

The Evolving Nature of Work Teams:

Changing to Meet the Requirements of the Future

Examples of teamwork abound from every facet of our lives. Firefighting, terrorist response, and paramedic teams work to make our environment a safer place. Sales, new product development, and customer service teams try to make our lives more comfortable. Automotive assembly and clothing manufacturing teams make products we use every day. Essentially,

Teams of people working together for a common cause touch all our lives. From everyday activities like air travel, firefighting, and running the United Way drive to amazing feats of human accomplishment like climbing Mt. Everest and reaching for the stars, teams are at the center of how work gets done in modern life. (Kozlowski & Ilgen, 2006, p. 78)

Hospitals across the globe are turning to hospital rapid response teams (HRRTs) in an effort to increase the speed and quality of patient care (Simmons, 2004). When Bank of America recently merged with FleetBoston Financial, transition teams were employed to develop Six Sigma plans for the new, combined company (Costanzo, 2004). Hewlett-Packard created a Corporate External Standards Team with members in 16 countries that was responsible for interpreting government regulations for product designers (Snyder, 2003). Chevron established interfunctional work teams in an effort to maximize the use of human resources in a key profit center (Attaran & Nguyen, 2000). Sabre, Inc., an organization in the travel industry, uses cross-functional virtual teams within its sales, operations, and finance divisions (Kirkman, Rosen, Gibson, Tesluk, & McPherson, 2002). The application of teams is widespread with many organizations considering teams an absolute necessity.

The necessity of teamwork was stark during the aftermaths of the Indian Ocean Tsunami and Hurricane Katrina. During the response to these tragic, natural disasters, we watched emergency response teams assist victims in a number of different ways. Helicopter crews plucked victims stranded in trees and on rooftops. National Guard units secured unprotected areas and searched for survivors. Search and rescue teams saved thousands of stranded people. Red Cross food delivery teams fed victims. Surgery teams performed operations on those who were severely injured. Construction crews led efforts to remove debris and begin the rebuilding process. The types of teams responding to these natural disasters all had very different responsibilities and approaches to accomplishing their goals, but what would have happened without them? Many organizations rely on teams to perform required tasks without which the organization could not function effectively.

From nautical teams sailing Greek merchant ships as early as 350 BCE to bank wiring teams operating in Western Electric's Hawthorne Works in the 1920s to digital animation teams creating special effects for today's movies, the application of teams and research on their effectiveness has a rich history. Understanding key elements of this history is important for considering the future of work teams, a primary purpose of this chapter. Thus, this chapter offers a brief and selective history of teams, discusses present-day applications, and considers three key factors deemed important for the future.

This chapter begins by defining *work team*, discussing different types of teams and what they do, and operationalizing team effectiveness. Next, a brief history of the application and study of teams provides context for the remaining portions of the chapter. The final section, with an eye to the future, is intended to be the

primary thrust of this paper. It concentrates on three factors that will directly impact the performance and viability of teams in the future: (a) fundamental dilemmas of teamwork, (b) workplace globalization, and (c) the virtual work environment.

WORK TEAMS: DEFINITION AND EFFECTIVENESS

Both work group and work team are defined as “interdependent collections of individuals who share responsibility for specific outcomes for their organizations” (Sundstrom, DeMeuse, & Futrell, 1990, p. 120). Two elements of this definition are worth emphasizing. First, *interdependence* indicates that team members depend on each other to do their work. Consider a basketball or softball team where each team member depends on other members when trying to deliver a win. Second, team members share responsibility for delivering a certain product or result to the organization or larger social system within which they operate. This often puts pressure on individual team members to sacrifice their personal goals for those of the team. In certain cultures (individualist vs. collectivist), allowing individual goals to be subsumed by team goals is often difficult because it goes against core psychological drivers of self-preservation (Nielsen, Edmondson, & Sundstrom, 2007). These two elements of how teams operate are important to keep in mind, especially when considering different types of teams and elements of team effectiveness.

Types of Teams

How do we differentiate one type of work group from another? It is important to categorize teams so that we have a better understanding of what they do and how they are different. While no theory or taxonomy captures every type of team working today, several models are helpful for understanding the contexts and challenges that different types of teams face. A system for organizing team types would ideally use mutually exclusive and exhaustive categories.

Hackman (1990) used a seven-category typology, which included (a) top management groups, (b) task forces, (c) professional support groups, (d) performing groups, (e) human service teams, (f) customer service teams, and (g) production teams. The management literature has also provided different examples of team classifications.

Sundstrom, McIntyre, Halfhill, and Richards (2000), building on earlier typologies, identified six types of work teams: (a) action and performing teams (e.g., surgery and SWAT teams); (b) advisory teams (e.g., task force); (c) management teams (e.g., regional leadership teams); (d) production teams (e.g., paper mill work crews); (e) project teams (e.g., new product development teams); and (f) service teams (e.g., consulting teams). In a more recent effort, Devine (2002) suggested integrating previous typologies.

A categorization system developed by Devine (2002) focuses on seven underlying contextual dimensions (i.e., fundamental work cycle, physical ability requirements, temporal duration, task structure, active resistance, hardware dependence, and health risk) and suggests that teams should be divided into an intellectual work teams cluster (i.e., executive, command, negotiation, commission, design, and advisory) and a physical work teams cluster (i.e., service, production, performance, medical, response, military, transportation, and sports). Devine suggests 14 different types of teams, each having specific functions: (a) executive teams plan and direct (e.g., board of directors, senior management team); (b) command teams integrate and coordinate (e.g., control tower, combat center teams); (c) negotiation teams deal and persuade (e.g., labor-management, international treaty); (d) commission teams choose and investigate (e.g., search committee, jury); (e) design teams create and develop (e.g., research and development [R&D], marketing); (f) advisory teams diagnose and suggest (e.g., quality circle, steering committee); (g) service teams provide and repair (e.g., fast food, auto service); (h) production teams build and assemble (e.g., home construction, automobile assembly); (i) performance teams enact and display (e.g., movie cast, orchestra); (j) medical teams treat and heal (e.g., surgery, emergency room); (k) response teams protect and rescue (e.g., fire station, paramedic); (l) military teams neutralize and protect (e.g., tank crew, infantry squad); (m) transportation teams convey and haul (e.g., airline

cockpit, train crew); and (n) sports teams compete and win (e.g., baseball, soccer). Different factors affect the performance of different types of teams across multiple contexts. Next, concepts are explored that help reveal the essential components contributing to team effectiveness.

Team Effectiveness

Two key elements comprise team effectiveness: performance and viability (Sundstrom et al., 1990). *Performance* entails the successful delivery of an output (i.e., products, decisions, performance events, services, or information) to customers inside or outside the organization. The concept of *group viability* is future oriented and includes *continuity* (ability to maintain a core group membership), *commitment* (to a shared group purpose), *cohesion* (commitment to and liking of team members), and *capability* (to accomplish the shared purpose; Halfhill & Huff, 2004). To be successful, teams must focus on both performance and viability.

Researchers have offered different explanatory models (Hackman & Morris, 1975; McGrath, 1964; Sundstrom et al., 1990) to help accurately conceptualize team effectiveness. McGrath (1964) pioneered the widely cited “input-process-output” (IPO) model of group effectiveness. While this idea is over 40 years old, almost all models of work group effectiveness still rely on it to some extent. McGrath suggested that inputs are the key cause of processes that then mediate the effect of inputs on outcomes. Inputs are the personal elements (expertise, status, personality, and experience) people bring to a team when it is formed; process variables involve the interaction among team members (social exchange of information, influence attempts, and leadership) and are inherently dynamic, and outputs are the products yielded by the group (Guzzo & Shea, 1992). Of these, process variables have been the most difficult to accurately measure and understand because they are highly context dependent and dynamic (Edmondson, Roberto, & Watkins, 2003). The dynamic nature of team processes contradicts their static operationalization in most research on teams.

Team effectiveness should be more accurately conceptualized as embedded in a multilevel system that has individual, team, and organizational-level aspects; which focuses centrally on task-relevant processes; which incorporates temporal dynamics encompassing episodic tasks and developmental progression; and which views team processes and effectiveness as emergent phenomena unfolding in a ... larger organization system or environmental context. (Kozlowski & Ilgen, 2006, p. 80)

Understanding what drives team effectiveness is complex and requires special attention to the context within which teams perform their tasks. Team contexts are multifaceted and have, to date, been difficult for researchers to define and measure (Nielsen et al., 2007). This, among other challenges, has prevented research on teams from being readily applicable to real teams attempting to improve their effectiveness. Progress based on previous research and practice is being made, however, and highlights the importance of carefully considering the history of teams.

A BRIEF HISTORY OF WORK TEAMS

The application of work teams is centuries old. The documentation of their application in book chapters and research articles, however, often begins with the Hawthorne Studies conducted in the 1920s and 1930s. The Hawthorne Studies included a series of projects led by a team of Harvard researchers and represents one of the first empirical investigations of factors related to team effectiveness (Roethlisberger & Dickson, 1939).

Some of the most impactful results from the Hawthorne Studies involved the “Bank Wiring Observation Room” (Homans, 1950). Sundstrom and his colleagues (2000) observed,

Among legacies for later research and application concerning work groups were: detailed illustration of methods for studying groups in work settings; evidence of development of informal groups among workers; evidence of mutual relevance of formal and informal social structure; demonstration of informal production norms in work groups; and perhaps most interesting, a clear example of a work group enforcing a production norm. (p. 45)

During this time, however, individual employees still performed the vast majority of work. The exceptions were

primarily from military and manufacturing environments (i.e., cockpit and tank crews and informal automobile assembly teams).

After the Hawthorne Studies, researchers, rather than managers, expressed the majority of interest in work teams. In other words, the rate of research increased, whereas the application of work teams did not. Primarily, psychologists performed much of the early research involving work teams. They studied automobile factory workers (Walker & Guest, 1952), B26 flight crews (Torrence, 1954), and industrial work groups (Seashore, 1954). In fact, two researchers identified over 2,100 studies on small groups published between 1950 and 1959 (McGrath & Altman, 1966). Industrial/organizational psychologists followed their colleagues in social psychology by studying teams in organizational settings as opposed to the laboratory. While there was a significant amount of research conducted through the 1950s, the application of teams did not become popular until the 1980s.

The increased interest from organizations for implementing work teams can be linked to the advent of total quality management (TQM). Organizations such as Ford Motor Company, Lockheed-Martin, and Motorola began experimenting with multiple types of teams. First, quality circles were attempted, and then some companies started performing production, project, and service work with teams. Many organizations realized the benefits of teambased approaches by achieving increases in productivity, efficiency, and quality. For other organizations that failed to implement appropriate support mechanisms, the benefit of teams fell far short of their promise. This, however, did not deter a number of companies from experimenting with team-based structures.

The implementation of teams to perform a variety of tasks became commonplace in the 1990s. Kodak (customer service teams), Chevron (interfunctional teams), Dow Corning (self-managed teams within a unionized context), Motorola (self-managed teams within a nonunionized context), and Miller Brewing Company (cross-functional teams) are just a few examples of the application of teams within organizations.

Today, teams are ubiquitous across continents, industries, and organizations. The widespread use of teams, however, does not imply that successful teamwork is achieved without overcoming significant challenges. Emergency response teams, whether they are search and rescue or paramedic teams, consistently face unpredictable environments. The challenge of managing this lack of certainty, while maintaining effectiveness, is significant for these types of teams. Emergency response team members must overcome the difficulty of coordinating with teammates, making their team's effectiveness their first priority, and asking for help when necessary. Management teams, while facing a significantly different work environment, face similar challenges. They must deal with a significant amount of complexity and make decisions that will benefit as many of their key stakeholders as possible. Management team members must represent the part of the organization for which they are responsible, while keeping the success of the organization paramount. Bank of America's transition teams were tasked with implementing Six Sigma in an environment with brand new employees from FleetBoston (Constanzo, 2004). Managing external relationships and staying focused on key milestones were two challenges for these transition teams. To be effective, individual team members must consistently share information and perform their individual roles. Virtual teams at Sabre, Inc., (Kirkman et al., 2002) encountered entirely different circumstances having to do with learning to trust and communicate without meeting teammates face-to-face. Individually, virtual team members faced the challenge of accurately understanding and communicating information transmitted electronically. Identifying all of the difficulties faced by different types of teams and their members working in disparate contexts is beyond the scope of this chapter. I contend, however, that teams will face three related sets of challenges in the future: (a) fundamental teamwork dilemmas, (b) globalization of the workplace, and (c) an increasingly virtual work environment.

KEY CHALLENGES FOR TEAMS IN THE FUTURE

The environments and contexts within which teams work will expand exponentially in the future. First, the expanding globalization of the workplace will lead to a significant increase in the cultural and experiential diversity of team members. Second, teams will increasingly complete their work virtually, in part due to their

expanding global reach. The ability for teams to effectively manage diversity and virtuality will partially determine their ability to survive and flourish. Teams have faced a third set of challenges, fundamental team dilemmas, for years. Because these dilemmas are ubiquitous across teams and core to their functioning, however, they are intertwined with and affected by team diversity and virtuality. Therefore, these dilemmas are covered first and are then used to frame subsequent discussions on globalization and the virtual work environment.

FUNDAMENTAL TEAM DILEMMAS

Organizing around work teams can provide tremendous benefits. Some of these include increased efficiency of production, faster and more flexible response to customer needs, greater levels of responsibility for individuals, less hierarchy, enhanced strategic leadership, the generation of multiple alternatives, and increased commitment to team goals. These benefits, however, are not realized by simply putting people who are accustomed to working individually into teams. The benefits of organizing in teams can only be realized when teams and their members are able to recognize and manage four fundamental teamwork dilemmas.

A significant amount of research indicates that individual team members must develop teamwork skills to be effective within a team context (Stevens & Campion, 1994). Specifically, researchers have focused on the ability of individual members to successfully manage interpersonal relations, the ability to maintain healthy working relationships, and the ability to effectively manage conflict (Hackman & Morris, 1975; Perkins & Abramis, 1990). Little doubt exists that these skills and abilities are important individual elements contributing to team effectiveness. Less effort, however, has been spent addressing the most fundamental individual dilemmas that manifest themselves as constraints to team effectiveness: (a) the willingness of team members to put team needs/goals ahead of their own and (b) the ability for team members to proactively manage their emotions.

Self-Interest Dilemma

The most effective teams are comprised of individuals who recognize what is best for the team and willingly behave in a manner that supports the team (Hackman, 1987). Teams with such members, however, are few and far between because the process of sacrificing individual goals for those of the team goes against core psychological drivers involving self-preservation and promotion (Kramer, 1989). The dilemma team members face when forced to make tough choices between individual and team priorities represents the self-interest dilemma (SID; Nielsen, Edmondson, & Sundstrom, 2007). A number of examples exist where self-interest takes priority over group-interest. A team member may choose to leave work early to spend time with family while his or her teammates are in the middle of a complex project, or someone might emphasize his or her individual contributions over and above the efforts of teammates for purposes of promotion. A more complex example might include a new product development team member who represents the marketing department arguing that more budget resources should be allocated to market research, when, in fact, additional resources would be better spent on new production technologies. The self-interest dilemma is a relative constant for team members in today's organizations. Evidence exists, though, that group norms and rewards are two areas that offer approaches to effectively managing the self-interest dilemma.

A significant amount of work has examined the impact of specific reward structures for teams versus individuals (e.g., DeMatteo, Eby, & Sundstrom, 1998). This is based on the idea that reward systems affect individual, team, and organizational behavior in important ways (Lawler, 1990). Specifically, rewards motivate work performance when employees believe their organization links important rewards to effective performance and when they believe they can influence that performance. Many organizations make the mistake of rewarding employees for behavior that does not contribute to organizational success (Kerr, 1975). Sports teams are prime examples as they seek team accomplishment, yet reward team members for their individual achievements. Ironically, a number of organizations who use teams also reward individual performance. The remedy, according to researchers, involves matching a team's reward structure to its performance goals (Lawler, 1999).

Specifically, rewards based on team and organizational performance will drive integration and teamwork far better than rewards based solely on individual performance (Schuster & Zingheim, 1992). For example, it seems more likely that a professional basketball player would agree to a slight reduction in base salary (so the team could hire more talent) if 75% of his overall compensation was tied to his team's performance. Team members are less likely to compete against one another if their rewards depend on team performance. In addition to rewards, team norms and culture play important roles in determining team member behavior (Feldman, 1984).

Group norms contribute to group culture, which impacts almost every facet of team member behavior (Feldman, 1984). Therefore, one method for mitigating the SID is to develop an environment where team members receive fair treatment, expect to contribute equally, and are mutually committed to accomplishing team goals. Creating group norms around each of these three facets should be an important area of focus for team leaders and members. In his seminal paper on the development of group norms, Feldman (1984) stated, "Group norms are the informal rules that groups adopt to regulate and regularize group members' behavior" (p. 84). One key method for group norm development involves explicit statements and behaviors from team leaders. A group norm of fair treatment will develop when team leaders consistently and uniformly enforce rules and avoid favoritism. Mutual commitment to team goals is a group norm that develops when team leaders engage each member of the team in the development of those goals. Objectives created in the absence of team input will be less likely to engender mutual commitment. Developing the appropriate reward structure and creating positive group norms are two approaches for effectively managing the SID. Do these areas offer the same promise for managing our second, individual-level dilemma involving the management of emotion?

Emotion Recognition Dilemma

We can all recount situations where we let our emotions get the best of us. We likely said some things we did not mean and behaved in a manner that was not appropriate given the situation. The ability to recognize and manage our own emotions is very valuable both at work and in our personal lives. One example commonly observed in teams involves a team member strongly defending his or her perspective regardless of its merits (Borisoff & Victor, 1998). The defensive team member in this situation is thinking much more about individual pride than the veracity of his perspective (Maultsby, 1986). In other words, his communication is being driven primarily by emotion. The dilemma in this type of situation is the ability for individuals to maintain an awareness of their emotions in order to assess whether their behavior is being driven by their own ego needs or what is best for the team, also called the emotion recognition dilemma (ERD). Team members must understand the underlying motivation for their own defensive behavior to overcome this dilemma. Team members who recognize that emotion and the fear of looking incompetent are driving their defensive behavior are better able to prevent this type of behavior for the benefit of the team. The ability to effectively recognize one's own emotions in this manner is one element of emotional intelligence (Daus & Ashkanasy, 2005).

An emotionally intelligent person is better able to recognize and manage her own emotions and those of others around her than someone who is not. Past research has found that teams with members high in emotional intelligence perform more effectively (Jordan, Ashkanasy, Hartel, & Hooper, 2002). In other research, Jordan and Troth (2004) examined the role of team member emotional intelligence during problem solving and conflict resolution. The authors not only wanted to know if emotionally intelligent teams performed more effectively, but also if emotionally intelligent team members were better able to manage conflict. After analyzing problem-solving activities of 108 work teams, results indicated that while there was significant conflict within teams, teams with higher average emotional intelligence performed more effectively than others. This study more directly addresses the possible impact of emotional intelligence on the ability to deal with the ERD because while team members were engaged in conflict, their emotional intelligence facilitated the recognition of the emotion involved and led to more constructive resolutions. Is emotional intelligence relevant for managing fundamental dilemmas that occur at the team level? We address this question in the next section of this chapter by examining two team-level dilemmas involving the asymmetry of information and interest.

Information Asymmetry Dilemma

Information sharing is a team process variable that is vitally important to effective team functioning. When information is not available to all team members, actively shared among teammates, or distributed equally, effectiveness can suffer. Consider the top management team of a pharmaceutical company that has a potentially harmful drug on the market. This team must decide whether to pull this drug from the market. A lack of information sharing among teammates could significantly degrade the quality of the team's decision. Imagine a new product development team in a technology company with members from a variety of functional areas such as development, engineering, manufacturing, marketing, and sales. To successfully develop, design, build, advertise, and sell a new product, each member of this team must share all necessary information. When different team members have unique, unshared information about a specific situation on which they must act, they will encounter the information asymmetry dilemma (IAD; Edmondson et al., 2003).

Power can be defined as the ability to influence the actions and behaviors of others and to make them do what they would ordinarily not do (Salancik & Pfeffer, 1974). Typically, team leaders hold the most power within teams, but this varies depending upon a variety of factors. The ability of team leaders to demonstrate strategic leadership (Nielsen & Halfhill, 2006) is one factor, while the relative power of other team members is another. The degree to which team leaders have significantly more power than team members will influence the tendency for team members to consistently share information because they will defer to their leader. Teams with greater power differentials between team leaders and members are more likely to encounter the IAD (Edmondson et al., 2003). Consider the example of the pharmaceutical company's top management team that is trying to determine whether to remove one of their drugs from the market. If the CEO has significantly more power and decides to pull the drug, it is less likely that a less powerful member of the team will offer information contradicting that decision. In addition to power within teams, the degree of psychological safety within teams likely influences their ability to manage the IAD.

Psychological safety is defined as "the shared belief that the team is safe for interpersonal risk-taking" (Edmondson, 1999, p. 351). Members of teams with high levels of psychological safety are more likely to express themselves because they are less likely to be ridiculed, marginalized, teased, or punished for speaking up. This type of environment mitigates the impact of the IAD because team members feel comfortable sharing whatever information or opinions they possess. Teams, however, vary in their levels of psychological safety due to different group norms (Edmondson, Bohmer, & Pisano, 2001), team leader behavior (Nielsen & Halfhill, 2006), and power differential (Pfeffer, 1992). Work on power and psychological safety also offer methods for managing the interest asymmetry dilemma.

Interest Asymmetry Dilemma

Shared goals are a central component necessary for maximizing team performance. While the link between team members sharing the same goals and team performance is logical, the frequency of its occurrence is rare. Team members have unique personalities, goals, and interests, which may not align with team goals. Consider a management consulting team made up of team members with clearly defined roles and responsibilities (e.g., sales, negotiation, execution, and management) working with a client on improving leadership development. While consulting team members may support the overall goal of improving client performance, it is likely that team members will be more interested in their primary area. For example, once the client has agreed to a service contract, the team member responsible for sales may be much less interested in fully participating, which might anger the client. Another example might involve a production team responsible for the assembly of automobiles tasked with learning a new door assembly process. Team members not involved with door assembly may be less engaged in learning new techniques, which will slow down the team as a whole. These examples represent teams facing the interest asymmetry dilemma, which is defined as "the degree to which team members have divergent interests in a given situation" (Edmondson et al., 2003, p. 303). If teams want to maximize their performance, they must consider and directly deal with this dilemma. The more common

action is that team members cooperate to achieve some group goals and compete to further individual interests (Bazerman, Mannix, & Thompson, 1988).

Research suggests that teams with high levels of power centralization (team leaders with significantly more power) and divergent interests perform more poorly. In other words, teams with members having different levels of interest in a particular area will be more likely to perform poorly when one team member clearly has the most power. This interaction between power and interest affects team effectiveness. Thus, because power differences are difficult to change, especially in the short term, teams and their members will contribute more to their effectiveness by focusing on aligning interests. The absence of interest alignment in teams with significant differences in power will hurt team effectiveness. Psychological safety offers a different perspective on the interest asymmetry dilemma.

Team members who feel safe and comfortable enough to speak freely are part of teams who learn and perform more effectively (Edmondson, 1999). How does this research relate to teams with divergent interests? While there has been little research on the effect of psychological safety on team member interests, it seems plausible that team environments with greater levels of information sharing would result in a greater understanding of other team members' interests. In other words, when team members feel comfortable enough to openly share their thoughts, they will likely express their interests even if they are significantly different from those of other team members. Frank dialogue about the benefits and risks associated with actions based on different interests will be more likely to occur and subsequently lead to successful resolution. Thus, it seems likely that the negative impact of interest asymmetry will be mitigated by high levels of psychological safety (Edmondson et al., 2003).

GLOBALIZATION

Globalization has been called the "most profound business phenomenon of the 20th century" (Hitt, Bierman, Uhlenbruck, & Shimizu, 2006, p. 1137). It involves businesses expanding their operations to other countries and has created a global economy that shows no signs of slowing. Many large and small companies operate in multiple countries and employ people from every corner of the globe. Gillette, a consumer products company known for its shaving products, is headquartered in the United States while more than half of its employees work in other countries. ConocoPhillips, the third largest integrated energy company in the United States, operates in more than 40 countries. A smaller company, VisualSoft Technologies is headquartered in India with offices spread across the globe. These are just a few examples of global organizations utilizing teams. Teams in the global business environment bring people together with a significant diversity of culture and experience. We know from past research on teams that diversity creates unique challenges for teams to manage. The next section of this chapter considers the challenge of cultural diversity within the context of the four fundamental dilemmas of teamwork.

Self-Interest Dilemma

As discussed earlier in this chapter, the self-interest dilemma essentially involves the challenge of choosing between individual and team priorities. This dilemma is partially driven by a team member's level of individualism, which is partially determined by his or her cultural background. Research has determined that cultures can be distinguished by their level of individualism (Hofstede, 2001).

In his seminal work examining cultural differences across countries, Hofstede (2001) established individualism as one of five broad dimensions of cultural values. *Individualism* is defined as the degree of individual independence and is typically contrasted with collectivism, which emphasizes the importance of groups and social loyalty. Team members with highly collectivistic cultural orientations will often prioritize their team's needs over their own, reducing the potential negative impact of the self-interest dilemma. Most teams, however, will be comprised of individuals from both individualistic and collectivistic countries. This puts a

premium on team members understanding the cultural backgrounds of their teammates. The ability for teammates to recognize cultural differences and use this understanding to perform more effectively is highly related to their level of cultural intelligence (CQ).

Cultural intelligence is defined as “a person’s capability to function effectively in situations characterized by cultural diversity” (Van Dyne, Ang, & Nielsen, 2007). It is a multidimensional construct comprised of four key capabilities: (a) metacognitive CQ, (b) cognitive CQ, (c) motivational CQ, and (d) behavioral CQ. Metacognitive CQ is how people make sense of intercultural experiences by reflecting on their own thinking and that of others. Cognitive CQ represents a person’s knowledge and understanding of how cultures are similar and different. Motivational CQ is a person’s ability to direct energy and effort toward learning about and functioning in cross-cultural situations. Behavioral CQ is a person’s ability to appropriately adapt his or her verbal and nonverbal behavior for different cultures.

Past research has found strong relationships among CQ, decision making, task performance, and adaptability. Work teams comprised of members with high levels of cultural intelligence will more effectively manage *and* capitalize on their own cultural diversity. The importance of CQ will continue to increase as teams become more culturally diverse. While not as significant, CQ will also play a positive role in recognizing the impact of one’s own emotions on others.

Emotion Recognition Dilemma

Recognizing and managing our own emotions is a very valuable skill. The ways in which emotion is displayed can be interpreted in different ways depending on one’s cultural background. For example, some cultures emphasize that emotional displays be kept to a minimum while others value the open sharing of emotion. Cultural diversity, therefore, could potentially exacerbate the impact of the emotion recognition dilemma. Team members from diverse backgrounds will have to spend additional time considering the possible impact of their emotions on team members and the role of culture when interpreting a team member’s emotions. Emotional intelligence and cultural intelligence play important roles in a team’s ability to manage this dilemma.

Emotional intelligence is defined as the ability to recognize and manage one’s own emotions and those of others (Mayer, Salovey, & Caruso, 2000). Successfully managing the ERD requires that team members recognize the degree to which emotion drives their behavior and if it is decreasing team effectiveness. Team members with higher levels of emotional intelligence are better equipped to do this consistently. The ability to recognize emotion, however, is only the first step within a team environment characterized by diversity. That is, team members’ cultural backgrounds play an important role in their display and interpretation of their own and others’ emotions. Therefore, cultural intelligence must augment emotional intelligence to most effectively manage the ERD. Team members with higher levels of emotional and cultural intelligence will be more likely to understand the emotional norms of multiple cultures. This will facilitate their ability to more effectively interpret the meaning of their teammates’ emotions and the possible cultural implications of their own emotional displays.

Consider the example of Matt who is confronted with candid performance feedback and reacts in a defensive and emotional manner by launching a personal attack on his manager (the source of feedback), who is from a different cultural background. Matt’s level of emotional intelligence will partially dictate his ability to recognize the inappropriateness of his reaction. Without a high degree of cultural intelligence, however, Matt will not understand how his manager will interpret his emotional outburst. As teams become increasingly diverse, both emotional and cultural intelligence will be required for teams that want to perform effectively. Increasing levels of cultural diversity due to globalization will also have an impact on the information and interest asymmetry dilemmas.

Information Asymmetry Dilemma

The degree to which team members operate with similar levels of information is critically important to a team's level of success. Teams without strong norms of information sharing face significant challenges when making important decisions. Consider the example of a student project team that must deliver a research paper at the end of the semester. If team members are responsible for researching specific topics and do not actively share the information they gather, the team will be unable to fully understand the research problem, make the appropriate decisions to move forward, and ultimately deliver on its commitment. Increased cultural diversity stemming from globalization significantly impacts the challenges associated with the IAD.

Two key elements of the IAD include (a) the unique information possessed by each team member and (b) the degree to which team members share this unique information. Team members usually possess unique information, but quite often, they assume their teammates already know this information. This assumption limits information sharing and is not likely to be different among team members from different cultural backgrounds. Team members with different cultural backgrounds, however, may have fundamentally different approaches to sharing their unique information. In cultures high on Hofstede's masculinity dimension, proactively sharing unique information is a common occurrence and would likely increase information sharing. Team members from cultures low on the masculinity dimension, however, might be less inclined to share such information, which would contribute to the prominence of the IAD. Again, the degree of cultural intelligence within a team will impact the extent to which this dilemma thwarts performance.

Teams high in cultural intelligence are more likely to understand the unique dynamics of their teammates' cultural backgrounds, thus facilitating performance. Let us consider the example of a student project team including team members from cultural backgrounds that are significantly different on the masculinity dimension. Culturally intelligent team members are more likely to know the cultural backgrounds of their teammates and how these differences might impact their teammates' communication styles. This information could be used to selectively engage team members from cultures low on masculinity in an effort to encourage information sharing. Conversely, team members low in cultural intelligence will not be as aware of their teammates' cultural differences and will be less likely to formulate such communication strategies.

Culturally diverse teams are more likely to face communication challenges due to language barriers. Managers who maintain language standards while hiring team members often manage this issue during the selection process. Situations arise, however, where the primary criteria for selection revolve around technical proficiency and less attention is paid to communication ability. Situations of this ilk can result in significant communication challenges within teams and may reduce effectiveness. Communication barriers due to language differences are difficult to overcome in the short term and are most effectively managed during the hiring process. Cultural diversity affects the dynamics of interest asymmetry as well.

Interest Asymmetry Dilemma

Consider a top management team whose members are responsible for different parts of their organization (e.g., sales, operations, finance, etc.). While discussing methods for improving the company's financial performance, the team member responsible for sales suggests starting the manufacture of a new product as quickly as possible, while the team member responsible for manufacturing disagrees because she wants to move slowly in an effort to maintain quality and avoid costly liability claims. This is just one example of interest asymmetry: "[T]he degree to which team members have divergent interests in a given situation" (Edmondson et al., 2003, p. 303). It is not likely that cultural diversity will have a significant impact on this dilemma. The asymmetry of teammates' interests results from a variety of factors, primarily related to the internal dynamics of their particular organization as opposed to cultural differences.

Globalization has and will continue to increase the cultural diversity of work teams. Greater cultural diversity can have significant benefits for team viability and performance. Diversity, however, may also exacerbate some of the challenges or dilemmas associated with teamwork. It is essential that teams attempting to improve their

effectiveness understand these dilemmas and how increasing levels of cultural diversity might affect them. In addition to cultural diversity, more teams will have to manage the reality of working virtually. The next section considers the increasingly common reality of virtual work environments. Again, this topic is examined in the context of the four fundamental dilemmas of teamwork.

VIRTUAL TEAMS

New communication tools and rapidly developing information technologies have created expanded opportunities for teams to work together across space and time (Kirkman et al., 2002). This, combined with heightened performance expectations and smaller budgets, has led to a significant increase in the implementation of virtual teams by organizations around the world. While the use of virtual teams is not new, it is expanding quickly and will continue to do so in the future. In fact, many traditional, colocated teams are doing more of their work virtually. The process of team members working together from disparate locations will occur with increased regularity, and those teams equipped to manage this reality will be much more effective.

“Virtual teams are defined as groups of employees with unique skills, situated in distant locations, whose members must collaborate using technology across space and time to accomplish important organizational tasks” (Kirkman, Rosen, Tesluk, & Gibson, 2004, p. 175). Organizations implementing virtual teams are able to bring team members together who may not otherwise be able to collaborate due to cost, time, and travel limitations. Other advantages of virtual teams include (a) organizations’ ability to adapt more readily to sudden changes in team composition, (b) having team members close to relevant parts of the organization that are not colocated, and (c) helping organizations retain talented employees who may not be willing to relocate. Many virtual teams are implemented with the goal of improving performance and reducing associated costs. These goals, however, are not often realized. Some of the challenges facing virtual teams include (a) creating an environment of trust, (b) aligning team members around a singular purpose, (c) selecting virtual team members with sufficient technical *and* interpersonal skill, and (d) maximizing the process gains from working as a team. These challenges are not exclusive to virtual teams, but the lack of consistent face-to-face interaction exacerbates them. Next, teams working in virtual environments are considered within the context of the four fundamental dilemmas of teamwork.

Self-Interest Dilemma

The difficult choices team members are often forced to make between their own interests and those of the team are often made more challenging within a virtual work environment. This, however, will often be time dependent. Members of newly formed virtual teams spend a significant amount of time trying to figure out if they can trust their teammates. Colocated teams often form trust based on sharing meals, discussing personal matters, or socializing outside of work—often called interpersonal trust (Kirkman et al., 2002). The level of trust between members of virtual teams often grows via team member reliability, consistency, and responsiveness—often called task-based trust (Kirkman et al., 2002). The decision to place an individual priority above a team priority will often be easier during the formation stage because little trust has been established. Once a virtual team has been intact long enough to have established open and candid lines of communication and has developed a high degree of trust, however, the self-interest dilemma can be mitigated because team members are committed to their teammates and the overall goals of the team.

Best practices for developing trust during the initial stages of virtual team development involve establishing norms of behavior for all team members. A high degree of responsiveness and consistency among team members is necessary to develop a trusting environment within which to operate. Team managers who emphasize these performance expectations will help their teams develop positive group norms. In addition, virtual teams that form team charters defining their purpose, deliverables, resources, time line, and the leader’s role give themselves better odds (Nielsen et al., 2007) during the crucial early stages of team development.

Emotion Recognition Dilemma

As discussed earlier in this chapter, the ability for team members to recognize and manage their emotions can be a very valuable skill. Common sense might suggest, however, that virtual teams rely more on technical skill and would be less susceptible to the role of emotion considering they rarely, if ever, meet face-to-face. This is not the case. In fact, a large research study involving virtual teams from Sabre, Inc.—a high-tech company in the travel industry—found that the ability to recognize and manage emotions that contribute significantly to communication ability and interpersonal skill are vitally important for virtual team members (Kirkman et al., 2002). As one virtual team member from Sabre, Inc., put it, “Technical job skills are important, but I tend to look at their ability to be part of a team, how they adjust to working with others, and their people skills” (Kirkman et al., 2002, p. 74). A manager from the same organization commented,

It is not what the job is about. We can teach them the job. It is the right personality and the ability to get along with other team members. I don't care if they know 20 different kinds of software or not. I am more interested in how that person is going to fit into that team. (p. 74)

These comments seem to indicate that while technical ability is important, “softer skills” are more crucial for team member performance in a virtual context. This leads to the conclusion that virtual work environments will exacerbate the oft-faced teamwork dilemma involving the recognition of emotion.

Emotional intelligence will play an important role in a virtual team’s ability to recognize and manage the role of emotion within a given team’s context. Team members with higher levels of emotional intelligence will be better equipped to communicate effectively and leverage their increased interpersonal ability. These factors will contribute significantly to a virtual team’s ability to develop a trusting environment, a fundamental ingredient for sustained success.

Information Asymmetry Dilemma

Virtual teams are able to communicate and share information in a multitude of ways such as electronic mail, video conference, text messaging, and phone calls. The majority of communication among virtual team members, however, takes place via electronic mail and phone calls. These communication mediums reduce the ability for team members to send and receive nonverbal information such as facial expressions and posture. Nonverbal information helps team members put communication in the proper context. Establishing this context is much more difficult when this information is absent. For example, one team member receives an e-mail from another and initially thinks her teammate is angry due to the terse message written in all capital letters. After meeting for coffee, she later discovers that her teammate was simply very excited about the topic being discussed. While phone calls offer more nonverbal information because participants can hear others’ tone of voice, this medium still lacks important visual information provided by facial expressions and gestures. On average, members of virtual teams have less nonverbal information to determine the context of different communications they receive, increasing the probability that they will experience the information asymmetry dilemma. Similar to the ERD, the IAD is more likely in the early stages of a virtual team’s development when team members do not know the subtleties of each other’s communication patterns. Once teammates are familiar with each other’s habits, they are better able to establish a context for the message and understand it more completely.

Virtual teams that establish a team charter improve their ability to manage the information asymmetry dilemma. Team charters proactively establish as much of a team’s context as is possible before they begin operating as a true team. This, in turn, helps team members better understand the context of communications sent by teammates. Team charters also help establish expectations for team communication, which helps stabilize information sharing patterns. This typically helps teams reduce the potential deleterious impact of the IAD.

Interest Asymmetry Dilemma

Interest asymmetry is represented by the degree of divergent interests among team members (Edmondson et

al., 2003). Teams working in a virtual environment are less likely to experience this dilemma, but they are more likely to have a difficult time overcoming this dilemma and moving forward. A variety of factors including organizational dynamics and individual differences motivate divergent interests among team members. These aspects are not directly impacted by working virtually. The extent to which working virtually slows the process of team members learning about each other, however, could limit the ability for a virtual team to overcome this dilemma. A key approach to managing this dilemma involves the team manager or leader involving team members in the discussion of key issues but making the final decision on his or her own (Edmondson et al., 2003).

CONCLUSION

Teams work in an amazing array of environments and on a myriad of tasks. The proliferation of work teams seems very likely to expand in the future. While it is difficult to predict the future for teams, two current trends seem to dominate the landscape when looking forward: globalization and the virtual work environment. Organizations and their teams must consider these factors as they attempt to prepare for a rapidly changing future. While globalization and virtual work are two key facets of the future, teams have been challenged by four fundamental teamwork dilemmas for years. If teams want to succeed, these dilemmas need to be understood and actively managed within the context of increased diversity and virtuality. Organizations and teams that are prepared to do so increase their chances of successfully navigating the future and ensuring sustained effectiveness.

—Tjai M. Nielsen

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Entry Citation:

Nielsen, Tjai M. "The Evolving Nature of Work Teams: Changing to Meet the Requirements of the Future." *21st Century Management: A Reference Handbook*. Ed. . Thousand Oaks, CA: SAGE, 2007. 3-14. *SAGE Reference Online*. Web. 30 Jan. 2012.



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