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**METAPHORS AND MEANING:
AN INTERCULTURAL ANALYSIS OF THE
CONCEPT OF TEAMWORK**

**CEO PUBLICATION
T 98-19 (347)**

CRISTINA B. GIBSON
Center for Effective Organizations

MARY E. ZELLMER-BRUHN
University of Minnesota

November 1998
Revised April 2001

Previously titled: "Intercultural Analysis of the Meaning of Teamwork: Evidence From Six Multinational Corporations"

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**Cristina B. Gibson
3670 Trousdale Parkway
Center for Effective Organizations
Marshall School of Business
University of Southern California
Los Angeles, CA 90089-0806
(213)740-9814
(213)740-4354 [Fax]
cgibson@marshall.usc.edu**

**Mary E. Zellmer-Bruhn
University of Minnesota
Carlson School of Management
Strategic Management and Organization Department
321 19th Avenue South
Minneapolis, MN 55406
612-625-2342
612-626-1316 [Fax]
mzellmer-bruhn@csom.umn.edu**

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ABSTRACT

This paper develops a conceptual framework to explain variance in the concept of teamwork across national and organizational cultures. Five different metaphors for teamwork were derived from team members' language used during interviews in four different geographic locations of six multinational corporations. The frequency of the use of metaphors was then analyzed. Significant interaction effects obtained with MANCOVA indicated that use of teamwork metaphors varies across countries and organizations after controlling for gender, functional background, and total words in an interview. Logistic regression analyses of specific relationships between national cultural values and metaphor use, and between dimensions of organizational culture and metaphor use, revealed several important patterns. We discuss the implications of this variance for future research on teams and the management of teams in multinational organizations.

An extensive literature in international management has demonstrated that effects of various management practices differ across cultures. In this paper we go further and investigate the possibility that the very meaning of certain practices may be culturally contingent. Specifically, we concentrate on work teams, and seek to demonstrate that the basic concept of "teamwork" varies systematically across national and organizational cultures. We focus in this manner given the prevalence of work teams in multinational organizations and evidence from the intercultural literature that team processes vary across cultural contexts (Earley, 1994; Gibson, 1999). Existing literature suggests these processes play an important role in attitude formation and organizationally relevant behaviors (Hutchins, 1991; Rentsch, Hefner and Duffy, 1994; Walsh, Henderson and Deighton, 1988; Weick and Roberts, 1993). However, no current research examines national and organizational differences in the basic concept of teamwork. If variance in the concept of teamwork does exist, scholars will be challenged to build specific theories of teamwork for specific cultural and organizational contexts, and practitioners will need to adapt teaming practices to become congruent with the prevailing conceptualizations in a cultural setting.

In this paper we develop a unique perspective – that conceptualizations of teamwork can be identified by examining the metaphors that members use to describe their teams. We argue that these metaphors are developed based on national and organizational culture, that they include knowledge about the structure of teams, interpersonal routines, and authority relationships, and that they have important implications for expectations, preferences and behaviors in teams. In the most basic sense, a metaphor states one thing in terms of another. Metaphors are central to our understanding of experience and to the way that we act on that understanding, and metaphors may be culture-specific (Lakoff, 1993; Gannon et al. 1994). Our objectives are to identify metaphors for teamwork, investigate how these metaphors vary, and understand what this implies for teamwork. In doing so, we integrate theory regarding metaphor, cultural categorization, and intercultural management.

We accomplish our objectives by first reviewing existent literature on work teams, metaphor, and culture.

As we do so, we identify a series of hypotheses regarding the variance in teamwork metaphors across cultural settings. Next, we examine these hypotheses using a combination of rich qualitative and quantitative analyses of team members' language about teamwork with a sample of team members across national cultures and organizations. Based on our findings, we conclude with implications for team processes, and the management of teams across cultural settings, both for research and practice.

WORK TEAMS ACROSS CULTURES

Understanding how teamwork varies across cultures has become increasingly important, since organizations have become progressively more global over the past few decades, and have continued to increase their use of work teams (Lawler, Mohrman and Ledford, 1992). This increase in use of teams reflects a belief that they are an appropriate mechanism to deal with the dynamic global business environment (e.g., Myer, 1993; Mohrman, Cohen and Mohrman, 1995; Osterman, 1994). Teams help multinational organizations respond to performance pressures for speed, cost control, quality and innovation (Lawler, Mohrman and Ledford, 1992).

At the same time, intercultural theories of organizational behavior argue that multinational organizations face special challenges implementing teams across global facilities (Erez and Earley, 1993; Earley, 1994; Earley and Mosakowski, 2000; Kirkman and Shapiro, 1997). Despite this recognition, only a handful of empirical studies on teams have documented intercultural differences. For example, sensitivity to group norms was a more important element of leader behavior in Iran and Mexico than in the United States (Ayman and Chemers, 1983); the same goal setting intervention produced markedly different group interaction in Israeli versus US teams (Earley and Erez, 1987), Chinese, Israeli and American team members exhibited different tendencies to engage in social loafing (Earley, 1994). Others have found that resistance to working in teams appears to vary depending upon the cultural orientation of employees, and respondents with higher levels of individualism reported higher levels of resistance to working in teams than respondents with high levels of collectivism (Kirkman and Shapiro, 2000). Specifically

examining cognition in teams, Gibson (1999) found that the relationship between team beliefs and team performance differed in American and Indonesian work teams. In teams with members who had high levels of collectivism (typical of Indonesia), strong positive beliefs enhanced team performance. In teams with members who had high levels of individualism (typical of the U.S.), strong positive beliefs had no relationship or inhibited team performance. Taken together, these studies suggest the danger in ignoring cultural context in teamwork theory, research, and practice. What they do not explore is the more fundamental question of whether the very definition of teamwork varies across cultures.

Looking across decades of basic theory and research regarding groups and teams (e.g., see reviews by Cohen and Baily, 1997; Sundstrom et al. 1999), it seems likely that conceptualizations of teamwork vary regarding at least four key areas: what a team does (activity scope), who is on the team (roles) and why (nature of membership), and why the team exists (objectives). For example, when some people think of a team, they may picture a project team whose activity is limited to the time during which members work on the project, whereas others may picture a team more like a family whose activity is broad and extends across a number of domains in life (McGrath, 1984). Likewise, some concepts of teamwork may include clearly differentiated roles such as leaders and members, whereas others may be less structured (Cohen and Bailey, 1997). When some people think about teamwork they picture voluntary membership, whereas for others it is not necessarily a matter of choice (Bar-Tal, 1990). Finally, some people define teamwork by clear outcomes, others have argued that interdependence of action is critical (McGrath, 1984). Thus, any given conceptualization of teamwork is likely to contain expectations regarding scope, roles, membership and objectives. In the next section, we explore the manner in which metaphors for teamwork capture expectations regarding these elements.

METAPHORS AND CULTURAL CATEGORIES

Metaphors allow us to understand abstract subject matter in terms of more concrete or familiar terms. In a technical sense, metaphors are "mappings across conceptual domains" (Lakoff, 1993: 245) and metaphor

is evoked whenever a pattern of inferences from one conceptual domain is used in another domain. In this way, metaphors are a key mechanism through which we comprehend abstract concepts and perform abstract reasoning. Our everyday behavior reflects our metaphorical understanding of experience.

Consider the following metaphorical statements we documented in U.S. teams:

"Among the sales people on our team, Jack is the star quarterback."

"Our team leader acts more like a coach than a referee."

"If our sales team is going to get a first down, we had better make some progress fast."

"Coach suggested we bench those ideas for the next team meeting."

One can understand these statements to the extent that he or she identifies with the metaphor "Work-Team-As-Sport-Team." The Work-Team-As-Sport-Team metaphor involves understanding one domain of experience (work teams) in terms of a very different domain of experience (sports teams). More technically, the metaphor can be understood as a mapping from a source domain (sports teams) to a target domain (work teams). The mapping is tightly structured. There are ontological correspondences between entities in the domain of work teams (e.g., the leader, the team members, their progress, their objectives, their roles, their priorities, their process) and entities in the domain of a sports team (the coach, the players, their field position, the score, players' positions, the line-up, a huddle, etc.). The Work-Team-as-Sports-Team Mapping can be summarized as follows:

The team members correspond to players on the football team.

The team leader corresponds to a coach of a football team.

The team objective corresponds to scoring points by moving the ball down the field.

Prioritizing ideas corresponds to deciding who will be on the field and who will sit on the bench.

It is via such mappings that an individual in the U.S. is likely to apply knowledge about sports teams to their experience in work teams. Furthermore, when the mapping is activated, the individual is likely to project source domain inference patterns (e.g., expectations about sports teams) onto the target domain

(e.g., work teams) (Lakoff, 1993: 245). The metaphor is not just a matter of language, but of thought and reason. In fact, the language is secondary, and the mapping is primary, in that it sanctions the use of source domain inference patterns for target domain concepts (Lakoff, 1993). The mapping is a fixed part of some peoples' conceptual system, i.e. it is one of their conventional ways of conceptualizing teamwork in the United States. Again, consider the following examples, this time taken from the U.S. popular press. At Eastman Chemical, leaders are called "coaches" and their main role is to help teams set performance goals, assist teams in resolving personnel problems, and manage upsets and emergencies. At Wilson Corporation, during the annual rewards and recognition dinner, gold, silver, and bronze achievement medals are awarded to winning teams based on process improvements. At Sabre, Inc. North America, team training is administered through the "Tour de Teams" program in which teams progress along a route of programs, pass various milestones, and receive a "yellow jersey" if they are ahead of other teams. Each of these practices is consistent with the Work-Team-as-Sports-Team metaphor. We understand them if we make sense of our work team (target domain) in terms of a sport team (source domain).

Beyond the simple existence of metaphors as tools for understanding, linguistic theory also asks why we have the conventional metaphors that we have (Lakoff, 1993). Linguistic theorists argue that there are many ways in which conventional metaphors can be made real: forms of discourse, literary works, social institutions, and laws for example. Over the course of our lives, each of us acquires a sizable bank of exemplars for given features of the world. The linguistic experience serves to remove candidates from our bank of exemplars that are too idiosyncratic. The requirements for spoken communication foster such selectivity, forcing us to more frequently use metaphors that have cultural currency, so that their meaning - what they stand for - will be intersubjectively shared with those to whom we talk, and hence useful in clarifying our point (Quinn, 1997). Over time, like ideas are stored together in categories. The usage pattern of metaphors reflects an underlying category that people share, and the category guides their selection of metaphors (Quinn, 1997).

Similar theories of categorization have been identified in previous organizational research on cultural categories (Porac and Thomas, 1994), mental models (e.g., Klimoski and Mohammed, 1994) and knowledge schemas (Rentsch, Heffner, and Duffy, 1994), and in linguistic research on cultural models (D'Andrade, 1995), and cultural schema (Strauss and Quinn, 1997). Cognitive categorization theory (Larkey, 1996; Porac and Thomas, 1994; Shaw, 1990), for example, proposes that culturally based categories in minds of organizational members predispose them to interpret the communication of others according to culturally bound expectations. This research has demonstrated that many aspects of internal organizational functioning have cognitive roots that are shaped by how actors categorize and make sense of their organizational worlds (cf. Porac & Thomas, 1994; Rush, Thomas, & Lord, 1977; Salancik & Pfeffer, 1978; Green & Mitchell, 1979). For example, Porac & Thomas (1994) studied cognitive structures underlying perceived competitive relationships among retailing firms. Results suggested that cognitive categories of firms are largely independent, and that middle-level categories (moderate generality) differentiate rivals from non-rivals.

Business definitions and competitive categories held by managers serve as cognitive reference points for managers. Underlying conceptualizations of "teamwork" are likely to play similar roles for team members. These conceptualizations, we argue, are evidenced by the metaphors team members use when they converse within, or about, their team. They reflect organized knowledge and individuals' tendencies to categorize what they "know," in essence capturing what people think they ought to do about what they see or comprehend (Weick and Roberts, 1993) regarding team work. In this view, metaphors are similar to internalized behavioral routines, or "scripts," and the mental models that team members hold reflecting understandings of problems, goals, information cues, strategies, and member roles (Cannon-Bowers, Salas and Converse, 1993; Orasanu and Salas, 1993). Often drawing upon metaphor, these team member understandings provide a context for interpreting directions or information requests, and guide information sharing and actions at appropriate times. They also aid members in predicting behavior or needs of other members. In a critical way, metaphors for teamwork provide team members with a

structure for working together as a team. In particular, it is likely that the understandings communicated through teamwork metaphors contain essential information about the key elements of teamwork described earlier: activity scope, roles, nature of membership, and objectives. Take for example, the Work-Team-As-Sports-Team metaphor described above. In terms of the four elements, sports teams tend to be limited in scope. Activity in a sports team is limited to the time during which players practice and compete (and perhaps an occasional social event). Sports teams have fairly clear roles, but typically little hierarchy, and membership is highly voluntary. Finally, objectives are specific, with clear consequences (win versus lose). People who use the sports metaphor to describe their work team are likely to hold expectations for the team that are similar to those they hold about sports teams.

This implies that understanding the use of a given metaphor hinges on clarifying the expectations about scope, roles, membership and objectives that the metaphor represents, and identifying the context in which such expectations are likely to be held. For example, in what contexts might a person hold expectations about their work team that are similar to those embedded in the sports team metaphor, in which scope is limited, hierarchy is minimal, membership is voluntary and objectives are clear and consequential? To answer this question, we must integrate linguistic theory and cross-cultural psychology to make specific predictions about sources of variation in the use of teamwork metaphors.

VARIATION IN THE USE OF TEAMWORK METAPHORS

Some experiences may be widely shared by members of a national culture, while other experiences may be limited to members of a restricted group, such as members of an organizational culture.

Correspondingly, empirical studies of metaphor conducted over the last decade (see Ortony, 1993 and Quinn, 1997 for reviews) provide evidence that metaphorical mappings vary in the degree to which they are culture-specific. In this section we review two potential sources of variation in teamwork metaphors: national culture and organizational culture.

National Culture

Individuals bring "cultures of origin" to work (Brannen, 1994) that reflect their particular ongoing histories in various cultural contexts, such as national, regional, ethnic, familial, and occupational cultures. Cross-cultural research has established that national culture explains between 25 and 50 percent of variation in attitudes (see Gannon and Associates, 1994 for a review). Research also indicates that national culture is related to social behaviors such as aggression, conflict resolution, social distance, helping, dominance, conformity, and obedience (see Triandis, 1994 for a review), as well as decision-making and leadership behaviors (Hofstede, 1980; Schneider and De Meyer, 1991; Shane, 1994).

In cognitive terms, national culture is viewed as a set of shared meanings, transmitted by a set of mental programs that control responses in a given context (Hofstede, 1980; Shweder and LeVine, 1984). The basic thesis of a cognitive approach to culture is that processing frameworks acquired in one culture persist and influence behavior even though contextual circumstances change. In this manner, culture guides our choices, commitments, and standards of behavior (Erez and Earley, 1993). Team collaboration requires information exchange and collective information processing (Gibson, 2001) and is therefore rich in cognitive content; however, since cultural contexts around the globe are infused with very different cognitive frameworks, teamwork metaphors are likely to vary across national cultures. Based on this theory, we propose the following general hypothesis:

H1: The frequency of use of given metaphors for teamwork varies across national cultures.

Contemporary cross-cultural theory argues that it is not enough to observe that behaviors differ across national cultures; we must be able to understand how and why they differ (Earley and Singh, 1995).

Cross-cultural researchers commonly argue that most cultural differences are due to variations in cultural values. Although variations within countries do exist, people within a given country often share common values and these values can be utilized to distinguish one country's culture from another (e.g., Hofstede, 1980; Shweder and LeVine, 1984; Triandis, 1989). Two key cultural values have received the most

attention in the organizational literature and are likely to influence teamwork: power distance and individualism. Power distance is the degree to which members of a culture accept and expect that power in society is unequally distributed (Hofstede, 1980). Cultures low in power distance minimize inequalities, favor less autocratic leadership, and favor less centralization of authority. Cultures high in power distance are characterized by greater acceptance of inequalities and preference for authoritarianism. Power distance is likely to influence peoples' expectations about roles in teams. Specifically, in high power distance cultures, team members are likely to use teamwork metaphors containing clear information about roles, including hierarchy and authority relationships, more frequently than metaphors containing relatively less such content. The following hypothesis captures this argument:

H1a: The higher the level of power distance in a cultural context, the more likely the use of teamwork metaphors with clear role content.

A second important element of national culture for teamwork is the value of individualism, defined as the social connectedness among individuals (see Hofstede, 1980; Earley and Gibson, 1998 for reviews). In a highly individualistic society there are weak connections among individuals, the self-concept is defined in "individual" or trait terms, and personal identity is derived from individual achievement. In contrast, in less individualistic (i.e., collectivistic) societies, there are many, varied strong connections among people, self-concept is defined with reference to a societal and cultural context, and personal identity is derived through the in-group and its successes (Earley and Gibson, 1998). Furthermore, those high in individualism tend to view group membership as task-specific and transitory, whereas those low in individualism view group membership as more long term, permanent and far reaching. When individualism is absent, work group membership is highly integrated into a person's life. For instance, workers with extremely low individualism in Asia tend to eat evening meals together as a team and will often vacation together as an extension of their life within an organization (Earley and Gibson, 1998). Based on research regarding individualism, we argue that higher levels of individualism will be related to less frequent use of teamwork metaphors involving broad activity scope:

H1b: The higher the level of individualism in a cultural context, the less likely the use of teamwork metaphors that are broad in scope.

Organizational Culture

A second important force that might shape teamwork metaphors is organizational culture. Just as nations have qualities that transcend the qualities of individuals within them, so do organizations. A collective programming of the mind occurs at both levels (Peterson and Hofstede, 2000). Organization and national cultures are distinct, and have distinct influence. Hofstede et al. (1990) found evidence for this distinction in a combined qualitative and quantitative study across 20 Danish and Dutch organizational units.

Organizational culture is commonly defined as an identifiable set of values, beliefs and norms shared by members of an entire organization or subunit (Schein, 1993; Trice and Beyer, 1993). Organizational culture is a source of shared understanding and sensemaking, and organizational culture shapes the beliefs, expectations, and behaviors of organizational members (Schein, 1993; Trice and Beyer, 1993; Smirich and Calas, 1987). There is empirical evidence that organizational cultures differ in terms of both practices and orientations (e.g. Barunek, 1984; Hofstede et al., 1990; Kabanoff, Waldersee, & Cohen, 1995; Kabanoff & Holt, 1996; O'Reilly, Chatman and Caldwell, 1991; Sackman, 1992). Even organizations that appear to be highly similar, such as large public accounting firms, vary in their underlying orientations (Chatman and Jehn, 1994).

Language is an element of organizational culture (Trice & Beyer, 1993), thus, organizational culture is likely to play a role in the development of common teamwork metaphors in an organization. Empirical evidence also indicates that organizational culture affects meaning structures in the form of perceptions about behavioral norms held by organizational members (Gundry and Rousseau, 1994). Without common language and cognitive views among at least some members of the organization, the link between apprehension and action would have to be continually renegotiated (Langfield-Smith, 1992;

Laukkanen, 1994). Given that organizational cultures are likely to vary in significant ways that influence members' beliefs and meaning structures, we pose as our second general hypothesis:

H2: The frequency of use of given metaphors for teamwork varies across organizational cultures.

Again, we argue that it is not enough to simply suggest that concepts vary across organizational cultures, it is important to examine systematic variation. Espoused values, also referred to as orientations (O'Reilly, Chatman & Caldwell, 1991; Kabanoff, Waldersee, & Cohen, 1995; Kabanoff & Holt, 1995) and practices (Hofstede et al. 1990) have been the focus of most measurement efforts in organizational culture research. These researchers have demonstrated that patterns of orientations and practices can be used to explain differences in organizational cultures. Kabanoff and colleagues, for example, identified a set of nine orientations (performance, reward, authority, leadership, teamwork, commitment, normative, participation, and affiliation) that can be discerned from organizational documents such as annual reports (1995; 1996), and demonstrated that different patterns of orientations were associated with different ways of portraying and communicating change.

Here we focus on two orientations identified by Kabanoff and colleagues -- performance and rewards -- that have strong implications for the elements of teamwork that are embedded in metaphors. In addition, these two dimensions have the least conceptual overlap with national cultural values as portrayed in the intercultural literature, and thus allow clear distinctions between the two constructs. The first dimension, performance, captures the degree to which an organization emphasizes achievement, service, and efficiency, and has been related to differences in attitude toward change across organizations (Kabanoff and Holt, 1996). This dimension is likely related to the extent to which members of the organization will define teamwork in terms of clear consequences of activity in teams, thus we propose the following:

H2a: The more the emphasis on performance in an organization, the more likely the use of teamwork metaphors that imply clear outcomes.

The second dimension, rewards, captures the degree to which an organization emphasizes inducements to participate and perform, including remuneration, bonus, compensation, and salary (Kabanoff and Holt, 1996). Like performance orientation, Kabanoff et al. (1995) found different levels of emphasis on rewards across the organizations in their sample, and reward emphasis was related to the tendency to view change as positive. Specifically, we argue that in organizations that emphasize rewards, team members will use metaphors that imply membership as induced by rewards, as opposed to voluntary membership. The following hypothesis captures this idea:

H2b: The more the emphasis on rewards in an organization, the less likely the use of teamwork metaphors that imply voluntary membership.

Beyond differences in organizational orientations, a separate stream of research has identified organizational differences in practices. For example, Hofstede et al.'s (1990) study identified six fundamental practices in organizations: process orientation, degree of control, employee orientation, degree of professionalism, openness of systems, and normative orientation. We focus on two dimensions – openness of systems and employee orientation – that are clearly distinct from national cultural characteristics, as well as distinct from the two Kabanoff dimensions described above.

Degree of control captures the extent to which people take organizational membership seriously and with reverence, the degree to which members of an organization are expected to follow rules and procedures, the extent to which punctuality is emphasized, and the degree to which the organization is cost-conscious (Hofstede et al. 1990). We argue that these practices are related to concepts of teamwork that contain clear role information. Stated another way:

H2c: The more an organization emphasizes tight control, the more likely the use of metaphors with clear role content.

Employee orientation concerns the degree to which the organization decentralizes decision making,

focuses on the employees as people, and shows concern for people beyond simply the organizational roles they play or the specific jobs they hold (Hofstede et al. 1990). We suggest that in organizations with higher employee orientation, members will utilize teamwork metaphors that emphasize involvement beyond a limited role. Thus we hypothesize:

H2d: The more an organization emphasizes an employee-orientation, the more likely the use of metaphors emphasizing broad scope.

In addition to the independent effects of national and organizational culture, it is important to acknowledge that national culture and organizational culture do not exist in isolation of one another. We address the interaction in the next section.

Interaction Among National And Organizational Cultures

Many researchers have pointed to the complicated embeddedness of organizational cultures (e.g. Myerson and Martin, 1987; Alvesson 1993). Indeed, research indicates that national culture and organizational culture are related (Gibson, 1994, for a review). For example, examining "hybrid" organizations (i.e., Japanese business organizations in the United States) Lincoln and his colleagues concluded that the characteristic values of the Japanese are tied to specific features of organization structures (Lincoln, Olson, & Hanada, 1978). Drazin and Van de Ven (1985) also allude to this in arguing that organization members adopt structural patterns that reflect their particular national culture circumstances. According to these authors, "no matter what level of organization is examined, there is usually a more macro-level that imposes, at least in part, uniform practices and prescriptions on the more micro-level" (p.517).

As organizations become global, the national culture of the headquarters clearly shows at the organizational level in a multinational's facilities overseas (Peterson and Hofstede, 2000). However, it is also true that organizational cultural practices that originally reflected a particular set of values from the home country are often reinterpreted in light of local values when these practices are transferred abroad. National culture often represents a tool kit from which people select both institutionalized ends and the

strategies for their pursuit (Swidler, 1986). Along these lines, Freidland and Alford (1991) have argued that individuals manipulate or reinterpret the symbols and practices that constitute a given culture. Their studies have demonstrated that sometimes the rules that constitute a given national culture are "resources manipulated by individuals, groups, and organizations" (Freidland & Alford, 1991: 254).

Thus, subsidiary employees across various geographic locations will not necessarily adopt the underlying national values of the headquarters. Instead, they often adapt the practices in ways reflecting their own country's values. Indeed, the cultural contingency argument made in the international management literature is that managerial initiatives must be implemented in a manner consistent with the cultural context in which each of the multinational organization's facilities are embedded (Hofstede, 1980; Shackleton and Ali, 1990; Newman and Nollen, 1996). In support of this argument, Newman and Nollen (1996) found that work units managed in a manner consistent with the values of the external culture are more profitable than work units in which this fit is less well achieved. If this is true then we might expect that organizations will differentially utilize teamwork metaphors across the various national contexts in which they operate. Thus, although national culture and organizational culture are likely to have direct, independent effects on teamwork metaphors, there may be an interaction beyond these direct effects.

The following hypothesis captures this idea:

H3: Metaphors for teamwork vary based on the interaction of national culture and organizational culture.

With these hypotheses in mind, we set out to further explore teamwork across cultures in a series of empirical investigations, which we describe below.

METHODS

The first step in our investigation was to identify metaphors for teamwork that are used by members of organizations. In this section we describe this process. We detail the development of our textual database

and steps taken to identify teamwork metaphors within the texts. Next, we describe the development of a quantitative database to test our specific hypotheses.

Sample

We selected the national contexts for our research, Puerto Rico, the Philippines, France, and the U.S. to maximize differences on power distance and individualism (Erez and Earley, 1993; Earley and Gibson, 1998). Previous research (see Hofstede, 1980; and also see Erez and Earley, 1993 for a review of research examining these countries), indicates that Puerto Rico is high on power distance and very low on individualism. The culture is characterized by strong familial ties, extended family, common values, and recognition of tradition. The Philippines is also high on power distance and low on individualism, but the key affiliation is to one's entire village or barrio, and social ties are often regional. Filipinos are also more formal, emphasizing respect for elders and authority figures. The French are unique in that they are more individualistic than workers in Latin or Asian countries, focusing on individual achievement, but like Puerto Ricans or Filipinos, they are high on power distance, and have a strong sense of hierarchy and adherence to the chain of command. Finally, although the U.S. is comprised of many subcultures, the dominant values are individualism and egalitarianism, with a strong tendency to circumvent hierarchy and tradition. A long history of research provides evidence of these characterizations; however, we conducted analyses to verify that this was also the case in our particular sample, as described below.

We selected organizations based upon three principles: (1) all shared the same general industry classification to control for potential industry-related effects; (2) all organizations had facilities in each of the countries identified above; and (3) the organizations contrasted in terms of the organizational culture dimensions we identified as important in our review. We selected the pharmaceutical and medical products industry because production of pharmaceuticals is geographically dispersed around the world. We consulted the *Corporate Families and International Affiliates Directory* to identify pharmaceutical organizations and the countries in which these firms operated. The decision rules above yielded a total of

ten organizations. We contacted human resource professionals in each of the organizations, provided a brief introduction to the research, and screened for their use of teams. Six of the organizations used teams across a number of functional areas, including human resources, sales, marketing, manufacturing, and research. All of these functional areas in each organization in each country were involved in the research. Each team in the sample was homogenous in terms of function, organization, and nationality (i.e., they were not cross-functional or multicultural teams). For example, one team consisted of five Puerto Rican sales people, all of whom were employed by Organization A.

As demonstrated in the descriptions taken from the popular press and summarized in Table 1, the six organizations varied in terms of performance and reward orientations, and in terms of tight control and employee focus. However, we also conducted additional analysis (described below) to verify that this was the case in our sample.

Insert Table 1: Organization Descriptions

Procedure

A written project proposal was submitted to each organization, followed by phone contact with human resource professionals in each firm to identify team members for the interviews. We asked that they identify individuals from a variety of functional team types, levels in the organization, and from teams that were both poor performers and high performers. These requests resulted in interviews with teams ranging from manufacturing teams, product management teams, sales teams, and executive project teams. Individuals ranged in rank from hourly manufacturing employees to general managers. Approximately half the interviewees were women. Average age was approximately 36 years.

We interviewed 107 individuals representing 52 teams. Between one and five individuals were interviewed from each team. These interviews were broken down by country and organization respectively as follows: US (44); France (16); Puerto Rico (23); Philippines (24); Organization A (30);

Organization B (6); Organization C (32); Organization D (13); Organization E (8); and Organization F (18). There were no significant differences in age, gender or hierarchical level of respondents across countries or organizations.

We traveled to each region of the world and conducted in-depth personal interviews. We posed a series of questions pertaining to concepts of teamwork, the function of the teams, team motivation, leadership in the teams, feedback and reward systems, sharing of knowledge and practices across teams, mental images of teams, and the impact of culture on teams. Interviewees were also asked to discuss which factors they felt were the most important facilitators and inhibitors of team effectiveness. A complete list of the interview questions is contained in the Appendix. Interviews were conducted in the native language of the interviewees, with the assistance of a team of bi-lingual interviewers.

Rather than focusing directly on teamwork metaphors in our interview protocol, we examined the interview texts for the language that our subjects naturally used in the process of answering our general questions about teamwork. As a result, the data can be considered more “natural” than evoked (Kabanoff, 1997). Evoked qualitative data is described by Kabanoff (1997) as data whose source is direct and typically transparent questioning. Alternatively, natural data comes typically from secondary data sources in which the “subjects” have no way of knowing how the text data will be used.

ANALYSIS AND RESULTS

Overview of Analysis Plan

Our analysis addressed five objectives. First, we identified metaphorical language used by our interviewees to describe their understanding of teamwork, using computer-assisted text analysis to facilitate data exploration (Jehn and Doucet, 1997). Second, before exploring variation in the use of these categories across countries and organizations, we had to ensure that the countries and organizations in our sample differed in terms of national cultural values and dimensions of organizational culture as we had

anticipated in our sampling. Third, we developed a quantitative database from our interviews and explored whether the frequency of metaphors differed as expected based on our general hypotheses. Fourth, we utilized the data base to examine relationships among specific features of national culture and metaphor use, and among specific features of organizational culture and metaphor use. We then utilized our interview excerpts and statistical findings to develop implications for theory and future research concerning the managerial and performance implications of teamwork metaphors.

Text Preparation

We conducted our analyses consistent with recommendations of Strauss and Corbin (1990), Gephart and his colleagues (Gephart, 1993; Wolf, Gephart, and Johnson, 1993), and Kabanoff (1997). Interviews were tape recorded and transcribed by professional transcriptionists who were native speakers in the languages used in the study. As they transcribed, they translated the interviews into English. Any words that were not readily translated were left in the native language. This resulted in a text database consisting of over 1,000 pages of single-spaced text. Two content analysis programs -- QSR*NUDIST (Qualitative Solutions and Research, 1997) and TACT (Bradley, 1989; Popping, 1997) -- were utilized to comprehensively analyze text, allowing examination of very large amounts of text in a relatively efficient manner. In particular, computer-aided searching facilitated comparison of texts from various interviews.

We determined a coding scheme for the text data base that allowed us to distinguish interviewees' gender, age, functional area, team, organization, and nation. As a result of this input process, the software created a special data file called a "personal database" that contained information about the position and structure of every word in the database. The total number of words in our database was 266,905 words.

Identifying Metaphorical Language

For any qualitative analysis, a key challenge is the development of a word list to capture the constructs of interest (Gephart, 1993; Gephart and Wolfe, 1989; Jehn and Doucet, 1997). Thus, our first step in

identifying teamwork metaphors was to develop a list of words that are thought to capture how people conceptualize teamwork. If there is adequate theoretical background, such a list may be derived from previous research, extant scales, dictionary lists and thesaurus lists. For the teamwork metaphors, we avoided deductive list creation for two reasons. First, little extant research exists concerning teamwork metaphors. Second, and more importantly, our sample is multi-cultural, and our research question is whether such metaphors *vary* across cultures. Therefore, developing word lists from U.S.-based theories, dictionaries and thesauruses would be inappropriate. These sources may miss important culturally-embedded terms. Furthermore, the sources may apply alternative or inappropriate meanings to words other than those intended by non-U.S. English speakers.

We therefore used a process designed to develop word lists that captured cultural nuances in meaning. First, we created an alphabetical list of every unique word in the interview database. This list contained 6,661 unique words. Copies of the list were given to two raters from each country in the sample. The full word list contained many words that were clearly irrelevant (e.g. the word “the” or “a”) and also many intonations (e.g. “um” or “aaah”) because the database was transcribed verbatim from interviews. Thus to remove all irrelevant terms, raters were asked to independently circle all terms they felt were entirely irrelevant to the question being asked in the interview. When the raters had completed their task, a complete list of all relevant terms identified across raters was developed from these individual lists. This list contained 1,740 words. Eliminating spelling variants of the same word root (e.g., “family” also occurred in the word list as families) resulted in a list containing 589 words.

Next, we printed the words onto cards and asked five raters from each country involved in the study to sort them into groups they felt represented metaphors for teamwork. The raters had themselves been members of work teams in their native countries, had some work experience together, were similar to each other in terms of demographics, and resembled the interviewees in terms of demographic

characteristics. They were told to broadly define “teamwork” and were not given a definition of teamwork. We emphasized that they were to work collectively as a team in the following instructions:

"Your job is to read a number of words and work together to sort them into piles or groups, each of which represents a different metaphor for teamwork. We do not have prescribed groupings for you, so please create the necessary piles on your own. Please sort the words into piles in such a way that the words that seem similar to each other are in the same pile, words that seem dissimilar are in different piles. In case of doubt, you should create more piles rather than fewer. You can redistribute the words and develop a new pile whenever necessary. When you have arrived at your final set of piles, please develop a name for each pile that captures the content."

The raters worked collaboratively for 8 hours to sort the words. Our observations of their sorting process suggested no one person dominated the discussion. They posed questions to each other about why a given word was placed into a pile, and expressed unique ways in which a term could be used in their native culture. Through a process of discussion, negotiation, and elimination, the raters arrived at five piles, each representing a different metaphor. They developed the following names for each pile: (1) family; (2) sports; (3) community; (4) associates; and (5) military.

These five metaphor piles contained an average of 100 unique words per pile, as designated by our raters from each country. The raters defined the metaphors broadly and placed words in them that they felt elaborated the metaphor from their native language point of view. Before running our main analyses, however, we needed to determine if these same words were being used to describe teamwork *in the context of our interviews*, a process referred to as "in-context verification" (Gephart, 1993; Gibson, 1994).

TACT allows the creation of search routines with multiple words. Each of the five metaphors was defined with the words identified by the raters as representing that metaphor. Five search routines were created. In each search, TACT was instructed to pull excerpts from the text database containing each term representing the metaphor. We extracted five lines of text before, and five lines of text after, the term was used. This created a “subtext database” consisting of approximately 400 pages of single-spaced excerpts. We read each excerpt to verify the manner in which each term had been utilized. In some cases it was very clear that the term was not being used in conjunction with teamwork. For example, the word

“depends” had been selected for the family metaphor by the raters. In the database, “depends” was used only in phrases like “it depends on...” to denote contingency. These comments did not relate to teamwork. For this reason, the word “depends” was removed from the metaphor set, as were other words that were clearly *not* being used to describe teamwork in our interview database. A sample of words representing each metaphor after screening for in-context verification is displayed in Table 2.

Insert Table 2: Final Metaphors

After verifying the metaphor terms, we next determined the occurrence of each metaphor set in each interview, each organization, and each country. We used TACT to create five “metaphor databases” containing excerpts of text that included any word that represented a metaphor set. From the list of text excerpts, several representative passages for each metaphor were selected to illustrate how the metaphors were used with respect to teamwork. These sample excerpts are listed in Table 3.

Insert Table 3: Excerpts

By way of illustration, one respondent in the Philippines drew a hut on a piece of paper when asked what mental images come to mind regarding his team and then said the following:

"The hut illustrates community. It's called a *nipa* hut. Sometimes you do require that the hut be moved from one location to another. And in the old days, *nipa* huts would probably be located along the safe side of a river because there's water there, fish would be there. Some erosion could happen and you would need to relocate the hut to a safer ground. In the Philippines, you would gather your neighbors, call them and you would put handles and literally lift the house--in one, big haul, the house as one big piece, and move it to a new location. And that's called the bayanihan spirit. I think that would best describe in my culture, how teams can work."

This excerpt is an example of the community metaphor. The respondent utilized three words from the community word list: "community," "neighbors," and "*bayanihan*" (literally, a Filipino word for "team").

As a final step, we read each of the excerpts pertaining to a given metaphor to better understand the expectations being expressed about roles, scope, objectives, and membership within that metaphor.

Based on our inductive reading of the excerpts, the family and military metaphors contain more

information about roles (and specifically about hierarchical roles) than do the community or associates metaphors. The family and community metaphors are broader in scope than the sports and associates metaphors. The sports and military metaphors contain more information about objectives and consequences than do the family, associates or community metaphors. Finally, the sports and associates metaphors imply more voluntary membership than do the family, military, or community metaphors.

Confirming National and Organizational Differences in Culture

Before examining whether the use of the five metaphors we identified varied as suggested by our hypotheses, our second set of analyses verified that the nations and organizations in our sample differed along the dimensions of culture we had anticipated. Although no previously developed lists of search terms exist for national cultural values, there is a long history of research examining these values (e.g. Hofstede, 1980; Earley and Gibson, 1998; Triandis, 1995). We utilized this literature, including survey measures of the values, to develop terms representing power distance and individualism (see Table 4 for examples of the terms). For example, we included “authority” in our search for words indicating power distance. To verify that the words were being used in context in a manner consistent with the intended definition of the value, we examined text segments that included two lines before and after the occurrence of each term. For example, in one instance, the word authority was used in the phrase "authority is very well respected," reflecting high power distance.

Insert Table 4: Search Terms for Culture Values

We coded the frequency that excerpts indicating each value occurred in each country. Higher numbers indicate greater power distance and greater individualism. Because the total number of text segments differed across countries, we divided the frequency of finds for each dimension by the total number of text segments in each database. Rank ordering the number of excerpts for each dimension per total number of excerpts, this analysis demonstrated that coinciding with previous research cited earlier, interviewees expressed greatest power distance in the Philippines, followed by Puerto Rico, France and

the U.S. Interviewees expressed greatest individualism in the U.S., followed by France, the Philippines, and Puerto Rico.

To verify differences in organizational cultures, following prior research (Kabanoff, Waldersee & Cohen 1995; Kabanoff & Holt, 1996), we conducted a content analysis of annual report data for each organization. We obtained electronic copies of the annual reports for each firm from Lexis/Nexis Academic Universe for the three years up to and including the year we conducted our interviews, removing all purely financial sections of the reports. We obtained the value definitions and search terms for performance and rewards from Kabanoff, and developed search terms for employee orientation and tight control from the survey items reported in Hofstede et. al. (1990) (see Table 4).

We again used content analysis software (QSR*NUDIST) to search for the terms in each organization's annual report database, and reviewed text segments to verify that the terms were used in the way suggested by the organizational culture dimension. For example, when we searched for the term "performance", we excluded cases where the term was used to describe loan performance in capital and financial descriptions. To control for differences in the number of text units in each organizational interview database, we divided the frequency of finds for each dimension by the total number of text segments in each database. Rank ordering the number of excerpts for each organizational culture dimension per total excerpts in the organization, this analysis demonstrated that employees in our sample expressed organizational culture orientations and practices consistent with press reports regarding the cultures of the organizations (as summarized in Table 1). For example, interviewees expressed the greatest emphasis on rewards in Organization C, and the least in Organization B; interviewees expressed the greatest emphasis on performance in Organization D, and the least in Organization E; interviewees expressed the greatest emphasis on tight control in Organization C, and the least in Organization E; finally, interviewees expressed the greatest emphasis on employee orientation in Organization C, and the least in Organization F.

Next, we produced a frequency distribution for each metaphor across all interviewees. This frequency represented how many times a word representing that metaphor occurred in the transcripts for that interviewee. With this information, we created a database with entries for each of the 107 interviewees. We entered the number of times each metaphor set was used by each interviewee, with each metaphor considered a single variable.

Variation in Teamwork Metaphors

Our third set of analyses used this quantitative database to provide an initial examination of our general hypotheses. A 4 x 6 MANOVA with five dependent variables was conducted. The analysis is a study of the role of country (the first factor) and organization (the second factor) on the frequency of occurrence of each of the five teamwork metaphors. The country factor is a four-level fixed effect contrasting Puerto Rico, the Philippines, France, and the U.S. The organization factor is considered a six-level fixed effect contrasting the six different organizations in the database.

SPSS General Linear Models Procedure was utilized to compute Wilks' Λ , F-test approximations, degrees of freedom, and multivariate η^2 associated with the country main effect, the organization main effect, and the country by organization interaction. Results appear in Table 5. The country effect (Wilks' $\Lambda = .67$, $F = 2.52$, $df = 15$, $\eta^2 = .33$ $p < .01$), organization effect (Wilks' $\Lambda = .51$, $F = 2.54$, $df = 25$, $\eta^2 = .49$ $p < .001$), and their interaction (Wilks' $\Lambda = .45$, $F = 1.88$, $df = 40$, $\eta^2 = .55$ $p < .001$) were all significant beyond the .01 level.

Insert Table 5: Multivariate and univariate statistics

Given that gender and function may also impact how we think about teams, we were concerned that effects of country and organization could be confounded by the effect of gender and function.

Furthermore, individual interviews varied in length, and we were concerned that results may be influenced by the overall number of words in an interview. In order to investigate these possibilities, a MANCOVA was performed in which country and organization were treated as the independent variables; gender, function, and number of words per interview were entered as covariates. The five teamwork metaphors were treated as the dependent variables. After adjusting for gender, function and number of words per interview, a significant main effect was still obtained for country ($\text{Wilks}' \Lambda = .67, F = 2.31, df = 15, \eta^2 = .33, p < .01$), organization ($\text{Wilks}' \Lambda = .57, F = 1.97, df = 25, \eta^2 = .43, p < .01$), and their interaction ($\text{Wilks}' \Lambda = .48, F = 1.71, df = 40, \eta^2 = .52, p < .01$). These findings support H1 and H2 about direct effects of national and organizational cultures on metaphor use respectively, and support H3 about the interaction effect between national and organizational cultures on use of metaphors.

Upon obtaining significant interaction effects, we next ran tests of contrasts for country and organization to determine the relative contribution to each of the five teamwork metaphors. The interaction of country by organization accounted for a significant portion of the variance in frequency of use of the military metaphor ($F(8, 107) = 2.25, p < .05$), the community metaphor ($F(8, 107) = 2.00, p < .05$), and the associates metaphor ($F(8, 107) = 3.09, p < .01$). Results appear in Table 5. This indicates that beyond the main effects described above, organizations tend to emphasize these teamwork metaphors to a greater or lesser extent in different countries. For example, Organization B utilized the associates metaphor significantly more in France ($M=4.50$) than in Puerto Rico ($M=.75$). Organization D used the military metaphor significantly more in the Puerto Rico ($M=1.00$) than in the U.S. ($M=.29$). Organization F used the community metaphor significantly more in the Philippines ($M=4.33$) than in the U.S. ($M=.44$). Mean frequencies for each metaphor by country and organization appear in Table 6.

Insert Table 6: Means by country and organization

Dimensions of National/Organizational Culture and Metaphor Use

Our final set of analyses explored relationships between specific features of national culture and metaphor use, and among specific features of organizational culture and metaphor use. Specifically, these sub-hypotheses concerned the relationship between cultural dimensions and the use of metaphors containing certain expectations about breadth of team scope, clarity of roles, the nature of membership, and objectives. To test these hypotheses, we first categorized the metaphors that, based on our inductive analysis, contained similar expectations about scope, those that contained similar expectations about roles, those that contained similar expectations about membership, and those that contained similar expectations about objectives. The variable “scope” represented any occurrence of the community and family metaphors, since these metaphors contained more information about broad scope of domain. The variable “roles” represented any occurrence of the military and family metaphors, since these metaphors contained the most information about roles. The variable “voluntary” represented any occurrence of the sport and associates metaphors because these metaphors contained more information about voluntary membership. Finally, the variable “objectives” represented any occurrence of the sport and military metaphors since these metaphors contained the most information about clear objectives and outcomes. To measure the hypothesized dimensions of culture we used the text search scores described above. These scores represent the extent to which cultural dimensions were expressed in either interviews (for national culture) or annual reports (for organizational culture).

We used logistic regression to test the hypotheses.¹ This procedure considered each occurrence of a metaphor category (scope, roles, membership, and objectives) as an event, with the total number of metaphors as the number of observations possible. The regressions estimated how particular cultural dimensions changed the likelihood that the respondent chose specific metaphor category rather than other possible metaphor categories. The equations thus tested whether each cultural dimension was related to the likelihood of use of certain metaphor categories in the predicted way. For example, the first equation used “roles” as the dependent variable and regressed roles on the six cultural dimensions (two national

and four organizational) detailed in our hypotheses. The logistic procedure estimated whether these cultural dimensions increased the likelihood of occurrence of the role category (either the military or family metaphors) compared to use of any category. Statistically significant coefficients in the predicted direction provide support for hypotheses.

H1a and H1b examined relationships between specific elements of national culture and metaphor use. H1a predicted that higher levels of power distance would relate to more use of metaphors containing clear role content. This hypothesis was not supported. The coefficient for power distance was negative and statistically significant, contrary to the hypothesis (-1.23, $p < .01$). H1b predicted that individualism is negatively related the respondents' use of metaphors broad in scope. This hypothesis was supported. The coefficient for individualism was negative and statistically significant in the equation using scope as the dependent variable (-57.24, $p < .001$).

H2a through H2d examined relationships between specific elements of organizational culture and metaphor use. H2a predicted the emphasis an organization places on performance is positively related to respondents' use of metaphors containing clear objectives and outcomes. This hypothesis was supported. The coefficient for performance emphasis was positive and statistically significant in the equation using objectives as the dependent variable (.27, $p < .05$). H2b predicted that an organization's emphasis on rewards is negatively related to the use of metaphors concerning voluntary membership. This hypothesis was supported. The coefficient for rewards was negative and statistically significant (-.84, $p < .10$). H2c predicted that the extent to which an organization emphasizes tight control positively is positively related to respondents' use of metaphors containing clear role information. This hypothesis was supported. The coefficient for tight control was positive and statistically significant in the equation using roles as the dependent variable (15.18, $p < .05$). Finally, H2d predicted the extent to which an organization has an

¹ Special thanks to Professor Philip Bromiley, University of Minnesota, for suggesting this procedure.

employee orientation is positively related to respondents' use of metaphors containing information about broad scope. This hypothesis was not supported.

Insert Table 7: Logistic Regression Results

ILLUSTRATIONS AND IMPLICATIONS

Intercultural research on teams has demonstrated that cultural context relates to differences in team processes. Our study extends intercultural theory by specifically examining the very definition of teamwork and the ways in which cultural contexts are related to such conceptualizations. Our results point to four major findings. First, our process of using multiple raters from the four countries resulted in the identification of several metaphors used to describe teamwork. While likely not exhaustive, they do represent a set of distinct metaphors used by teams in our sample. As such, they provide a useful starting point to examine the phenomenon of teamwork metaphors. Second, we conducted a qualitative analysis of the cultural contexts for our team members and found that these settings differed on the cultural dimensions in predictable ways based on the previous literature. Third, text analysis tools allowed us to quantify the frequency of occurrence of teamwork metaphors and compare their use across cultural contexts. We found that certain metaphors are more prevalent in certain organizations and cultures. Fourth, we found links between specific national culture values and metaphor use. For example, individualists demonstrated less frequent use of metaphors with broad scope (e.g., family and community) and greater use of metaphors pertaining to a narrow scope (e.g., a single domain such as with sport and associates). Illustrating the use of such a narrow-scope metaphor (i.e., sports) in a high individualism context, one respondent in the U.S. said,

"And maybe, too, just our culture. Just a lot of competition, a lot of star players, somebody who supposedly has risen above or something, proven excellence. Yeah, everybody likes to be individual. Everybody has their own individual...you know, say I'm a Bulls fan, you know, a Mavericks fan. So there goes that individualistic thing again, right there!"

Finally, we found links between specific organizational culture dimensions and metaphor use. For example, in organizations with a strong performance focus, team members used metaphors that imply

clear objectives and consequences (e.g., sport and military) more frequently than other metaphors. This is illustrated by the use of the military metaphor in the following quote from a respondent in Organization F, which has a strong performance focus:

"I am supposed to be an active shooter in terms of assisting and liasoning with the people and making sure that [the organization's] kinds of problems are run at sort of a management level. At the moment its very [prevalent in the] rank and file, but not really with the staff. We have not really gone to the reduction of a lot of employees. So I'm helping to do that. Right now we're having to think in terms of manpower in the trenches..."

We interpret our findings to suggest that metaphors concerning teamwork developed and used by team members are related to cultural and organizational contexts. An important implication of these findings is that managers can look to the cultural dimensions prevalent in their national and organizational contexts for guidance regarding which teamwork metaphors will resonate most with employees. If the national context is individualistic, for example, then the sports and associates metaphors are likely to resonate. As a second example, if the organization emphasizes tight control, then a military or family metaphor is likely to resonate.

Equally as important, the metaphors most likely to resonate with employees in a given context provide excellent clues as to the expectations employees have about how teams should be managed and which practices are most effective. For example, employees who use the family or community metaphor are likely to expect that team involvement will be broad in scope, extending beyond a particular task or job to include their various roles in the organization, social activities, personal support, and family life.

Illustrating this, one Filipino respondent said:

"Yes, the familial society. The Filipino is very, very family-oriented. Absolutely. It's our religion, you know. Um, the Holy family and all. That, in itself, you know having respect...yeah, that says something about cooperation in the workplace..."

Similarly, using the community metaphor, a Filipino respondent said,

"At work, I think most Filipinos have a tendency to be very regionalistic. I think that most Filipinos would tend to clump together with co-town mates or barrio mates or province mates. Then, I think, it is a natural thing to just open up to just anyone on the team."

On the other hand, employees who use the military or sports metaphor are likely to have strong expectations around clear objectives and indicators of performance. Illustrating this, one U.S. respondent said:

"Obviously, it's about how do I win the battle in this society. How do I survive, as opposed to, you know, what it is that I need to do to benefit everybody. [The team is] carefully measured on whether we meet objectives. Every year the company sets an annual objective and this is something that I'm going to do battle with soon."

Based on comments such as these, we recommend that future research gather additional evidence for the proposition that when family and community metaphors are used, teams are most effective when designed to be broad in scope. Likewise, future research should gather additional evidence for the proposition that when military and sports metaphors are used, teams will be most effective when performance management processes emphasize clear objectives.

In addition, it is important to note that we saw different patterns of teamwork metaphors *within organizations across country locations*. For example, the dominant metaphors in Organization F were the sports and military metaphors. This is congruent with their focus on performance. However, the community metaphor was also evidenced in Organization F. In fact, Organization F used the community metaphor more frequently in the Philippines (where it likely appealed to low levels of individualism), than they did in the U.S. (which is high individualism). Based on our preliminary evidence, we suggest that future research should confirm the proposition that team effectiveness will be higher in multinational organizations that adjust their use of organizationally dominant teamwork metaphors to be congruent with the national cultural tendencies in a given facility. Stated another way, an important proposition for future research is that team effectiveness will be lower in multinational organizations that consistently use the same organizationally dominant teamwork metaphor across all national cultural contexts.

Taken as a whole, our findings suggest the importance of developing more explicit theory concerning the implications of metaphors for managing teams in diverse contexts. Our research sheds new light on the

cultural contingency argument in the international literature and the construct of “person-organization fit” in the organizational literature, both of which have demonstrated relationships with organizational commitment, job satisfaction and turnover (e.g., Newman and Nollen, 1996; O’Reilly, Chatman and Caldwell, 1991).

DISCUSSION

We began with a question, asking whether the meaning of teamwork varies across cultural contexts. Our analyses indicated that the metaphors team members use to describe teamwork vary across both national cultures and organizational cultures. Given these findings, we expanded our focus to illustrate the potential implications of teamwork metaphors. Interview excerpts suggested, for example, that teamwork metaphors carry information about scope and performance management for teams, and this has implications for behavior in teams as well as for the effectiveness of managerial techniques.

Our findings extend theory in at least three specific ways. First, our research advances theory concerning the concept of teamwork metaphors and cultural categories. Teamwork metaphors are language-based knowledge structures consisting of what each member understands about teamwork. They are developed from past experience and used to organize new information and facilitate understanding. They can be grouped into categories that have predictive value and practical implications.

Second, our research extends the literature concerning work teams. The teams literature has been criticized for lack of attention to the cultural context of teams. Our research directly addresses the influence of context, proposing and empirically investigating phenomena (e.g. cultural values and orientations) that act as mechanisms through which context influences teams. Our results emphasize that teams researchers need to expand their perspective and consider modifying theories developed in one cultural context before application in other cultural contexts.

Third, our research has implications for intercultural management theory. Our findings indicate that members of multinational organizations have different conceptualizations of teamwork across geographic locations. While this could be a source of conflict, teamwork metaphors may also help facilitate greater understanding among co-workers when they are discussed and explained, and can be used to manage effectively in multinationals as discussed above.

In terms of practice, our findings suggests that managers may need to match practices and actions with dominant metaphors. For example, if the dominant metaphor suggests that performance management is a focus in teams, management practices need to address these expectations. Our results do not suggest that any given metaphor is “good” or “bad,” but rather that metaphor use varies across cultural settings, and should be considered explicitly by managers and researchers. Having teams define teamwork prior to beginning their work together to create a concept map may be helpful. The team can refer to the map as they work and modify their shared teamwork knowledge structures over time. Future research should investigate these propositions and techniques more explicitly.

Our findings are strengthened by the methods employed. Our use of in-depth interviews covering a variety of topics concerning teamwork broadened our analysis. Furthermore, we made every attempt to be sensitive to intercultural variation. Had we not conducted our analyses with the assistance of researchers from each country, our results would have represented a bias that we hold as North American researchers. Instead, through a careful, culturally-sensitive process, we were able to develop metaphors that are relevant across cultures and organizations. Furthermore, we used an iterative process combining the interview results with previous theory to illustrate more specific implications of variation in teamwork metaphors. Such an approach of moving back and forth between qualitative and quantitative data, between theory, empirical results and theory development, has been recommended by several researchers (e.g., Eisenhardt and Bourgeois, 1988; Kabanoff et al. 1995).

The strengths of our study must be tempered with recognition of its limitations. Conceptually, a frequent criticism of attempts to capture the gestalt of a phenomenon as rich and full as national or organizational culture is that the researchers may be “guilty” of using or promoting stereotypes. From the perspective of cognitive psychology, applying the concept of stereotypes to our understanding of the impact of culture is indeed appropriate (Gannon et al. 1994); more recently, however, the term stereotype has been used in a pejorative way. Adler (1991) argues persuasively that it is, in fact, legitimate to use stereotypes in cross-cultural contexts, if they are descriptive rather than evaluative, substantiated, and subject to change when new information merits it. Thus, while this study is generally supportive of the linguistic approach to describing the impact of culture, clearly culturally determined metaphors should be used with caution. They do not pertain to every individual or even every subgroup within a society. Rather they highlight cultural differences in an easily understood way that provides a rich vocabulary for discussion.

On a related note, we add a caveat to the interpretation of metaphors, in that a given metaphor is likely to convey complex meaning that can be best comprehended along side a rich understanding of the context. For example, we found no empirical support for a relationship between power distance and metaphors that imply hierarchical roles (e.g., family). This may be because these metaphors imply much more than just roles. For example, in some contexts, the family metaphor may imply a long term commitment, a trait that could be an emphasis in both high and low power distance cultures. Similarly, we received no support for the relationship between employee orientation and broad scope metaphors (e.g., community). This may be because these metaphors are complex bundles of meaning that have multiple implications. Finally, we reasoned that in reward-oriented organizations, metaphors implying voluntary membership would be less prevalent. We obtained some support for this relationship; however, a potential explanation for the low level of statistical significance is that our reasoning assumed an emphasis on extrinsic rewards as the primary inducement to join teams. It may be that in organizations emphasizing intrinsic rewards, such a focus is more consistent with metaphors capturing *involuntary* membership. Thus, metaphors within a given context need to be carefully examined for the meaning they convey in that context.

Another limitation is that our sample of interviewees was relatively small and restricted to a narrow set of organizations. This is a common trade-off in qualitative research. The methods we used were appropriate given that our intent was to capture depth of understanding rather than breadth at this exploratory phase. Despite the restrictions of the method, our sample of *words* generated by the interviewees (266,905 words) was large, and thus helped to increase the robustness of metaphor analyses. A related limitation is that we collected data from only four geographic areas. We did attempt to sample from diverse cultures; however, future research should test the research questions in a more extensive sample of countries using additional languages. We focused on two national cultural values. A potential explanation for our lack of stronger support for the specific links between national cultural characteristics and metaphor use is that we need to expand our focus to include additional national cultural dimensions such as uncertainty avoidance or universalism-particularism (see Erez and Earley, 1993 for a review of these dimensions). Finally, we acknowledge that although our sample contains a diverse set of teams, we did not include an exhaustive variety of organizations, functional areas, and team types. Our sample may have limited the number and variety of metaphors we uncovered. Future research should include teams from organizations in other industries and with non-U.S. ownership.

In conclusion, our research challenges the assumption that the meaning of teamwork is commonly held across contexts, and represents a first step in developing a cultural contingency framework for the meaning of teamwork. Due to the lack of empirical research regarding teams across cultures, leaders within multinational organizations have been forced to make educated guesses about the most appropriate methods to manage teams across their various geographic facilities. The results of this research provide insight into variation in teamwork metaphors that can help team members, managers and researchers identify their common understandings as well as their cultural differences.

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TABLE 1
Organizational Descriptions

Firm	Reward	Perform.	Employee	Tight	Description
A	Mod.	High	Mod.	Low	The mission of Organization A is to become a world-class, results-oriented organization providing consumers and customers with many options in terms of their core products, bringing differentiated, cost-effective solutions to market quickly and with flawless quality through a diverse team of energetic employees. The organization has been struggling for several years, and is fragmented as a result of divesting and downsizing. The focus has been on cost reduction and reinforcing the traditional, established excellence of a long standing product line.
B	Low	Low	Mod.	High	Organization B follows a theme of continual improvement and reorganizing to do things better, quicker. Their mission is discovering, developing, and bringing to market health care products that fulfill unmet medical needs. They have achieved a steady increase in sales for half a century, and attribute these results to long-term investments in people and processes. They claim their "unrelenting attention to focus, innovation and effectiveness" enables them to "navigate successfully through challenging times in the short term, while simultaneously strengthening our position for the long term."
C	High	Mod.	High	High	Organization C describes the source of their competitive advantage as the energy and ideas of their people. Their strength lies in what they value: customers, innovation, integrity, and people. In corporate communications, they describe themselves as "people with a purpose, working together to make the lives of people everywhere healthier, striving in everything we do to become simply better as judged by all those we serve: customers, shareholders, employees and the global community." Their focus is personal commitment and team spirit, and the creation of a strong common culture around that world.
D	High	High	High	High	Organization D is a leading research-driven company whose mission is to provide society with superior products and services, innovations and solutions that improve the quality of life and satisfy customer needs. They also strive to provide employees with meaningful work and advancement opportunities and investors a superior rate of return. They view their ability to excel at competitively meeting customer's needs as dependent upon the integrity, knowledge, imagination, diversity and teamwork of employees.
E	Mod.	Low	Mod.	Low	Organization E is the most comprehensive and broad-based manufacturer of health care products in the sample, as well as a provider of related services for the consumer, pharmaceutical, and professional market. Their credo is focused on ethics, social responsibility, local responsiveness, and flexibility. They are managed by franchise, or groups of product categories, such as skin and hair care, endosurgery and wound care. Operating management of each franchise is led by a president, general manager who reports directly to a company group chairman.
F	Mod.	Mod.	Low	Low	Organization F is focused on learning, excellence, and striving for new frontiers. They are intolerant of bureaucracy. They strive to act in a boundaryless fashion, always searching for and applying the best ideas regardless of their source. They prize global intellectual capital. They purposely build diverse teams to maximize innovation and have a decentralized structure. Corporate communications describe the "right" leadership teams as those with "the agility and speed to seize the big opportunities we know this changing world will present us."

TABLE 2
List of Metaphors and Sample Terms Used in Frequency Analyses

Metaphors				
Military	Family	Sport	Associates	Community
alliances	brother	baseball	circle	Barrio
battle	clannish	Basketball	clannish	Baya
brigades	compadre	Championship	clique	Bayan
campaign	familial	Coach	cliques	Bayanihan
charged	families	Competition	council	buddies
Congress	family	Football	councils	community
manpower	family-oriented	game	crews	fraternity
mobilize	father	home run	entity	friend
survival	mother	players	franchise	neighborhood
survive	sister	soccer	franchises	neighbors

TABLE 3
Sample Text Excerpts

Metaphor	Term	Text Excerpt
Military	brigades	We have some teams here, and not only in HR, but like I said, also in manufacturing, like...Environmental and Health and Safety Commission. We have that...we have some people who look into the performance of the company concessionaire. And we have some fire brigades...and there are other projects.
	campaign	Yes, there will be competition going on. I'm about to launch the campaign.
	congress	Typically the way it works...there is what we call an advisory team, which is kind of like congress or the board of directors. We will have on this team a sales manager, a service manager, a sales rep...
	mobilize	So I guess it's time to mobilize the circle. Ask them for recognition of action plan, which includes a timetable and link the person responsible so they can have their own accounts.
Family	bonding	Actually, we [the team] have met twice already—for the orientation and second for the team building and planning workshop. That was really very effective because it was an adventure-type of seminar and it just, well, accelerated the bonding of this group.
	clannish	But, you know, we are a bit clannish. So we stick together. ...and it's very clannish, and because of that, it's also very, you know, there's a lot of peer pressure. Now, in a group in a work setting wherein...you work together and you communicate very quickly, and I think there are, you know, cultural [characteristics] that would be good for teamwork
	campadre	But if one is performing or if one is in the workplace, there is also the necessity of making sure that the <i>caguns</i> and that sort of clique are not dominating the team. That the team, the members, are more or less there because of the value that they can bring to the team. Instead of their being " <i>cagun</i> " or <i>compadre</i> ."
	Family	Well, I think we have said already Filipinos are more family oriented. They're close to each other. so working in teams, for me, I believe is much easier.
Sports	basketball	The PBA, the Philippine Basketball Association, that's a very strong team here. I mean, a lot of, there are a lot of Filipinos are, basketball enthusiasts. And uh, at one time when I'm conducting training programs I think that's all very top of mind idea. But that doesn't necessarily follow also that they would like, say a top, you know a top performer in the team.
	champion	Okay, they wanted to have, three groups, and would like to have people from the different shifts to be part of that group. And they have one champion in each group, one leader of the group, responsible to the department head.
		The team champion in each of these would be a technical sales representative, somebody representing the business unit, appointed by or hand-picked by the business unit manger himself, and then consisting of a minimum of four other representatives.

TABLE 3 Continued
Text Excerpts

Metaphor	Term	Text Excerpt
Sports	coach	That's what I'm thinking of also. There is a coach, and there are all these players, and among these players, there is somebody who is also, you know, favorite or very good one, performer. He knows the people that he goes to and I mean, the doctor, he goes, he comes up with his daily itinerary. So in terms of managing the task, he is self-directed. But of course he also receives certain direction and guidance in the sense of, you know, coaching, training, activity, and in terms of costs or reports that, that would have to be requested outside of the unusual group level. So, cut, um, looking at it as solely self-directed--probably not yet. But, the majority of the task would be self-generated.
	dance	They trust the team, but it all depends on the stereotype of the individuals. On the team I have two operators from each shift. We have three shifts. They have to get all their ideas from the rest of the operators. They have to dance the same way. If one dances different from the others, we have a big problem.
	football	There might be one region where the directors, you know, football -- which is rugby in France...
	player	That's what, that's what I am thinking of also. There is a goal, and there are all these players, and among these players there is somebody who is also, you know, the favorite or a very good one, performer. I think the answer [to why they should want to participate on the team] is there is no formal incentive program, in terms of cash. But, the big incentive is that one of the core values in this company is boundarylessness, and you must be an aggressive team <i>player</i> .
Associates	clique	It's good but then again, if in forming the team you have some parameters by which membership or affiliation could somehow, would be like even guidelines or parameters, then the Filipino propensity to just support a <i>compadre</i> may be negated or at least minimized. But if one is performing or if one is in the workplace, there is also the necessity of making sure that...that sort of clique are not dominating the team. That the team, the members, are more or less there because of the value or the added help that they can bring to the team.
	franchise	The responsibilities, uh, which we ask each [team] to function as if they were a franchise organization. They are given as much autonomy and freedom and empowerment as we possibly can, to make decisions at the local level. And in order to make those things happen, a whole variety of things need to be in place for the team. They need to understand what's going on. They need to be trained in a lot of skills that they might not have had before--team building, interpersonal skills. They need to have joint measurement, because you have a sales division, service division. And we can't have them going off trying to do measurements that are antagonistic to one another.

TABLE 3 Continued
Text Excerpts

Metaphor	Term	Text Excerpt
Associates	council	Already, we're a type of society that is very hierarchical. You either have to get another level higher, or by obtaining certain diplomas to move from the level where you start to move to another level. So, up until today, everything has been determined this way. Ok, it's a way of progressing up the scale according to competency, but not, nothing that would have to do with a group. Right, you have to have some system of reform, you can't have an autonomous council when the system has always been established on the premise of you occupy a certain level, certain position, and you obtain social mobility according to these ways. And at the same time, it's something that has nothing to do with the system that's always been around. But inside. The social mobility, you're not rewarded for lateral moves. Only for the vertical moves. Obviously your salary doesn't change if you work on a team, this way. Only if you progress that way.
	circle of associates	Oh, I think the French culture is, I would say, very [indicates marching along with fingers], very directive. My circle of associates is more motivated by the personal performance than by the collective discipline, surely.
Community	baya	[What would come to their mind? If you were in a work team?] Help. Something like, I need your help. OK, I'd like to contribute to this. <i>Bayan</i> , <i>Baya</i> means hero actually. <i>Baya</i> means hero. <i>Bayanihan</i> is the verb, is helping, helping. I want for example, I want to uh, to prepare for the....
	bayanihan	Uh, the Filipino culture is very, there is this which we call " <i>bayanihan</i> ," means working together. Like there is, you know a small house, and if you need to transfer it. They're small, the huts in the provinces.
		<i>Bayanihan</i> . Yeah, <i>bayanihan</i> . <i>Bayanihan</i> is like, in the provinces we would have such houses, so they would carry it on their shoulder of one whole group. If one person fell, then the house would fall, you know.
		<i>Bayanihan</i> , this is more of helping. OK, help, cooperation. That is, cooperation. Teamwork. That is our Tagalog term for teamwork.
	fraternity	And another negative, um about [the tendency for grouping together as <i>bracada</i>] is that when you're already very close, you tend, you become introverts and you become a fraternity, and you don't warm to involve other departments or other people.
	neighborhood	Being a hero to your neighbors. I think that's one [a metaphor]. And then it's more negative than positive. People in our culture, also who tend to prefer to belong to...you can call it a " <i>guni</i> " with all its connotations of, what, evil, or you can call it an association. Neighborhood association. But you can also call it, "he's my <i>compadre</i> ", so he can't be wrong, even if he is my " <i>caguri</i> ", so right or wrong, he's, I feel this is more bad than good.

TABLE 4
Search Terms for Cultural Values

Value	Definition	Search Terms
Power Distance	The degree to which members of a culture accept and expect that power in society is unequally distributed. (Hofstede, 1980)	e.g. Hierarchy, respect, control, rank, subordinate, superior, authority, stratified, reverence
Individualism	The degree of social connectedness (Earley and Gibson, 1998).	e.g. Individual, self-interest, own, personal freedom, independence, self-reliance, self-emphasis, alone
Employee Orientation (based on survey items from Hofstede et al. 1990)	A concern for people (p. 303)	e.g. Employees, individuals, union, community, personal
Tight Control (based on survey items from Hofstede et al. 1990)	Amount of internal structuring in the organization.	e.g. Tight, cost conscious, punctual, well-groomed, serious
Rewards (Kabanoff, et al. 1995)	Concern with organizational rewards	e.g. Bonus, compensation, salary, reward
Performance (Kabanoff, et al. 1995)	Concerned with performance	e.g. Achievement, performance, service, efficiency

TABLE 5
Results of Multivariate Analysis of Variance:
Wilks' Λ , F-Test Approximations, Degrees of Freedom and Multivariate η^2
for Country, Organization and Country x Organization

Effect	Wilks' Λ	F(Λ)	df(Λ)	η^2	Univariate F-tests [†]
Country	.67	2.52**	15	.33	
Sport					1.88
Military					.99
Family					.83
Community					3.69**
Associates					2.68*
Organization	.51	2.54***	25	.49	
Sport					3.27**
Military					2.58*
Family					2.42*
Community					.43
Associates					6.28***
Country x Organization	.45	1.88***	40	.55	
Sport					1.53
Military					2.25*
Family					.98
Community					2.00*
Associates					3.09**

* p < .05 ** p < .01 *** p < .001

[†]df = 3 for country; df = 5 for organization; for interaction tests of between subjects effects df = 8

TABLE 6
Mean Frequency of Occurrence of Metaphors by Organization and Country

Metaphor	Organization ^a					
	A	B	C	D	E	F
Sport						
Puerto Rico	.00	.50	.00	2.33	NA ¹	NA
Philippines	1.50	NA	.33	1.33	.75	1.33
France	.00	.00	NA	NA	3.25	2.33
U.S.	.64	NA	1.06	.86	NA	2.44
Military						
Puerto Rico	.00	.50	.00	1.00	NA	NA
Philippines	.13	NA	.17	.33	.25	1.33
France	.25	.00	NA	NA	.00	.00
U.S.	.27	NA	.12	.29	NA	.67
Family						
Puerto Rico	.00	2.50	.33	.33	NA	NA
Philippines	.50	NA	1.5	1.33	.75	3.67
France	.00	1.50	NA	NA	1.75	.50
U.S.	.18	NA	.76	.57	NA	1.33
Community						
Puerto Rico	.14	.50	.56	.67	NA	NA
Philippines	1.13	NA	2.33	3.0	.50	4.33
France	.00	.50	NA	NA	1.75	.83
U.S.	1.09	NA	1.23	.29	NA	.44
Associates						
Puerto Rico	.29	.75	.11	.00	NA	NA
Philippines	.13	NA	1.0	1.33	3.50	1.67
France	1.50	4.50	NA	NA	1.25	1.33
U.S.	.91	NA	.53	1.14	NA	4.56

^aTotal number of interviewees:

Org. A = 30

Org. B = 6

Org. C = 32

Org. D = 13

Org. E = 8

Org. F = 18

¹NA means there were no interviews in that cell.

Table 7
Logistic Regression Results

Variable	Broad Scope		Clear Roles		Voluntary Membership		Clear Objectives	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
<u>National Culture</u>								
Power Distance	-.97	.42	-1.23	.51	1.31	.42	.71	.45
	(.01)		(.01)		(.00)		(.06)	
Individualism	-57.24	12.72	-27.97	13.67	58.44	12.55	20.37	13.37
	(.00)		(.02)		(.00)		(.06)	
<u>Organization Culture</u>								
Performance Emphasis	-.04	.12	-.16	.14	-.02	.12	.27	.13
	(.36)		(.13)		(.44)		(.02)	
Reward Emphasis	1.07	.54	-.71	.59	(-.84)	.54	.29	.65
	(.02)		(.11)		(.06)		(.33)	
Tight Control	13.19	6.66	15.18	7.23	-13.41	6.72	-19.23	8.51
	(.02)		(.02)		(.02)		(.01)	
Employee Emphasis	-.80	.74	-.24	.86	.80	.73	.70	.75
	(.14)		(.39)		(.14)		(.17)	
Likelihood Ratio	.00		.01		.00		.02	
N	471		471		471		471	

All p-values are one-tailed.

p-values in parentheses.

APPENDIX

Interview Protocol

- 1.] Could you tell us a little about what you do and the teams you work with?
- 2.] Who is on the teams? How are these members selected? How are responsibilities divided?
- 3.] What is the function of the teams [what outputs do they provide]?
- 4.] Who is the team's "customer" [internal or external]?
- 5.] Who receives the teams' work [who is directly downstream in the process]?
- 6.] How is performance monitored and rewarded?
- 7.] What kind of feedback do teams receive about performance?
- 8.] How do you know when you have done a good job?
- 9.] Do you believe the teams are effective? Why or why not?
- 10.] Do the teams have leaders? What are the responsibilities of the leader?
- 11.] Who does the team report to? Does it interact with other teams?
- 12.] Would the teams benefit from more direction? Who should provide it? In what format?
- 13.] What are the key factors that contribute to and/or inhibit the success of the teams?
- 14.] How are practices shared in this organization?
- 15.] To what extent does headquarters dictate practices?
- 16.] Is individual achievement or collective achievement more important in this organization?
- 17.] Is individual achievement or collective achievement more important in this country?
- 18.] What facets of the culture here impact teams, either positively or negatively?
- 19.] What mental images do people use for teams in this country?
- 20.] Do you have anything else you would like to add?