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CHAPTER

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Cultural Differences in Cognition: Barriers in Multinational Collaborations

Helen Altman Klein
Wright State University

Multinational military, peacekeeping, and humanitarian collaborations require that allies make decisions in complex, high-stakes situations under time pressure and uncertainty and with organizational constraints. These situations require problem identification, risk assessment, planning and replanning, and situational awareness. Practitioners have increasingly turned to naturalistic decision-making (NDM) models. NDM is a theoretical perspective for describing how people make decisions and how they use their experience to perform effectively in complex situations (Orasanu & Connolly, 1993).

Although NDM researchers study the dynamics of decisions, there is a critical piece missing. Researchers have assumed that decision making is the same across national groups. Researchers do not know, however, if research outcomes based on data collected mainly with Americans and Western Europeans will hold for other national groups. We even lack data on the commonality of cognition and decision making for Americans and Western Europeans. There is a growing body of research suggesting profound differences in psychosocial functioning but also in cognition and managing uncertainty across national groups.

Multinational collaborations can bring together professionals with very different views of the world. Worldviews influence how people react to uncertainty, balance power, and make decisions. Worldviews shape anticipations and coordinate actions. When multinational allies differ in their view, it can lead to conflict and be counterproductive during complex, ill-
structured, high-stakes decision making. National differences challenge the unexamined use of NDM models during multinational collaborations.

In this chapter, I make the case that national culture differences are important as allies use NDM findings to understand multinational collaborations during military, peacekeeping, and humanitarian operations. I describe a framework for understanding culture. I then present seven cultural dimensions in terms of potential impact on multinational collaboration. Finally, I review broader implications of culture for NDM.

A FRAMEWORK FOR UNDERSTANDING NATIONAL CULTURES

Cultures differ because each has evolved in a distinct physical and social context. Culture, as I conceptualize it in this chapter, has three defining characteristics. First, cultures are functional blueprints for a group’s behavior, social patterns, and cognition in the same way that DNA is the individual’s blueprint for physiology and anatomy. Culture provides guidelines ranging from rules about verbal interactions to acceptable social behavior and from the expression of emotion to the cognitive tools for assessing risk and deciding between alternatives. Cultures retain characteristics that have enhanced the ability to survive and to raise a next generation.

Second, cultures are dynamic systems that emerge from a particular ecological context. People who share an ecological context often share features of culture (Berry, 1986; Segall, Dasen, Berry, & Poortinga, 1990). Context includes the physical environment and also the social and political environment. Cultures evolve as context changes over time and experience. When food sources are altered by changing climate, successful cultures alter their subsistence patterns to ensure continued survival. With the technological changes of the industrial revolution, cultures shifted toward new roles for urban dwellers. They adopted new patterns of land use, concepts of time, and reasoning styles.

Finally, cultures are composed of integrated components. Each culture includes a range of harmonious elements that operate together for the goals of survival, interaction, and propagation. Traditional anthropology has emphasized the physical features, language, and customs of culture. Patterns of subsistence, language elements, and marriage customs all fit together. These physical and behavioral features are useful but not sufficient for understanding complex cognition and decision making. Psychosocial and cognitive characteristics are necessary for the integrated whole. Agrarian cultures tend to share behavioral, psychosocial, and cognitive characteristics because these characteristics work together for the success of farming. National groups maintain characteristics that serve the particular needs of their environment.

Experiences in a culture, beginning from birth, frame the individual’s view of the world. Because culture is an integrated whole, it is difficult to see and to change. Triandis (1994) asserted that we see the world less as “how it is” and more as “how we are.” Culture is like a lens through which we see the world (Klein, Pongonis, & Klein, 2000). We interact most effectively with people when we can see the world as they do. This allows communication, shared situational awareness, and effective coordinated action. Problems arise when we assume that others interpret and react as we do.

Different worldviews present barriers in multinational military, peacekeeping, and humanitarian operations. These operations require complex coordination and decision making. Personnel respond to the uncertainties of emerging natural threats, such as the earthquake in Turkey, and of political instability, such as the shifting power structure in Somalia. Time pressure and stakes can be high. Complexity is compounded when decision making is distributed (e.g., Hutchins, 1995; Woods & Patterson, 2001). Different worldviews make it hard for allies to maintain communication, anticipate decisions, and coordinate actions in the face of uncertainty and unpredictability. It is time to look to cultural differences for help in increasing effectiveness during multinational operations.

WHAT CULTURAL DIFFERENCES AFFECT MULTINATIONAL COLLABORATIONS?

Cultural differences, beyond the well-studied behavioral and linguistic ones, can interfere with decision making in complex naturalistic settings. I describe seven potentially important cognitive and psychosocial differences here. Although the universality of cognition is often assumed, recent research has questioned this. Dialectical reasoning (Peng & Nisbett, 1999) and hypothetical thinking (Markus & Kitayama, 1991; Tetlock, 1998) have been suggested as potentially important cultural differences for complex decision making. Markus and Kitayama (1991) provided a case for the importance of independence versus interdependence. Hofstede (1980) found power distance and uncertainty avoidance to be values that differ across national groups. Finally, Kluckhohn and Strodtbeck (1961) suggested that time orientation and activity orientation are influential contributions to decision-making differences between cultures.

Dialectical Reasoning

Many planning activities are concerned with exploring possibilities and understanding choices. Dialectical reasoning researchers have found cultural differences in handling contradiction (Peng & Nisbett, 1999). The difference is linked to distinct epistemologies. Some national groups like to differenti-
ate—polarizing contradictory perspectives to select the single best. They sharpen differences to clarify objectives, goals, and methods. Other national groups resolve seeming contradictions by seeking compromise—retaining elements of both perspectives. Their reasoning style is to seek a middle ground and deny dichotomous descriptions. These different styles provide different paths to resolving conflicts.

Multinational partners face complex situations in which there are competing goals. This may relate to the timing of operations, the prioritizing of tasks, or the selection of strategies. Decisions are difficult when they include inherent contradictions and incompatible goals. Resolving conflicts between opposing positions is not easy when some team members seek the best position and optimize alternatives, whereas other members seek an intermediate goal. This difference can plague multinational decision making. Ignoring the difference can leave some participants feeling disenfranchised. When operation personnel complain about the lack of clear directives, it is often because the coalition partners lacks a common reasoning style to resolve differences.

Hypothetical Thinking

Hypothetical or counterfactual thinking uses mental representations of past or future events to consider alternate outcomes (Markus & Kitayama, 1991; Tetlock, 1998). Hypothetical thinking is not universal (Markus & Kitayama, 1991). Independent cultural groups including most Westerners frequently use hypothetical thinking to make plans and to examine the implications of these plans. They separate reasoning from context and consider options in an abstract, hypothesis-driven manner (Markus & Kitayama, 1991). In other groups, particularly those from interdependent cultures, reasoning is contextually grounded in personal experience. They work to improve future performance in context.

Hypothetical thinking differences present barriers in multinational collaborations. To improve collaborative efforts, past actions, goals, and accomplishments need to be reviewed. Some groups use mental simulation to play out alternate strategies and imagine how they might have resulted in different outcomes. They identify ways to enhance future performance by changing a troublesome aspect of plans. The essence of mental simulation is hypothetical thinking. Other national groups, however, find this to be a useless activity because it is not grounded in reality. This difference can inhibit learning exercises and pose barriers to effective collaboration.

Independence Versus Interdependence

This dimension is related to Hofstede's (1980) earlier notion of the collective versus individual dimension. It is constructed on the conceptual base of self (Markus & Kitayama, 1991). An independent view stresses the unique and autonomous character of the individual in which people view themselves as complex aggregates of attributes, emotions, motivations, and aptitudes that are distinct from those of others. Interdependent people see themselves not as separate entities but as connected to and undifferentiated from others. Feelings, thoughts, and motivations are related to others and are meaningful only when considered in relationships. In the same way that people do not think of their lungs and their kidneys as having independent goals and motivations, in interdependent cultures, individuals are not thought of as having special rights or directions outside those of the group. The group with which an individual feels interdependent varies by culture.

It is easy for members of independent national cultures to make decisions as individuals. They view themselves as self-contained and personally responsible. They may even ignore the ideas of other relevant players. In contrast, members of interdependent national groups may seek a consensus with appropriate segments of their group. Even if the individual has the knowledge to make the best decision, a sense of interdependency might delay or prevent action. These patterns can generate very different and sometimes incompatible decision-making patterns.

Power Distance

Power distance is the extent to which members of a group expect the uneven distribution of power (Hofstede, 1980). This includes the acceptance of unequal distribution of power by cultural institutions (Dorfman & Howell, 1988). The differences in interpersonal power and influence between superior and subordinate team members reflect differences in this dimension. Hofstede (1980) described the variability in power distance over national groups. Low power distance was associated with egalitarian working patterns and team interchanges. Leaders with low power distance typically listen to the ideas of others on the team, even those of lower rank. In contrast, those with high power distance maintain rank in decision making.

In multinational collaborations, allies may have limited experience working together and they may need to work in different locations. The structure and the lines of command for decision making and for implementation may cross national boundaries. Several leaders may need to coordinate actions to avoid counterproductivity. This works best when everyone adheres to and respects the same command structure regarding responsibility for decisions. If participants differ in power distance, they may struggle to define working relationships rather than to accomplish goals. Further, because operations are often so complex, no one person can have all the needed knowledge. Sometimes the lower ranking technical staff have the expertise to make the best decision. When collaboration partners have dis-
crepancies in power distance, it can interfere with the utilization of expertise and can delay or compromise action.

Uncertainty Avoidance

Uncertainty avoidance is the extent to which members of a culture experience uncertainty as stressful and take actions to avoid it (Hofstede, 1980; Dorfman & Howell, 1988). Some cultures have a high need for predictability and perceive uncertain or ambiguous situations as threatening. Other cultures are more comfortable with uncertainty. This cultural difference is manifested in decision-making styles. Uncertainty avoidance influences how ready a national group is to adapt in the face of new and unexpected developments. Differing judgments of urgency can result in uncoordinated actions. It is hard for professionals who value flexibility, spontaneity, and last-minute decisions to work with those who need firm, committed plans of action.

Making decisions and carrying out plans in the face of uncertainty, high stakes, and time pressure are central issues for NDM (Lipshitz, 1997). Multinational missions include uncertainties. The disease risks from flooding in Mozambique and the potential of biological warfare agents in Iraq both carried an unknowable risk and made planning difficult. With all this uncertainty, it was still necessary to act. Different groups have a different point at which they are comfortable acting, and these differences in uncertainty avoidance complicate multinational operations. Differences in tolerance for uncertainty create tension and fear.

Time Orientation: Past, Present, or Future

Kluckhohn and Strodbeck (1961) considered time orientation as a pervasive way in which people view the world. A focus on the past leads a culture to pay respect to traditions and customs. Past issues and relationships are a living part of the present. Thus, historical animosities and land holdings are important today and into the future. Past patterns are used as models for planning and tradition plays a large role in decision making. In contrast, present-oriented cultures are less interested in traditions and more in immediate goals. They are not burdened by accumulated weight from the past nor by long-term projected needs. They have immediate concerns in planning and weigh the initial rather than the long-term impact of actions. Future-oriented cultures focus on long-term goals even at the cost of short-term gains. They are less concerned with limits imposed by the past.

Time orientation is a driving force when priorities and goals need to be set. It is important for decisions concerning resources and actions. Some groups prefer a less optimal solution achievable in the near future, whereas others would prefer solutions that would reach fruition years later. Opera-

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tion forces create resentment when they fail to acknowledge or respect traditional practices and hereditary leaders. Do we spend the time drinking coffee with the elders or talk to the mayor? Do roads go through historic towns and cemeteries or weave around such sites? During multinational operations, these conflicts can emerge. Differences in time orientation create difficulties and misunderstandings in multinational interactions.

Activity Orientation

Kluckhohn and Strodbeck (1961) proposed that activity orientation, "doing" or "being," affects the way people approach life, work, and relationships. National groups characterized as doing view work-related activities as a central focus and accomplishment as their defining goal. Western thinkers are generally "do-ers." They look for task demands and how best to accomplish them. They give less attention to the interpersonal dynamics of the situation. In being cultures, on the other hand, relationships are the central focus. Being is characterized by working for the moment, stress release, and the nurturance of relationships.

Differences in decision making and planning styles linked to different activity orientations present obstacles to effective multinational functioning. Barriers can arise when do-ers who opt for pragmatic decision making work with "be-ers" whose decision making is based on emotions and tied to relationships. Do-ers, furthermore, believe that they can hasten change when plans are outlined, target dates set, and frequent reports made (Adler, 1991). Be-ers, in contrast, believe in allowing change to happen at its own pace without rushing things to attain short-term results. Speeding up change is considered unwise. These differences interfere with ongoing operations when they are not recognized and managed.

WHAT ARE THE BROADER IMPLICATIONS OF CULTURE FOR NDM?

NDM is concerned with the challenges facing professionals as they work in complex, ill-defined, time-restricted, and high-stakes operations. Shared psychosocial and cognitive processes are the basis of effective communication, coordination, and action. In multinational collaborations, however, the participants may differ in their worldview. I have explored seven national cultural differences that can introduce problems. These differences contribute to the risk of coordination breakdown because they interfere with decision making from initial strategic planning to ongoing replanning to tactics in the field. These differences demand careful attention and additional re-
search. NDM researchers need to incorporate national culture differences into models, research, training, and other applications.

It is time for NDM researchers to consider how national culture differences create vulnerability during complex multinational operations. The occurrence of unexpected events are the source of such vulnerability. This happens, for example, when a computer failure disrupts communication or when the delayed arrival of troops forces replanning. Vulnerability occurs with changes in the middle of an operation. Changes in staff, for example, require that the team redefine roles and relationships. Distributed teams are vulnerable when they must act in the face of uncertainty. Groups may interpret events differently because they lack a shared worldview. These common occurrences in multinational operations are vulnerable because of the dimensions I have discussed here.

Several methods are available for studying the vulnerable points that occur during collaborative operations. Archival records provide a picture of communication, coordination, and conflicts during past multinational missions. Such missions are common as the North Atlantic Treaty Organization, the United Nations, and other coalition forces replace national forces in many international arenas. Records can be selected and analyzed for the presence of specific national groups and evidence of culture-driven actions, conflicts, and outcomes. The data can provide a picture of the impact of national cultures on complex operations. A limitation of archival data stems from the invisibility of national cultural differences beyond those of language and custom. Unless specific attention is given to cognition and to psychosocial dimensions, culturally relevant information may not have been recorded.

Critical Incident Technique (Flanagan, 1954) with key informants can provide in-depth probes for incidents with multinational professionals at culturally vulnerable points. These points might include unexpected delays or staff changes. Informants from different national groups who took part in the incident can be included so different views of the same incident can be captured. This would provide the varied perspectives of a single incident and the commonality across different incidents. Researchers could learn how cues are interpreted and how different groups understand opinion generation, assessment, and selection. Finally, researchers need to learn how some multinational teams have succeeded, whereas others have failed. The limitation of this Critical Incident Technique is that cultural differences are confounded with individual differences reducing the ability to generalize.

Critical incidents can provide the basis for laboratory simulations presenting standard challenges to representatives of a range of national groups. Researchers now have the technology to simulate distributed task scenarios with variations in the national culture dimensions. Such simulations, if grounded in actual field experiences, would extend our understanding of the role of national cultural differences for NDM. The use of standard simulations would reduce the confounding factors of the other methods. These include the individual personalities involved, unique aspects of the mission, and contextual biases. The reduction of confounding is done at the cost of reduced fidelity.

Because multinational collaborations are here to stay, a long-term goal will be to train for more effective interactions. Practitioners need to go beyond national differences in holy days and terms of address. A knowledge of national culture differences related to psychosocial and cognitive functioning is a step toward effective collaboration during complex operations. Researchers know that training in specific rules and procedures will not be effective in complex environments. Rather, it will be necessary to train those involved to be able to take the perspective of the others. Such training must extend beyond the demands of a particular mission or those of a specific simulation. It requires that individuals come to see the world as if through the cultural lens of others. In this way, trainers could increase common vision in the face of divergent views. Although some individuals can do this, our missions will be more effective if more can.

In this chapter, I have emphasized the importance of national cultural differences among allies during multinational operations. Multinational operations also involve citizens at the site of the action and nongovernmental organization (NGO) personnel. When the cognitive and psychosocial characteristics of those served by peacekeeping and humanitarian missions are ignored, unforeseen consequences are more likely. American forces were careful to accommodate the customs of their hosts in the Gulf War but were not always attuned to cognitive differences in judgment style. Military personnel also need to understand the NGOs that are a common part of humanitarian missions.

In a similar way, national culture differences are useful for understanding and predicting the actions of adversaries. Accurate forecasting of future actions must be built on an understanding of thinking style, power relationships, uncertainty avoidance, and the like. Good cultural knowledge can prevent new incidents and ease escalating conflicts. Cultural differences in cognition are particularly important in asymmetrical warfare in which little specific knowledge is available about the enemy (Klein & Klein, 2000). National differences in cognition and psychosocial functioning can contribute to international stability.

Multinational collaboration extends far beyond the military. Multinational corporations are seeking ways to establish an effective workforce that includes different worldviews. Commercial aviation and medicine both often require coordination among operators of different nationalities (Helmreich & Merritt, 1998). Advances in science ranging from gene identification to space exploration are accomplished by teams from around the
world. In this context, it is critical to bridge the gap between national differences and the challenges of complex planning and decision making. Whenever collaborative decision making is undertaken in a multinational context, culture and the worldviews they spawn are potential barriers. It is time to lower the barriers and harness the strength provided by multinational collaboration in complex domains.

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REFERENCES