organizations to successfully implement coaching programs that managers embrace as well as the effectiveness of coaching in general. While we acknowledge the debate related to the effectiveness of coaching, our goal is to examine the impact of coaching intensity on individual sales performance, predicated on an assumption that coaching – when utilized – is beneficial. This assumption is predicated on recent evidence indicating that managers generally have a favorable reaction to coaching (Smither, London, Flautt, Vargas and Kucine 2003).

Measurement

Coaching intensity was operationalized through a two-item scale concerning the effectiveness of a supervisor's coaching behavior and the degree to which this behavior has been performed, adapting the items on feedback by Ilgen et al. (1979). The first item was 'In the last few months my manager's style has changed as follows...' Staff and middle managers were then asked to rate the behavior of their supervisor on a 5-point Likert scale anchored by, 'Much more telling' to 'Much more coaching.' The second item stated, 'In the last few months, my manager's coaching effectiveness has been...' In this case the scale anchors were, 'Much less effective' to 'Much more effective' on a 5-point Likert scale.

Because respondents received a definition of coaching during the managerial course they attended, we felt confident that coaching behavior was conceptualized in a similar way by all. The coefficient alpha was 0.82 for middle manager coaching intensity, and 0.72 for executive manager coaching intensity, confirming adequate scale reliability (Nunnally 1978).

Job satisfaction was assessed using a single item statement. This operationalization is based on Wanous, Reichers and Hudy (1997) who provide evidence for the reliability of a single item measure to assess job satisfaction. Consistent with Wanous et al. (1997) and Nagy (2002) staff and middle managers were asked to rate their own job satisfaction on a 5-point Likert scale using the item, 'Compared to six months ago I am...' The anchor values were 'Much less satisfied with my job' and 'Much more satisfied with my job.'

Sales performance was assessed through a single item measure as single-item performance ratings are not uncommon in the literature (Erez and Judge 2001). Moreover, the choice to adopt a single-item measure can be traced back to the findings of Sackett and Larson (1990) who posit that a single item measure can be adopted if the concept to be assessed is sufficiently narrow and not ambiguous for the respondents. Since sales performance is a single facet of the broader construct of overall performance, and because sales people at Zeta have well-defined metrics for the assessment of sales performance, we judged the concept to be unambiguous and narrow enough to justify the adoption of a single item scale. The adopted item was, 'As a result of my manager's coaching support, I would rate my sales performance over the last few months as . . . ' with anchor values of 'Much less effective' and 'Much more effective.'

Data analysis

Raudenbush and Bryk (2002) argue that traditional statistical techniques such as multiple regression are inadequate to assess cross-level predictions. As is appropriate for a model that spans multiple levels of analysis, we adopted hierarchical linear modeling (HLM) to test the proposed hypotheses. Others have observed that the fundamentally hierarchical nature of organizations (Hofmann 1997) has resulted in the increased popularity of HLM as an analytical technique for organizational research (e.g., Hoegl, Parboteeah and Munson 2003; Cullen, Parboteeah and Hoegl 2004; Seibert et al. 2004). In addition to the ability to model cross-level effects, HLM offers the advantage of providing the explained variance for each level rather than estimating the total variance explained (Cullen et al. 2004).

Aggregation of coaching intensity data

Recall that the conceptual model suggested a direct consensus approach and we argued that supervisees hold common, shared perceptions of their managers' coaching behaviors. To verify this assumption as is required in HLM, we first assessed the appropriateness of aggregating coaching intensity data at both middle manager and executive manager levels of analysis. This included an analysis of variance (ANOVA) to test the between-group variation (Hofmann 1997), and the computation of ICC (1) to verify the within-group agreement about coaching intensity. The ANOVA performed at both middle manager and executive manager levels of analysis indicated a significant between group variance ($F = 3.06$; $p < .001$ and $F = 1.80$, $p < .05$, respectively) in coaching intensity. ICC(1) scores showed significant within-group consensus (0.53 for middle managers and 0.29 for executive managers). According to Schneider, White and Paul (1998) these results support the existence of a significant level of within group agreement and significant between-group variability for both levels of analysis, justifying the aggregation of the coaching intensity data.

Results

Table 2 shows the matrix of correlations and sample statistics for DSF responses, while Table 3 summarizes middle managers (DM) responses. The correlation values are consistent with the nomological network shown in Figure 1.

As suggested by Liao and Chuang 2004, we divided our model into three sub-models. Model 1 was used to investigate the antecedents of staff sales performance. The second specifies determinants of middle manager sales performance, while the third model is used

Table 2. Descriptive statistics and correlation coefficients for DSF responses.

| <i>Variable</i> | <i>Mean</i> | <i>s.d.</i> | <i>1</i> | <i>2</i> | <i>3</i> |
|-------------------------|-------------|-------------|----------|----------|----------|
| 1 DSF performance | 3.90 | 0.87 | 1 | | |
| 2 DSF satisfaction | 3.54 | 1.05 | .65** | 1 | |
| 3 DM coaching intensity | 3.70 | 1.56 | .63** | .62** | 1 |

Notes: N = 328, *p < .05, **p < .01, ***p < .001.

Table 3. Descriptive statistics and correlation coefficients for DM responses.

| <i>Variable</i> | <i>Mean</i> | <i>s.d.</i> | <i>1</i> | <i>2</i> | <i>3</i> | <i>4</i> |
|-------------------------|-------------|-------------|----------|----------|----------|----------|
| 1 DM performance | 3.84 | 0.49 | 1 | | | |
| 2 DM satisfaction | 3.38 | 0.83 | .47** | 1 | | |
| 3 DM coaching intensity | 3.78 | 1.19 | .21* | .23* | 1 | |
| 4 RM coaching intensity | 3.50 | 1.14 | .42** | .54** | .20* | 1 |

Notes: N = 93, *p < .05, **p < .01, ***p < .001.

to test the influence of executive manager coaching intensity on middle manager coaching intensity.

Explaining salesperson performance

Null model

According to Hofman (1997) the first step entails the assessment of a significant between-group variance in staff-manager sales performance. Thus, we ran a null model in which neither level 1 nor level 2 predictors were specified. The between-team variance in performance (τ_{00}) was 0.41. The variance between individuals reporting to the same supervisor (σ^2) was 0.35. These results allowed us to calculate the interclass correlation coefficient which represents 'the maximum amount of variance in a level 1 variable that could be potentially explained by a level 2 predictor variable' (Seibert et al. 2004). The interclass correlation index value that we obtained was 0.53, indicating that 53% of variance in staff employee sales performance resides between teams of sales people, while 47% of the variance exists in staff employees reporting to the same supervisor. These results support the importance of investigating the impact of level 2 on individual sales performance. Therefore, we proceeded to test Hypotheses 1a and 2a (results are reported in Table 4).

Hypothesis testing

In order to examine the effects of job satisfaction on individual performance to test Hypothesis 1a, we included satisfaction as a level 1 predictor centering it around the grand mean, Hofmann, Griffin and Gavin 2000, without considering any level 2 predictors. Results strongly indicate that staff job satisfaction is positively related to staff sales performance (coeff. = 0.44, $p < .001$). Therefore Hypothesis 1a is supported (see Figure 3). Furthermore, following the formula of Raudenbush and Bryk (2002) we find that the variance explained at level 1 is 23% of the total variance between sales employees reporting to the same middle manager.

Table 4. Hierarchical linear modeling results for DSF performance^a.

| Variable | Individual level | Adding group-level predictor |
|---|------------------|------------------------------|
| Level 1 | | |
| DSF satisfaction | 0.44*** | 0.37*** |
| Level 2 | | |
| DM coaching intensity | | 0.25*** |
| R ² level 1 ^b _{within-team} | .23 | |
| R ² level 2 ^c _{between-team} | | .36 |

Notes: ^aDSF n = 328, DSF team n = 114; entries are estimations of the fixed effects with robust standard errors; ^bProportion of within-team variance explained by DSF satisfaction; ^cProportion of between-team variance explained by DM coaching intensity; *p < .05, **p < .01, ***p < .001.

Hypothesis 2a posits a cross-level effect arguing that middle management coaching intensity is positively related to individual staff employee sales performance. In order to test this hypothesis we added middle management coaching intensity as a level 2 predictor. Results suggest a strong and significant impact of middle manager coaching intensity on staff employee’s sales performance (coeff. = 0.25; p < .001), supporting the hypothesis. Again adopting the formula suggested by Hofmann et al. (2000) results reveal that middle manager coaching intensity accounts for 36% of the variance between groups of staff employees who report to different middle managers

Hypothesis 3a states that coaching intensity will moderate the relationship between salespersons’ job satisfaction and performance. In order to test this cross-level interaction, a significant random variance for the slope should occur in the intercept-as-outcome model estimated in the previous step (Hofmann 1997). Since we did not find any residual variance for the slope, we conclude that Hypothesis 3a is not supported.

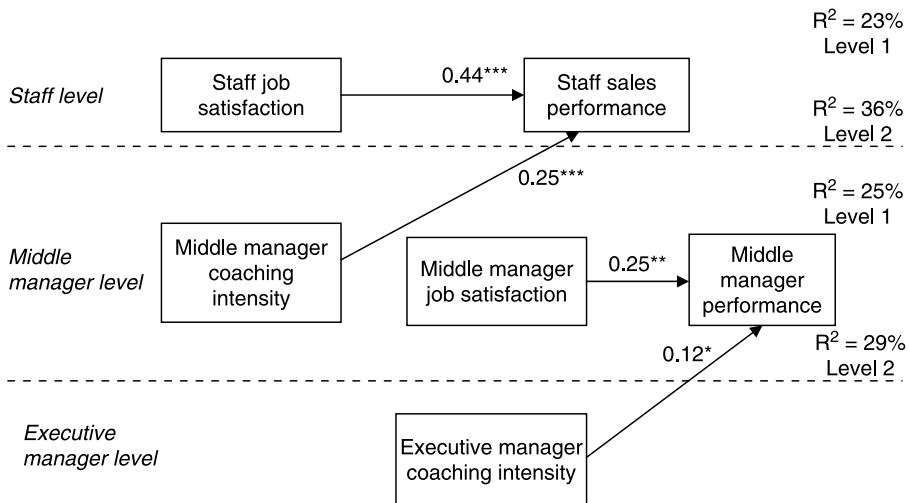


Figure 3. Results^a.

^aOnly significant relationships are reported *p < .05, **p < .01, ***p < .001.

Explaining middle manager sales performance

In order to test hypotheses related to the antecedents of middle managers' sales performance, we developed a model similar to the previous one. In this model, level 1 refers to middle managers while level 2 refers to executive managers (results are reported in Table 5 and Figure 3).

As before, the first step was to run a null model with middle manager sales performance as the outcome variable without any predictors. The between-team variance in sales performance (τ_{00}) was 0.07, $p < .001$. The interclass correlation was 0.29, indicating the importance of extending the analysis of individual middle manager sales performance to level 2. Thus, we proceeded to test Hypotheses 1b and 2b.

Hypothesis 1b argued for a positive impact of middle manager job satisfaction on their sales performance. To test this hypothesis we inserted individual satisfaction as a level 1 predictor and centered it on the grand mean. Results support this hypothesis (coeff. = 0.25; $p < .001$). The variance explained in sales performance by the level 1 predictor is 25% of the sales performance variance between middle managers reporting to the same executive manager.

Hypothesis 2b posits a positive relationship between executive coaching intensity and middle manager sales performance and it is supported (coeff. = 0.12; $p < .05$). The variance explained in middle manager sales performance by executive coaching intensity is 29%.

Hypothesis 3b suggests that executive manager coaching intensity will moderate the relationship between staff employee satisfaction and performance. As noted above, the prerequisite for testing cross-level interactions is the existence of significant random variance for the slope in the intercept-as-outcome model (Hofmann 1997). In this case we did not have any residual variance for the slope. Thus, we cannot statistically complete the test for this hypothesis and we must therefore conclude that Hypothesis 3b is not supported.

Cross-level effects for coaching intensity

We further investigate whether executive manager coaching intensity is related to middle manager coaching intensity. In order to test Hypothesis 4 which posits that there is a positive relationship between middle manager and executive manager coaching intensity, we ran an HLM model with middle manager coaching intensity as the outcome and executive manager coaching intensity as a level 2 predictor. As shown in the previous models, the first step is the assessment of significant between-group differences for the

Table 5. Hierarchical linear modeling results for DM performance^a.

| <i>Variable</i> | <i>Individual level</i> | <i>Adding group-level predictor</i> |
|-------------------------------------|-------------------------|-------------------------------------|
| Level 1 | | |
| DM satisfaction | 0.25*** | 0.22** |
| Level 2 | | |
| RM coaching intensity | | 0.12* |
| R ² level 1 ^b | .25 | |
| R ² level 2 ^c | | .29 |

Notes: ^aDSF $n = 93$, DSF team $n = 32$; entries are estimations of the fixed effects with robust standard errors; ^bProportion of within-team variance explained by DM satisfaction; ^cProportion of between-team variance explained by RM coaching intensity; * $p < .05$, ** $p < .01$, *** $p < .001$.

dependent variable (Hofmann 1997). We ran a null model including middle manager coaching intensity as the dependent variable and found a lack of significant variance between groups. Thus, Hypothesis 4 is not supported.

Hypothesis 5 states that as the hierarchical management layer increases within an organization, the dyadic influence imparted to subordinates decreases. A simple comparison of betas may suggest the existence of a significant difference in the magnitude of coaching intensity on subordinates' performance. However, the significance of this difference can be statistically assessed by calculating a t-statistic for comparing the difference in coefficients across models (Ahuja and Thatcher 2005). The result of this test shows that the coefficient from coaching intensity to subordinate performance for DMs is significantly different from the corresponding coefficient for RMs ($t = 14.09$; $p < .001$). This result supports the statement of Hypothesis 5.

Discussion

Key findings

The goal of this study was to examine cross-level effects of the coaching intensity of supervisors on employee performance. We argued that, increasingly, organizations are being compelled to move from managerial practices that are directive-based to those that are more developmental in nature. As hypothesized, we find that the extent to which supervisors follow a coaching-oriented style of management explains significant variance in the sales performance of supervisees, after controlling for the variance explained by their job satisfaction. This result is supported at staff and middle-manager levels, underscoring the importance of coaching as a preferred managerial behavior. Coaching intensity explains a substantial amount of variance – from 36% between teams reporting to different middle managers to 29% for middle managers reporting to different executives. Thus, our findings add to the small but growing body of evidence in support of the value creation potential of a developmental style, as opposed to a command-and-control style.

Our cross-level interaction hypotheses proposing that coaching intensity would moderate the relationship between employees' satisfaction and performance were not supported. In other words, higher coaching intensity does not act as a contextual catalyst for satisfied individuals to reach better performance. Although contrary to our expectations, these results are consistent with the mixed evidence outlined by previous multi-level research that has considered managerial interventions and leadership behaviors as moderating factors of individual outcomes. Gavin and Hofmann (2002) studied the relationship between individual task significance and hostility behavior, and found a significant moderating effect for leadership climate. They underscored that in contexts with a supportive leadership climate, the effects of task significance on hostility are attenuated. Conversely, Liao and Chuang (2004) pointed out that managerial practices related to providing skills development, resources, and discretion do not have a significant effect on the relationship between individual characteristics and employees' service performance. Similar results were obtained by Rogelberg, Barnes-Farrell and Creamer (1999) who did not find any significant interaction between contextual factors and individual characteristics for predicting employees' service behaviors.

Both Liao and Chuang (2004) and Rogelberg et al. (1999) explained their results in light of task characteristics, arguing that a more structured task may inhibit interaction effects. To the degree that structured tasks, by definition, have limited latitude in their execution, the performance strategies and skills imparted through increased coaching may

not yield any better outcomes. Our results may be explained in a similar fashion. It could be argued that the interaction effect of coaching intensity is more salient for the development of employees' behaviors related to psychological functions rather than to the instrumental function only, such as sales performance. Indeed, according to Kram 1988, leaders' supportive behavior are critical for developing employees' psychological functions such as a sense of competence, identity, and effectiveness in a professional role, which go beyond mere sales performance.

We had argued, based on social cognitive theory and vicarious learning, that in observing and experiencing their executive managers' coaching behavior, the coaching intensity of middle managers would be accentuated. Although this assertion was not supported by our empirical analysis, there is a plausible explanation for the non-significant finding. Bandura (1977) suggests that vicarious learning involves attentional processes such that the modeler must 'notice' and pay attention to the role model. To the degree that executive managers interact less frequently and intensely with their middle management subordinates than do, for instance, middle managers with the front-line teams, it is possible that the coaching behaviors of their leaders were less salient and visible for the middle managers, and vivid behavior is more likely to be emulated (Tepper 1995). Discussions with executives at Zeta revealed that regional managers have fairly large sales territories within their responsibility. For example, the regional manager for 'North Texas' supervises DMs in Kansas City, MO; Las Vegas, NV; Salt Lake City, UT; Tulsa, OK; and Denver, CO. A lack of spatial proximity and co-location reduces opportunities for frequent face-to-face interactions considerably, thereby reducing the potency of the executive manager as a role model. This interpretation is consistent with the findings of Hoegl and Proserpio (2004) who point out that physical proximity among individuals is positively related to the occurrence of socially oriented behaviors.

A second plausible explanation for the lack of influence of executive coaching behavior on the middle managers' coaching behaviors derives from the 'delaying' that organizations have engaged in for the past two decades, where some middle manager strata have been eliminated.¹ The reduction of organizational hierarchy inevitably results in a higher span of control which may decrease the chance of one-to-one interactions, hindering the occurrence of vicarious learning. Further, organizational restructuring, where spans of control and the distance between hierarchical layers increase, can negatively affect the expectations for middle managers for promotion to an executive level, resulting in adverse consequences for their morale and work-life (Green 2001; Worrall et al. 2000). Indeed, according to Huy (2001), despite the fact that middle managers are the critical source of valuable contributions for leading change and for developing the organization, their efforts are often not recognized by executives, further accentuating the schism between organizational levels. As middle managers' perceived hierarchical distance between them and the executives increases, their likelihood to engage in imitative behaviors (that may represent a source of development for them) decreases.

In contrast to a majority of multi-level studies that are conducted at only two hierarchical levels, our data set, which spans three levels of an organizational hierarchy, provides interesting insights into the differential effects of coaching behavior at middle-manager and executive-manager levels. It is striking that the variance explained by middle managers' coaching intensity is substantially different than that explained by executive managers' coaching intensity. We found, consistent with our prediction, that there is substantial 'process loss' in regard to the influence of coaching intensity on performance. Coaching by middle managers has a significantly stronger effect on staff

sales performance than does executive manager coaching on middle manager sales performance. Aside from our initial arguments that there are fewer interaction opportunities between middle managers and their executive coaches, and that executives spend less time on direct supervision than do lower-level managers, it is also plausible that there are differences in the type of coaching that are more effective at higher management levels.

For instance, our results suggest that as the hierarchical level increases, the coaching objective may shift to a wider consideration of performance which entails both task and managerial related facets. Indeed, for jobs that are loosely structured and entail discretion in their execution, e.g. middle management positions, more personalized approaches to development (not necessarily focused on task-related issues) may exhibit a stronger effect on performance. This result offers a wide range of opportunities for future research which should consider the differential effects of coaching behaviors on different dimensions of individual performance. In light of our results, we suggest that coaching oriented behaviors would be more effective on task related performance for the staff level, while in the case of middle managers, coaching behaviors would be more effective if directed toward managerial issues.

Limitations

Prior to discussing the implications of our findings, we acknowledge the limitations of this study that also present opportunities for further work. First, our data are cross-sectional and do not support causal assertions. Causality must therefore be inferred from the theoretical arguments rather than the empirical findings. Second, although we have a fairly large sample, we were unable to perform tests for non-response bias because we did not have access to the complete demographic profile of responders and non-responders. Although we have no reason to suspect that any systematic non-response bias is present, others may wish to keep this limitation in mind when interpreting findings. We also acknowledge the lack of objective data in our analysis; however, we do not believe that common method variance is a problem since data are drawn from multiple respondents for a single case. Zeta management was unwilling to share performance data associated with specific individuals. Future research would benefit from objective performance data. We used single item measures for job satisfaction and sales performance. Although consistent with prior research, this limits our ability to calculate reliability estimates. Our empirical analysis is restricted to a single organizational setting. While this eliminates extraneous variance that may arise as a result of differences in context, it nevertheless limits our ability to generalize broadly to an entire population of organizations and cultures. However, relying on previous research on managerial styles, we suggest that our results can be generalized to western countries, although they would need further empirical substantiation in other cultural contexts (Hamlin 2005; Noer, Leupold and Valle 2007).

Our study does not take into account the possible differential effect related to gender. While we are aware that just under 30% of the attendees at the coaching workshop were women, we were unable to match the survey data to gender. Some studies have pointed out that women rely more than men on work relationships for improving their learning and development (Van Velsor and Hughes 1990) suggesting that women can have a more positive attitude toward developmental coaching than men. However, more recent theoretical and empirical research on leadership roles has demonstrated that the differences between men and women managerial styles can be mostly traced back to stereotypes (Eagly, Makhijani and Klonsky 1992; Ryan and Haslam 2007). Since the

behavioral difference between men and women has stereotypical foundations, future research should investigate the role of psychological gender in the relationship between supervisor and employee rather than observing the physical gender.

Finally, future research should investigate the role of contextual factors (such as climate and procedural justice) in shaping individual coaching intensity, i.e. factors that may enhance the likelihood of coaching behavior occurrence. An analysis of the contextual environment would be helpful to shed some light on the debate concerning the positive and the negative effects of high performance practices such as developmental coaching.

Implications for theory and practice

Organizational researchers have long focused on the feedback-giving process and its effects on performance (see Kluger and DeNisi 1996; Lee and Akhtar 1996). For the most part, researchers have, unfortunately, limited their work to single-level analyses. With the increasing sophistication and rigor of hierarchical analysis methods, it is now possible to investigate the phenomenon of coaching at its naturally-occurring level-spanning unit of analysis. To the best of our knowledge, an investigation spanning three levels of hierarchy and two levels of analysis related to coaching behavior and its impacts has not been conducted. Further, as noted by Smither et al. (2003) very little research has examined the impact of coaching on behavior change and performance improvement.

Several implications for theory and practice follow from our empirical findings. To the degree that coaching behavior and associated impacts vary greatly between the executive-manager and the middle manager-sales force, we can conclude that employee response to coaching is contingent on the level at which the relationship is situated. We had suggested that reduced interaction – particularly face-to-face interaction – accounts for these differences. Building upon this reasoning, future research could discriminate the effects of coaching behavior across different types of organizational settings. For example, it would be interesting to study the effect of coaching intensity in a context characterized by low geographical proximity, e.g. communication among and between team members and a team leader which occurs through Computer Mediated Communication (CMC) applications.

The unexpected finding that developmental coaching behavior is not ‘transferred’ through a model via vicarious learning raises the intriguing possibility that, in contrast to other organizational behaviors, managers do not ‘learn’ how to coach by observing others. The managers in our sample were all trained in coaching through a formal intervention. Thus, our findings suggest that coaching behavior is more effectively learned through management education rather than acquired through direct experience. From a practical standpoint, this implies that a one-size-fits-all approach to coaching training may not be optimal and that training should be tailored to specific levels of hierarchy. Therefore, the organizational decision to develop a coaching culture within the firm represents a form of investment for the organization itself. On the one hand, the presence of coaching behavior can enhance individual performance; but on the other there is evidence that the development of coaching-oriented managers may require complex and tailored training programs. Our analysis highlights the importance of a coaching versus a directive ‘telling’ style of management; the finding that coaching is highly predictive of performance has critical implications for practice. For this reason, we suggest that an institutional effort is necessary to reap returns from the investment in developing a coaching culture within the organization. Prior literature has also underscored that firms implementing such kind

of human resource practices should be aware of the fit between the practice characteristics and the organizational context in which they are implemented (Khilji and Wang 2006). Indeed, the mere implementation of human resource practices without considering the idiosyncrasies of the organization during the implementation phase is not likely to yield the desired value for the firm (Khilji and Wang 2006) and may further hinder the positive relationship between such practices and the development of firms' competitive advantage (Sparrow, Schuler and Jackson 1994).

Our investigation of cross-level effects showed that the coaching behavior of managers at different levels is strikingly different. Because career progression typically implies that employees move through specific hierarchical levels on their way to senior management positions within an organization, we can assert with some confidence that executive managers were at an earlier point in their careers middle managers and/or front-line salespeople. We must therefore assume that as managers are promoted to more senior positions, their responsibilities and priorities change to such a degree that they deem coaching to be less important or beneficial even though they are likely to have benefited at an earlier stage in their career from a more coaching-oriented manager. One possible explanation that we alluded to earlier is the relative lack of structure in the subordinate's job. Other explanations for this behavior warrant further research.

We had argued that coaching is a multi-level phenomenon that requires cross-level investigation and methods. Coaching is not, however, the only organizational phenomenon that would benefit from these methods. For example, formal mentoring (e.g. Ragins and McFarlan 1990; Chao, Walz and Gardner 1992; Tepper 1995) typically involves multiple levels of interaction. Mentor-protégé relationship can span, and often transcend, structural layers within organizations and therefore it is imperative that level-spanning methods be employed if the implications of these relationships are to be understood. Our research suggests that single-level approaches may be overlooking crucial and highly explanatory aspects of the coaching-performance relationship and we call for other researchers to incorporate cross-level methods into their work in this domain.

Finally, our study sheds some light on the controversial relationship between individual satisfaction and performance reviewed by Judge et al. (2001). A very limited number of studies have provided empirical evidence for the existence of this relationship. To the extent that job satisfaction plays a significant role not just in predicting behaviors related to withdrawal such as turnover (Griffeth, Hom and Gaertner 2000) but also has an important role to play in enhancing employee performance, it behooves managers to implement practices and policies that are instrumental in amplifying individuals' positive attitudes toward their jobs. Examples of such practices may be found in the turnover literature, but there may be others that research could identify. Therefore, we encourage researchers to develop theoretical models that relate specific managerial interventions to job satisfaction.

Conclusion

The importance of coaching has been highlighted in many recent discussions in the management literature, where coaching is viewed as an important means to achieving the desired goal of becoming a learning organization (Dunphy, Turner and Crawford 1997). The metaphor of leader-as-teacher or leader-as-coach (Senge 1990) vividly permeates this discourse. The redefinition of the supervisor-subordinate relationship and the nature of the exchange that occurs in this dyad is clearly worthy of theoretical and empirical attention. To understand better this emerging organizational

phenomenon, in this study we developed and tested a multi-level framework describing antecedents, interactions, and outcomes related to coaching in an organizational setting. We found significant cross-level impacts of coaching on performance and also uncovered intriguing cross-level interaction effects that require further investigation. We suggested earlier that phenomena such as coaching that are fundamentally cross-level in nature cannot be fully understood through theorizing and empirical analyses at unitary levels of analysis and we wish to reiterate that point.

At a more fundamental level, coaching represents a shift in managerial philosophy in general and in the definition of leadership in particular that is of considerable magnitude. Today, the dominant paradigm of effective leadership is one of transformational leadership (Tejeda, Scandurab and Pillaic 2001). In their review of transformational leadership conceptualizations Podsakoff, MacKenzie, Moorman and Fetter (1990) describe a range of behaviors that characterize a transformational leader. Although the motivational aspects of leadership are well represented in this characterization, surprisingly, with the exception of being a role model, less attention is paid to the 'teaching' aspects of leader behaviors. This suggests that the notion of transformational leadership may need to be extended to capture more fully the effective leader's role in facilitating employee performance. We encourage researchers to examine how the construct of transformational leader might change in an environment where a coaching culture is essential.

Note

1. We are grateful to an anonymous reviewer for this explanation.

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