**A CROSS-CULTURAL COMPARISON OF PROBLEM SOLVING
APPROACHES AND EFFECTIVENESS: TOWARDS A BETTER
UNDERSTANDING OF COUNTRY DIFFERENCES**

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INTRODUCTION

Every group of people, large or small, corporate or otherwise, has a unique culture that is shaped by its members' shared history and experiences (Schein, 1985). Culture is generally viewed as a system of shared knowledge and beliefs (Rossi & O'Higgins, 1980); as the "set of important assumptions (often unstated) that members of a community share in common" (Sathe, 1985: 10); or as "a unique system for perceiving and organizing material phenomena, things, events, behavior, and emotions" (Goodenough, 1971).

Broadly speaking, culture affects all aspects of the way members of a group interact with each other. Culture may be externally imposed, as through the boundaries of an organization, or it may grow organically, for example from informal socialization processes. Because culture affects the very nature and understanding of relationships managers depend on to effectively run their organizations, cultural differences must be defined and understood so they can be constructively managed. The initial step in managing cultural differences within organizational contexts is to understand the degree of the differences among various countries, or the broad effects of culture on organizations. It is also important to understand the more specific effects of culture in organizational contexts, such as perceptual differences among people -- the importers of culture -- at various levels of employment.

Understanding and managing these cultural differences are especially beneficial for firms involved in strategic alliances such as international joint ventures, mergers, and acquisitions. For example, forming international strategic alliances often require that two (or more) different corporate cultures, which are strongly influenced by at least two different national cultures, be integrated (Frayne & Geringer, 1992). Cultural knowledge and understanding also provide information to help organizations better identify potential partners in regional trade blocs to increase the likelihood of success.

There is evidence that people's attitudes cluster according to definable cultural groupings, or national cultural patterns within a global structure (Haire, Ghiselli, & Porter, 1996; Hofstede, 1993). However, it is impossible to generalize from their diverse findings because researchers of employee attitudes across cultures have approached their particular research questions in a variety of ways. In addition, culture has often been treated as a

residual variable which explains everything left unexplained by variables that are easier to define operationally. Numerous studies have investigated similarities and differences in the attitudes of managers of different cultural backgrounds (Everett, Stening, & Longton, 1982), but few studies have investigated the same issues for other levels of employees. And, while understanding the effects of culture on organizational processes appears to be important, no studies were found that explore how national culture affects important organizational activities such as problem solving in a wide range of organizational settings in several countries.

Trompenaars (1994: 7) viewed culture as the way in which a group of people solves problems. Since perceptual differences attributed to culture are often reflected in conflicts in such practices as rules of conduct, administrative procedures, environmental perceptions, and approaches to problem solving (Devlin & Bleackley, 1988; Harrigan, 1986) and it is likely that organizational members at different levels of employment are likely to approach problem solving differently. Since different employment levels are likely to use different problem-solving approaches, it is probable that the quality of the decisions generated will vary in effectiveness. In addition, because of the differing nature and requirements of work for differing groups of employees, it is also likely that the degree or amount of employee involvement during problem solving will differ by the group's level within its organization.

Therefore, measuring the effects of organizational culture on problem solving at various organizational levels, and then comparing the outcomes across national cultures, appears to be worthwhile. In response, this research study was designed to provide insight on how differing levels of organizational members approach problem solving, and to investigate the probability that there are significant differences in those approaches, including issues of involvement and decision quality, by country and level of employment. With this in mind, the Culture As Performance Systems (CAPS) approach to measuring organizational culture and its effects was developed by a cross-functional group of researchers (cite, 1997) to specifically address these issues. After six years of development and research on organizational culture, data has been collected in 26 organizations, both private and government, located in seven countries. Results of this large,

multi-country study strongly suggests that culture has three levels -- IDEOLOGY, STRUCTURES, and EXPRESSIONS -- which are described shortly.

The remaining part of the paper is organized in the following manner. First, the relevant literature streams on national and organizational cultures and problem solving are reviewed and individual hypotheses developed. Next, the CAPS research design and methodology are presented, followed by a discussion of the results of the study and their implications. Finally, conclusions are drawn and future research issues are presented.

LITERATURE REVIEW AND HYPOTHESES

The Effects of Culture

In comparative management studies, culture is considered to be an explanatory variable (Ajiferuke & Boddewyn, 1970), a broad framework (Cummings & Schmidt, 1972), or a background factor usually synonymous with country that influences the development and reinforcement of beliefs. The literature can be segmented into that with a macro focus which examines, for example, the relationship between national culture and organizational items such as structure (Meyer, 1981), and that with a micro focus which studies, for example, the similarities and differences in attitudes of managers from different cultures (Everett, Stening and Longton, 1982). The second, or micro, perspective is more the focus of this study. From this perspective, culture is a composite of the individual sets of beliefs and values of organizational members, the carriers of national culture.

National culture. National cultural differences have been found to affect individual interpretations and responses to strategic issues. In other words, managers from different cultures are likely to interpret and respond to the same issues in different ways (Schneider, 1989). To illustrate, Kagono, Nonaka, Sakakibara, and Okumura (1985) found that approaches to strategy formulation differ between managers of Japanese, European, and American firms. Schneider (1989) argues that different approaches to formulating strategy, such as controlling versus adapting, are the result of cultural assumptions regarding the environment and the nature of relationships within an organization. Ouchi & Jaeger (1978) suggest that, in different countries, organizational members may have substantially different orientations to one another, their roles, and the organizational mission. For example, many French companies have a reputation for independence and a management style that permits only limited

consultation. Japanese companies have a reputation for long-term thinking but slow decision making. Companies in the U.S. resort much more to legalistic relationships that are developed quickly, while some British companies have a reputation for short-term thinking and lack of dynamism (Collins & Doorley, 1991: 220).[1] This suggests that when people come from dissimilar cultural backgrounds, they may have very different perceptions of effective and appropriate organizational practices and develop different beliefs and methods for dealing with the complexities of organizational life. In addition, within these broad national generalizations, there are great variations in culture from company to company.

Corporate culture. That organizations themselves produce culture is a second major way that culture and organization are linked (Deal & Kennedy, 1982; Tichy, 1982). Organizational culture is not the same as national culture, though clearly organizations are highly influenced by the national culture(s) that compose their environments. Thus, the concepts of national culture and corporate culture are quite compatible with one another. Both derive from similar basic assumptions about the nature of organizations, the social world, and of human nature (Smircich, 1983). Both perspectives view organizations as adaptive systems that exist within environments which provide predisposition and imperatives for behavior.

Prior research suggests that corporate cultural differences are composed of other elements than those that make up national cultural differences. Among national cultures, considerable differences have been found in values, such as of good and evil. Among organizational cultures, the opposite seems to occur; considerable differences in practices have been found for people who hold roughly the same values. These differences are believed to be explained by the different places of socialization for values and practices (Hofstede *et al*, 1990). Values are acquired when young, mainly through socialization in the family, neighborhood, and school (national culture.) Organizational practices, on the other hand, are learned through socialization at the workplace (organizational culture), which is usually entered as an adult with the majority of one's values firmly in place (Pascale, 1985). Hofstede, Neuijen, Ohayv, & Sanders (1990) suggest that corporate cultures are partly predetermined by nationality, industry, and task.

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[1] Please note that these labels are simplistic. There are wide variations around the cultural norms within each country.

Researchers have focused on the processes through which individuals develop shared understandings of what information is important and what responses or actions are appropriate. How people see and interpret their world is learned through social interaction (Berger & Luckman, 1966), usually in small groups where ambiguous events, like changes in the business environment, are defined and made "real." Thus, the basic social process of developing a common reality underlies a wide variety of organizational phenomena, such as environmental scanning, the interpretation of performance feedback, and problem solving, which are critically important within organizations (Bettenhausen, 1991). In sum, organizational culture is strongly linked with national culture, and it is likely that both national and organizational cultures affect problem solving within organizations.

Problem Solving in Organizations

Given the pervasive nature of culture, it is not surprising that individuals experience difficulties in their working relationships, particularly during situations that require input from more than one organizational member to solve problems. Although assessments of various "problems" may be formed objectively, they are often influenced by individuals' highly subjective perceptions and interpretations (Daft & Weick, 1984; Dutton & Duncan, 1987). Because individual perceptions determine how events are interpreted, multiple meanings are possible. Therefore, different interpretations of events trigger different problem-solving processes as well as different behaviors in individuals (Amason, 1993; Nutt, 1984).

Cultural differences among individuals have most often been found to negatively affect the nature of personal interactions and result in poor working relationships. As a result, deeply-rooted ethnocentric, or cultural, differences at various levels within an organization, because of their effect on employee relationships and processes such as problem solving, are likely to have a direct bearing on employees' ability to realize stated company/department goals. For example, a variety of research (e.g., Kagono *et al*., 1985; Schneider, 1989; Wallace, 1992) demonstrate that cultural influences are important because they affect employees' interpretations of and responses to specific-context issues, and these influences vary due to the effects of national and organizational culture.

In learning an organization's culture, individuals develop a situational definition (McHugh, 1968) or schemes for interpreting events within an organizational context (Berger & Luckman, 1966; Cicourel, 1974).

Individuals need situation- or culture-specific interpretation schemes in order to make sense of happenings in a setting and to respond with meaningful and appropriate actions. They need a territorial map, so to speak, that is fairly consistent with maps that other organizational members carry and use (Weick, 1979). Personal needs, values, and interests as well as backgrounds and experiences affect how individuals perceive and interpret events and engage in organizational activities such as problem solving.

Problem solving requires that organizational members communicate with each other through the use of a shared language. Within organizations, the development of a shared language is partially determined by similarity in members' backgrounds and experiences (Zenger & Lawrence, 1989) because individuals who share experiences tend to develop a common vocabulary (Rhodes, 1983) and common interpretations of events that encourage further communication (Lawrence & Lorsch, 1967). For instance, when employees work together on a project, their shared experience contributes to a common vocabulary and understanding of current work. Similarly, Blau and Scott (1962) noted a common tendency for people at the same organizational level to interact and communicate more with one another than with individuals at different levels. This tendency occurs, presumably, because organizational peers are more likely to share common characteristics and problems and, therefore, perceive themselves as being similar (Katz & Kahn, 1978).

While people who have varied backgrounds and experiences bring different capabilities to the problem-solving arena (Jackson, Brett, Sessa, Cooper, Julin & Peyronnin, 1991), they are likely to have trouble identifying and interpreting messages similarly because subjective experience, judgement, and discussion are required to interpret ambiguous events (Daft & Lengel, 1986). Thus, cultural and demographic differences such as belonging to a particular level within an organization are likely to complicate interactions and interpretation of messages among employees and result in differing approaches to problem solving, the degree of involvement in the process, as well as the ultimate effectiveness of those decisions. Therefore, a strong organizational culture serves several important functions, one of which is as a sense-making device to guide and shape individual perceptions and behavior (Pfeffer, 1981).

To review, between organizations and, to a lesser extent, between units of the same organization, there are different cultures. Moreover, there are distinct differences in organizational cultures across nations. Individuals with different organizational experiences and backgrounds are likely to have differing attitudes and values and hold divergent points of view (Bantel & Jackson, 1989). Because of their differences, then, organizational members

from different countries as well as from various employment levels within their organizations are likely to develop different beliefs and approaches to problem solving, to participate in the process to varying degrees, and to generate decisions that vary in quality.

The Culture As Performance Systems (CAPS) Approach

The CAPS approach to measuring organizational culture was developed and refined by a cross-functional team of researchers over the past six years. Results from the study strongly suggest that culture has three content levels: IDEOLOGY, STRUCTURES and EXPRESSIONS (See Figure 1). The IDEOLOGY level of the CAPS process includes values, beliefs, and paradigms. The cultural DESIGNS level includes the systems and strategies by which an organization operates. The EXPRESSIONS level includes the behaviors, products, and artifacts of an organization, similar to what some have called organizational climate. An item contained in one level is linked to similar items in the other two levels. When similar items in each of the three levels are considered as a group, they are referred to as a cultural dimension or profile. The current framework includes 15 scales of bi-polar opposites that define and measure cultural dimensions.

FIGURE 1. **Levels of Cultural Meaning in Organizations**

This study was designed to evaluate a particular cultural dimension or profile from the CAPS data base. As just reviewed, a dimension is defined by three specific items from the CAPS

questionnaire, one from each of the three content levels. The specific items from the CAPS

questionnaire of interest to the current investigation are:

      #4   We believe problems are best solved by working together.

      #19   Everyone involved in a problem is asked to help solve it.

      #34   When we solve problems, they remain solved.

The first item (#4) was designed to capture data about members' ideological beliefs of

their specific organization and country of origin (IDEOLOGY level). By contrast, the second item

(#19) was designed to capture data about organizational processes (DESIGNS level), while the

third item (#34) was developed to capture data of organizational members' behaviors and

outcomes (EXPRESSIONS level.)

Consistent with the previous discussion, the following hypotheses were developed:

    H1:   Beliefs about problem solving vary significantly by country.

    H2A: Senior managers' beliefs about problem solving vary significantly by country.

    H2B: Middle managers' beliefs about problem solving vary significantly by country.

    H2C: Non-supervisory employees' beliefs about problem solving vary significantly by country.

    H3:   Level of involvement in problem solving varies significantly by country.

    H4A: Senior managers' level of involvement in problem solving varies significantly by country.

    H4B: Middle managers' level of involvement in problem solving varies significantly by country.

    H4C: Non-supervisory employees' level of involvement in problem solving varies significantly by country.

    H5:   The frequency of recurring problems varies by country.

    H6A: The frequency of recurring problems for senior managers varies by country.

    H6B: The frequency of recurring problems for middle managers varies by country.

H6C: The frequency of recurring problems for non-supervisory employees varies by country.

METHODOLOGY

This study utilized a multi-method approach in obtaining data on each of the 15 scales used to measure cultural dimensions. Five primary data gathering methods were used: questionnaire; structured interview; participant observation; document analysis; and focus groups. To attain data from external constituents of the organizations, focus groups were conducted with suppliers and customers, as well as with groups of organizational members -- supervisors, line employees, and managers.

The rationale for using a multi-method approach was, from the onset, to increase construct validity through convergent validation of methods. Specifically, the goal was convergence of the multiple methods, because if different collection methods provided similar results, greater confidence could be placed on data accuracy. The combination of qualitative and quantitative techniques provided a balanced approached to measuring organizational cultures.

A comprehensive database permitted the comparison of the five data collection methods and three metrics for all the organizations combined. Using correlational techniques, the validity coefficients comparing Team Member Ratings with questionnaire results ranged from 0.59 to 0.87, with an average of 0.75, well within the acceptable level of 0.70 (Nunnally, 1978).

Data was collected from a sample of 12,000 respondents from an approximate population of 16,000 executives, middle managers, and employees in those 26 organizations. Respondents were located in seven countries -- France, U.S.A., Papua New Guinea, Korea, Fiji, Australia, and New Zealand -- and included over 15 different ethnic and linguistic groups.

The current database of survey responses contains over 5,400 responses from organizations in both government and private industry sectors. The size of the sample organizations ranged from 27 to 7,000+ employees. In most cases, questionnaires were completed by over 80% of every organization's members. In a few organizations, however, time or cost constraints required randomly selected samples be used. Stratified or constituency sampling techniques were used to identify participants in these cases, particularly when gathering

data using qualitative methods of interviews, focus groups, and participant observations. When these samples were constructed, all levels of staff, ages, length of tenure, and divisions or professional groupings were included. The products and services delivered by these organizations include insurance, financial, mining, education, military, health care, banking, government, manufacturing, hotels, restaurants, and airline transportation. The descriptive statistics by country are shown in Table 1.

Table 1. Respondents by Country

Survey responses to statements were recorded using 5-point Likert scales which ranged from (1) Strongly Disagree to (5) Strongly Agree. During the developmental phase, anecdotal evidence strongly suggested that employees perceived differences between how things were in their departments, how things were in the overall organization, and how things should be. Therefore, each respondent was asked to consider and respond to each statement on the survey from three different perspectives: (a) their own work unit (MY UNIT), (b) the entire organization (ENTIRE ORG), and © how things should be (THE IDEAL).

The surveys were administered in small groups of approximately 25 members defined by their level in the organizational hierarchy. For example, all managers from various cross-functional areas were group administered, as were supervisors, and non-supervisory employees. Individuals at different employment levels were not assigned to the same group to reduce potential pressure and/or bias. To prevent contamination of the responses, non-organizational members administered the surveys and, when necessary, the questionnaire was translated into local languages (i.e., Fijian, Hindi) and then back translated for verification of intended meaning.

To review, respondents were categorized by three mutually exclusive categories be level of employment: (a) senior managers, those having decision and policy making authority; (b) middle managers, those having management or supervisory responsibilities for others workers; and © employees, line employees having no management responsibilities. Table 2 shows the breakdown of respondents by country and level of employment. Depending on the country,

senior managers comprised between 1.5% to 25% of the total sample, middle managers ranged between 16.3% to 42.5%, and non-supervisory employees were 34.6% to 82.2% of the total.

Table 2. Respondents by Country and Level of Employment.

RESULTS

Table 3 (Figures 3A, 3B, and 3C), Table 4 (Figures 4A, 4B, and 4C), and Table 5 (Figures 5A, 5B, and 5C) show descriptive statistics for responses to the beliefs, processes, and behaviors of organizational members by country for the ENTIRE ORGANIZATION, MY UNIT, and THE IDEAL, respectively. On a country basis, the means for the beliefs about problem solving ranged from 4.33 to 4.62 on a five-point scale ideal. Likewise, the means for problem solving behaviors in an ideal organization were slightly lower and ranged from 4.09 to 4.34 for the seven countries. For the entire organization by country, the means for the problem solving beliefs ranged from 3.42 to 3.93 which were lower overall than the perception of an ideal organization. Consistently, the means for the problem solving behaviors in entire organizations (how it is today) by country were lower (3.07 to 3.60) than how behavior in organizations should be (the ideal). (*Please note that tables and figures are in preparation and will be included in the final copy of the paper.*)

Table 3. #4, #19 and #34 - ENTIRE ORG.   Figure 3A - #4 by Country - Entire Org.

Figure 3B - #19 by Country - Entire Org.

Figure 3C - #34 by Country - Entire Org.

Table 4. #4, #19 and #34 - MY UNIT   Figure 4A - #4 by Country - My Unit

Figure 4B - #19 by Country - My Unit

Figure 4C - #34 by Country - My Unit

Table 5. #4, #19 and #34 - THE IDEAL   Figure 5A - #4 by Country - The Ideal

Figure 5B - #19 by Country - The Ideal

Figure 5C - #34 by Country - The Ideal

Hypotheses 1, 3, and 5 were fully supported, and Hypotheses 2A, 2B, and 2C approached significance. While Hypotheses 2A, 2B, and 2C may provide some limited insight, they must be rejected along with Hypotheses 4A, 4B, 4C, 6A, 6B, and 6C.

Hypothesis 1 related to specific country differences for the ideological beliefs about problem solving (#4, IDEOLOGY). Statistical results of the data analysis suggest that when considering the ENTIRE ORG level, there are significant, specific country differences (F= 6.75, p< 0.001) and, as just discussed, this variable does approach significance (p= 0.101) for level of employee by country. Organizations in both the U.S. and Fiji are significantly different from organizations in France and Papua New Guinea, and Australian firms are different from those in Papua New Gunea. Firms in France differ from those in the U.S., Fiji, and New Zealand. In addition to differences from French companies, those in New Zealand also differ from those in Papua New Gunea, and those in Papua New Gunea differ from organizations in the U.S., Fiji, Australia, and New Zealand. Korean firms are not different on this variable from those in France and Papua New Gunea.

Hypothesis 3 addressed specific country differences for the degree of individual involvement in problem solving (#19, DESIGNS). An analysis of the data suggests that there are significant, specific country differences (F=22.27, p< 0.001) when the ENTIRE ORG was considered. Organizations in the U.S. significantly differ from those in Fiji, France, Korea, and Papua New Guinea, while Australian firms differ from those in Fiji, France, and Korea. Firms in France differ from those in the U.S., Fiji, Australia, and New Zealand. Those in New Zealand differ from those in France and Korea, and companies in Fiji differ from U.S., Australian, and French firms. Korean firms differ from those in the U.S., Australia, and New Zealand, while companies in Papua New Gunea differ only from organizations in the U.S.

Hypothesis 5 addressed specific country differences with recurring problems (#34, EXPRESSIONS). Again, an analysis of the data suggests that when the ENTIRE ORG is the contextual variable, there are significant, specific country differences (F= 12.02, p< 0.001). Differences by level of employment by country at the UNIT level are also significant (data in process.) Organizations in the U.S. significantly differ from those in Fiji, France, Korea,

Australia, and New Zealand. Australian, Fijian, New Zealand, and French firms each differ from those in the U.S. and Korea. Companies in Papua New Gunea differ only from those in Korea, while Korean firms differ from all of the others on this variable.

Controlling for country in two-way ANOVAs did not produce any significance by gender, age, or length of service. Also in two-way ANOVAs, level of employment approaches significance (p= 0.101) for the IDEOLOGY item (#4) which investigates people's beliefs for the ENTIRE ORG, and is highly significant (p< 0.001) on this item for MY UNIT. Level of employment is also significant (p< 0.058) as a main effect for the level of cultural DESIGNS (#19) for both UNIT and the IDEAL ORG. The interaction between country and level of employment on this variable is also significant for the UNIT (p< 0.007) and the ENTIRE ORG (p< 0.028). The interaction of country and level of employment is significant (p< 0.001) at the UNIT level. For the level of EXPRESSIONS (#34), employee perceptions of the IDEAL ORG, level of employment is significant (p< 0.42) as a main effect. There is also an interaction effect for the ENTIRE ORG (p< 0.021).

DISCUSSION AND CONCLUSIONS

When considering ideological beliefs about problem solving, firms in the U.S., Fiji, and New Zealand appear to be the most similar. Korean firms appear to not differ much at all from those in the other countries, and Australian and New Zealand firms are similar on this dimension, as expected. It is surprising, however, that Australian firms are different from those in Papua New Gunea, where Australia was the governing body.

For the level of involvement in problem solving, given the distribution and geographic location of firms in the study, it is not too surprising that companies in the U.S. differ from those in four other countries. It was also expected that companies in the U.S. would be most similar to those in Australia and New Zealand. Also noted is that Australian and New Zealand firms are similar as expected, although Australian firms appear to differ from Fijian companies on this variable, while those in New Zealand do not. Also, as expected, Australian companies appear to have no difference from those in Papua New Gunea in this area.

It is very interesting to note that the issue of recurring problems for U.S. companies is different from those in five other countries except Papua New Gunea, and that Korean firms differ from the other six countries in the study. Again, results from Australian and New Zealand firms are similar as expected, but they are also similar to companies in Fiji and France, a surprising result.

Few differences were found in the degree of involvement for the three employment levels during problem solving. Perhaps a lack of significant results by employment level is due to the fact that all employees must become involved in and help solve problems of various types on a day-to-day basis in their work. In other words, all employees are involved in problem-solving activities to a similar degree, but different levels tackle differing *types* of problems.

This research study primarily used input from the questionnaire database, which provided the most easily quantifiable results for analysis. The fact that these data were also supported with numerous other methodological approaches lends greater credibility to the fundamental validity of the results from this analysis of the questionnaires. However, there are number of possible sources of bias in our sample. First, our sample organizations were from diverse countries, but still four of the seven are primarily located in the Pacific Rim, with the exception of the U.S., French, and Korean companies. Furthermore, our sample consisted of organizations that were self-selected by choosing to receive a cultural audit. Consequently these organizations showed more interest in the concept of organizational culture than the typical organization might and this difference could be a meaningful.. Another possible bias in our sample is that organizational types were limited. For example, organizations with more than 7,000 employees were not included, nor were a large number of industries represented. Therefore, the external validity or generalizability of the study may be limited to small and medium size firms and to those in represented industry / government groups. Nevertheless, we believe our sample provided a large and representative enough sample to provide preliminary information on the topic, which offers a significant advance over previous work.

It should be noted that most of the organizations, with the exception of those in France and Korea, were in countries where English was either the primary or a frequently used second

language. Informally, no more differences were observed among the non-English speaking samples than in those using different dialects of English. In other words, although the materials were translated and back translated in settings where a language other than English was spoken, no more or less difficulty was observed by individual respondents or in adapting the methods and materials for data collection in those settings than was observed in English speaking settings.

While the present research provides interesting and useful information, future research using the CAPS method needs to be conducted in other countries, particularly those in Europe and Asia. Also, there is an emerging view that the pace of decision making is increasing rapidly (see Smith, 1997) as time, not technology, appears to be the major issue for organizational problem solvers (Ruh, 1988). Rockart and Hofman (1992) assert that "time has become a critical competitive differentiator: time to market for new products, manufacturing cycle for existing products, and timeliness of decision making, all previously important, are now critical (p. 22). Practitioners of fast response management impose time constraints on themselves in the belief that their organization will benefit by becoming more competitive (Smith & Hayne, 1997). Therefore, an interesting and useful idea would be to include the concept of time when considering problem solving situations in organizations. Since the concept of time has been strongly posited to vary significantly by culture, the CAPS research agenda would be an appropriate way to investigate the effects of time within various cultures and organizations.

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