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Foster Team Effectiveness by Fulfilling Key Leadership Functions

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Observers commonly view team leaders as mainly responsible for how a team performs. An industrial team sets a new plant production record—and its supervisor subsequently receives an award and is promoted. All applaud the Captain of an airline crew that finds a way to work around serious mechanical problems encountered in flight. An orchestra conductor accepts the audience’s ovation for an outstanding ensemble performance. In each of these cases, the leader is viewed as the main cause of the team’s success. It is the same when the outcome is negative: perhaps the most common response to a string of losses by an athletic team, for example, is to blame the coach. This attributional impulse is so pervasive and powerful that we have given it a name—the Leader Attribution Error (Hackman, 2002, Chap. 7; Hackman and Wageman, 2005b).¹

The tendency to attribute responsibility for collective outcomes to the leader has its roots deep in the history of social science research. In the first experimental study of group leadership ever conducted, Kurt Lewin, Ronald Lippitt, and Ralph White (1939) compared the effects of three different leadership styles—democratic, autocratic, and laissez faire—on group behavior and performance. Since then, there has been a near-continuous outpouring of research to identify

¹ This intense focus on the team leader is consistent with what Meindl and his colleagues (1990; Meindl, Erlich, and Dukerich, 1985) have described as the “romance” of leadership.

the best leadership traits and the behavioral styles that leaders should exhibit in various circumstances. As noted elsewhere (Hackman, 2002, Chap. 7; Hackman and Wageman, 2007), the record of that research is decidedly mixed—so much so that an alternative approach to thinking about team leadership is receiving increasing attention these days.

In the alternative approach, the leader is viewed not as the direct *cause* of team behavior. Instead, the team leadership role is viewed as having two components: first, identifying those functions that are most critical to the success of a team in its particular circumstances, and then doing whatever may be needed to get those functions accomplished (Hackman and Walton, 1986; Wageman and Hackman, in press).

The functional approach to team leadership also has deep roots in social science history. At about the same time that Lewin, Lippitt, and White were conducting their experimental study of leader styles, Chester Barnard (1938) was writing a now-classic book called *The Functions of the Executive* that explained what senior leaders must do to help their organizations succeed. The core idea is encapsulated in the second word of the title: leadership is seeing to it that certain necessary *functions*—establishing direction, creating structures and systems, engaging external resources—are fulfilled so that organization members can work together well to accomplish shared purposes.

Some two decades after Barnard's book was published, Joseph McGrath (1962) picked up the same theme and applied it to groups. The leader's main job, McGrath proposed, "is to do, or get done, whatever is not being adequately handled for group needs" (p. 5). If a leader manages, by whatever means, to ensure that all functions critical to group performance are taken care of, then the leader has done well. This approach to team leadership leaves room for wide range of ways to get

key functions accomplished and, importantly, it avoids the impossibility of trying to specify all the particular behaviors or styles that a leader should exhibit in different circumstances.

For both Barnard and McGrath, the conceptual focus is identification of the core functions that must be accomplished to promote social system effectiveness—not who gets them accomplished or even how that is done. In this view, anyone who helps accomplish critical functions in any way they can is exercising leadership. Thus, at the most general level, the principle of team leadership is this:

Effective team leadership is ensuring that the functions that are most critical for achieving team purposes are identified and fulfilled.

Research has identified four subprinciples that flow from this general principle. These subprinciples can be stated as four action imperatives and, as will be seen, they come in a particular order:

Subprinciple 1. Decide whether or not a team is appropriate for the work to be accomplished.

Subprinciple 2. Decide what *type* of team to create.

Subprinciple 3. Create structural and contextual conditions that facilitate teamwork.

Subprinciple 4. Coach the team to help members take full advantage of their favorable performance situation.

Before discussing these four subprinciples, we must first specify what distinguishes a work team from other organizational units, and clarify what is meant by “team effectiveness.”

EFFECTIVE WORK TEAMS

The principles in this chapter apply only to work teams in organizations—that is, groups of people who work together to perform identifiable tasks in organizational contexts. Work teams generate outcomes for which members have collective responsibility and whose acceptability is

potentially assessable. They also must manage relations with other individuals and groups. Usually these entities also are part of the team's parent organization, but on occasion the salient context is outside the organization—such as the opposing team and spectators for an athletic team. Although many other kinds of units exist in organizations (for example, departments, identity and reference groups, informal networks, and so on) the present discussion applies only to organizational work teams as just defined.

When someone says a work team is or is not “effective,” that person necessarily (although perhaps implicitly) is making a value judgment. It can be helpful, therefore, to specify explicitly what is meant by “team effectiveness.” The principles discussed here (and the research on which they are based) relies on the following three-dimensional conception of effectiveness.

1. *The team's product meets or exceeds the standards of quantity, quality, and timeliness of the people who receive, review, and/or use it.* It is clients' standards and assessments that count in assessing team products, not those of the team itself nor those of the team's manager (who rarely is the one who receives and uses what a work team produces).

2. *The team's work processes enhance members' capability to work together well.*

Effective teams become adept at detecting and correcting errors before serious damage is done, and at noticing and exploiting emerging opportunities. They are more capable performing units when a piece of work is finished than they were when it began.

3. *The team contributes positively to the learning and personal well-being of individual members.* Teams can serve as sites for personal learning and can spawn satisfying interpersonal relationships—but they also can de-skill, frustrate, and alienate their members. Teams are fully effective only when their impact on members' personal learning and emotional well-being is more positive than negative.

It is important to consider social and personal criteria, the second and third dimensions, as well as task performance in assessing overall team effectiveness. And even task performance, the first dimension, can be challenging to assess since it depends as much on the values, standards, and perceptions of the people the group serves as on any simple objective indicator.

Subprinciple 1:

Decide whether or not a team is appropriate for the work to be accomplished

Using teams to accomplish work can bring a number of advantages. For one thing, the task itself can be larger in scope and therefore more meaningful and consequential than would be the case for work carried out by any individual performer. Moreover, since the work is not parceled out in small pieces among multiple performers, it is easier to establish direct two-way communication between the team and its clients, which, in turn can generate prompt and trustworthy feedback about team performance. Tasks that require members to take on a whole piece of work rather than just one small subtask also require that teams be composed of diverse individuals who have different areas of expertise—and that, in turn, can foster cross-functional exchanges that generate unanticipated ideas and insights.

Some types of tasks, however, are inappropriate for teams, such as those that require sophisticated use of highly specialized individual knowledge or expertise. Another kind of task that often is assigned to a team but should not be is creative composition. Writing a group report would appear to have little in common with creating a novel, poem, or musical score—but both require bringing to the surface, organizing, and combining into an original and coherent whole thoughts and ideas that initially are but partially formed and that may even lie partly in one's unconscious. Such work is inherently more suitable for individual than for collective performance. Although the individual who does the writing can be helped greatly by the ideas,

suggestions, and editing of other group members, the actual composition of even relatively straightforward group reports invariably is done better by one talented individual on behalf of the group rather than by the group as a whole writing in lockstep.

Unfortunately, managers sometimes form teams without giving the matter much informed or deliberate thought. Some managers, for example, assign work to a team because they believe that teams invariably produce higher quality products than individuals—a commonly held but erroneous assumption (Locke et al., 2001). Others may decide to assign a controversial piece of work to a team in hopes of diluting, or at least distributing, their personal accountability for whatever is produced. Still others may use a team as a way to engage the attention and involvement of individual members and, they hope, thereby strengthen members' commitment to whatever is produced.

One of the first decisions a leader must make in creating a work team, then, is to ensure that the work actually is appropriate to be performed by a team and, if it is not, to find alternative means of accomplishing it. Those leaders who are not trapped by implicit cognitive models or emotional imperatives that are biased toward teamwork weigh carefully the advantages and disadvantages of creating work teams. They avoid assigning to a team tasks that actually would be better performed by individuals. And they never form a team that is a team in name only.

*Subprinciple 2:
Decide what type of team to create*

If a leader's decides that a piece of work should, in fact, be assigned to a team, what *kind* of team should it be?² The choice most likely to be made by leaders who do not explicitly explore alternatives is the face-to-face interacting group. But there are others, each of which is

² This section draws on material developed by Hackman and Wageman (2005) and Woolley and Hackman (2006).

appropriate in some circumstances but not in others. The right choice depends upon the answer to two questions:

1. Will responsibility and accountability for work outcomes lie primarily with the group as a whole or with individual members?
2. Will members need to interact synchronously in real time, or can the work be accomplished by members who work at their own paces and in their own places?

The answers to these two questions form the four-cell table shown Table 1. As will be seen, each of the four types of teams shown in the table are indicated for different types of work.

		<i>Responsibility/Accountability for Outcomes</i>	
		Individual Members	Team as a Whole
<i>Level of Synchronicity</i>	Real-Time Interaction	Surgical Teams	Face-to-face Teams
	Asynchronous Interaction	Coacting Groups	Distributed Teams

Note: Adapted from Hackman and Wageman (2005)

Surgical teams. Teams in the upper-left quadrant are what Frederick Brooks (1995) has termed surgical teams. Responsibility and accountability for outcomes lies primarily with one person, the surgeon, but accomplishing that work requires coordinated interaction among all members in real time. Brooks, who managed IBM's System 360 programming effort many years ago, argued that software development teams should be structured the same way. Members of surgical-type

teams provide the lead member, the person mainly responsible for team product, all the information and assistance that they can provide. This kind of team is indicated for work that requires a high level of individual insight, expertise, and/or creativity but that is too large or complex to be handled by any one member working alone.

Coacting groups. Individual members also are primarily responsible for outcomes in coacting groups (the lower-left quadrant in the table). Each member's work does not depend upon what the others do, and the output of the group is simply the aggregation or assembly of members' individual contributions. Because members are performing independently there is no particular reason for them to coordinate their activities in real time.

Members of coacting groups typically have the same supervisor, and may or may not work in proximity to one another. A great deal of organizational work is performed by sets of people who are called "teams" but that really are coacting groups—perhaps because managers hope the benefits of teamwork can be obtained while continuing to directly manage the work behavior of individuals. Coacting groups are indicated when there is minimal need for interdependent work by group members who can, in effect, operate in parallel.

Face-to-face teams. In these teams (the upper-right quadrant of the table) members are co-located and work together interdependently in real time to generate a product for which they are collectively accountable. Face-to-face teams are what people usually have in mind when they use the term *work team*, and the bulk of the existing research literature on team behavior and performance is about them. Such teams are indicated for a wide variety of tasks for which creating a high quality product requires coordinated contributions in real time from a diversity of members who have complementary expertise, experience, and perspectives.

Distributed teams. In the lower right quadrant of the matrix are distributed teams (sometimes also called virtual teams). Although members of distributed teams are collectively responsible and accountable for work products, they are neither co-located nor are they required to interact in real time. Instead, members use information and communication technologies to exchange observations, ideas, and reactions at times of their own choosing.

Because members are not co-located, distributed teams can be larger, more diverse, and collectively more knowledgeable than face-to-face teams. Distributed teams are especially useful when it is logistically difficult or impossible for team members to meet regularly *and* the work does not require high levels of interdependence among them. When they function well, such teams can quickly and efficiently bring widely dispersed information and expertise to bear on the work.

As increasing numbers of organizations have logged experience with distributed teams, however, it has become clear that they are not a panacea. Although decision support systems can facilitate their performance, teamwork still tends to take more time, involve less exchange of information, make error detection and correction more difficult, and result in less participant satisfaction than is the case for face-to-face teams (for reviews of what is known about distributed and virtual teams, see Gibson and Cohen, 2003; Hertel, Geister, and Konradt, 2005; and Martins, Gilson, and Maynard, 2004).

Sand dune teams. Not included in Table 1 are “sand dune teams,” a special kind of team that is not in any traditional sense a bounded work team at all. Instead, such teams are dynamic social systems that have fluid rather than fixed composition and boundaries. Just as sand dunes change in number and shape as winds change, teams of various sizes and kinds form and re-form within a larger organizational unit as external demands and requirements change. Sand dune teams may

be especially well suited for managerial and professional work that does not lend itself to the formation of fixed teams whose members stay on the team for extended periods.

The organizational units within which sand dune teams operate typically are relatively small (perhaps less than 30 members) and have relatively stable membership, which makes possible the development of norms and routines that allow teams to form and re-form smoothly and efficiently. Dynamic teams of this type appear to have great potential, but considerable research still is needed to document the specific conditions required to support them.

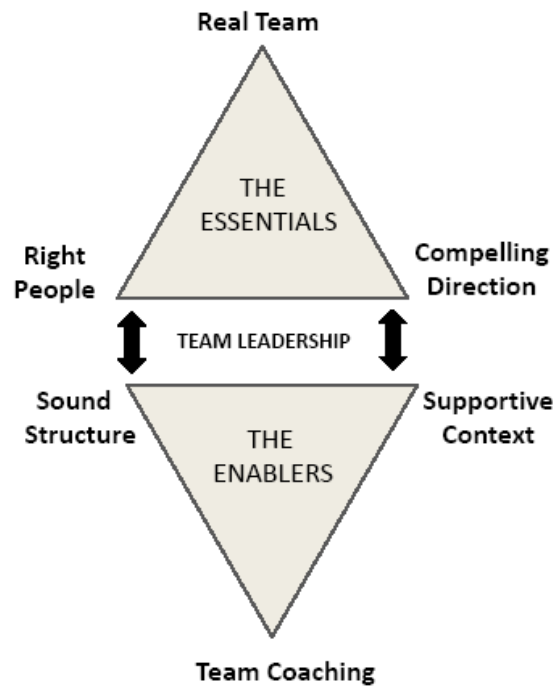
*Subprinciple 3:
Create structural and contextual conditions that facilitate teamwork*

Two sets of conditions have been shown to foster the effectiveness of organizational work teams (Hackman, 2002; Wageman, Nunes, Burruss, and Hackman, 2008; Wageman and Hackman, in press). The first set, the *essentials*, are prerequisites for competent teamwork. If these essential conditions cannot be established, it usually is better not to create a team at all. The second set, the *enablers*, facilitate the work of the team. The enablers help a team take advantage of the full complement of both members' capabilities and external resources in accomplishing its work. These two sets of conditions are depicted in Figure 1.

The essentials. The three essential conditions are (1) creating a real team (not a group of people who are a team in name only) that is (2) composed of the right people for the work to be performed and that (3) has a clear and compelling purpose or direction. When present, these conditions provide a sturdy platform for teamwork.

Real team. Real work teams are intact social systems whose members work together to achieve a common purpose. They have clear boundaries that distinguish members from nonmembers. They work interdependently to generate a product for which they have collective,

Figure 1
Essential and Enabling Conditions for Team Effectiveness



rather than individual, accountability. And they have at least moderate stability of membership, which gives members time and opportunity to learn how to work together well.

Real work teams can be small or large, can have wide-ranging or restricted authority, can be temporary or long-lived, can have members who are geographically co-located or dispersed, and can perform many different kinds of work. But if a team is so large, or its life is so short, or its members are so dispersed that they cannot work together interdependently, then prospects for team effectiveness are poor.

Right people. Well composed teams consist of members who have ample task and interpersonal skills. In practice, however, work teams often are created simply by finding people

who happen to be available, forming them into a group, and assigning them the work that needs doing. If members have the knowledge, skill, and experience that the work requires, so much the better. But no attempt is made to use what is known about the attributes of prospective team members, or about how well people with different attributes are likely to work together, in deciding who to put on a team.

That strategy of team composition, as common as it may be, is far more expedient than effective. A better strategy is to identify the knowledge and skill that the work requires and then to compose the team so that no critical area of expertise is left uncovered. But that is about as far as it goes in many organizations. At least these days, those who form teams may be disinclined to take into account “softer” individual differences, such as the interpersonal skills of prospective members, in selecting people for work teams—even though those softer attributes may be critical in enabling a team to actually *use* the full extent of members’ task capabilities in carrying out the team’s work.

Compelling direction. A team's direction is the specification of its overall purposes. Direction is critical in energizing a team, in getting it properly oriented toward its major objectives, and in engaging members' talents. There are numerous choices to be made in the course of work on a task, and having a clear, concrete, and challenging direction almost always facilitates decision-making about such matters. Purposes such as "serving our customers" or "staying on top of developments in our sector," or “increasing profitability,” for example, are so vague and general that they are unlikely either to challenge members to give their best or to guide them in developing a good strategy for executing the work.

The most energizing statements of direction are those that are insistent about the *end-states* the team is to achieve but that leave open the *means* members can use in pursuing those

ends. Those who create work teams should be unapologetic about exercising their authority to specify end-states, but equally insistent about not specifying the details of the procedures the team uses in carrying out the work (See Chapter 26, this volume). That state of affairs fosters energetic, task-focused work (in the jargon of the day, team empowerment). By contrast, specifying both ends and means mitigates the challenge to team members and under-utilizes members' resources. Specifying neither ends nor means invites fragmentation rather than focused, purposive teamwork; and specifying means but not ends is the worst of all possible cases.

Direction is an essential condition because everything else depends upon it—how the team is structured, the kinds of organizational supports that are needed, and the type of coaching by team leaders that will be most helpful. Moreover, leaders who create a compelling direction for their teams reduce considerably the amount of attention that they must give to monitoring and managing team processes in real time.

The enablers. Three additional conditions enhance the performance effectiveness of real work teams that have been well-staffed and well-purposed. These conditions are: (1) a sound team structure, (2) a supportive organizational context, and (3) competent team-focused coaching.

Sound structure. A work team with a sound structure has a well-designed task, the right number and mix of members to accomplish that task, and norms of conduct that foster the development and use of task-appropriate performance strategies.

A well-designed team task is one that is both aligned with the team's purpose and high on what Hackman and Oldham (1980) call “motivating potential.” This means that the task is a whole and meaningful piece of work for which members have ample autonomy to exercise judgment about work procedures, and that provides them with trustworthy data about how well

the team is doing (see Chapter 6). Well-designed team tasks foster high, task-focused effort by team members, but creating them can be a considerable challenge in traditionally structured organizations.

It can take some doing to re-assemble into a meaningful whole work that, in the interest of presumed efficiency, previously had been partitioned into small, easy-to-perform subtasks. Moreover, team autonomy sometimes is compromised by technical or procedural constraints that, perversely, originally were implemented to prevent errors or foster product quality. Finally, it can be difficult to arrange for teams to receive feedback from the clients of their work—perhaps because clients or customers are far removed from the team, or because they are unaccustomed to giving feedback directly to those who serve them. In many cases, those who form work teams have to draw heavily on their persuasive and political skills to gain the cooperation of managerial colleagues in creating well-designed team tasks.

Well-composed teams consist of members who, collectively, have all the capabilities that the work requires—and, if that is not possible, who have links with people outside the group who *do* have the needed expertise. Well-composed teams also have a good *mix* of members, people who are neither so similar to one another that they duplicate one another's resources nor so different that they are unable to communicate or coordinate well. Moreover, they are as small as possible given the work to be accomplished. Members of large teams (for example, those with more than seven or eight members) can find it difficult to remain engaged in the team's work and to coordinate their activities efficiently. Managers often encounter serious obstacles, ranging from personnel regulations to political realities, in attempting to compose their teams well. And, as was the case for team task design, it can take considerable ingenuity and political skill to circumvent such obstacles.

Norms of conduct that are clear and explicit free team members from having to continuously monitor and manage member behavior—and thereby can help them work together in an efficient, orderly way in pursuing team objectives. All groups develop norms that specify what behaviors are expected of group members and what behaviors are out of bounds. These norms may be "imported" by members based on their previous team experiences, or they may be explicitly established early in a team's life, typically when the leader initially launches the team. In either case, norms tend to remain in place until and unless something fairly dramatic occurs to force a rethinking about what behaviors are and are not appropriate (Gersick and Hackman, 1990). Especially valuable in work teams are norms that actively promote continuous scanning of the performance situation and proactive planning of group performance strategies.

Supportive organizational context. Team performance is facilitated when, in addition to the mundane material resources needed for actually carrying out the work, teams have the following three kinds of support.

- A *reward system* that provides recognition and positive consequences for excellent team performance. It is important that performance-contingent recognition be provided to the team as a whole, not to those individual members a manager thinks made the greatest contributions to the team product. Doing the latter risks introducing strong disincentives for task-oriented collaboration among members.
- An *information system* that provides the team with all available data and data processing tools that members need to competently plan and execute their work.
- An *educational system* that makes available to the team, at the team's initiative, technical or educational assistance for any aspects of the work for which members are not already knowledgeable, skilled, or experienced—including if necessary, the honing of members' skills in working collaboratively on collective tasks.

Work teams sometimes find it difficult or impossible to obtain these kinds of support, especially in established organizations that have been fine-tuned over the years to support and recognize work performed by *individual* employees. State-of-the-art performance appraisal

systems, for example, may provide reliable and valid measures of individual contributions but be wholly inappropriate for assessing and rewarding work done by teams. Compensation policies may make no provision for rewarding excellent collective performance and, indeed, may explicitly prohibit financial awards to teams. Human resource departments may be expert in identifying individuals' training needs and in providing courses to meet those needs, but training in team skills may not be available at all.

As was the case for the other aspects of team structure, aligning existing organizational policies and practices with the needs of task-performing teams can be a challenging undertaking, one that can require skilled negotiation with managerial colleagues to secure the needed resources and organizational changes.

Subprinciple 4:

Coach the team to help members take full advantage of their favorable performance situation

The last of the three enabling conditions shown in Figure 1, team coaching, is the only one that relies mainly on direct, hands-on interaction between the leader and the team. It is addressed separately in this section.

The role of team coaching is not to dictate the one best way to proceed with the work. It is, instead, to help the team minimize its exposure to the dysfunctions that often are observed in task-performing teams (known as process losses), and to maximize its chances of capturing the potential synergies that teamwork can bring (process gains).

Teams that expend sufficient *effort* on the work, deploy *performance strategies* that are well-aligned with task requirements, and bring ample *knowledge and skill* to bear on the work are quite likely to perform well. By contrast, teams that operate in ways that compromise their standing on these three performance processes are likely to underutilize their collective resources

and turn in suboptimal performances. The specific process gains and losses that can develop for effort, strategy, and knowledge/skill are shown in Table 2. Competent coaching helps members work together in ways that foster process gains and minimize process losses for each of these three performance processes (Hackman and Wageman, 2005a).

Table 2
Characteristic Losses and Gains for Each of the Three Key Performance Processes

Effort

Process Loss: "Social loafing" by team members

Process Gain: Development of high shared commitment to the team and its work

Performance Strategy

Process Loss: Mindlessness reliance on habitual routines

Process Gain: Invention of innovative, task-appropriate work procedures

Knowledge and Skill

Process Loss: Inappropriate weighting of member contributions

Process Gain: Sharing of knowledge and development of member skills

Three caveats. Coaching activities that focus on the three task processes just described can greatly facilitate teamwork. Moreover, task-focused coaching has been shown to be significantly more helpful to team performance than interventions that focus mainly on the quality of members' interpersonal relationships (Woolley, 1998). There are, however, three significant qualifications to this generalization.

The first caveat is that team leaders typically do not spend much time actually coaching their teams. This was seen both for leaders of analytic teams in the U.S. intelligence community

(Hackman and O'Connor, 2004) and for chief executive officers leading their senior management teams (Wageman, Nunes, Burruss, and Hackman, 2008). In both studies, team members were asked to report how their leaders spent their time. And in both settings they reported that their leaders gave most of their attention to getting the work itself structured properly. Next came running external interference—making sure that their teams had the resources they needed for the work and removing organizational roadblocks. Third came coaching individual members—dealing with personal issues and helping members overcome any performance difficulties they might be having. And then, last, came coaching the team as a *team*.

Members reported that the team-focused coaching provided by their leaders was helpful, and research findings confirmed that it was significantly associated with measured team effectiveness. But most team leaders spent most of their time doing other things. For many teams, then, the issue is not whether coaching provided by the leader is helpful, it is whether the team actually is *getting* the degree of coaching that members want and need.³

The second caveat is that even highly competent coaching is likely to be futile when the other essential and enabling conditions for effectiveness are not in place. In a study of service-providing teams, for example, Wageman (2001) found that properly designed teams experienced fewer problems in working together than did members of teams with unsound designs. Moreover, well-designed teams benefitted substantially from competent coaching—and were not much hurt by bad coaching. Poorly designed teams, by contrast, experienced more performance

³ In the study of analytic teams (Hackman and O'Connor, 2004), it turned out that *peer* coaching was an extraordinarily strong predictor of measured team performance (the correlation between peer coaching and team performance was .82). Members of these teams may have realized, perhaps implicitly, that some level of coaching was needed if they were to succeed in their interdependent work—and that they themselves were going to have to provide it since their team leaders were not.

problems, they were not much helped by competent coaching—and they were devastated by bad coaching. It is nearly impossible to coach a work team to greatness when structural and organizational conditions undermine rather than support teamwork.

The final caveat is that even competent coaching of well-designed teams is unlikely to be helpful if it is provided at a time when the team is not ready to receive it. Indeed, ill-timed interventions can actually do more harm than good by distracting or diverting members from other issues that *do* require their attention at that time. There are three times in a team's life when members are especially open to coaching interventions (for details, see Hackman and Wageman, 2005a).

- At the beginning, when a team is just starting its work, it is especially open to motivational interventions that focus on the *effort* members will apply to their work.
- At the midpoint, when a team has completed about half its work (or half the allotted time has elapsed), it is especially open to consultative interventions that help members reflect on and revise their *performance strategy*.
- At the end, or when a major segment of the work has been finished, a team is ready to entertain educational interventions aimed at helping members draw on their collective experiences to build the team's complement of *knowledge and skill*.

In sum, competent team-focused coaching can significantly reduce a work team's vulnerability to process losses as well as increase the likelihood that members will generate substantial process gains. The efficacy of coaching interventions, however, depends on their being focused mainly on the three key performance processes discussed above. And it depends on their being provided at the proper time in the team life cycle.

Potency of the conditions. How much of a difference do the conditions discussed above actually make in how well work teams perform? Three studies already cited provide some indication of their potency.⁴ In her study of field service teams, Wageman (2001) found that team design features accounted for significantly more variation both in level of team self-management and in team performance effectiveness than did team leaders' hands-on coaching. Design features controlled 42 percent of the variation in self-managing behavior, compared to less than 10 percent for leaders' coaching activities; team design accounted for 37 percent of the variation in team performance, compared to less than 1 percent for leader's coaching activities.⁵

In the Hackman-O'Connor (2004) study of intelligence analysis teams, the degree to which all the essential and enabling conditions were present accounted over 70 percent of the variation in an independent, multi-attribute measure of overall team effectiveness. Those teams in the research sample whose members were *collectively* responsible for work outcomes had a significantly higher standing on the enabling conditions than did coaching groups and, as would be expected, they performed significantly better.

Finally, in the cross-national study of 120 senior leadership teams (Wageman, Nunes, Burruss, and Hackman, 2008) the essential and enabling conditions together accounted for slightly less than half the variation in independently assessed team performance—not as large an effect as in the study of intelligence analysis teams, but still substantial. Because these three

⁴ The task and interpersonal skills of individual team members (the condition referred to earlier as “the right people”) were not measured in these studies.

⁵ Recall, however, that there was a substantial *interaction* between leader coaching and the design factors: The impact of competent coaching was greater for well-designed teams, and the impact of bad coaching was greater for poorly designed teams. The comparisons just reported are for coaching overall, without taking account of those interactions.

studies did not experimentally manipulate the conditions investigated, it is not possible to make unambiguous attributions about causality from the findings. Even so, the three studies do provide consistent empirical support for the proposition that the presence of the essential conditions (a real team, the right people, and a compelling direction) and the enabling conditions (a sound structure, a supportive organizational context, and ample team-focused coaching) can substantially increase the chances that a team will perform effectively.

CASE EXAMPLES

The politics of supporting work teams. Team leaders rarely have much control over the work technologies, human resource policies, or organizational systems that affect the work of their teams. It sometimes is necessary, therefore, for leaders to engage in political behaviors to establish and sustain the conditions that foster team effectiveness. That was the situation in which Hank, a production manager at a semiconductor plant, found himself (for details, see Hackman, 2002, Chap. 5, and Abramis, 1990).

Although Hank had not had formal training in semiconductor manufacturing, he came up with an innovative strategy for making memory chips. He converted existing serial production lines, the standard work design in that industry, into small teams, each with major responsibility for one part of the chip his unit produced. Team members learned one another's jobs, took on increasing responsibility for quality control, and were given substantial authority to improve their own work processes. Although Hank had never read anything about the principles of team work design, he created a good one.

Results were encouraging: Yields increased, production workers seemed pleased with their new responsibilities, and managers of other production units began to take an interest in what Hank was doing. But then he began to hear some worrisome rumblings from his teams,

such as “*somebody* is making a lot more money these days than they used to—and it’s sure not us!” Hank realized that he was going to have to provide more recognition and reinforcement for teams that performed well. But he had no control whatever over corporate reward and recognition systems.

His strategy was to invite two outsiders to visit the plant on the same day: a professor from a well-known university who had been tracking Hank’s innovations, and the firm’s corporate vice-president for human resources. Over coffee, Hank described to the professor and the vice-president what he had been hearing from his teams. Then the conversation proceeded along the following lines:

Professor: "This is serious. Unless you provide them some kind of rewards or recognition based on team performance, the whole thing could crater."

Hank: "Can't do it. All I have to work with is an end-of-year bonus pool, and I can only use it to reward outstanding *individual* performers. Doing that could undermine the teams."

Professor: "You’re absolutely right, that would be the *worst* thing you could possibly do. It probably would kill your teams."

Hank: "Well, then, I guess I'm just stuck."

Vice-president: "Well, just a minute now. Let's think some more about this, see if we can come up with any other possibilities. . . ."

By the end of the meeting, Hank had obtained from the vice-president an exception to corporate compensation policy that enabled him to use his end-of-year individual bonus funds to provide performance-contingent financial rewards to his teams. Because the corporation took its compensation policy quite seriously, the special arrangement Hank negotiated was an extraordinary accomplishment. But was his strategy in dealing with the vice-president perhaps a bit unethical? Inspect his behavior a little more closely. Did he lie to anybody? No. Did he

cheat anybody? No. Could he have made the decision to convert the individual bonus pool to team incentive funds on his own authority? Also no. Did he behave politically? Absolutely.

Hank's political behavior got him what he needed and did not have: the right to use corporate financial resources in a way that could promote, simultaneously, the interests of both the organization and his production teams. He could have used a different strategy to try to achieve the same outcome, of course. But given his organizational role (a low-level manager in a plant distant from headquarters), his corporate clout (none), and his expertise (unschooled in intervention strategies) what he did may have been about the most effective and appropriate thing he could have done. What would have happened if instead he had sent a reasoned memo to headquarters formally requesting permission to deviate from corporate compensation policy? He probably would still be waiting for a response. Fulfilling the leadership function of creating well-designed and well-supported work teams often requires both the ingenuity and the kind of political skill that Hank exhibited.

Launching a cockpit crew. In commercial aviation, cockpit technology, the regulatory environment, and the culture of flying significantly constrain the latitude that Captains have to develop their crews into superb performing units (Hackman, 1993). For most flightdeck crews, there exists a preexisting “shell” for the team. That shell includes the properties of the aircraft to be flown, where it is to be flown, the roles of each crew member, basic work procedures such as checklists, the resources available to the crew, and more. All of these features are pre-specified and none of them are under the Captain’s direct control.

How that preexisting shell is brought to life, however, is very much under the Captain’s control. Research by Robert Ginnett has shown that what happens in the first few minutes of crewmembers' time together, when they first populate the shell and make it their own, carries

forward throughout a crew's life (Ginnett, 1990; 1993). Crews led by Captains who merely took the time in their preflight briefings to affirm the positive features of the crew shell—for example, by reviewing crewmembers' roles, emphasizing safety and timeliness goals, reviewing the organizational supports available to the crew, and so on—fared better than those that received no briefing at all or one in which the Captain actually undermined the standard shell. Best of all were crews whose Captains went beyond mere affirmation and actively elaborated the shell by engaging their crews in discussion of the unique circumstances of the trip that was about to begin. These Captains used the special opportunities always present when a group first comes together to transform a set of individual pilots into an actual flying *team*.

CONCLUSION

Animating the team. Although most work teams do not have structures as detailed and specific as those of cockpit crews, a leader's behavior at the launch of any work team can serve essentially the same function—namely, to breathe life into the team's basic design and thereby help the team start functioning on its own. Indeed, good team beginnings are especially critical because the majority of key leadership functions are fulfilled, for better or for worse, by the time a team is only a few minutes old. Consider the list, and when in the life of any given team each becomes relevant: Deciding what kind of team is needed, designing an interdependent task, choosing the right people, imagining a compelling statement of purpose—all these are pre-work, cognitive tasks that are accomplished before members actually come together for the first time. The rest are brought to life at team launch.

Some leaders are fortunate in that they are prepared to launch their teams based on long-standing organizational processes that make such efforts easy to enact. At PepsiCo, for example, we found that there were very strong norms about how people should operate both as team

leaders and as team members (Wageman, Nunes, Burruss, and Hackman, 2008). A carefully scripted “on-boarding” process for teams was in place that showed leaders how to bring the core conditions for team effectiveness to life in the first meeting. That process included: (1) identifying and highlighting the core capabilities that each member brought to the team’s work; (2) articulating the team purpose and inviting members to respond; (3) establishing team boundaries by creating a sense of shared identity, emphasizing what “we” share and “our accountabilities”; (4) identifying the main resources the team would need and how to get them; and (5) putting the norms and expectations for members on the table for the group to revise and ratify. Collectively, these elements of the launch script animated all three essential conditions and all of the enablers except for ongoing coaching. And, collectively, they established a positive trajectory for teams that made later coaching interventions immeasurably easier.

If a team launch is successful, the team leader will have helped the team move from being just a list of names to a real, bounded social system. The official task that the team was assigned will have been examined, assessed, and then redefined to become the slightly different task that members actually perform. And the norms of conduct specified by those who created the team will have been assessed, tried out (sometimes explicitly but more often implicitly through members' behaviors), and gradually revised and made the team's own.

This picture of team leadership as cognitive pre-work combined with an animating launch stands in stark contrast to popular images of team leadership: the conductor waving his baton throughout a musical performance or the coach shouting from the sidelines during the game. This alternative view of team leadership requires giving exquisite attention to the actions that breathe life into a team right at its beginning. And when that is done well, many of the most important team leadership functions will have been completed before the team’s actual work has even begun.

Doing it your way. Imagine you soon will convene a new project team. How will you handle the first few minutes of that meeting? Should you begin by telling members the main objectives of the project? Or should you ease into the purposes of the project gradually, perhaps starting out by inviting each member to talk briefly about the contributions he or she has to make to it? Or should you prepare a read-ahead handout describing the project and open the meeting by asking members for reactions and questions? Should you strike a formal, task-oriented tone, or be more casual and interpersonally oriented?

Although it is undeniably important to get a new team off to a good start, there is no right answer to the questions posed above, no one best style to use in launching a team. In fact, your actual behavior at the first meeting will be significantly shaped by the circumstances of the moment: Is everybody present when the meeting is supposed to start? Do all members already know one another? How much enthusiasm do they seem to have for the project? Your behavior also will depend on your own preferred style of operating: Are you more comfortable taking an active, assertive leadership role, or do you prefer to solicit input from others and then summarize and integrate their ideas? Do you generally lead using a matter-of-fact style, or do you like to liven things up with humor? Are you someone who can describe a project in a way that engenders shared excitement in a group, or are you better at helping each member identify the particular aspects of the work that he or she personally finds most engaging? These and other considerations too numerous to mention—and certainly too complex to preprogram even with the most complicated decision tree—together will shape how you conduct your start-up meeting.

The great diversity of styles used by team leaders is seen not just when they launch a team, but also in how they establish and maintain the other conditions that foster team effectiveness—recruiting the right people for the team, clarifying its direction, getting its

structure right, arranging for contextual supports, and ensuring that the team receives competent coaching at the appropriate times. The best team leaders use whatever styles and strategies that suit them best. There is no one right way to create the essential conditions for a work team.

There are, however, many *wrong* ways to go about leading a team—strategies and styles that backfire or whose short term benefits are negated by long term liabilities. One way to get it wrong is to mislead those who are in a position to provide teams with the structures, resources, or supports they need in their work. Beyond the moral problems of lying, disingenuous strategies destroy the credibility of those who use them when, inevitably, others discover that what is claimed cannot be believed.

Another way to get it wrong is to mimic someone else's style or to follow textbook prescriptions about how good leaders are supposed to act. It always is embarrassing to observe someone trying to enact a leadership style that is not the person's own—such as the junior manager who admiringly adopts the style of the charismatic chief executive but succeeds only in calling attention to the enormity of their difference in competence. The junior manager would be better advised to cease practicing in front of a mirror and instead to spend that time and effort identifying and honing her or his *own* best style of leading.

The third way to get it wrong is to relentlessly enact one's preferred manner of leading even in the face of data that it is not working very well, to rely on a comfortable style that is indeed one's own but that consistently yields unanticipated and unfavorable results. This problem becomes especially severe when a leader sees that things have not gone well but blames either the situation ("It was wired for failure") or team members ("They just wouldn't do what I told them"). In such cases, there is no opportunity for self-correction because the leader is not open to data that might suggest that his or her own actions contributed to the poor outcome.

Excellent team leaders, by contrast, are aware of their natural styles--they know what they like to do, what they can do easily and well, and what they can accomplish only with difficulty. They learn over time how to exploit their special strengths and preferences, and how to contain or circumvent their weaknesses. They attend carefully to the circumstances of the moment, and vary their behavior in real time to exploit unanticipated leadership opportunities and avoid obstacles that risk blunting their initiatives. Most importantly of all, they are continuously alert for signs that their actions may not be having their intended effects. And when they do discover a discrepancy between what they intended and what happened, they use those occasions to further expand and strengthen their repertoire of team leadership skills.

EXERCISES

Exercise #1: Leader Attribution Error

Students are asked to recall the best work team they have ever been on, and the worst team they've ever been on. Then they are asked to identify the *one* factor that best differentiates between these two teams. Typically, about half of the explanations will have something to do with the personality or style of the team leaders. This can then be used to launch a discussion of our tendency to over-attribute to team leaders responsibility for team outcomes. And that, in turn, can be a point of entry for exploring the functional approach to team leadership.

Exercise #2: Team Diagnostic Survey (TDS)

The TDS is an instrument that assesses the standing of work teams on the conditions discussed in this chapter. A typical classroom project is to ask students to use the instrument as part of an analysis of the strengths and vulnerabilities of some team whose members are interested in learning about and improving their team.

The TDS is taken online and a graphical assessment report also is provided online. For a detailed description of the instrument and its psychometric properties, see Wageman, Hackman, and Lehman (2005). The TDS is freely available for educational, research, and government use; consulting and commercial users are asked to pay a fee to support programming and user services. The instrument can be accessed at: <https://research.wjh.harvard.edu/TDS> (educational, research, and government) or at: <http://www.team-diagnostics.com> (consulting and commercial).

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