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Leading Teams

Teams are becoming the work arrangement of choice for accomplishing a wide range of organizational objectives. Managers use teams to respond to several environmental trends that are destined to continue, such as the need for fast responses to rapidly changing market conditions, increasing globalization, and ever-improving communication technologies that allow dispersed people to collaborate. Teams can be found at every level of an organization, from production teams on the shop floor to top management teams in the executive suite. Teams are deployed to develop new products, provide professional services, and start new businesses. Where intact teams are not involved in an organization's work, instead there may be temporary, ad hoc groups whose members come together to solve a specific problem and then disband, only to join another group to solve a different problem.

If you are early in your career, a team could provide the first chance for you to lead and manage other people. Even if you are not the formal leader of a team, working interdependently with a small number of people provides a chance to exert influence and input on bigger and more visible projects than you might undertake on your own. Working in teams can also entail risk, however, because your own success depends on the team's success, and therefore on your teammates' performance. This interconnectedness among team members often amplifies the highs and lows of work experiences; teams have the potential to produce bigger wins than individuals, but they also can create more visible losses. In short, teams can be truly remarkable or terribly dysfunctional.

Before we proceed, some initial definitions are in order. Teams are defined by having (1) a clear team task, one that requires multiple people to work together interdependently to achieve a collective outcome; (2) clear boundaries distinguishing those who belong to the team from others; (3) the authority of those on the team to manage their own work processes; and (4) some stability that allows team members to work together over time.[1] It is useful to distinguish teams from working groups, which are sets of people whose work is related but who do not meet one or more of the criteria for a real team. For example, a group of people who form a small unit in an organization, but who do not need to interact with each other because their individual work is coordinated by their manager, is not a team. Teams and groups lie along a continuum, however, rather than having a clean demarcation between them.[2] The continuum consists of the amount of interdependence among the people in the

[1] This definition is borrowed from Hackman, J. R. 2002. *Leading Teams: Setting the Stage for Great Performances* (Boston: Harvard Business School Press). Many other definitions in the literature on teams share considerable overlap with these elements.

[2] Arrow, H., McGrath, J., and Berdahl, J. 2000. *Small Groups as Complex Systems*. Thousand Oaks, CA: Sage.

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group. As we discuss in detail later in this note, the individuals may be interdependent regarding their task, their behavior, and/or their outcomes.[3] Diagnosing this interdependence is a critical first step in designing a team.

We also need to define up-front the criteria that will determine whether a team is effective. Team effectiveness consists of three dimensions: (1) The team must meet the needs of the user of the group's output, which often takes the form of product quality or service quality); (2) over time, team members should increase their capacity to work together effectively; and (3) the team should meet its members' needs for satisfying work.[4]

The concepts and prescriptions contained in this note are intended to guide the activities of those who both lead and work on teams. In most ways, this note assumes that a formal leadership role is not a prerequisite for conducting the recommended diagnoses and intervention steps; any member of a team can assess and influence the team's design and processes. Naturally, those with formal authority will wield more influence, but this note is intended to be useful to anyone who is involved with a team. The information in this note should sharpen your understanding of the steps you can take to enhance team effectiveness and to curtail the disruptive forces that so often derail teams.

This note is divided into three sections. We first analyze the conditions that should be in place before the team is launched. These enabling conditions include a task that is appropriate for a team, access to resources in the team's environment that maximize the team's chances of success, and the right people for the team. In the second section, we analyze the team processes that unfold as the team begins its work. We start by assessing what should happen during the team's launch, and then proceed to the team's ongoing work processes—those that are desired, those that are likely, the underlying causes of various team processes, and advice about how to improve dysfunctional processes. The last section spotlights teams whose members must bridge geographical and cultural distance, two of the biggest challenges facing modern teams.

Team Design: Creating the Architecture of a Successful Team

A team's likelihood of success is heavily influenced by activities that occur before team members ever meet one another. By the time most teams assemble for the first time, someone has made numerous decisions about the work the team will conduct, the resources it will have at its disposal, and the people who will comprise the team. Research has shown these contextual and structural factors to be critical to team effectiveness.[5] Most people overlook these factors when searching for causes of a team's effectiveness because their attention is riveted on the interpersonal dynamics taking place among team members. Although there is no doubt that these dynamics influence a team's effectiveness (as we analyze in detail in the section on *Team Processes*), in many teams these dynamics themselves are strongly affected by the team's initial context and structure.

The best time to establish the conditions described in this section is before the team is launched. A common mistake for team leaders is to fail to prepare thoroughly before launching a team. It is far more difficult to adjust the trajectory of a team that is underway than it would have been to launch the team in a different direction. As an example, consider how awkward and costly it is to remove

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[3] Wageman, R. 2001. "The meaning of interdependence." In M.E. Turner (Ed.), *Groups at Work: Theory and Research*, p. 197–217. Mahwah, NJ: Lawrence Erlbaum Associates.

[4] Hackman, J. R. 2002. *Leading Teams: Setting the Stage for Great Performances*. Boston: Harvard Business School Press.

[5] Ibid.

someone from a team after members have invested time and effort to incorporate the person into the team's activities, or to add someone to a team that has already allocated its work and begun to learn how best to coordinate its work. It is far easier, and a better investment, to spend time before the launch diagnosing the situation and making careful assessments about how to design the team. Accordingly, team leaders should diagnose and structure the team's task, do everything possible to secure access to essential resources from the team's environment, and take pains to select the right mix of people to perform the work at hand.

Diagnosing the Task

The first step in designing an effective team is to determine whether or not you actually need a team for the work at hand. A major reason for team problems, especially such as wasted time and energy, is that managers assemble teams to perform work that would be better performed by an appropriate individual or group of individuals working separately. When managers do this, team members fight an uphill battle in trying to be optimally productive. When tasks are relatively simple, when tasks do not require a variety of skills among members, and when tasks do not require great coordination among individuals, it is better to use a "manager-led working group," in which multiple people perform the work with relatively little interaction among group members.[6] Managers often assume they need to create a full-blown team to perform a particular project, when their first step instead should be to analyze whether a team is appropriate for the work at hand. To determine whether a team is the optimal mechanism for performing the work, managers should conduct a *process analysis* that diagnoses several dimensions of the work, including task complexity, task interdependence, and task objectives. [7]

Task complexity The first step in diagnosing whether to create a team is to assess the complexity of the task. Features that increase the complexity of a task include processing a large amount of information, working with a high degree of uncertainty about the potential outcomes, the presence of many subtasks that require a broad range of specialized skills and knowledge, and the absence of standardized procedures to conduct the task.[8] Thus, successful completion of a complex task requires more expertise than any one person can supply. This is why the more complex the task, the more appropriate it is for a team to tackle it.

Task interdependence A second critical step is to diagnose the degree of interdependence among task components. Task interdependence is the extent to which features of the work itself dictate that it can be completed only by the combined efforts of multiple individuals working together.[9] When the work itself is highly interdependent, the individual members of the team need to tightly integrate or coordinate their individual efforts.[10] Interdependence is distinct from task complexity, because interdependence refers to the need for group members to work with and rely on

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[6] Katzenbach, J. and Smith, D. 1993. *The Wisdom of Teams*. Boston: Harvard Business School Press.

[7] Davenport, T. 1993. *Process Innovation: Re-engineering Work Through Information Technology*. Boston: Harvard Business School Press.

[8] Volkema, R. J. 1988. "Problem complexity and the formulation process in planning and design." *Behavioral Science,* 33, 292–327.

[9] Wageman, R. 2001. "The meaning of interdependence." In M.E. Turner (Ed.), *Groups at Work: Theory and Research*, pp. 197–217. Mahwah, NJ: Lawrence Erlbaum Associates.

[10] Polzer, J., Swann, W. Jr., and Milton, L. 2003. "The benefits of verifying diverse identities for group performance." In Neale, M., Mannix, E., and Polzer, J. (Eds.), *Research on Managing Groups and Teams: Identity Issues in Groups* (Vol. 5). Oxford: Elsevier Science.

each other in order to produce the collective work of the group. By contrast, task complexity refers to the range and depth of specialized skills needed to perform all the separate components of the work.[11]

There are three main types of interdependence.[12] *Pooled* interdependence means that individuals work on separate components that must be combined together into a coherent whole. Team members need to understand the content and progress of each other's components in order to shape their own work. Team members might also pitch in to help each other with their tasks. *Sequential* interdependence, much like an assembly line, means that each person performs a step that is necessary for the next person to perform their own step. *Reciprocal* interdependence is the strongest form, and requires each member to work simultaneously and provide inputs for one another. Team members need to meet with one another, and often get much of their work done while in the same room together. The nature of the task interdependence influences whether a team is needed to perform the work. The greater the level of interdependence among components of the task, the more appropriate it is to use a team to perform the task. Interdependence helps to distinguish real teams from groups of people—sometimes called "co-acting groups" or "manager-led working groups"—who may work in close proximity, on related projects, and even for the same manager, but do not need to work together to integrate their efforts.[13] In these cases, it may be better not to attempt to employ a team at all.

Conducting a *task interdependence analysis* is useful to determine how the distinct components need to be integrated to produce a whole unit of work.[14] If the interdependence between two work components is simple and routine, integration can occur through formal, routinized mechanisms, such as a daily progress report or a weekly meeting. For more complex and nonroutine interdependencies between work components, however, "online" interaction among the people performing them might be required. Such tight coupling dictates that the people conducting this work are readily available to one another to deliberate, make trade-offs among themselves, and resolve the various issues that arise due to the linkages in their work.[15] Analyzing the task according to these principles will help to establish how much and what types of interaction are required among team members for the team to be effective.

Teams are ideal for performing tasks that combine high complexity and high interdependence. High task complexity requires breadth and depth of skills and expertise, and thus multiple people with a diverse set of specialized qualifications are best suited to combine their efforts to perform the work. Likewise, high interdependence among the various task components indicates that the specialists responsible for each component must integrate their efforts. The combination of distinct work roles with the need to integrate these roles is tailor-made for a real team.

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[11] An abundance of research distinguishes various types of tasks in terms of complexity, interdependence, and related dimensions. Examples include Hambrick, D., Davison, S., Snell, S. and Snow, C. 1998. "When groups consist of multiple nationalities: Towards a new understanding of the implications." *Organization Studies, 19*, 181–205; and McGrath, J. 1984. *Groups: Interaction and Performance*. Upper Saddle River, NJ: Prentice-Hall. The main point of this work is that teams are appropriate for some types of tasks, but not all, and therefore a potential team leader's first job is to diagnose the task to determine whether a team is recommended.

[12] Thompson, J. 1967. *Organizations in Action*. New York: McGraw-Hill.

[13] Wageman, R. September/October 1997. "Critical success factors for creating superb self-managing teams at Xerox." *Organizational Dynamics*, 31–41.

[14] Mohrman, S., Cohen, S., and Mohrman, A. 1995. *Designing Team-Based Organizations: New Forms of Knowledge Work*. San Francisco: Jossey-Bass.

[15] Ibid.

Task objectives If the task appears to be one that is best performed by a team, the team designer should plan how to clarify members' understanding of the task. Clear task objectives consist of several components. The first is a specific timeline for task completion, especially when an external deadline exists. Knowing the anticipated duration of the team's activities can help team members work through their planning and development activities at an appropriate pace. A second objective is to provide the team with a clear direction, without which it would be difficult for team members to allocate and coordinate their work. An effective direction for teams is clear and simple, in order to orient teams towards their goals and priorities for making trade-offs, and it specifies the end goals without constraining the means team members should use.[16] Managers often fail to set clear directions for teams, assuming that team members will figure out for themselves what to accomplish, or else they saddle teams with so many procedures that the members lose sight of their overarching goals.[17] Task objectives also include an articulation of a compelling purpose to motivate team members. This provides the team with a "bigger picture" mission so that they understand how their work fits into a larger purpose.

Assuming that you have followed the diagnosis above and determined that your task is best accomplished using a team, we now turn our attention to pre-launch activities—including managing the team environment and selecting the right team members—that will go far toward helping the team succeed.

Establishing the Team Environment

Teams are apt to achieve much greater success if they operate in a generous environment. There are many types of support and resources that a team needs from its surrounding environment to enhance its chances of success. For example, market conditions dramatically helped so many start-up business teams during the Internet boom, and then hurt them when the market fell. Beyond the broader market conditions, however, there are several types of resources in the environment that might benefit a team, particularly teams that exist within a larger organization. For example, a team may need training programs for some members to acquire needed skills, or it may need administrative support, office supplies, travel funding, a purchase order for specialized equipment, or other things, in order to accomplish its goals. Needed resources do not always cost money; some teams need access to information such as performance data and forecasts. If any of these resources are unavailable, then team progress can be stymied.[18]

Rewards The types of rewards that team members receive for their work, frequently influenced by the compensation system of the organization in which the team operates, play a strong role in shaping team members' efforts and collaboration. Typically, a tension exists between rewarding the individual contribution of team members and rewarding the collective output of the team.[19] This is an inherent dilemma between self-interest and the interests of the group. Thus, managers are faced with the issue of determining the appropriate level of reward interdependence, or the extent to which

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[16] Wageman, R. September/October 1997. "Critical success factors for creating superb self-managing teams at Xerox." *Organizational Dynamics*, 31–41.

[17] Hackman, J. R. 2002. *Leading teams: Setting the stage for great performances*. Boston: Harvard Business School Press.

[18] Hackman, J. R. 1998. "Why teams don't work." In R. S. Tindale et al., *Theory and research on small groups*. New York: Plenum Press.

[19] See Hall, Brian J. 2002. *Incentive Strategy Within Organizations*, HBS Note No. 902-131 (Boston: Harvard Business School Publishing).

the outcomes received by one team member depend on the performance of coworkers.[20] In the case of individual rewards, members can be more motivated to perform highly, but may do so at the expense of the overall team's goal. In the case of team rewards, members' interests are more aligned with the goals of the team, but some members may *free-ride* because they are not being judged directly. This occurs when an individual member contributes less to the collective output of the group than other members, but shares equally in the collective rewards.[21] The dilemma occurs because if every team member contributed little to the group, there would be far lower collective rewards for team members to share. This is especially troublesome when team members could accomplish far more, on average, by combining their efforts than they could acting alone. Free-riding takes many forms in organizational teams, including sharing less information or participating less than others, exerting less effort than others when they are willing to pick up the slack, or taking a disproportionate share of resources for private use when they could be better used for the team's benefit. These and related disruptive activities can occur because individual interests are not aligned with group interests. Free-riders may hurt the performance of high performers, who may be less motivated when they do not receive equitable rewards for their contributions.

In addition to incentives entirely at the team or individual level, many organizations use a combination of both in an attempt to achieve individual motivation as well as group collaboration.[22] The most effective way to structure the interdependence of rewards is not to adopt a "one-size-fits-all" strategy, but instead to match the level of reward interdependence to the interdependence of the task.[23] Thus, intermediate approaches to compensating teams work best when, and only when, the team's work consists of a mix of independent and interdependent activities. This promotes the most effective interaction in work groups. Managers sometimes deploy a variety of other rewards to try to manage the dilemma between individual and group interests, including spot awards to recognize exceptional teamwork, profit sharing to award extra compensation for high profitability, or gainsharing to award improvements to productivity.[24]

Responsibilities of leaders and members Who should be responsible for ensuring that these environmental resources are secured for the benefit of the team? Clearly, any manager or leader who is creating a team should see to it that as many resources and supportive structures as possible (or as warranted by the importance of the team's work) are in place. Team members who are assigned or informally assume a leadership role within the team should also direct some of their attention outside the team's boundary to galvanize resources for the team. Externally directed activities include lobbying for resources for the team, coordinating with those who supply the team or use its output, and scanning the environment for trends and opportunities that could affect the team.[25] This external view supports the notion that diverse teams are likely to have an especially wide set of contacts outside the group from whom they can draw resources. Although environmental resources are undoubtedly important, a manager's most important task in designing a team may well be to find the right people to put on the team.

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[20] Wageman, R. 2001. "The meaning of interdependence." In M.E. Turner (Ed.), *Groups at Work: Theory and Researc*h, pp. 197–217. Mahwah, NJ: Lawrence Erlbaum Associates.

[21] Ledyard, J. 1995. "Public goods: A survey of experimental research." In J. Kagel and A. Roth (Eds.), *The Handbook of Experimental Economics*. Princeton, NJ: Princeton University Press.

[22] Wageman, R. 1995. "Interdependence and group effectiveness." *Administrative Science Quarterly*, *40*, 145–180.

[23] Wageman, R. 1995. "Interdependence and group effectiveness." *Administrative Science Quarterly*, *40*, 145–180.

[24] Thompson, L. L. 2000. *Making the Team: A Guide for Managers*. Upper Saddle River, NJ: Prentice Hall.

[25] Ancona, D. 1990. "Outward bound: Strategies for team survival in the organization." *Academy of Management Journal*, 33, 334–365.

Selecting the Right Team Members

Choosing good team members is probably the trickiest part of designing a team. This element of team design is so important, in fact, that some venture capitalists give an extraordinarily heavy weight to the qualifications of the management team members when deciding whether to fund a new business. More generally, team members require the right mix of technical and interpersonal skills, the right level of diversity in terms of their training and backgrounds, and clear roles that are sufficiently differentiated.

Team size The most fundamental starting point for choosing team members is to establish the optimal number of members who should belong to the team. Although managers often believe that "more is better" when it comes to staffing teams, teams work best when they are streamlined with just enough members to perform the task at hand. In fact, experts recommend that teams should err on the side of having too few members rather than too many. If every member of a team must communicate and coordinate with every other member, there are extra drains on communication and coordination known as *process losses*, which increase exponentially with each additional member.[26] For example, it can require more than twice as much effort to schedule a meeting for an eight-person team than for a four-person team. Indeed, there are legions of people in organizations who have wasted their time idling in over-staffed teams.

Individual skills Once the appropriate size of the team is established, finding the right individuals becomes the next challenge. First, managers must sort out the various activities that comprise the work, in order to determine which components of the work are distinct enough for one person (or a subgroup of people) to be held accountable for them. Determining the different ways the task can be divided then assists managers in determining the specialized skills required of the people who perform each component. In choosing individuals to join a team, managers tend to focus their attention on *technical* skills. This is a sensible starting point because, for example, a software development team cannot work very well without programmers who know the particular coding language to be used in the project, nor can an orchestra succeed without individually talented musicians. Managers often pay much less attention to *interpersonal* skills, assuming that if the best technical talent is in place, the members will also work together effectively.[27] Assessing interpersonal skills is time well spent, however, because a colleague who is a poor collaborator can hinder productivity even if the person shines along technical dimensions. In addition to an ability to work well with others, other interpersonal skills contributing to successful teamwork include openness to new ideas, supportiveness, action orientation, and a positive style.[28] A caveat worth noting is that there is certainly space in organizations for talented solo performers. Nevertheless, when assembling a team, it is useful to assess people's collaborative skills and plan their team involvement accordingly. If the technical talents of a solo performer are necessary to incorporate into a team's work, it is important to take appropriate steps such as providing relevant skills training or finding colleagues who can coach the soloist through team interactions, or structuring interactions to provide distance between the soloist and the rest of the team.

Diversity Managers also need to ascertain the appropriate levels and types of diversity for performing the work in question. That is, to what extent do team members need to draw from differences in their functional expertise, educational backgrounds, or work experiences? As alluded to earlier, the answer to this question should be informed by an analysis of the work the team must

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[26] Steiner, I. 1972. *Group Process and Productivity*. New York: Academic Press.

[27] LaFasto, F., and Larson, C. 2001. *When Teams Work Best*. Thousand Oaks, CA: Sage Publications.

[28] Ibid.

perform. As a general rule, more complex tasks call for more diverse team members. First, members must possess different domains of task-relevant specialization for the team to perform all components of complex projects.[29] A more subtle need for diversity arises due to the increasing diversity and globalization of the workforce, which leads groups to seek talented team members who vary along dimensions that are not directly related to the task, such as religious affiliation or political beliefs. Diversity along all dimensions can create challenges for managing group processes,[30] an issue we consider in a later section of this note. Managers need to strike the right balance between homogenous members who may get along with one another more smoothly, and heterogeneous members who are likely draw from a larger set of perspectives and enhance "creative abrasion."[31]

Defining formal roles Team members should enact roles that are specified as clearly as the task allows. In many teams, the roles of individual members are more fluid and dynamic than typical job responsibilities.[32] Even before the team is actually launched, however, the person designing the team should anticipate the optimal set of roles to be filled by team members, and envision which member might be best suited to each role. The astute leader will have in mind particular roles when recruiting people to a team, and will discuss these possible roles with potential team members as part of his or her recruiting efforts. These roles should be sufficiently differentiated so that colleagues do not constantly interfere with one another's work while trying to carry out their separate tasks. Naturally, the complexity and interdependence of the task to a large extent dictates the nature of the optimal task roles. Still, accomplishing all of the work of a team typically requires a division of labor in which individuals specialize in distinct but related work activities. A caveat here is that it is sometimes unproductive to specify roles too precisely in advance of knowing how the actual work will unfold, especially for tasks with high uncertainty, and team members should always clarify the nature of their roles when they first engage one another.

Formal leadership One particularly important role is that of leadership—both inside and outside of the team itself. Teams can work with many different types of leadership arrangements. Teams can be assembled and launched by a leader who then either continues as the team leader or removes him or herself from the ongoing activities of the team. In the latter case, another person may take the role of a formally established leader who guides team activities throughout its life. Another alternative is to have no single person designated as the formal leader, but instead to have either multiple people share pieces of the formal leadership role, or to simply let an informal leader emerge (if one does so at all). For the leader who assembles the team but does not stay on as its leader, there is a delicate balance between giving autonomy to a team to conduct its work and ensuring that a team follows a clear mandate set by those in authority.[33] Within the team, the optimal leadership structure depends on the particular circumstances of the team, including who its members are, the work it is conducting, and other factors. It is clear, however, that members should have a shared understanding of the leadership structure.

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[29] Polzer, J., Swann, W. Jr., and Milton, L. 2003. "The benefits of verifying diverse identities for group performance." In Neale, M., Mannix, E., and Polzer, J. (Eds.), *Research on Managing Groups and Teams: Identity Issues in Groups* (Vol. 5). Oxford: Elsevier Science.

[30] Williams, K. Y. and O'Reilly, C. A. 1998. "Demography and diversity in organizations: A review of 40 years of research." *Research in Organizational Behavior*, 20, 77–140.

[31] Hackman, J. R. 2002. *Leading Teams: Setting the Stage for Great Performances*. Boston: Harvard Business School Press. Leonard, D. and Swap, W. 1999. *When Sparks Fly: Igniting Creativity in Groups*. Boston: Harvard Business School Press.

[32] Thompson, L. L. 2000. *Making the Team: A Guide for Managers*. Upper Saddle River, NJ: Prentice Hall.

[33] Hackman, J. R. 2002. *Leading Teams: Setting the Stage for Great Performances*. Boston: Harvard Business School Press.

Carefully considering the task, environment, and people is essential to leading a team to success. Teams are a highly effective work arrangement under the right circumstances. However, it is important to use teams selectively rather than to view them as a panacea for whatever work problems you face. This caution notwithstanding, teams are becoming ever more popular because the circumstances faced by organizations are increasingly conducive to teamwork. The day-to-day tasks of organizations continue to become more complex and interdependent due to a variety of macro trends, including globalization, greater diversity in the workforce, the need for rapid adaptation, and unceasing technological innovation. As these trends continue, more tasks are best performed by teams of diverse people who need to integrate their efforts. The next section looks more deeply at team processes to explain why integrating differences in the service of a complex task is so difficult, and what those who lead and work in teams can do to foster team effectiveness in light of these difficulties.

Team Processes

The most effective teams are those that are both well-designed before they are launched and then proceed to establish effective ongoing processes for conducting their work.[34] These two pieces of the puzzle—team design and team process—go hand-in-hand in the sense that well-designed teams are more likely to engage in effective work processes. In fact, coaching of team leaders produces bigger benefits for well-designed teams than for poorly-designed teams.[35] Yet, an excellent design does not guarantee that the team's processes will be effective, nor does it guarantee that the group will achieve effective performance. Consider a team whose strategies for conducting task components have been carefully and correctly orchestrated, but who learns more about its task as progress unfolds, and who finds that it frequently needs to adjust its work strategies on the fly. This team is an example of one whose success is won or lost after the optimal design has been put in place, as the team engages in various planned an emergent work processes to conduct its day-to-day work. Indeed, team leaders' and members' jobs are far from finished once the design factors are arranged. This section describes pivotal group processes that leaders and members should monitor and diagnose during the team's launch and ongoing activities. This section then explains the types of interventions—both from a design and hands-on coaching standpoint—that can help correct ineffective processes.

Team process refers to team members' behaviors and interactions, occurring over time.[36] The processes that team members undertake are what convert members' skills, expertise, and other inputs, operating in the environmental context of the team, into a group product or other form of output. The interactions that comprise a team's process do not only occur when the full team is physically assembled, although full team meetings certainly provide rich, consequential examples of group process. All of the small interactions that occur among team members, in pairs or larger subgroups, in the elevator or the parking lot, are part of the team's process for working together. Team processes range from all-day full team meetings with members sandwiched into a conference room to the briefest exchange of information as team members pass in the hallway. Interactions do not have to be face-to-face; team members can interact via the full complement of phone, fax, e-mail,

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[34] For a related analysis of team processes, see Hill, Linda A. 2001 *A Note on Team Process*, HBS Note No. 402-032 (Boston: Harvard Business School Publishing).

[35] Wageman, R. 2001. "How leaders foster self-managing team effectiveness: Design choices versus hands-on coaching." *Organization Science*, 12, 559–577.

[36] This definition captures the essential features of many different definitions of team process. For a related discussion, see Marks, M., Mathieu, J., and Zaccaro, S. 2001. "A temporally based framework and taxonomy of team processes." *Academy of Management Review*, 26, 356–376.

virtual meeting rooms, Web platforms, and related technologies.[37] Whatever the form it takes, interaction among team members is a driving force of the members' collective success. Because norms of interaction form very quickly, the team's initial interactions are highly consequential. Accordingly, we turn next to launching the team on a promising trajectory.

Launching the Team

The "launch" of the team refers to the first substantive interaction among all (or most) of the team members, frequently consisting of a face-to-face meeting of all team members. The initial meeting is a critical juncture in the life of the team, setting the foundation for all subsequent activities and performance.[38] Patterns of interaction emerge very quickly in the life of a team, as critical events leave their imprint long afterwards. There are several structural aspects of the team's functioning that should be discussed and formalized during the first team meeting. Underlying these formal agreements, informal interaction norms begin almost as soon as members begin to interact. Both of these sets of forces should be attended to during the team's launch.

During the first team meeting, team members should clarify the design conditions under which they are operating, including such fundamentals as (1) who belongs to the team (which for some teams is a source of great ambiguity); (2) the resources to which they will have access (and things to which they should try to acquire access); (3) the incentives or compensation systems in place; and (4) the people outside the team with whom the team will need to work. The team should also reach a shared understanding of the task before them, including both the overall task and its parts. Members should discuss and clarify specific task assignments, formal roles, task objectives, strategies for conducting the work, and formal integration mechanisms that they will use to coordinate their work. Members are unlikely to come to the first meeting with full information about these issues, and they are unlikely to fully agree about how the team should operate. There should be sufficient time during the team's launch to share and debate information about the team's environment and task. If there is a team leader who will not be participating in the ongoing work, he or she should attend the first meeting to articulate the team's task objectives.

During the initial team meeting, members should also have sufficient time to learn about one another. When members introduce themselves, they should be encouraged to describe their task-relevant expertise, any related strengths, and also some of the things that could interfere with their contributions to the team, including any task-relevant areas in which they are not particularly strong. Naturally, people might be hesitant to offer any information about their weaknesses in light of the risks this might expose them to in an organizational context. The leader of the team might offset such risks by being the first to offer an introduction, and to set an example of self-disclosure that helps the team learn about one another. Once one person sets this example (especially if this person has high status), norms of reciprocity may influence others to follow this example. It is important to set in place a norm of self-disclosure and interpersonal risk-taking very early in the team's life, as this will increase member's willingness to express unique ideas, perspectives, and viewpoints later. After all, initial interactions among team members are the first data points in what turns into a pattern of group process. These first data points set the trajectory of these processes, making self-disclosure less risky the more members engage in it.

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[37] Olson, G. M. and Olson, J. S. 2000. "Distance matters." *Human-Computer Interaction,* 15, 139–178.

[38] Ginnett, R. 1993. "Crews as groups: Their formation and their leadership." In E. Wiener, B. Kanki, and R. Helmreich (Eds.), *Cockpit Resource Management* (pp. 71–98). Orlando, FL: Academic Press.

While these introductions are taking place, and while members debate the merits of various structural and task issues, there are many dynamics occurring beneath the surface of the discussion. Members may be presenting themselves to one another in ways that are carefully managed to create favorable impressions, even though flattering impressions, if they are inaccurate and unrealistic, may ultimately hurt the team more than help it. Members may also attempt to convey information about their identities—their beliefs and thoughts about themselves—so that others will treat them in ways that verify these identities.[39] People are also busy appraising their team members and rapidly forming first impressions.[40] Mounting research evidence shows that people are surprisingly good at forming accurate first impressions after miniscule amounts of interaction,[41] and that the degree to which impressions formed during the first few minutes of team introductions match others' self-perceived identities affects team processes and performance far into the future.[42] Although attending to all of these perceptual machinations may sound like an extraordinary amount of work, in fact they occur effortlessly and automatically because we have practiced them our entire lives. Despite their automaticity, these processes can be shaped to the benefit of the team.[43]

While these explicit discussions about the task and implicit assessments of each other occur, team norms are emerging. Team norms are regular behavior and interaction patterns that come to be expected by team members.[44] Once norms are established, the appropriateness of subsequent behavior is evaluated by comparing it to the norm. Many behaviors become the focus of norms, ranging from subtle nuances of hallway interaction to vivid displays of celebration. Some of the most prevalent norms include patterns of information sharing, communication—who talks the most, who is quiet, who talks to whom outside of group meetings—and conflict, along with methods of decision making and the enactment of leadership roles. Critical events, early in the group life, serve as precedents that guide expectations for how to handle similar situations in the future. Some norms may be explicitly discussed, while others emerge spontaneously. The team leader and members should carefully monitor the norms that are taking root early in the team's life. If emergent norms are healthy, they should be left alone, but if dysfunctional behaviors go unsanctioned and are repeated, they should be confronted explicitly. In many cases, it is useful for the team to explicitly discuss the norms they want to establish—including what members must do, and what they must never do.[45]

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[39] Swann, W. Jr., 1983. "Self-verification: Bringing social reality into harmony with the self." In J. Suls and G. Greenwald (Eds.), *Social psychological perspectives on the self* (Vol. 2, pp. 33–66). Hillsdale, NJ: Lawrence Erlbaum Associates.

[40] For more information about these and related processes, see Polzer, J. and Elfenbein, H. 2002. *Identity Issues in Teams*. HBS Note No. 403-095 (Boston: Harvard Business School Publishing).

[41] Ambady, N. and Rosenthal, R. 1992. "Thin slices of behavior as predictors of interpersonal consequences: A meta-analysis." *Psychological Bulletin* 111, 256–274.

[42] Polzer, J., Milton, L. and Swann, W. Jr. 2002. "Capitalizing on diversity: Interpersonal congruence in small groups." *Administrative Science Quarterly*, 47, 296–324.

[43] A caveat here is that members of many teams know one another and have worked together before, and therefore they have well-developed impressions of one another before the team's launch. Of course, people may behave differently in the presence of their new team members than they have in past situations, which may affect the accuracy of prior impressions. Moreover, most teams do have at least some members who do not know one another well, or at all. Nevertheless, such things as prior relationships, mutual friends, reputations, or shared memberships in groups outside the team should be accounted for when diagnosing the interaction norms that team members are likely to form.

[44] Flynn, F. and Chatman, J. Forthcoming. "What's the norm here?" Social categorization as a basis for group norm development. In M. Neale, E. Mannix, and J. Polzer (Eds.), *Research on Managing Groups and Teams: Identity Issues*, Vol. 5. Oxford: Elsevier Science. See also Bettenhausen, K. L. and Murnighan, J. K. 1991. "The development of an intragroup norm and the effects of interpersonal and structural challenges." *Administrative Science Quarterly*, 36, 20–35.

[45] Hackman, J. R. 2002. *Leading Teams: Setting the Stage for Great Performances*. Boston: Harvard Business School Press.

After the Launch: Ongoing Team Dynamics

Once you have designed and launched a team, it is critical to periodically assess team members' work processes and interaction patterns in light of their progress toward achieving their goals. Even under the best conditions, teams can encounter obstacles to effective collaboration as they proceed with their day-to-day activities. Accordingly, the following sections provide conceptual guidelines for diagnosing team dynamics—both optimal and actual dynamics—by identifying the problems that most frequently disrupt team members' interaction. We then discuss strategic options for intervening to improve these dynamics, from the perspectives of both team leaders and members.

Interaction among team members is guided by many forces. Team processes can certainly be structured explicitly by formally requiring particular interactions. A simple example is that many teams hold recurrent weekly team meetings to coordinate their efforts. Many other interactions among team members, however, are neither formalized nor regulated, but are nevertheless indispensable for the team to accomplish its work. These informal processes are especially subject to dysfunctional tendencies by the people engaging in them. Before assessing these informal dynamics, we turn briefly to an analysis of formalized team processes.

Diagnosing and structuring formal team processes Team leaders should use task analysis to guide the allocation of work components to individual members of the team, but not without first considering the distribution of information, skills, and expertise among team members. Ideally, of course, team members with particular specializations will have been selected with specific task components in mind, so that allocating matching work requirements with members' skills will be easy. All too often, however, it is not possible to select a mix of members with the perfect set of skills to complement the requirements of the task. In such cases, the team should do the best it can to assign work responsibilities to members who have the best skills available to fulfill them.

Assigning task components to team members includes more than simply specifying which parts of the work each team member will be responsible for. It also includes specifying the coordination that must take place among various team members, based on the task interdependencies across their separate work components. Because this coordination is typically comprised of social interaction among team members, it is susceptible to a multitude of forces, some good and some dysfunctional, that arise whenever people interact. Consider, for example, that interaction between two team members is not simply dictated by task requirement, but is also influenced by their prior relationship (good or bad), friends (or enemies) they have in common, shared interests outside of the team's work, the extent to which they like each other upon meeting (if they have no prior relationship), their reputations, their physical proximity to each other on a day-to-day basis, their personalities (and the mesh between them), their proficiency with various communication media, and a host of other factors. Because of all these vagaries of human interaction, it is wise to put in place formal, routine integrating mechanisms to guide coordination, to the extent possible. When interdependencies are complex and reciprocal, however, it inevitably falls on team members' shoulders to take responsibility for interacting with other members as needed to handle the many coordination requirements that arise on a day-to-day basis. It is this type of integration, accomplished only by informal, nonroutine interaction among team members, that is most prone to pitfalls that emerge as the team proceeds with its work. `As we describe below, these interaction patterns involve information sharing, collaborative behaviors, and decision-making processes.

Note that even the most structured of team interactions is influenced heavily by the informal norms of the team. Simply assembling the full team around a conference table with the intention of getting them to coordinate their activities says nothing about what the team members will actually *do* once they are so assembled!

Diagnosing emergent team processes Despite the efforts for the best-intentioned design, teams take on a life of their own. Consequently, those interested in the team's effectiveness must be vigilant in anticipating and monitoring the actual behavior and interaction that emerges among team members. Teams have a number of systematic tendencies that shape their interaction. Unfortunately, many of these tendencies are toward dysfunctional behaviors that interfere with integrating members' work activities. Understanding these tendencies, and their underlying causes, is of great help in anticipating them, preventing their occurrence, and, when they do arise, nipping them in the bud.

Our concern is on the actual behaviors of team members, in particular those interpersonal dynamics that are directed toward other team members. We are less concerned here with team members' individual work on the task, which obviously is important for the group to be effective. Still, the essence of a team is that individuals do work that is related and needs to be coordinated, and it is this coordination that we analyze in this section. We also distinguish the behaviors of team members from their feelings or emotions toward one another. Although the way people feel is certainly important—in part because it influences their behavior—for the moment we are concerned with the factors closest to task performance.

Thus, the members and managers of teams need to pay attention to how members act to integrate their work together. This *behavioral integration* is the "degree to which the group engages in mutual and collective interaction."[46] Behavioral integration has three components, including the quantity and quality of information exchange, collaborative behavior, and joint decision making.[47] We explain each of these in turn.

Quantity and quality of information exchange The quantity of information exchange refers to the sheer amount of information that is shared among teammates. Note that a large portion of this information may be shared among pairs or subgroups of members rather than the team as a whole. The key here is to assess whether enough information is shared so that members can integrate their work components with the rest of the team's work. It is also worth mentioning that too much information exchange can work against a team if information overload causes the important information to be overlooked.

This raises the issue of the quality of information exchange, which refers to such dimensions as the richness, timeliness, and accuracy of the information. High-quality exchange of information is fast, so that members routinely receive information early enough to use it most effectively. In many cases, members anticipate the information that others need, rather than simply reacting to others' requests and questions. In teams with effective information exchange, members can draw on one another's expertise to apply it when and where it is needed; in addition, members usually have direct contact with every other member. Team members can get the information they need not only in formal group meetings and through scheduled phone calls and e-mails, but through hallway conversations,

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[46] Hambrick, D. 1994. "Top management groups: A conceptual integration and reconsideration of the 'team' label." In B. Staw and L.L. Cummings (Eds.), *Research in Organizational Behavior*. Greenwich, CT: JAI Press.

[47] Dimensions of group process can be categorized in many different ways, but most dimensions used by others substantially overlap with those described here. For other useful descriptions of team processes, see Hill, Linda A. 2001. *A Note on Team Process*, HBS Note No. N9-402-032 (Boston: Harvard Business School Publishing); and Marks, M., Mathieu, J., and Zaccaro, S. 2001. "A temporally based framework and taxonomy of team processes." *Academy of Management Review*, 26, 356–376. A caveat about these three dimensions is that they are often intertwined in specific interaction episodes (e.g., decision making involves sharing information). It is useful nevertheless to draw distinctions among these three because they evoke different types of problems, with different solutions.

spontaneous phone calls, and the like. As a general rule, teams that engage in more frequent and less formal communication tend to be more effective.[48]

Unfortunately, many teams fail to use all the information and expertise of their members. This problem is especially acute when individual team members hold unique, specialized information. Studies have shown that such uniquely-held information typically either does not get communicated to the team or, when it is communicated, is not given adequate consideration, even when it is valid and important. Instead, teams spend an inordinate amount of time discussing information that all the team members already share.[49]

Regarding the pattern of information exchange among teammates, it is important to assess whether communication occurs primarily within subgroups of team members, or equally among all members. If most of the team's information-sharing occurs within subgroups, this should occur because the subgroups are based on natural delineations in the work and, therefore, because it enhances productivity for people to communicate in these subgroups. Alternatively, if the subgroups are based not on the task but instead on prior relationships or affinity for non-work related activities, this raises the question of whether enough information is being shared to integrate work activities across the subgroups. The reason for this concern is that once subgroup boundaries become prominent, the subgroups often take on a life of their own, strongly shaping interaction among team members. Sometimes an "us versus them" dynamic emerges between subgroups, decreasing information-sharing and communication between subgroups. We discuss these subgroup dynamics in more detail below.

Collaborative behavior The second element of behavioral integration is collaborative behavior. Central to this element is the extent to which team members cooperate with one another to achieve the team's goals. Such cooperation takes many forms, including a willingness to incur costs that hamper one's own progress in order to advance other team members' productivity, when doing so is in the best interest of the team. Consider a team member who reallocates part of his own budget allocation to a teammate whose immediate progress is strategically critical to the team, or who works extra hours to write a detailed update of his progress that day so that others can adjust their activities accordingly. In sharp contrast, members of many teams are more interested in their own individual success and advancement than in the collective output of the team. They do such things as jockey with one another for resources, air-time, or credit for good work, shield information that might help others instead of sharing it, and form coalitions to advance their own interests. Whether out of poor intentions or simple laziness, some team members do not collaborate and pull their own weight. These behaviors are anything but collaborative, as they prevent the team from integrating its work.

A related set of behaviors involves the extent to which healthy debate and constructive conflict characterize the team's interaction. This is a sore spot for many teams, which have trouble fostering the appropriate amount and type of conflict called for by their particular task. Those who study teams distinguish task conflict, which is disagreement about the tasks being performed (including, for example, priorities, goals, alternatives, and appropriate task strategies), from relationship conflict,

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[48] Smith, Ken G., Smith, Ken A., Olian, Judy D., Sims, Henry P, Jr., O'Bannon, Douglas P., and Scully, Judith A. 1994. "Top Management Team Demography and Process: The Role of Social Integration and Communication." *Administrative Science Quarterly, 39*, 412–438. For a related analysis of information sharing in groups, see Hinsz, V., Tindale, R., and Vollrath, D. 1997. "The emerging conceptualization of groups as information processors." *Psychological Bulletin*, 121, 43–64.

[49] Stasser, G. 1999. "The uncertain role of unshared information in collective choice." In L. Thompson, J. Levine and D. Messick (Eds.), *Shared Cognition in Organizations: The Management of Knowledge*. Mahwah, NJ: Lawrence Erlbaum Associates Associates. See also Gruenfeld, D. H., Mannix, E. A., Williams, K. Y., and Neale, M. A. 1996. "Group composition and decision making: How member familiarity and information distribution affect process and performance." *Organizational Behavior and Human Decision Processes*, 67, 1–15.

which refers to interpersonal incompatibilities that are accompanied by tension, annoyance, and frustration.[50] Moderate levels of task conflict tend to boost performance by combating the tendency to avoid conflict—also known as "groupthink"—instead fostering an exchange of opinions that deepens everyone's understanding of the issues under debate.[51] Relationship conflict, on the other hand, tends to undermine team effectiveness, distracting people from their work and causing them to disengage from the team. Some teams can't get through a meeting without angry outbursts, overt criticism, and hard feelings. When this happens, team members may respond by withdrawing from debates, attempting instead to preserve their relationships by avoiding confrontation. As these ideas suggest, it is difficult to foster healthy collaboration because relationship and task conflict tend to be reinforce each other, as debate and critique that are initially task-related get interpreted as personal attacks when people feel threatened. Likewise, individual team members with strained working relationships may tend to be more critical of one another's ideas. Indeed, fostering a moderate amount of task-related conflict, without having anyone take criticism or confrontation personally, requires team members who are skilled debators or who have very thick skin.[52]

Joint decision making The third element of behavioral integration is joint decision making. This involves the extent to which all members receive a sufficient opportunity to provide input into decisions. Joint decision making means that team members solicit, listen to, and fully consider each other's views; influence is accorded in proportion to people's expertise about the current decision; the opinions of those in the minority receive a fair hearing and have appropriate influence;[53] and decision-making procedures are used that help the team fully use members' expertise. These factors are important because an optimal decision-making process involves six stages: (1) Define the problem, (2) identify the criteria, (3) weight the criteria, (4) generate solution alternatives, (5) rate each alternative on each criterion, and (6) determine the optimal solution.[54] However, teams frequently gloss over or completely bypass one or more of these steps when making decisions.

Thus, effective decision making in teams first involves *divergent* processes that provide multiple viewpoints, followed by *convergent* processes that integrate disparate information and opinions into a single decision that all members can support. Teams have trouble achieving the right balance of divergent and convergent processes when performing tasks that require both.[55] Some teams excel at generating new ideas, eliciting creativity, and combining their different perspectives to discover new insights. This strength can turn into a weakness, however, for teams that overemphasize these divergent processes, spending countless hours in brainstorming sessions trying to conjure out-of-the-box insights, while failing to converge on the best option in a timely manner. Other teams suffer from the opposite problem. They rush through the divergent stage of generating creative options, failing to tap into the expertise of their members and to fully consider plausible alternatives, and end up prematurely truncating the criteria and alternatives they consider. They quickly converge on one

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[50] Jehn, K. 1997. "A qualitative analysis of conflict types and dimensions in organizational groups." *Administrative Science Quarterly, 42*, 530-557. Note that conflict is central to collaborative behavior, but it also influences information sharing and decision making, again speaking to the interrelationships among these group process dimensions.

[51] Janis, I. 1972. *Victims of Groupthink*. Boston: Houghton Mifflin.

[52] For a thorough discussion of these types of conflict and advice about how to manage them, see Eisenhardt, K., Kahwajy, J., and Bourgeois, L. 1997. "How management teams can have a good fight." *Harvard Business Review*, 77–85.

[53] Nemeth, C. and Kwan, J. 1987. "Minority influence, divergent thinking and detection of correct solutions." *Journal of Applied Social Psychology*, 17, 788–799.

[54] For a full description of these six steps, see Bazerman, M. 2002. *Judgment in Managerial Decision Making*, 5th edition. New York, NY: John Wiley & Sons. Many scholars agree on the general progression involved in these six steps, although the exact specification and number of steps may vary.

[55] Leonard, D. and Swap, W. 1999. *When Sparks Fly: Igniting Creativity in Groups*. Boston: Harvard Business School Press.

option, sacrificing thoroughness and creativity for speed, often arriving at suboptimal decisions as a result. Teams need to balance these stages of divergent and convergent thinking according to the task on which they are working.

These patterns of influence, divergent thinking, and convergent thinking often correspond to the procedures a team uses to make decisions. Imagine, for example, one team that employs a voting procedure with a majority rule, another team that acquiesces to the member with the highest formal authority for making decisions for the group, or yet another team that makes decisions in an ad hoc fashion guided by the particular circumstances of each situation. These procedures are likely to yield very different behaviors and interactions when teams confront important decisions.

The interaction patterns that comprise a team's behavioral integration are often difficult to observe and monitor, particularly when they so often occur informally and outside of official team meetings. When this is the case, team leaders can also try to gauge the effectiveness of team processes by monitoring the team's progress toward its goals and using this progress as an indicator of whether sufficient interaction is occurring. Assuming that the team has been designed appropriately and there are no design factors that need to be improved, if the team is meeting its interim deadlines, producing high-quality work, and members continue to be motivated, these are signals that the team's interaction is supplying the necessary integration of task components. When a team is not engaging in the behaviors and interactions called for by the task requirements, and is thus not performing up to its potential, there are two sets of forces that could be underlying these suboptimal team processes—the misaligned interests of the team members, and the identity dynamics associated with members' involvement with the team. Even well-designed teams can derail, however, often due to process problems that are predictable and that can be attenuated with effective coaching.

Assessing underlying identity dynamics[56] People's identities consist of their thoughts and beliefs about *who they are*. Elements of identity can stem from idiosyncratic personal characteristics, such as being an introvert or highly analytical, and from specific relationships with others, such as being a father or a close friend. A third source of identity stems from the social groups to which people belong, including small groups and teams, departments within organizations, organizations themselves, and even countries. Pieced together from all of these sources, people's identities powerfully shape their behavior and interaction in a variety of ways.

When people first assemble when launching a team, one of their top priorities is to sort out "who is who."[57] At one level, this involves explicitly figuring out one another's strengths and weaknesses, and allocating task responsibilities accordingly. At a deeper level, however, this "sorting out" is a two-way process of appraising your teammates to form your own genuine impressions of them, while simultaneously attempting to manage the impressions others make of you. People's identities guide them through these interactions by providing a stabilizing anchor for impression-management activities. After all, people are strongly motivated to bring others to verify—to recognize and respect—important elements of their identity, through the treatment they receive from others.[58] Although people's self-identities and appraisals of one another are infrequently the topic of explicit discussions, they forcefully shape behavior and interaction.

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[56] This section draws heavily from Polzer, J. and Elfenbein, H. 2002. *Identity Issues in Teams*. HBS Note No. 403-095 (Boston: Harvard Business School Publishing).

[57] Goffman, E. 1959. *The Presentation of Self in Everyday Life*. New York: Anchor Books. See also Swann, W. Jr. 1987. "Identity negotiation: Where two roads meet." *Journal of Personality and Social Psychology*, 53, 1038–1051.

[58] Swann, W. Jr., 1983. "Self-verification: Bringing social reality into harmony with the self." In J. Suls and G. Greenwald (Eds.), *Social psychological perspectives on the self* (Vol. 2, pp. 33–66). Hillsdale, NJ: Lawrence Erlbaum Associates.

These identity issues are especially consequential and complex in teams that are highly diverse. As we described above, complex tasks call for teams whose members possess diverse skills and expertise. Such differences among team members are the source of varied ideas, perspectives, and skills that can improve the team's ability to make good decisions and accomplish its work. When the components of the team's task are interdependent, team members need to integrate their differentiated work efforts. Unfortunately, diversity tends to hamper social interaction and, by extension, team members' ability to integrate their work.[59] Indeed, the very differences that give teams the potential for high performance can make it difficult for group members to work together because they may be the source of misunderstandings, differing assumptions, stereotypes, biases, and related disruptions. Assembling team members with diverse skills and expertise would seem futile if these differences disrupt their ability to integrate their efforts.

Why do teams have problems integrating their diverse expertise and, by extension, the diverse components of their work that require their specialized skills? The answer to this question may reside in team members' individual identities. People derive their identities in large part from their past experiences, accomplishments, education, and other background factors, the same forces that shape people's skills and knowledge. For many people, important elements of their identity are therefore connected to their distinctive abilities and expertise, which are most valuable to the team because other team members do not possess them. Problems arise, however, because of the link between identities and expertise. Specifically, discussions and interaction in which members bring their expertise to bear on difficult task problems—exactly what is needed for the team to achieve integration—are forums rife with threats to identity. Such threats occur when people infer that others view them differently than they view themselves, with the corresponding implication that the person's identity is not an accurate representation of them. Consider the example of someone who prides himself on his marketing expertise in a group of financiers, and who detects a marketing flaw in an otherwise superior business plan. If the financiers reject his idea about the marketing flaw as illogical, this response may undermine his status as a marketing expert in the eyes of his group members, which may in turn threaten his own identity as a marketing expert. Ideas that correspond to particularly important elements of one's identity are especially prone to cause an identity threat if challenged or disregarded. [60]

People use a number of strategies to offset such identity threats. For example, during group discussions people tend to look for social validation of their ideas.[61] Such subtle but nevertheless powerful social validation may take the form of nods of approval, supporting comments, and the like. If no one in the group acknowledges or supports the idea, this may elicit misgivings not only about the validity of the idea, but also about the expertise of the person who offered the idea. People whose ideas are not validated may react in two ways. First, they may refrain from sharing their unique information in the future, and second, when their ideas are challenged, they may try to protect their corresponding identity by defending the idea. Regrettably, ideas that are the most

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[59] Williams, K. Y., and O'Reilly, C. A. 1998. "Demography and diversity in organizations: A review of 40 years of research." *Research in organizational behavior*, 20, 77–140.

[60] Stasser, G. 1999. "The uncertain role of unshared information in collective choice." In L. Thompson, J. Levine, and D. Messick (Eds.), *Shared Cognition in Organizations: The Management of Knowledge*. Mahwah, NJ: Lawrence Erlbaum Associates.

[61] Wittenbaum, G. and Stasser, G. 1996. "Management of information in small groups." In J. L. Nye and A. M. Brower (Eds.), *What's social about social cognition? Social cognition research in small groups* (pp. 3–28). Thousand Oaks, CA: Sage.

unique, and therefore have the most potential to benefit the group,[62] are also most likely to elicit the twin responses of hesitancy and defensiveness.

Identity dynamics affect behavioral integration The link between people's identities and their distinctive expertise and ideas are an underlying cause of numerous surface disruptions to the process of behavioral integration of diverse perspectives. Examples abound of day-to-day interactions that hold the potential to threaten participants' identities. These threats, in turn, affect the information sharing, collaborative behavior, and joint decision-making processes discussed above. For example, in the domain of information sharing, healthier identity dynamics lead to greater comfort in asking questions that may reveal a lack of knowledge, greater comfort challenging teammates' information—even when the person offering the information presumably possesses more expertise about the issue—and more open sharing of feedback about ongoing performance, even (and especially) when it needs improvement. Collaborative behavior is also extremely sensitive to identity dynamics, through the influence of disruptive emotions and conflict. Indeed, when debates that are seemingly about the task degenerate into personal misunderstandings, frustration, emotional conflict, and other disruptions, astute group members look for threats to members' identities as a potential cause.[63] Considering the dimension of joint decision making, group decisions are impaired if members are reluctant to share unique ideas during stages of divergent thinking, if members are defensive during the convergent stage of evaluating and selecting alternatives, or if members accede influence to others whom they perceive to have better ideas or more expertise. Thus, every aspect of team members' crucial need to integrate their behaviors is impacted by identity dynamics.

Subgroups as a special case of identity dynamics Although identity dynamics are the source of numerous interpersonal dysfunctions, they take on a heightened intensity when they take the form of intergroup rivalries that occur between subgroups within a team. The formation of subgroups or coalitions within teams is prevalent, based on such distinctions as differing functional departments, management and production, founders and executives in start-up teams, people from different companies working in alliances, or people from different countries working in transnational teams; the list of potential subgroup boundaries is seemingly endless.[64] Although a single distinction is enough to initiate subgroup rivalries, in many teams multiple subgroup distinctions overlap, as when members of one subgroup are young men from the finance department while members of another subgroup are older women from human resources. In such cases, the chances of a so-called "faultline" driving a wedge between the subgroups is heightened.[65] Especially when subgroups have substantive task-related differences, debates may serve only to polarize the subgroups. As each side becomes more convinced of its own arguments, the gulf between the two subgroups widens. Although in some teams debate between subgroups takes the form of a healthy dialogue, subgroups tend to become dysfunctional when members start to identify more strongly with their subgroup than with the team, and consequently put subgroup interests ahead of team interests. A variety of conditions make intergroup conflict more likely in teams, including pre-existing subgroup

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[62] Nemeth, C. and Kwan, J. 1987. "Minority influence, divergent thinking and detection of correct solutions." *Journal of Applied Social Psychology*, 17, 788–799.

[63] Eisenhardt, K. M., Kahwajy, J., and Bourgeois, L. J. 1997. "How management teams can have a good fight." *Harvard Business Review* July–August, 77–85.

[64] For some examples of such subgroup boundaries, see Hambrick, D. C., Li, J., Xin, K., and Tsui, A. 2001. "Compositional gaps and downward spirals in international joint venture management groups." *Strategic Management Journal*, 22: 1033–1053. Also see Earley, C. P. and Mosakowski, E. 2000. "Creating hybrid team cultures: An empirical test of transnational team functioning." *Academy of Management Journal*, 43, 26–49.

[65] Lau, D. C. and Murnighan, J. K. 1998. "Demographic diversity and faultlines: The compositional dynamics of organizational groups." *Academy of Management Review*, 23: 325–340.

boundaries that lead members to anticipate a rivalry, prior relationships within subgroups but not across them, task interdependencies that pit one subgroup against another for resources, credit, or the like, physical separation of the subgroups, or status differences between subgroups.[66] These pernicious intergroup dynamics are difficult to eradicate once they take hold and, therefore, are especially important to prevent from forming during early team interaction.

Team identification Identity issues in teams are not limited to threats, conflicts, and rivalries. Indeed, teams benefit greatly by developing a *group identity*, also known as *group spirit* or *team pride*—a sense of shared identity related to the team itself. In the section above concerning team structure, we discussed the inherent tension between the focus of team members on their own self-interest versus the interests of the group. Having a strong sense of group identity can help to resolve this tension, by making what is best for the individual also include a component of what is best for the group.[67]

Improving dysfunctional team processes There are two general approaches for avoiding or remedying ineffective or dysfunctional patterns of behavior and interaction among team members. One approach aims to formally structure team members' interaction, while the goal of the second approach is to shape the team's informal norms in the hope that these norms will encourage members to engage in appropriate interaction with one another.

Formally structuring team interaction The first approach is to carefully and precisely specify the interactions that need to take place among team member for them to integrate their work, and then to use formal integrating mechanisms to direct these interactions as much as possible. These efforts should be guided by returning to an analysis of the team's task to clarify what integration is required for successful performance. This is especially important if the task components or interdependencies have shifted since the team was launched, and these changes to the task requirements are causing misalignment among the team members. The process problems can then be attacked by implementing formal integrating mechanisms that directly adjust information sharing, collaborative behaviors, and decision-making processes. Examples of formalized information sharing often take the form of scheduled recurrent face-to-face meetings, either among the whole team, members of interdependent subgroups, or pairs of people who need to frequently share information. Information can also be shared through the use of scheduled written status updates, documentation, sharing of databases, copying team members on memos or e-mails, and similar activities. The key to these activities is that they are not left to the discretion of the individual team member to perform as needed, but are instead specified and scheduled in advance.

Of course, scheduling meetings does nothing to ensure that people will engage in an effective exchange of information, so formal process structures can be put in place to guide specific team interactions. For example, if team members are hesitant to challenge one another and tend to avoid conflict, one person can take the formal role of devil's advocate to stir up debate around an important issue.[68] Alternatively, if team members engage in heated dysfunctional conflict when they debate certain issues, interaction can be structured with the use of a group decision aid such as the nominal

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[66] For a thorough description of these conditions, see Zander, A. 1994. *Making Groups Effective*. San Francisco: Jossey-Bass.

[67] Polzer, J. 2002. *Explaining the varying effects of organizational identification on cooperation: The moderating role of subgroup reputations*. Boston: Harvard Business School Working Paper 02-004.

[68] For more tactics along these lines, see Cosier, R. and Schwenk, C. 1990. "Agreement and thinking alike: Ingredients for poor decisions." *Academy of Management Executive*, 4, 69–74.

group technique.[69] Finally, decision-making methods can be formally adjusted to (1) incorporate more input from members whose opinions have been overlooked, (2) spend more time on divergent processes of generating alternatives, or (3) be more systematic about applying the relevant criteria to the decision alternatives. Structuring the team's decision-making procedures, and applying them more consistently, can foster a shared understanding about *how* decisions should be made. This, in turn, can result in better decisions and, importantly, increase members' sense that the procedures are fair and, thus, their commitment to implementing the decisions.[70]

This approach to fixing ineffective team processes by structuring them more formally might be appealing on the surface, and it certainly has some merit. Yet, a team leader cannot achieve true integration by decree, particularly for task components that are coupled so tightly that not every required interaction can be anticipated and formalized. Even in scheduled meetings with structured interaction, the quality of the participation and communication of members is largely dependent on informal norms and interpersonal dynamics. Therefore, a second approach to improving ineffective team processes is to change the underlying interests and identity dynamics among team members.

Shaping informal norms The goal of altering the identity dynamics among team members is to shape their understanding of, and respect for, each other's attributes, including those that are directly relevant to the task (e.g., skills and expertise) and those that are relevant to their willingness and ability to interact with one another. This approach focuses on shifting the informal norms of the team rather than on members' formal interaction activities. This approach assumes that the team was designed appropriately and that all possible structural conditions have been put in place to help the team succeed.

From the start, team leaders and members should seek to develop a culture for the group that values and encourages collaboration and collective outcomes. To the extent that team members have some similarities in group memberships (e.g., belonging to the same larger organization), incentives, or objectives, these should be emphasized to foster shared interests. Doing so can lead members to psychologically categorize themselves and each other as part of the same team, heightening identification with the group as well as cooperation.[71] This culture should not highlight similarities to the exclusion of members' differences, however. This would defeat the purpose of bringing together people with diverse, specialized skills to apply to the differentiated task components. Instead, the culture should highlight members' different skills and expertise (based on varied experiences and backgrounds) and recognize the diversity of identities that members are likely to bring to the team. Team members should develop a norm that their diversity is a resource that can help them to not only conduct their work, but to learn from one another in ways that improve their work processes.[72]

Learning from one another requires that members take risks, however. For example, a team can only learn from a member's mistake if that member is willing to disclose the mistake and work with the team to discern its cause. Members are frequently unwilling to reveal their mistakes, though, because of the negative consequences that might befall them. To get past this unwillingness, the

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[69] Delbecq, A., Van de Ven, A., and Gustafson, D. 1975. *Group techniques for program planning: A guide to nominal group and delphi processes*. Glenview, IL: Scott, Foresman.

[70] Lind, A. and Tyler, T. 1988. *The Social Psychology of Procedural Fairness*. New York: Plenum.

[71] Chatman, J., Polzer, J., Barsade, S., and Neale, M. 1998. "Being different yet feeling similar: The influence of demographic composition and organizational culture on work processes and outcomes." *Administrative Science Quarterly, 43*, 749–780.

[72] Ely and Thomas, ASQ. Ely, R. J. and Thomas, D. A. 2001. "Cultural diversity at work: The effects of diversity perspectives on work group processes and outcomes." *Administrative Science Quarterly, 46*, 229–273.

culture of the team should contain a shared belief that the team is safe for interpersonal risk taking, referred to as *psychological safety*.[73] Some important risks that team members should take early in the team's life are those associated with self-disclosure. It is critical for members to reveal those elements of their identity that are important to them and important to the task. This includes those aspects that put them in a positive light, but more importantly it implies that members should share their weaknesses with one another. This includes information about task expertise and about interaction styles and preferences. Such self-disclosure will help other members form impressions that are congruent with the identity of the person who is being appraised. This congruence will smooth team members' interactions, ensuring that they play to one another's strengths and circumvent one another's weaknesses while performing their work.[74]

These two approaches, aimed at either formalizing appropriate team interaction or developing norms that foster effective interaction, can be used in combination over time. This speaks to the interplay between informal and formal integration of a team's activities. In general, it is best to be able to rely on members' informal interaction to resolve the multitude of day-to-day integration issues that characterize highly interdependent tasks. The optimal processes (e.g., sharing enough information at the right time) are more likely to be realized in informal interactions, in large part because it is nearly impossible to anticipate all the integration needs that might arise. If the appropriate informal interaction is not occurring, however, there is little choice but to try to implement formal mechanisms to integrate key work processes.[75] In many cases, the interactions that take place through these formal mechanisms influence the informal norms of the team and the relationships among team members. It does take time, after all, to develop trust and respect. If these things develop over time, then it may be possible to remove or reduce some of the formal integration mechanisms and allow team members to truly collaborate with one another to conduct the work of the team.

Bridging Differences in Teams: Working Across Geographical and Cultural Divides

In the past, members of a team within an organization typically resided in the same location, conducted much of their collaborative work through face-to-face interaction, and were highly similar to one another. In contrast, today it is common for members of many teams to be geographically dispersed, interact primarily through electronic media, and differ along fundamental dimensions such as language and cultural values. Although these teams can have enormous potential because they can tap into widely dispersed expertise, team members' differences, coupled with their reliance on electronic communication, can often undermine their attempts to collaborate. Understanding the challenges presented by geographical and cultural distance among team members can help to make these teams effective.

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[73] Edmondson, A. 1999. "Psychological safety and learning behavior in work teams." *Administrative Science Quarterly,* 44, 350–383.

[74] Polzer, J., Milton, L., and Swann, W. Jr. 2002. "Capitalizing on diversity: Interpersonal congruence in small groups." *Administrative Science Quarterly,* 47, 296–324.

[75] When considering whether and when to intervene to structure the team's interaction, keep in mind that a natural break-point in a team's activities occurs around the midpoint between their launch and final deadline. This midpoint may be the easiest time to implement new structures, as teams often assess their progress and make adjustments around this stage. For more information about mid-point transitions, see Gersick, C. 1989. "Marking time: Predictable transitions in task groups." *Academy of Management Journal, 32*, 274–309.

Geographic Distance

In order to appreciate the effects on teams from working virtually, we need to consider what they may lack in comparison with traditional co-located teams.[76] When colleagues work together in the same location on a team, they can communicate and provide feedback to one another rapidly, using multiple channels of communication such as speaking, drawing, making facial expressions and eye contact, using vocal tone, gestures, and other body language. The communication can be subtle and nuanced, and it is clear who has made each statement or gesture. Team members often have informal small talk and develop rapport with one another while getting acquainted personally. They are in the same time zone, awake and at the office during similar hours. They also can refer easily to objects nearby, such as flip charts, overhead slides, and pieces of paper. They speak the same language, have the same schedules for expected workdays and national holidays, and are likely to share the same nationality as well. These factors all contribute to the effective sharing of ideas and information among teammates.

All of these factors are impacted when teams work virtually. Often a dispersed team can be highly effective, facilitating collaboration among individuals who cannot be co-located due to logistical constraints. Advances in technology can link together colleagues who manage to work well in spite of the challenges. However, dispersed teams often produce work that is of lower quality and less satisfying personally than that of traditional teams. Why? The biggest reason is that virtual teammates often lack sufficient *common ground*, or basic shared assumptions and knowledge. Further, virtual teams can be overwhelmed by the logistics of coordinating dispersed work, such as technical difficulties, adjustments to sleeping schedules, as well as delays in receiving responses. Common ground is crucial to smooth teamwork and is easier to establish among colleagues who have rich interactions with one another. Without common ground, also known as *mutual knowledge*, team members frequently misunderstand, and attribute poor motives to one another in the process.[77]

Effective virtual teams are those that can establish common ground in spite of their dispersed locations. In some cases, common ground is established beforehand with co-location, such as an in-person team kick-off. In other cases, common ground depends on colleagues who make the effort to communicate as fully as possible with one another and make explicit their underlying assumptions and knowledge in order to ensure that these are shared. Effective use of appropriate information technology can also facilitate the development of common ground when used thoughtfully.[78]

Cultural Distance

Cultural differences can create a second form of "distance" that can limit the development of common ground among colleagues. *Culture* is the set of learned values, beliefs, attitudes, and meanings that are shared by members of a group.[79] Culture is like an iceberg, with the tip exposed to view but most of it hidden beneath the surface—in the form of habits and shortcuts that guide actions and decisions. Thus, before a team even begins its work together, cultural differences generally correspond to differences in pre-existing common ground.

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[76] For a detailed review of the ideas in this section, see Olson, G. and Olson, J. 2000. "Distance matters." *Human-Computer Interaction*, 15, 139–178.

[77] Cramton, C. D. 2001. "The mutual knowledge problem and its consequences for dispersed collaboration." *Organization Science*, 12, 346–371.

[78] Marquardt, M. and Horvath, L. 2001. *Global Teams*. Palo-Alto, CA: Davies-Black.

[79] See Duarte, D. and Snyder, N. 2001. *Mastering Virtual Teams*. San Francisco: Jossey-Bass.

There are several different kinds of cultural differences. Diversity in *national culture* is becoming more common with increasing globalization. Different nations can have varying norms for everything from normal working hours and holiday schedules to norms for communication among colleagues. People in different countries can differ in their attitudes towards authority, their priorities for work versus family life, their comfort with uncertainty and ambiguity, their preference for individual versus team efforts, their focus on results in the short- versus long-term, and their communication style. National governments frequently legislate idiosyncratic differences in business practices that can affect a team's work.

Just as team members can differ in their national culture, they can also differ in their preferred or typical organizational culture. The increased mobility of the workforce means that individual employees are likely to bring a diversity of past experiences, habits, and styles from the prior organizations for which they worked. Some of those styles may clash with those of the new organization. Further, cross-functional teams contain members from disparate corporate divisions—for example, sales versus human resources—corresponding to disparate norms regarding everything from work schedules all the way to confrontational versus cooperative tendencies.

As important as it is to be sensitive to cultural differences, it is important to hold team members accountable to a consistent standard for excellence. Being sensitive should lead to diagnosing and adjusting the causes of poor performance, but not simply to excusing it.

Conclusion

Even as teams become a way of life in many organizations, widespread myths and misconceptions about teams often stand in the way of effective teamwork. Many people try to catalyze the oft-cited "team chemistry," but few teams truly achieve this elusive goal. In fact, there is considerable debate about the exact nature of team chemistry, or whether it is even an appropriate goal for a team. Proponents and skeptics agree, however, that making teams effective entails a great deal of hard work and often burdens team members with high costs in the currencies of time, effort, and attention. Because of these costs, teams sometimes create more problems than they solve. By following the guidance in this note, those who lead and work in teams can avoid the problems that plague so many teams and, instead, harness the very best that teams have to offer. If managed correctly, teamwork can pay off handsomely.