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CHAPTER 3

Performance Appraisal and Performance Management

A Multilevel Analysis

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Performance appraisals are used in most organizations as a means of providing feedback to employees about their performance on the job, and as the basis for making decisions about such things as pay increases and promotions. The term *performance appraisal* refers to the system whereby an organization assigns some "score" to indicate the level of performance of a target person or group. *Performance management* is somewhat different and refers to the range of activities engaged in by an organization to enhance the performance of a target person or group. The ultimate purpose of both activities, however, is to improve organizational effectiveness.

Given the central role these activities play in managing an organization's human resources, it is not surprising that a great deal of research has been directed to ways of improving the performance appraisal/management processes (see reviews by DeNisi, 1997; Landy & Farr, 1980; Murphy & Cleveland, 1995). What is not always clear from these reviews, however, is that the appraisal/management process is both a multilevel and a cross-level phenomenon; that is, appraisal and subsequent performance management activities take place at different levels of analysis, and many of the activities that occur at one level of analysis are assumed to have effects at other levels of analysis as well. The purpose of the present chapter is to more clearly delineate the multilevel and cross-level aspects of performance appraisals and to discuss some research issues that could grow out of this realization.

The recognition that these processes occur at multiple levels of analysis is not unique to this chapter. Models of the appraisal process have recognized this and included some reference to phenomena occurring at different levels of analysis (DeCotiis & Petit, 1978; DeNisi, Cafferty, & Meglino, 1984; Ilgen & Feldman, 1983; Landy & Farr, 1980), but studies based on these models have rarely made level-related issues an explicit part of their designs. Instead, these studies have been concerned with such issues as rating errors and rating accuracy, and the focus has been almost exclusively on the evaluation of performance at the level of the individual (but see Saal, Downey, & Lahey, 1980, for a discussion of problems arising from ignoring level-related issues).

Nevertheless, there has been increased concern about the problems associated with appraising the performance of groups or teams (e.g., Tesluk, Mathieu, Zaccaro, & Marks, 1997), although much of this concern has been confined to theorizing about how to conceptualize the performance of teams rather than considering how we would actually measure that performance. Furthermore, industrial-organizational (I/O) psychologists have recently been exhibiting more interest in performance at the level of the organization (e.g., Cascio, Young, & Morris, 1997).

A major step in the recognition of the multilevel nature of performance appraisal has come in a recent book by Murphy and Cleveland (1995). These authors discuss both proximal and distal contextual factors that influence performance appraisals, and their model makes the clearest statement to date about different levels of analysis and performance appraisal. Nevertheless, level-related issues are not the primary concern of the Murphy and Cleveland model. The present chapter represents an attempt to use an explicit level-related framework for thinking about performance appraisal and performance management.

To do so requires the acknowledgment that performance in organizations is always a multilevel phenomenon. Although relationships among levels of performance may vary, several statements seem to be typically true:

1. We measure and manage the performance of individual employees in the hope of ultimately influencing the performance of a team or of an entire organization.
2. Organizations do not "perform." Individuals or teams in an organization perform in ways that allow the organization to achieve outcomes we refer to as *organizational performance.*
3. Performance at a higher level of analysis is due, in part, to performance at lower levels, but it is often more than just the simple sum of performance at those lower levels. Therefore, changing individual performance is not always enough to change either a team's or a firm's performance.
4. Variables at higher levels of analysis (for example, organizational structure and strategy) serve as constraints on the performance of individuals and teams. Therefore, in order to completely understand (and ultimately change) the performance of a team or an individual, we must understand the organizational context in which this performance occurs.

Thus performance exists at the individual, group, and organizational levels. Although models for performance at each level are not identical, they are similar, a fact suggesting that performance is a multilevel construct. In addition, however, and as already noted, performance is also a cross-level construct because performance at one level of analysis influences performance at other levels of analysis. Furthermore, some of these effects are top-down effects whereas others are bottom-up effects. Finally, it should be clear that, despite tendencies to often think in these terms, performance appraisal and performance management are almost never concerned with single-level models.

In order to deal with these issues, the present chapter begins with a discussion of performance appraisals at different levels of analysis, noting issues associated with each (including some thoughts on the source of appraisals at different levels). The chapter then turns to performance management, focusing on the level of the desired performance change in any performance management intervention. This discussion is followed by a discussion of the links among performance at different levels, and of how performance at each level is constrained by and constrains performance at other levels. There follows a series of illustrative research questions proceeding from a levels-oriented perspective on performance appraisal, along with some concluding remarks.

The Multilevel Nature of Performance Appraisals

We begin with performance appraisal (because it is usually considered a precursor of the successful management of performance) and with the basic question of whose performance should be appraised. In the context of the present levels framework, this issue becomes a question of the level of analysis that should be the target of the appraisal.

Individual-Level Appraisals

Traditionally, appraisal research has focused on the evaluation of individual level performance. There is some logic to this focus because it is easiest for psychologists to conceptualize individual-level performance and because (as discussed later) it is easier to change individual-level performance. This would also be a case where we could consider performance appraisal as a single-level phenomenon only.

But this would not be completely correct. Even when the appraisal is focused at the level of the individual, other levels of phenomena may be considered, depending on the purpose of the appraisal. In fact, Cleveland, Murphy, and Williams (1989) found it useful to classify appraisal purposes into four categories. The purposes that were the most prevalent are termed *between-persons decisions,* and these are followed by *within-person decisions,* with *systems maintenance* and *documentation* purposes being the least prevalent. Of these, only within-person decisions result in appraisals that exist only at the individual level of analysis, for these are concerned with identifying the strengths and weaknesses of a given individual (and even these appraisals may not be totally independent of performance at other levels of analysis).

In the case of between-persons decisions (which include such decisions as who should be promoted or receive the merit pay increase), the real focus is at the level of the work group. Clearly, a person's performance may not be outstanding, and that person

may still receive a promotion if no one else in the group has a performance as good. Therefore, between-persons decisions can more correctly be characterized as examples of frog-pond models of cross-level effects. Here, the performance of the other work group members serves as a contextual variable that is part of the decision about whether an individual is tapped for a promotion.

The other two categories of use for appraisals described by Cleveland and colleagues (1989) deal more clearly with phenomena that go across levels of analysis (the different nature of such models is discussed in more detail in Chapter One of this volume). These authors' "systems maintenance" purposes include manpower planning and assessment of organizational effectiveness. When individual performance is rated for these purposes, we assume that individual-level performance has an effect on higher levels of performance (a bottom-up model) and, possibly, that the global factor (organizational effectiveness) is simply a function of the aggregation of that individual-level performance. The authors' "documentation" purposes include using ratings as criteria for validation research. Here, the configural property of the relationship between scores on a selection technique and individual performance on the job would be used to assess the selection systems used throughout the organization.

Team-Level Appraisals

The nature of work is changing. Many tasks traditionally carried out by individuals are now done by work groups or work teams (see reviews by Gully, in press; Sundstrom, DeMeuse, & Futrell, 1990), with resulting concern over how we appraise the performance of a team as opposed to that of an individual (Cannon-Bowers & Salas, 1997; Hallam & Campbell, 1997). It may be reasonable, in some cases, to obtain information about team performance by simply appraising the performance of individual members and then aggregating this information at the team level. In such a case, team performance may be nothing more than the sum of individual-level performance.

Such a situation is not often likely to appear, however. Research on work teams has indicated that the nature of performance in a team or group is dependent on such factors as the nature of the technology involved (Goodman, 1986), group performance strategies (Hackman, Brousseau, & Weiss, 1976), and the nature of the task (Saavedra, Earley, & Van Dyne, 1993). Others (e.g., Ancona & Caldwell, 1988) have suggested that interpersonal relationships among group members are extremely important factors for team effectiveness. Still others have gone so far as to suggest that critical behaviors for team effectiveness include such things as willingness to pitch in, "backup" behavior, and communication among group members (Murphy & Cleveland, 1995, p. 359). All of this suggests that team performance is determined by a complex set of factors, and that appraisals focused at the level of the group must do more than simply combine individual-level appraisals.

In cases where team performance must be assessed at the team level rather than at the individual level, we are focusing on a measure of performance that is a property of a team rather than a property of an individual. Measures such as decision accuracy, team productivity, teamwork processes, and team cohesiveness would be examples of performance indices that have meaning only at the team level of analysis, and the rater should probably be some "expert."

Another issue associated with team-level performance measures is the proper role for individual-level performance assessment in the group. There is no reason why we could not assess both individual- and team-level performance and, in many cases, such a multilevel conceptualization of performance might make sense. Alternatively, there are a number of potential problems associated with using multiple-level measures of performance. For example, Ilgen, Major, Hollenbeck, and Sego (1993) note that if an organization emphasizes the importance of team or group efforts, and if it appraises performance at the individual level, group members may well focus on the competition implied in individual appraisal systems and thus work counter to the group-oriented goals of the organization.

Alternatively, including individual-level appraisals with team-level appraisals might help combat a different problem. In almost any work group, some individual members will perceive themselves as providing greater inputs than other members provide. This perception may well be accurate because working in groups does often lead to social loafing (e.g., Latane, Williams, & Harkins, 1979).

This phenomenon occurs when individual group members exert less effort because they believe that the slack will be picked up by other members (but see Erez & Somech, 1996, for a discussion of some cultural limitations).

The exact nature of the relationship between individual- and team-level appraisals (and performance itself) depends largely on the nature of the task facing the team. Although team-level performance should always be the focus of appraisals in settings where employees work in teams, some measures of team performance are more closely linked than others to measures of individual performance. For example, in the case of what can be called simple teams (Kozlowski, Gully, Nason, & Smith, 1999), team performance is nothing more than the sum or the average of the performance of the individual team members. Such teams include any type of committee or jury, as well as situations represented, in golf, by scoring in the Ryder Cup, wherein the team score is a direct function of individual members' scores, or, in tennis, by the Davis Cup, where team performance is a function of the win/loss records of team members. These cases are characterized as cases of pooled interdependence (Van De Ven, Delbecq, & Koenig, 1976): performance is assessed first at the individual level and is then aggregated to form a measure of team performance.

The team settings studied by Hollenbeck and his associates (Hollenbeck et al., 1995) seem more closely related to situations of sequential interdependence (Van De Ven et al., 1976). Here, individual team members make judgments and then feed these to the leader, who must integrate the information and make decisions. In these settings, both individual-level and team-level performance should be assessed, although the team's performance becomes a function of the leader's ability to integrate and compile the information from the team members. Nevertheless, if the individual team members make poor decisions at their level, the leader's input will be poor, and so any decision made on the basis of this input will suffer as well.

A more typical team setting relies on either the reciprocal interdependence model or the team dependence model (Van De Ven et al., 1976). Here, the performance of one team member is dependent on the performance and behavior of other team members, as when the output of one team member is the input for a different member. In these settings, it makes less sense to consider individual-level performance appraisals; in fact, these are settings where such appraisals could actually be damaging. Here, too, behaviors that we might commonly characterize as "teamwork" (which include communicating with and supporting other team members and generally instilling a team spirit) are essential for the team to perform well. These process variables exist at the level of the team and represent either shared (emerging from individuals' common perceptions) or configural (reflecting some pattern or array of individual perceptions) properties of teams, and so they need to be evaluated by outside experts.

It would seem, therefore, that appraisals focusing on the team level are rather complex. Depending on the nature of the tasks involved (and the nature of the reward system and other contextual variables), we must decide if the team's performance should be assessed through a focus on aggregated individual-level performance or through a focus on team-level performance only. The choice of level also has clear implications for who should be relied on to conduct the appraisal (see Cannon-Bowers & Salas, 1997, for a more detailed discussion of the relationship between level of focus and choice of rating sources). As we move more toward team models of performance on the job, it will become more critical to understand the nature of team performance so that we can know better how to appraise it.

Organization-Level Appraisals

Most settings where we conduct performance appraisals will be focused on either the individual level or the team level, or on both. But there are also situations where our focus is on the organizational level, and so we must evaluate organization-level performance. Furthermore, it should be noted that whenever we focus on appraisals at lower levels of analysis, we do so with the ultimate hope of affecting performance at the organizational level as well.

Appraisals involving departments, plants, business units, or even entire organizations are usually not the purview of HR managers but are typically considered in the appraisal of the top management team; that is, someone interested in evaluating the performance of a company's CEO often focuses, for information, on performance

measures obtained at the organizational level. Thus, although the nominal level of analysis is the individual, the appraisal is actually focused at the organizational level. It is assumed (sometimes implicitly) that the CEO (or another top manager) can affect these measures of performance at the organizational level, and so he or she becomes responsible for performance measured at this level.

These appraisals are rarely expressed in terms of processes or behaviors but rely instead on more "objective" measures of performance, such as sales, output, accounting, and finance-based measures (return on equity, return on assets) or stock prices (see Miller & Bromiley, 1990, for a discussion of these different measures). Such measures are derived from records or archival data, and so "experts" who have access to these records typically do the appraisals.

Of course, individual- and team-level performance will influence organization-level performance, but it is generally assumed that these effects operate through the behavior of a top manager who is responsible for translating performance at lower levels into performance at the organizational level. However, since it is difficult to determine what critical behaviors a manager should engage in to be successful (but see Mintzberg, 1980), it is also difficult to understand why a single person (or top management team) should be assessed through reliance on measures of organization-level performance.

In fact, some scholars of top management have noted that environmental constraints (operating at a yet higher level of analysis) limit the impact any CEO can have on the firm's performance (referred to as "managerial discretion"; see Finkelstein & Hambrick, 1990; Hambrick & Finkelstein, 1987). Other scholars argue that organizational performance and survival have very little to do with managerial performance; specifically, these "population ecologists" argue that the conditions existing at the time the firm was founded, and the ease with which firms can enter and exit markets, are the true determinants of the firm's long-term performance (see Amburgey & Rao, 1996, for an excellent overview of the population ecology perspective).

Nevertheless, performance at the level of the organization is often seen as an indicator of the performance of the top management team. Yet, as will be discussed in more detail, efforts to improve individual-level performance are undertaken in the hope that these efforts will eventually lead to improvement in firm-level performance. Therefore, we must assume an unstated belief that the top management team's personnel improve the firm's performance, at least to some extent, by the actions they take to manage the performance of employees and teams in the organization. The relative importance of these actions, as opposed to more strategic decisions made by top management personnel, is unknown, but a focus on employee- and team-oriented activities, versus strategic decisions on the part of top managers, is one of the points that distinguish I/O psychologists from scholars of strategic management.

In sum, perhaps the most basic levels-of-analysis issue for performance appraisal relates to the decision to focus appraisal efforts at the level of the individual, the group or team, or the organization. When we focus appraisal efforts at the level of either the individual or the organization, the choice of performance measures and methods is relatively simple. In the case of work groups or teams, however, the relative emphasis on team-level versus aggregated individual-level performance measures should depend on the nature of the task involved.

Managing Performance at Different Levels

The ultimate goal of performance appraisal in most organizations is to improve performance; that is, we hope that if we communicate where an individual, team, or even an organization stands in terms of performance, and if we provide feedback about strengths and weaknesses, there will be a willingness to exert effort to improve performance. This is the heart of the performance management process.

But a willingness to exert that effort depends, in part, on perceived reward contingencies; that is, the target of the performance management process must believe that performance improvements are associated with obtaining some desired outcomes. Within the present framework, however, this means that there must be some correspondence between the level of performance targeted for change and the level of the rewards available. In addition, as already mentioned, the ultimate goal, regardless of the level at which the appraisal is focused, is to influence performance

at the organizational level. Therefore, we must also be concerned with the links between the level of analysis for performance appraisals and the level of the desired performance change.

The situation is relatively simple when superiors conduct appraisals of their subordinates at the individual level, and when the organization provides incentive pay tied to improved individual-level performance (measured as a function of improved appraisals), with no concern about changes in performance at higher levels. A more complex (and more common) situation arises when individual team members evaluate performance at the team level, and when incentives are tied to corporate earnings. Let us begin with the most basic question associated with performance management efforts.

Level of Performance Targeted for Change

All performance in organizations, regardless of the level of analysis, must ultimately be a function of individual-level behavior. Although we use such terms as *organizational behavior* and *corporate performance*, these are really still a function of coordinated efforts by individuals. Therefore, regardless of the level at which we want to influence performance, we must do so by influencing the behavior of individuals. Yet, as noted earlier, it is insufficient in almost all organization to change performance at the level of the individual. Unless those changes can translate into changes in performance at the organizational level, they will be considered to have limited success. It is for this reason that management scholars have attempted to demonstrate that practices targeted at the individual or team level are in fact related to improved organization-level performance (Jackson & Schuler, 1995).

Most performance management systems include (or claim to include) systematic evaluations, with face-to-face feedback, some type of goal setting, and a reward system that reinforces the behaviors specified in the goals that are set. Just as performance appraisals can be focused at any one of several levels within the organization, feedback and change efforts can also be focused at different levels; that is, if we focus our evaluation at the individual level, feedback is most readily available at the individual level as well. In a similar fashion, appraisals focused at the team level will result in feedback being most readily available at the team level. But because we can directly affect only the behavior of an individual, when appraisals and subsequent feedback are available only at the team level, we must translate this team-level feedback into goals and objectives for the individual.

The information needed to accomplish this is not necessarily available from the team appraisal, however. For example, if a manager evaluates the performance of an individual within a team or group and finds that the ratee does not cooperate well with co-workers, a manager can feed this information back to the ratee and discuss with the ratee ways in which cooperative behaviors could be fostered. If the individual ratee's behavior is monitored, if feedback is continued, and if there are rewards associated with improved cooperation, then it is not unreasonable to expect that the ratee will become more "cooperative" in the future. Presumably, if each team member received similar feedback and was the target of similar performance management efforts, the overall level of cooperation within the team would improve. But if the same manager focuses an evaluation at the team level, believes that the team level of cooperation and coordination are not what they should be, and provides feedback of this nature to the team, the situation is more complex. Team members may have little insight into what they should do to improve cooperation and coordination, or into who is responsible for the problem. The manager might spend time discussing the problem with the team, but it will essentially be up to the team members to manage the behavior and performance of other members (and themselves) in order to improve cooperation and coordination. The team members may in fact decide on a strategy for improving cooperation and coordination and set in place a performance management effort of their own, but this will require an extra step by comparison with efforts aimed only at the individual level.

In either case, the ultimate goal of the performance management effort is not simply to improve cooperation and coordination but to improve team effectiveness. When appraisal and performance management efforts are focused at the individual level, it may be possible for the individual to change his or her behavior, become more cooperative, and be rewarded for these changes while the team still fails to become more effective. When the focus of the appraisal and performance management efforts is on the team level, however, team members are rewarded only when the team becomes

more effective. Therefore, focusing on the individual level of performance is more likely to get desired changes in behavior more quickly, but there is no guarantee that these changes will result in improved team performance. Focusing instead on the team level may make it more difficult to obtain desired changes in behavior, but any rewards that come to team members are more likely to come only when team effectiveness is improved.

It is important to appreciate that this trade-off is part of any performance management system. The further away from the individual level the desired behavior, the more complex the links are between changing the individual behavior and obtaining the desired changes in performance. Furthermore, as the targeted performance moves to higher levels, we also require some strategy for how to change individual behavior in such a way that the larger group's performance will be affected. Therefore, if we focus our efforts on any level below that of the organization, we first need to evaluate the current state of organization-level performance and diagnose the cause for performance being lower than desired. We must then identify individual- and, eventually, group-level behaviors that might change that performance, and we must implement a program whereby the efforts of individuals and groups are all integrated, with an eye toward corporate performance goals. However, while these efforts are being carried out, their impact is being limited by organizational and environmental constraints on organization-level performance (for example, the market is too competitive), team-level performance (the organization cannot devote the resources needed to obtain the best people and equipment for the teams), and individual-level performance (the organization does not provide adequate training for individual employees). Clearly, this is a much more complex problem than simply trying to get one individual to cooperate with a co-worker, and yet all performance management efforts are ultimately aimed at changing performance at this highest level.

Nature of Desired Changes in Behavior

The challenges in changing performance at the organizational level become even more daunting when we realize that it is possible to change behavior at a lower level of analysis in such a way that it actually reduces performance at a higher level; that is, we can easily create a situation where individual employees are actually working counter to the higher-level organizational goals. What is truly disturbing about this is that we can create these situations through our own efforts to change individual-level behavior in a way that will improve organization-level performance.

For example, let us return to the case of the team that needs its members' cooperation in order to meet its deadlines, with cooperation as the focus of the performance management process. If we conduct evaluations, provide feedback, and reward employees at the individual level only, individuals may see it as in their best interests to engage in behaviors that lead away from cooperation and from desired group-level behavior; that is, an individual may see that the best way to maximize individual-level performance is to keep all information closely guarded, not communicate openly with other group members, and, in fact, never help another group member to improve performance. If the organization rewards individuals for improved performance at the individual level, these behaviors would be reinforced, even though they would lead to decreased cooperation and, presumably, to more missed deadlines in the future.

The seemingly obvious nature of this problem might suggest that organizations would rarely fall into the trap just outlined, and yet they do, with some frequency. For example, an engineering firm that managed major construction projects (such as shopping malls and highway improvements) would bid on these projects. Although the firm was still rather small, it had been fairly successful and had enjoyed rapid growth over the years. A consulting firm was hired when the CEO grew concerned about his ability to manage the growing company, and the consultants' report emphasized the importance of focusing on corporate earnings by increasing "billable hours." A reward system was designed to encourage employees to engage in activities that generated fees, as is done in most law firms. Employees immediately began focusing on client-service activities that could be billed, and earnings grew. In this environment, however, there was no incentive for anyone to write proposals for new projects, because no one could be billed for the time spent in writing a proposal unless the project was eventually awarded to the firm. After two years, the firm began reducing the number of its employees because of the slow decline in the number of new projects, and earnings began to slip as well. The performance management system rewarded individuals for behaviors that generated earnings, but it failed to consider that, in the long run, the firm's existence depended on generating new business, which required efforts that maximized organizational goals rather than individual goals.

Therefore, it is critical, if an organization is interested in performance at a level higher than that of the individual, to develop goals for individual performance and behavior that will lead to those higher-level performance goals. It is especially critical that the organization not reward efforts that are counter to those higher-level goals. If an organization focuses its performance management efforts on the right behaviors and can tie rewards to performance improvements at the desired level, it is reasonable to expect that efforts aimed at changing individual-level performance will eventually result in improvements in organization-level performance as well. This is likely to be the case, even considering the various constraints imposed by higher levels on performance at lower levels of analysis. Nevertheless, this statement raises another set of problems associated with crossing levels of performance management and rewards.

Levels of Performance Change Desired and Levels of Rewards

Earlier, we saw that organizations interested in managing team-level performance often make matters more complicated by focusing appraisals at the individual level. In such cases, if rewards are associated with performance at the individual level, employees may well engage in behaviors designed to maximize their own individual outcomes, at a cost to team outcomes. An obvious example might be an employee's unwillingness to share information with another team member if there are rewards associated with individual-level performance.

We have also seen that the ultimate target of any performance management effort must be improved performance at the organizational level, and that it is important for organizations to design goals for individuals that will lead to changes in performance at that higher level. But higher-level goals can introduce some additional problems. Underlying all of them is the fact that the individual may not have much impact on the attainment of organization-level performance goals. For example, any number of accounting and financial indices that might be used to measure corporate performance can often be improved on if costs are reduced. In addition, individually targeted programs for cost reduction may be easy to implement, and these efforts would presumably lead to more favorable earnings ratios. And yet successful earnings also depend on a coherent and effective corporate strategy (although the relationship between corporate strategy and firm performance is also not simple; see Miller & Friesen, 1986; White, 1986).

As a result, if the organization seeks to reduce costs without implementing any other procedures, there is little chance that financial performance will increase appreciably. If an individual's incentives are based on these corporate performance measures (because these are the ultimate target of performance management), the individual may see his or her personal cost-reduction efforts being successful and yet receive no rewards, because these lower-level successes are not being translated into higher-level success. Over time, this will result in the individual employee's reducing his or her cost-saving efforts because there is no reward for those efforts, and the entire effort will fail. Other indices of performance at the organizational level, such as stock prices, surely must rely more heavily on factors other than individual effort if they are to be improved. As a result, even if we can identify individual behaviors that will lead to improved performance at a higher level, and even if we reward those behaviors properly, there are mitigating factors that may make it difficult for the individual employee to see the relationship between individual effort and organizational performance that will lead to rewards.

Most theories or models of motivation suggest that an individual is most likely to exert effort if there is a clear link between his or her effort and the possibility of obtaining rewards, but if an organization tries to manage corporate performance by using an index like stock prices, these links become very tenuous. The individual can do all that is asked, and the required behaviors may even be those that should lead to higher stock prices, but if a competitor comes to the market with a new product, the firm's own stock prices are likely to fall, regardless of how successful individual efforts have been. Everything we know about individual moti-

vation suggests that as the link between effort and performance becomes weaker, the individual will grow less interested in exerting efforts that may not be rewarded.

It should be clear, then, that performance management is much more difficult as the organization moves away from individual-level performance and toward group- or corporate-level performance as the target of the management efforts. It is interesting to note, therefore, the growing interest in the relationship between human resource management programs and such criteria as firm performance (e.g., Becker & Gerhart, 1996: Jackson & Schuler, 1995). This research has suggested that firms engaging in more advanced HR practices, such as goal-based performance management, tend to be more successful (on the basis of a variety of financial indices) than firms not engaging in these practices. But such a relationship suggests that tying individual-level performance appraisals to organization-level outcomes is not very complicated. In fact, it would simply be a matter of putting improved systems for appraisal and performance management (or other HR systems) in place (this is commonly referred to as a "best practices" approach; see Pfeffer, 1994; Applebaum & Batt, 1994). It should be noted, though, that the scholars who report such relationships often do not specify why HR practices should relate to firm performance (although Huselid, 1995, notes that reduced turnover and increased individual productivity play a role). Perhaps more important, most scholars do not specify how these would be linked. (Various contingency factors have been proposed: see Delery & Doty, 1996; Snell & Youndt, 1995; Wright, Smart, & McMahan, 1995; Ostroff & Bowen, Chapter Five, this volume.)

The fact that such relationships exist at all is encouraging, but it may also be misleading. The preceding discussion has attempted to explain how and why it is difficult to relate individual-level performance appraisals to higher-level performance outcomes in a performance management system, and we will return to this issue a bit later. For now, though, it is safe to say that the mere presence of more advanced systems cannot guarantee higher organization-level performance.

Unfortunately, little is known at this time about the processes that link individual-level practices to firm-level outcomes. Among the various authors just cited, various proposals have been made.

Most involve the general notion that if individual employees are knowledgeable about their jobs and their organization, committed to their organization and its goals, and empowered to make changes as they see fit, the organization will prosper. The assumption, then, is that the different HR practices, focused at the individual level and implemented as a set, will result in the right employees being hired and in their being sufficiently motivated and empowered to make the necessary changes. For now, this assumption remains untested.

In summary, several points seem clear:

1. Regardless of the initial level of focus, performance management efforts are ultimately aimed at changing performance at the organizational level.
2. It is almost impossible to change the "behavior" of an organization, whereas it is relatively straightforward to change the behavior of an individual.
3. Most performance management efforts are focused at the level of the individual, and we must find ways to enable the changes at this level that are needed to influence changes at higher levels (that is, at the team and organizational levels).

It is critical, therefore, that we identify ways for changes that occur at the level of the individual to influence higher-level changes as well. As noted, performance at the organizational level is also constrained by various environmental influences at even higher levels (the industry, the nation), and so organization-level change is always difficult to accomplish. Furthermore, the absence of data (along with a plethora of speculation) means that we have few real guidelines to help this bottom-up process of influence along. Nevertheless, we do have some ideas and data with respect to performance in connection with the nature of the relationships among the different levels in an organization. These relationships can provide some insights into how we ultimately change performance at the level of the organization.

Linking Performance at Different Levels

Clearly, organizations need to understand how to move from performance appraisals and performance management at the level of the individual to performance at the level of the organization.

There are some notions of how performance at a higher level in an organization constrains performance at a lower level, but there are no obvious models of how lower-level changes in performance translate into changes at a higher level. Such cross-level effects can be considered as emergent or aggregate effects (because the domain of the effect remains the same at each level), and there have been some suggestions for how these effects might be accomplished.

Bottom-Up Emergent Effects

Two interesting perspectives on organizational interventions designed to increase organizational productivity provide insights into what needs to be done and make clearer the complexity of relationships among performance at different levels. The first perspective is that of Schneider and Klein (1994), who note that many an intervention that is designed to affect organizational productivity, but that is aimed at individual performance, fails because the organization fails to take a systems perspective in designing the intervention: even if the organization is able to improve individual performance (and these authors note that such interventions rarely operate exactly as intended), it is unlikely that organizational productivity will improve as well. They note that organizational productivity is determined by a variety of factors, such as organizational norms and strategy, and that unless these systems change as well, problems with productivity are likely to remain. Furthermore, they note that some interventions may simply not be appropriate for the organization and so may lose effectiveness.

The latter point is especially relevant in the context of the present discussion, especially in discussing possible shifts from individual-level to group- or team-level appraisals. In many U.S. corporations, there is a strong value placed on the individual and on individual efforts. In such organizations, employees are quite comfortable when individual performance is evaluated and when rewards are based on individual performance. They become somewhat uncomfortable, however, when their rewards depend on the performance of others, as is the case with group-level ratings and/or group-based incentives. Imposing such a change is therefore likely to meet with resistance and is not likely to have the desired impact, even if a group-level performance management system is exactly what would seem to be required.

For example, an HR executive from a large engineering firm recently said that his organization had moved to an appraisal system wherein team members rated each other, in addition to having the more traditional supervisor-based appraisals. He said it was because the company operated on a project-team basis, and that because these teams were formed, reconfigured, and dissolved, it seemed important to get fellow team members' perspective on the performance of any one individual. The company also believed in incentive pay systems. When the executive was asked how incentives were determined, especially in cases where supervisors and peers might have different views of an individual's performance, the answer was simple: only the supervisor's evaluation was used for compensation decisions. This may seem strange in light of the strong team orientation, but the executive explained that it would be counter the organization's culture for the rating of any peer to have the ability to "hurt" another. Whether or not this is right for the organization, it is useful for the organization to be aware of what the culture will and will not accept. In this case, the company's culture will have to be changed before an intervention designed to improve productivity can be implemented.

Schneider and Klein (1994) argue that organizational efforts to implement this type of bottom-up performance effect will always be risky. However, they also make clear that an organization must take a larger, systems perspective and give full consideration to any contextual factors that might be operating if it is to have any chance of obtaining those effects. Of course, including these consideration still does not guarantee that the effect will be successful.

The second perspective on bottom-up performance effects is that of Goodman, Lerch, and Mukhopadhyay (1994). These authors propose and discuss a series of factors that can either facilitate or inhibit the impact of individual-level performance on organization-level productivity. They note, for example, that when jobs are linked so that the output from one job is used as the input for another job, increasing productivity in the first job will not have an effect on organizational productivity unless performance in the second job is improved as well. They also note that interventions that improve individual performance but allow organizational slack to increase are unlikely to improve organizational productivity. Further, they discuss processes that can enhance the link between individual and organizational productivity, and they conclude with the following proposal:

> Individual productivity contributes to organizational productivity when (1) the five processes of coordination, problem solving, focus of attention [processes that make certain outcomes and the paths to those outcomes salient], organizational evolution [where changes are introduced as part of a continuous cycle of change], and motivation are operative and (2) the processes are congruent and reinforcing [Goodman, Lerch, & Mukhopadhyay, 1994, p. 66].

Both these theoretical perspectives reinforce the idea that relationships between individual- and higher-level performance are complex. But both perspectives also provide insights into what an organization might do to facilitate the transfer from individual-level to organization-level performance. Again, there are still many other contextual constraints, but at least these perspectives provide some ideas about what to include (or what to avoid) in trying to manage performance at the organizational level.

A proposed model of team effectiveness (Kozlowski et al., 1999) provides yet another perspective on how an organization might translate individual-level performance management into organization-level performance. These authors argue that teams are more than just aggregates of individuals. Individuals are clearly the basis of all teams. Teams go beyond the individual, however, as they become adaptive networks and learn how to integrate individual-level and team-level goals.

Theirs is a developmental model, which begins with team members learning about their teams and each other and how to "think like a team" (the team development phase). Team members then begin to focus on individual-level performance and work to master their specific tasks within the team. This phase, which the authors call the "task compilation phase," requires self-regulation as well as self-efficacy. The team next moves to the "role compilation phase," where team members learn how to coordinate their performance with the performance of others, but the focus is primarily at the level of the dyad. Finally, at the "team compilation phase," the adaptive network begins to form; team members begin to recognize the indirect links among their tasks, monitor the performance of other team members, and provide feedback, trying to improve team effectiveness.

It is at this final stage that it becomes possible to integrate individual-level performance goals with team performance goals. Although there are no specific recommendations about how this should be accomplished (and the authors point out that there is very little research addressing this step), the important implication here is that we cannot decide between individual-level and team-level performance; both are important. Only when individual performance is managed in such a way that communication, coordination, monitoring, and feedback among team members are encouraged, along with individual performance, can a team be truly effective. We can then take the Kozlowski and colleagues (1999) model to one higher level of analysis and suggest that the goals set for teams must be managed in a way that maximizes the chances for improved performance at the organizational level. Therefore, we can suggest the need for compilation at the organizational level, where the goals of the organization are considered simultaneously with the goals of the team, which are already integrated with individual-level goals.

All of this suggests that managing performance at the organizational level requires both top-down and bottom-up processes to be in place. Beginning at the organizational level, goals and performance expectations must be set for teams (or other types of work groups) that reflect the higher-level organizational goals. In other words, if the team meets its goals, this will help move the organization toward meeting its goals. The same thing must then cascade down to the individual level, so that the goals that are driving performance at each level are aimed at supporting performance goals at the next highest level. Meanwhile, beginning at the level of the individual, team members, through compilation processes, must work at integrating their own personal goals with the goals of the team. Presumably, this can be done with better networking, mutual performance monitoring, and mutual feedback. The teams must then presumably go through a similar process and integrate their goals with those at the organizational level. Thus it seems clear that performance management efforts must proceed from both directions if we hope to improve organization-level performance via the efforts made at the level of the individual.

Top-Down Cross-Level Effects

The Kozlowski and colleagues (1999) model goes beyond looking at bottom-up effects and argues for coordination between top-down and bottom-up efforts. In addition, though, there are other cross-level links that are more top-down in nature and that also need to be discussed. Quite often we think about higher-level performance effects (or other factors) acting to constrain performance at lower levels, but higher-level performance effects can also facilitate performance at lower levels.

If we focus on performance at the organizational level, we can find examples of both types of cross-level effects. For example, when rewards are based on success at the organizational level, such success can provide rewards that can also be used for individuals who achieve their own performance goals. But when the organization is not as successful at it would like, and when such performance indices as profits decline, there will generally be less money available for any type of performance-based reward. Therefore, even if performance goals are being met at the team and/or individual levels, it may not be possible to reward anyone for that performance. Higher levels of performance may persist for a while in the absence of any rewards, but we would expect it to eventually decline if there is no formal recognition. Thus, in the long (or even intermediate) run, the level of organizational profitability will serve as a constraint on the team and individual levels of performance.

Success at the level of the organization can also provide the funds and flexibility needed to allow an organization to implement performance management systems that can affect individual-level performance. This is a situation that should be recognizable to many academicians: successful colleges and universities find it easier to attract better faculty, and they make it easier for those faculty members to be successful because of the support that can be offered. Thus, whereas it is surely possible to have a strong academic department in a university that is not particularly effective, it is easier to have strong departments in a strong university.

It is interesting to note that researchers interested in the relationship between HR practices and organizational performance have also acknowledged this potential symbiosis (e.g., Huselid, 1995); that is, they have recognized that part of the explanation for a relationship between organizational performance and HR practices is perhaps that successful firms have the slack and foresight to implement better HR practices. Furthermore, it is conceivable that this relationship is due to the fact that successful firms do everything better than less successful firms, including the implementation of better HR systems. Likewise, firms that manage higher levels of performance successfully may have the expertise to effectively manage performance at lower levels as well.

Similar arguments could be made for the constraining effects of performance at the team level, as well as for the facilitating effects of performance at this level on performance at the level of the individual (that is, there will be more or fewer rewards available). In addition, though, a team that does not exhibit a high level of teamwork behavior, even if individuals are performing effectively, may not be successful. Moreover, this team-level construct (teamwork) will reduce the ability of individual-level performance to translate into team-level performance (compare the concept of "process loss"; see Steiner, 1972). Although this more complex cross-level moderating effect is clearest at the levels of the team and the individual, one could also argue that poor organizational planning and strategy will limit the ability of team-level performance to influence organization-level performance.

Of course, strategies, structures, and policies at each level will serve to constrain lower-level performance effects as well. Organizations that value internal equity in their pay policies may well constrain performance at the team and individual levels because performance-based rewards may be limited so as to not violate internal equity considerations. In fact, too much concern over internal equity could erode an organization's competitive position relative to external equity, which would result in higher levels of turnover, especially among individuals with more market appeal (that is, high performers). This, in turn, would seriously dampen the success of any attempts to improve performance at any level.

Thus it seems clear that performance at one level can have an influence on performance at other levels. The fact of this relationship makes managing performance somewhat more complicated, but it also suggests that even if an organization focuses on the "wrong" level of performance, it may still influence the desired level of performance because of the interdependencies involved. Therefore, it is to be hoped that evaluating and managing team-level performance will influence performance at that level, but this success is also likely to have an influence on individual-level performance. Exhibit 3.1 helps illustrate some of this interdependence.

It is necessary to note, however, that although there are clearly relationships among different levels of performance, it is not always simple to change performance at one level and have it influence other, especially higher, levels of performance. It is also clear that it is critical to coordinate goals and goal-setting efforts at different levels, but these activities are not always enough to effect the desired changes. There is at present no clear set of steps to guarantee that individual-level performance will translate into organization-level performance, but several theoretical perspectives offer some insights into things an organization can do to increase the probability of the desired cross-level effects:

1. Keep a systems perspective, and pay attention to contextual factors that influence performance at each level of analysis.
2. Ensure that efforts aimed at coordination, problem solving, focus of attention, motivation, and evolution are congruent and mutually reinforcing across levels.
3. Recognize that team effectiveness and organizational effectiveness develop over time, so that we ensure that earlier phases of development have been completed before we try to get individuals (and eventually teams) to develop the kinds of mutual networks they need to translate their efforts into performance at a higher level.

Finally, considering the appraisal and performance management processes from a levels perspective leads to a number of research questions that might help guide research designed to better enable organizations to manage performance at the level desired. In addition, this perspective leads to some other research questions that simply may not arise without the use of this perspective.

Issues for Future Research

A number of proposed models of the appraisal process are already available, and each one has the potential to generate a number of

Exhibit 3.1. Conceptual Framework of Cross-Level Influences on Performance.

Conditions at higher levels of analysis can influence performance at lower levels so that such factors as

- The external environment
- Strategy
- Structure

can constrain *organization-level* performance for reasons such as

- A weak economy, which dampens performance and profits for all firms
- A corporate strategy that focuses on the long-term customer base rather than on short-term profits
- Strong performance in some units that is offset by weak performance in other units of the same firm

and this can constrain *team performance* for reasons such as

- Poor organizational performance that limits the available resources
- Poor organizational performance that lowers morale
- Poor organizational performance that reduces rewards available

and this in turn can constrain *individual-level performance* for reasons such as

- Poor team performance that reduces morale and motivation
- Poor team performance that serves as a ceiling for individual performance
- Poorly performing teams that do not attract effective managers or employees

but performance at lower levels can influence performance at higher levels as well so that individual-level performance can influence higher level performance for reasons such as

- Individual-level performance that influences team-level performance because high-performing individuals contribute to team-level productivity
- Individual-level performance that influences organization-level performance because low levels of motivation will always depress performance, even in the presence of effective corporate-level strategies

Exhibit 3.1. Conceptual Framework of Cross-Level Influences on Performance, Cont'd.

- Individual-level performance that influences external factors because low levels of individual-level performance can make it more difficult to attract the new employees needed to carry out a high-growth strategy

and team-level performance can likewise influence performance at higher levels for reasons such as

- Team-level performance that influences organization-level performance because poorly performing teams can depress corporate profits
- Team-level performance that influences external factors because variance in performance across teams can necessitate closer controls, which in turn require a shift in both corporate strategy and organizational structure

research questions. The present framework for the discussion of appraisals and performance management is less of a formal model, but it, too, has the potential to help direct future research. A simple illustration of this framework is presented in Exhibit 3.1, and is based on the assumption that performance at each level of analysis is influenced by and simultaneously influences performance at other levels.

From an applied perspective, as noted earlier, the most critical issue arising from a levels framework deals with how an organization can translate changes in behavior at the level of the individual to changes in performance at the level of the organization. This remains the key, not only to fully implementing a performance model based on a levels framework but also to understanding the bottom-line payoff of any organizational intervention that is focused at the level of the individual. The work relating HR systems to firm performance, discussed in several places throughout this volume, is a perfect place to begin exploring this relationship (Schneider, Smith, & Sipe, Chapter Two, and Ostroff & Bowen, Chapter Five).

As noted, there is a growing body of literature that has demonstrated that specific HR practices (for example, using standardized selection procedures) can result in higher levels of organizational performance (for example, greater profitability). Furthermore, there is a debate within this literature about whether the same HR practices produce higher levels of organizational performance in all cases or whether the specific practices leading to higher organizational performance are dependent on the strategy used by the firm to compete. The fact that support is claimed for both views suggests that we really do not understand the process by which HR practices can result in organizational performance. Do more enlightened practices (which would probably be invariant across strategies) cause employees to feel more valued and therefore more committed to the organization? Does this commitment then translate to working smarter as well as harder so that organizational performance improves as a result? Alternatively, do specific HR practices help align the efforts of the individuals with the goals of the organization (so that these would be dependent on the specific strategy employed), with the result of better organizational performance?

Is it possible that better HR practices simply result in the selection and rewarding of better people for behaviors truly related to organizational goals, and that when we implement these practices (assuming we recognize constraints and interrelationships) we always improve performance at all levels of analysis—that, in other words, hiring smarter people and rewarding them properly is the key to success at all levels? It is unlikely that things are this simple, but it is interesting to note that this last possibility focuses our attention more on the basics of I/O psychology than on any strategic orientation toward human resource management. In any case, a critical research issue for the future will be how to change individual-level performance in such a way that it translates into organization-level performance.

In addition to this general question, there are a number of more specific research questions that grow out of a levels perspective on performance appraisal. Some of these stem from simply recognizing that performance is a construct that can be conceptualized at a number of levels. Many of these questions focus on comparing effects of appraisal- and performance management–related variables, occurring at different levels, on outcomes of interest. Other research questions are derived from the recognition that performance at any given level can influence performance at other levels. These questions tend to focus on constraints (or facilitating factors) on performance at one level, stemming from performance at a different level. Finally, a levels perspective can generate research questions concerning processes underlying performance and performance appraisal. Some of these research questions are discussed in the following sections.

Performance at Different Levels

Two research questions flow from the recognition that performance can be conceptualized at different levels. They concern the level at which we should direct performance feedback in order for it to be most effective, and how ratees react to performance ratings and feedback provided at different levels.

These two questions are clearly related. The first follows from a recent paper (Kluger & DeNisi, 1996) suggesting that in some cases performance feedback may actually hurt subsequent performance because it focuses the target's attention on processes other than task performance. These authors argue that feedback that is comparative in nature, or more personalized, is more likely to cause problems, and these conditions are most likely to occur when feedback is provided at the level of the individual or (to a lesser extent) at the level of the team. Yet it is probably easier to set goals at the individual level, and so future research might focus on potential trade-offs among the different levels of feedback.

The broader question of reactions to ratings and feedback at different levels is also worth pursuing. In addition to affective reactions, ratees may differ in terms of motivation to change behavior as a function of the level of the ratings provided. Perceptions of potential bias may be stronger at the individual level, and the rater's motivation to distort ratings (Murphy & Cleveland, 1995) is likely to be greater for ratings at this level. Therefore, ratees may prefer ratings at higher levels of analysis, even though their behavior may be more affected by ratings focused at lower levels.

Cross-Level Effects

Performance appraisal research has not often paid attention to constraints on performance imposed by performance at some higher level, yet such constraints are typically present. From this there may follow the research question of how raters consider higher-level situational constraints on performance when making performance ratings. For example, Murphy and Cleveland (1995) suggest that the level of organizational performance may affect a rater's definition of good and poor performance at a lower level. Furthermore, Kane's (1982) Performance Distribution Assessment model explicitly includes the role of constraints from higher levels as part of the procedure for rating of performance. But whereas the more general research on situational constraints is fairly well accepted (for example, O'Connor et al., 1984), we clearly need to know more about how raters consider this information when they are making rating decisions.

Underlying Processes

One final area that requires further research attention relates to raters' mental models of performance at different levels. Such models are seen as important for guiding evaluations focused at the individual level, and such models seem to be developed and used by raters at this level (Borman, 1991).

Can performance models be developed and used for performance at the team or organizational level? For example, at the individual level, there is evidence that nonperformance factors (such as citizenship behavior) are important, both for the mental models of performance (Borman, White, Pulakos, & Oppler, 1991) and for the appraisals themselves (Werner, 1994). Do such factors play a role in higher-level evaluations as well? In the case of teams, it would even be interesting to know exactly what kinds of behaviors would be considered nonperformance factors, because behaviors that could be considered teamwork are considered important for team effectiveness. At the organizational level, it would be interesting to know if corporate social performance is really part of the mental model of an "excellent" organization, and, if so, to know exactly how information about social performance influences evaluations of overall corporate performance.

Conclusion

The research questions just posed are not meant to be an exhaustive list but are meant instead to be suggestive of the kinds of research questions can that grow out of a recognition of the multilevel nature of performance appraisals and performance management. The purpose of this chapter is not to be exhaustive but to make explicit the implicit assumption that performance in organizations does take place at multiple levels, and that performance at each level can influence and is influenced by performance at other levels. Furthermore, this chapter can be seen as suggesting why this explicit consideration of levels issues is important for appraisal research.

Traditionally, performance appraisal and management research in I/O psychology have focused on the individual level of analysis. Although we have occasionally ventured onto the level of the team or the group (and are increasingly moving in that direction), we have not paid much attention to organization-level performance. As a result, most of our research has focused on such things as rater errors, rating bias, rating-scale format, and rater-memory issues. This chapter has referred throughout to the work of scholars in our field who, recognizing that this focus was too narrow, have called for recognition of the constraints placed on lower levels of performance by performance occurring at higher levels of analysis, and they have suggested ways of translating performance at lower levels to performance at higher levels.

I/O psychologists may have been guilty of focusing too much on individual-level performance and the psychological processes underlying that performance, but they are not alone in ignoring the whole picture. Scholars interested in performance at higher levels of analysis, especially at the level of the organization, have been equally guilty of ignoring the importance of performance at lower levels and the importance of understanding relationships among performance at different levels of analysis. It is not enough simply to state that organizations implementing certain HR programs will perform better than those who do not, unless we can understand how and why those programs result in performance at each level of analysis and, eventually, at the level of the organization. It is hoped that this chapter can help I/O psychologists to consider how their models of individual performance might translate into performance at higher levels of analysis. Perhaps it can also help macro-level scholars give more thought to how HR programs aimed at individuals can lead to team-level and, ultimately, corporate-level performance. Only when we appreciate the multiple-level nature of performance can we hope to successfully implement programs that can improve performance at all levels of analysis.

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CHAPTER 4

A Multilev to Training

Enhancing H and Vertical

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Over a quarter-century ago, Te
nizational environments were e
plex, dynamic, and uncertain. A
that prediction has become re
pressured by technological, pol
changes that are global in sco
often incremental, it is also fr

Note: We would like to thank Irv Golds
Tannenbaum, and Shelly Zedeck for t
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