# An Educational Activity Promoting Cross-Cultural Awareness Using the Ancient Games of Chess and Go

Barton Kunstler, Ph.D. Lesley College School of Management

# Abstract

Adult management students contrast Japanese and U.S. management by treating chess and go as metaphors for cultural differences. The instructor also uses the activity in another class to explore differences in problem solving styles. The activity is grounded in research on creativity and visual and metaphorical thinking, and has implications for recreation and leisure studies. In-class discussion focuses on boards, pieces, moves, and strategy. Students consider the games as models of the mind, and apply game-based metaphors to understanding cross-cultural differences in management, problem solving, social values, and ways of perceiving. Educators can adapt the methods and structure of the activity by using alternative props to teach in a wide range of academic and professional disciplines.

Keywords: Management, Metaphorical thinking, Cross-cultural differences

# **Biographical Information**

Barton Kunstler is an Associate Professor and Program Coordinator in the Lesley College School of Management, 29 Everett St., Cambridge, MA 02138-2790.

# Introduction

This paper describes an in-class activity that uses the games of chess and go to analyze contrasting management and problem solving styles. The courses in which this activity were conducted, "Sports and Society" and "Creativity", are 300-level liberal arts electives in a management program for business people who have returned to college to earn their bachelor degrees. In "Sports and Society", the class uses chess and go to examine differences between Japanese and American management styles. As managers, most of our students are aware of the American interest in Japanese management methods. Management education has moved beyond an urge to mimic the Japanese to a desire to integrate the best of both methods into an apporach that works in the emerging global business culture. Any activity that sheds light on how cultural attitudes or perceptions affect management theory or practice will be of value to our students.

In "Creativity", we use the activity to consider learning and problem solving styles, especially in regard to their implications for two topics of concern to most students: creativity in the workplace and education. The use of chess and go reinforces such themes of creativity training as non-linear, visual, "right brain", and metaphorical thinking.

This activity does have implications beyond the management themes previously described. Recreation professionals and educators as well as managers may find this activity helpful in regard to one or more of the following areas.

## 1. Recreation and Culture:

Because chess and go reflect habits of thought deeply engrained in the civilizations that cultivated them, the activity demonstrates that recreational pursuits are not simply adjuncts to society, culture, or civilization, nor are they simply an "interesting aspect". Instead, a culture often infuses into play and games its most vital conceptual frameworks precisely because play "transcends the immediate needs of life and imparts meaning to the action. All play means something" (Huizinga, 1955, p. 1). Both Huizinga, who speaks to the notion of play as a primary essential human function from which culture is generated, and Caillois (1979), who establishes a taxonomy of play based on fundamental patterns of human behavior, reinforce the theme of play's essential role in the establishment and evolution of culture. Selections from both books are assigned in "Sports and Society", and the activity helps make both texts more accessible to students.

Even a brief analysis of the ideas contained within go and chess bear out Caillois' (1979) notions that games "reflect the moral and intellectual values of a culture, as well as contribut[ing] to their refinement and development" (p. 27), and that "the destinies of cultures can be read in their games" (p. 35). Caillois' views speak to the richness of both the theoretical ideas and practical applications that are implicit in the connection between games and play on the one hand, and society-wide values, behaviors, and perceptions on the other. Linking recreational pursuits to the deepest cultural impulses can also prove a revelation to recreation specialists interested in the underlying frameworks upon which their practice is based.

## 2. Recreation Programs and Multiculturalism:

Ideas and materials derived from play or recreation can generate insight about cultural differences in many disciplines, and expand our understanding of the social significance of play and recreation. For example, within a therapeutic recreation program, the way clients or patients respond to a particular game may be due, in part, to cultural factors. In non-therapeutic settings, such as community recreation, design of a program might take into account the cultural preferences of members of particular groups. In this respect, the chess/go activity helps make the case that recreational pursuits speak to different cultural groups in different ways, and that the recreational language of a particular group can have an impact on program design.

# 3. Multicultural Approaches to Problem Solving:

This activity offers students palpable evidence of the rather abstract notion that people from different cultures actually think differently. We tend to underestimate just how abstract the very idea of thinking can be. Many of us believe our ability to think is fixed at birth, or that we can do little to enhance thinking. Similarly, we also may believe that at bottom all people see life in similar terms. Yet, as Edward T. Hall (1959, 1984, 1990) has shown, contemporary cultures differ in their perception of such fundamentals as space, time, and body language. It can be difficult in the classroom to illustrate that people from various cultures solve problems very differently from one another. The notion of a thinking or problem solving style can be made less abstract to students when these styles are made visible and sensible in some way.

When students observe and decipher the two visual codes embedded in go and chess, the notion that different cultures approach problems differently takes on a new dimension of meaning. The educator then has a platform from which to expand students' understanding of a wide range of multicultural issues and to help students develop problem solving, analytic, and creative repertoires by recourse to methods found in other cultures. Nelson, Joseph & Williams (1993) suggest just such a multicultural approach to teaching mathematics. Despite the general view of math as having an objective, universal quality, the authors point out the educational benefits of learning the different logical, aesthetic, and numerical frameworks that diverse cultures have used in developing their mathematical systems. The idea that Japanese and Americans apply dissimilar logical frameworks when processing ideas and that these frameworks are manifested in the logic and aesthetics of go and chess, has a strong basis in the history of mathematics itself.

Julian Williams (1993) also argues that:

... if we develop the link between mathematics and the art of a variety of cultures then we will have a genuine and natural vehicle for educating children in these cultures through mathematics... The multicultural significance lies in the fact that the cultural source is <u>central</u> rather than token. (p. 146)

He suggests art and design projects that can help students integrate such understandings, thus enabling students to experience the practical effects of alternative modes of abstract thought. The same concerns apply to adult students training for the professions. Indeed, we might paraphrase the above quote by saying that if we develop the link between games and problem solving as they exist in different cultures then we can better educate professionals in these cultures through the use of games. In stating that the cultural source is central to the educational experience, Williams reinforces the notion that the cultural elements themselves are accurately reflected in mathematics and geometric design, and, for our case, in Go and Chess.

## 4. Education and Creative Thinking:

Visual and metaphorical thinking can serve as powerful classroom tools. For example, Kline (1988) notes that "a large part of intelligence is the activation of the visual thinking process." (245). Linda Verlee Wiliams (1983) points out that "When a teacher presents information both verbally and visually, students who are primarily visual processors have a much better chance of succeeding in the class" (p. 86), and suggests a range of visual approaches to education. Internal visualization techniques, which we practice in "Creativity", have been shown to be effective in sports training as well as education (Murphy & White, 1978; Ostrander, Schroeder, & Ostrander, 1979). The implications of visual thinking for education and problem solving are a major theme of "Creativity", in which students experiment in viewing art from unconventional perspectives and in exploring organizational issues visually and somatically. Closely related to visual thinking is metaphorical thinking. Both chess and go are really extended metaphors of mental processes. They are, after all, thinking contests. As Lakoff and Johnson (1980) state:

Our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature. The concepts that govern our thought are not just matters of the intellect. They also govern our everyday functioning...what we perceive, how we get around in the world, and how we relate to other people. (p.3)

Games and sports are extended metaphors that express the governing conceptual systems of their native culture. Chess and go function as dual metaphors that illuminate complex ideas about culture, management, and thinking. When we use them as metaphors, they enrich the mind-set of the participant by opening up new analytic possibilities and creating new meaning (Lakoff & Johnson, 1980). As Lakoff and Johnson point out, metaphors "highlight certain features while suppressing others", features often left out of conventional language. (p. 141) Thus, examining a subject via metaphors stimulates creative thinking because the metaphors shift our perspectives by throwing unexpected aspects of the subject into high relief; metaphors compel us to think about things in new and unpredictable ways.

## 5. Learning Styles:

The use of chess and go models an alternative method of reaching students with different learning and problem solving styles. The ideal learning environment presents students with a menu of activities that covers the multiplicity of learning styles present within a group. Gardner's (1993) theory of multiple intelligences, for instance, suggests that students will learn best when they experience a subject through the lenses of several different "intelligences": linguistic, bodily-kinesthetic, inter- and intra-personal, logical, spatial, and musical. At the same time, a teacher who presents material using several such modes has more of a chance of reaching all students, for in any group, some people will favor one intelligence over another. Most classrooms use a preponderance of what Gardner would call linguistic and logical intelligence. The chess/go activity is clearly visual, spatial, and even kinesthetic, and the multiple vocabularies used can engage students with different learning styles. Such integrated methods stimulate the imagination and even make learning more efficient, as indicated by data from Lozanov's work with Suggestopedia, or Accelerated Learning (Ostrander, Schroeder & Ostrander, 1979).

## **Purpose of the Activity**

The chess/go activity represents one solution to a problem I have wrestled with in dealing with both multicultural issues and those pertaining to that elusive entity, the "mind-set" or mental framework: how to illustrate such ideas in clear and relevant ways. In the classes, the concerns with multicultural issues and cognitive frameworks converge, because U.S. managers want to learn from their counterparts across the Pacific. This desire raises questions about our ability to translate and transfer concepts from one culture to another. How different are we in the way we think? Can what works in Japan

work in the U.S., and in the same way? If real conceptual differences between the cultures exist, how do we achieve synthesis in a way that respects both points of view and makes the most appropriate and effective use of each?

Such questions are becoming increasingly pertinent today. With the rise in globalization, we are interacting more with people from other cultures in every aspect of life. All institutions and professions are groping with ways to respond to a more competitive, uncertain world in which boundaries are dissolving between cultures and subcultures even as inflammatory rhetoric and economic disparities increase.

Faced with this challenge, a lack of dialog across our differences would be wasteful. This cross-boundary communication is not the only aspect of this change, for we are all operating within an increasingly assertive, unified global culture whose character we have only begun to fathom. More and more, we need the perspectives, insights, and collaboration of other cultures in order to succeed as a global society.

By selecting chess and go as the tools to explore the implications of cultural differences and dialog, we are turning the spotlight on a duality that is one of the primary cultural divides in world history. While we have to be cautious about such broad categorizations as "east" and "west", the terms do refer to clear differences in thinking that characterize the worlds of eastern Asia and Europe and the U.S. Certainly, a contrast of two analogous artifacts can illuminate differences even as they point them out, and lead to the sort of broader understanding that ultimately results in the most profound cultural exchange: mutual respect, adaptation, and synthesis of individual or collective gifts for the benefit of all parties.

# The Games

Chess and go are the world's two most complex board games. Infinite in their mathematical subtlety and hypnotic in their beauty, the games stand as repositories of highly concentrated mental energy expended over the course of millenia for no obvious reasonable or productive end but fascination with the games themselves. The character of their basic aspects – boards, starting positions, pieces, moves, and strategies – is so uncannily mutually exclusive, they might almost have been designed in separate universes. In fact, chess belongs to the west, broadly speaking. About 1300-1500 years ago, chess became popular in Persia after originating in either Persia, India, or China. From Persia its popularity spread to the Arab lands and medieval Europe. In 15th century Europe the final rule changes were implemented that created the dynamic modern game (Eales, 1985). For the past four centuries, the former Soviet Union, Europe, and the Americas have provided chess with great players, innovators, and popularity. Go, or w'ei chi as it is known in China, began thousands of years ago in China, moved into Japan around 800 A.D. (Smith, 1956), and now belongs, predominantly, to China, Japan, and Korea.

# **Classroom Setting**

"Sports and Society" consists of five major topic areas presented in sequence during five weekly four-hour workshops. The five areas are 1) sports in its relation to one's own life and development; 2) sports and management; 3) sports and sex roles with emphasis on implications for management and organizational behavior; 4) sports and race with implications for management issues as well as broader diversity concerns; and 5) future possibilities. We perform the activity towards the end of the fourth workshop when our inquiry into race and sports has led us to other multicultural themes. This transition is facilitated by our reading from Robert Whiting's classic study of baseball in Japan, <u>The Chrysanthemum and the Bat</u> (Whiting, 1977). Thus, in addition to go, and apart from the chess/go activity, we consider the cultural contrast between the U.S. and Japan from a second recreational perspective. While the contrasts between the two nations' approaches to baseball embrace different areas of activity than do those based on go and chess, both sets of contrasts are easily applied to management, and both sets are consistent with one another.

In "Creativity", the class analyzes the games towards the end of the 10-hour workshop after students are familiar with visual and metaphorical thinking, pattern recognition and manipulation, and theories pertaining to innovation and problem solving. The activity demonstrates these modes of thinking and allows learners to apply them in a practical way.

# **The Activity**

#### Setting Up

The first stage of the activity establishes the visual contrast between the games.

1. Set up the two games in their opening positions, visible to everyone in the room. In the case of go, this means placing the empty board beside two open bowls filled with "stones", one set black and the other white. Chess requires placing the 32 pieces in their pre-established positions.

2. It is helpful to find out how many people know how to play the games. Perhaps half will know chess and usually at most one will know go. Make it clear that knowledge of the games is <u>not</u> a prerequisite for participation in this exercise, although the instructor will occasionally have to introduce basic rules, especially for go. The instructor should emphasize throughout that responses can be based on the immediate visual aspect of the games. Even when rules must be explained, they are simply intended to clarify the evidence presented by this visual aspect.

3. Ask the class to compare go and chess on the most fundamental, visual level. Students can brainstorm or respond to the instructor's questions or comments. Another approach is to have the class first draw pictures of the games so as to experience the contrast physically, followed by discussion about the differences in how it felt to draw chess as opposed to go.

### **Observations**

The instructor leads the class in the discussion of the major contrasts between the games, based on the following key elements of each:

*Boards.* Before even setting up the games, one notices that a chess board comprises 64 white and black squares while the go board is a  $19 \times 19$  linear grid. Go is played on the *points* that define the grid, i.e., on the intersections of the lines (a rule the instructor should state soon after the class has compared boards). The class will probably note how chess squares possess dimension, space, and contrast. They represent territorial areas that pieces rest upon, traverse, and exert influence over. The points of a go board, however, are non-spatial, dimensionless, and uniform, and the open areas between the points exist only to define the points themselves.

Thus, at once, the class touches upon a complex difference in spatial awareness that would be highly abstract, difficult, and perhaps seemingly irrelevant if presented in purely verbal terms. In the visual, metaphorical style of this exercise, however, the ideas seem almost natural in the way they unfold.

*Opening Positions:* Before a chess game begins, the pieces are set up and half the squares occupied. All chess pieces start the game "on board". During the game they are removed as they are captured, and many games end with but three of 32 pieces remaining. In go, one begins with an empty board, the stones lumped in their bowls. Contrary to chess, stones are put on the board one at a time according to no preordained scheme except the alternation of black and white moves. (The instructor can demonstrate this very easily in a few seconds). This placing of stones is the game itself, unlike in chess, where the initial placement of pieces on the board is but a prelude. The go board begins empty as a collection of dimensionless points; complexity develops as the pieces arrive and the board grows more crowded.

Chess starts full and moves toward emptiness, with white moving first. Go starts empty and moves toward fullness, with black moving first. The chess player at once attacks a fully realized position (the opponent's opening position). The go player has no position to attack until created by both players, because only when pieces are set onto the board can one figure out what to move against. In go, the main goal is to settle and demarcate territory while simultaneously thwarting the opponent's desire to do the same. One also tries to surround and capture the opposing stones, but mainly as a step in controlling territory.

These ideas may not occur at once to people unfamiliar with the games. If the class is slow to respond, effectively worded questions can generate thoughtful answers.

- Where is the enemy in chess? What is the target of each player's moves?
- Where is your opponent in go? Do you know beforehand in what part of the board you will first engage your opponent's pieces?

Metaphors can also help the class grasp the different qualities of each game:

• If you were walking through the woods and suddenly emerged into a vast meadow, describe what you would see if the meadow were the scene of a conflict conducted according to the rules of chess; according to the rules of go. Which would seem more "normal" to you?

*Pieces.* Differences between the pieces are glaringly obvious and accessible with no knowledge of the games at all. Chess pieces are beautifully sculptural and their names derive from medieval life: king, queen, rook or castle, bishop, knight and pawn. Their dramatic forms loom over the checkered squares: the cross atop the king, the queen's crown, horses' heads, bishops' mitres, and the rook's crenellated turret. This elaborateness is even more exaggerated in specialty or collectors' sets, i.e. Civil War soldiers in blue and grey, or each side in a different set of folk costumes. Because each piece moves differently, each has a value and role not revealed by the visual pattern the pieces form on the board. When we view a chess board, the actual black and white design tells us nothing. We must know how each piece is allowed to move and the relative values assigned to each in order to make minimal sense of a position.

The instructor might demonstrate chess moves, adding interest via narrative about the pieces' characters (e.g. knights are dashing because they combine vertical or horizontal moves with diagonal and can leap over other pieces; bishops operate diagonally, a metaphor for their delicate behind-the-scenes role in medieval courts; etc.). The instructor can ask the class to describe every specific visual element they see on the chess pieces (cross, turret, etc.). One can ask about the world inhabited by these dramatically named pieces. What might they say to one another? More specific to the nature of the game itself, the class can consider the complex geometries of the moves and the type of thinking that analysis and even mastery of these geometries demands.

Visually, the stones used in go are identical to one another and anonymous. One can imagine 361 tiny members of two opposing flying saucer fleets. Stones do not move around the board; they remain where placed unless captured and removed. Each stone has the same function, value, and ability as the next, and each can be placed anywhere and moved nowhere. Unlike in chess, the black and white mosaic of the go position, the visual relationship of black and white pieces, behind which lurks the infinity of possibility, contains everything to be known about the position. A strong position, i.e., one that is invulnerable to attack, will display an aesthetically pleasing "shape" (a term often used in go to describe a formation). If a formation is too compact, one in which the stones have been used wastefully, the position will actually look clogged up. Conversely, a weak position will appear spindly and unstable even to the beginner.

The instructor may want to stress this point, as it expresses the theme of visual responsiveness sounded by the instructor at the beginning of the activity: in chess, visual patterns can be interpreted only by translating them into the calculus of movement and value (the relative strength of pieces). In go, interpretation arises immediately out of the visual dynamics of the position. Both are immensely complex, but different cognitive processes prevail in each.

*Competitive Spirit.* At this point in the discussion, students generally want to know more about the games. One fact they find striking is that the aim of chess is not really to win territory, as we have already noted. Control of territory is only useful because it leads to capturing pieces and destroying the opponent's king. One never counts up the squares under one's dominion, as is done in go; the competitive goal in chess is the (king's) jugular.

To contrast the competitive spirit of go with that of chess, I explain the exercise of pushing hands from the Chinese martial art, t'ai chi<sup>1</sup>. In pushing hands, partners seek to achieve synergy by pushing against each other with any part of the body. The contest is a dance in which perfection is the aim, yet it is a contest. Any line of tension in one "player" becomes fair game for the other to exploit, but almost as an afterthought; the real exercise is in one's ability to identify and respond to rigidity or tension anywhere one finds it. The aim of pushing hands is also to teach one's partner: "Here is the flaw in your style." Go at its highest levels is played with just this spirit. However fiercely a player wants to win a match or tournament, however ambitious he or she is, the fact remains that the best play is achieved in the spirit of pushing hands. One is most sensitized to an opponent's flaws precisely when one gives up all desire to strive and win. The logic of the game itself takes over. A player awaits the moment when disturbance or distortion enters the system and then, in the same even spirit of his or her previous moves, simply applies force to the opponent's point of tension, which is then revealed as a situational weakness because the opponent is dislodged from his or her stance. Similarly, in go, one can allow a situation to arrange itself and then decide how to facilitate the pattern that both players are creating. A player can conceivably abandon any identification with black or white pieces by immersing him or herself in the logic of a particular sequence. If one's vision of a position is more profound than one's opponent's, it is the other who will be dislodged.

The most important aspect of this activity is not our view of the games themselves, but the cultural and personal issues that the games help us recognize and understand. The two approaches to competition that we identify can be applied to a wide range of activities, including management, problem solving, and the nature of sports and recreation, as well as to personal self-assessment.

The spirit of t'ai chi and go — the synergistic model of competition — is counter to the spirit of chess and indeed, to norms of competition that prevail in western civilization. In chess, the swashbuckler is the archetypal hero: Morphy, Capablanca, Tal, Fischer, and Kasparov, to name five popular champions known for their attacking and combinative brilliance. In chess, synergy between opponents is hardly the aim: attack and destruction reign. A player sets traps for pieces, including the vividly labeled "pins" (preventing an opponent's piece from moving because if it moved, a more valuable piece would be exposed) and forks (one piece attacking two or more of its enemies at once). One <u>sacrifices</u> material for the sake of position, <u>seizes</u> open files, <u>breaks through</u> a line of defense, and so on. Even so-called positional players, like former world champions Petrosian and Karpov, win by "wearing down an opponent" or "building up tremendous pressure until they break". In all cases, the logic of chess dictates a powerful antagonistic spirit.

Space: In chess, the center of the board governs the game. The instructor can lead the class to this perception by asking, "Given the layout of the chess board, from which squares can one control the greatest area of the board?" The center of a chess board is clearly the most important locus of activity and the four central squares are the focus of all accepted openings and most middle game activity.

Go, on the other hand, is completely decentralized. Students recognize this when asked, "In what part of the board can one most efficiently surround territory?" The answer is clearly first in the corners (where two sides are already bounded by the board's sides), then along the edges (where one side is bounded), and only gradually outward, or inward, toward the center of the board. The center has no inherent strategic value. Often, four openings at once are in play, one in each corner, a structure far removed from chess' fixed attention to the center.

This contrast is carried over to the use of space. Chess is a game of vectors. It is no accident, perhaps, that the added range bestowed upon queens and bishops that created the modern game (Eales, 1985) was granted when Europe was beginning to explore the movement of bodies through space, and applied this knowledge to create more powerful ballistic weaponry (Mokyr, 1990). Chess pieces move by extension through space, and the direction of victory and action is forward into the enemy camp. Chess moves are mechanistic in the manner of rods and pistons and hydraulics, each game an orchestrated system of directed linear power.

In go, however, pieces simply appear like magical epiphanies. Positions do not simply interpenetrate somewhat as in chess; they actually meld into one another. As black surrounds white, the attacked white force, like the interplay of yin and yang in the well-known symbol of eastern philosophy, may suddenly surround black. The decentralization of go thus goes beyond the sequence of opening moves, extending into the inner dynamic of the game itself. The positions in the four corners creep along the edges and link with one another, and then converge again into the center, until the whole board is a study in organic, non-centralized movement in which any point can become the focus for one move, or for dozens.

Winning and Losing. In chess, one wins by checkmate, first destroying the opponent's position and then the king. It is a zero-sum, or, if one considers the loss of pieces that even the winner undergoes, a minus-sum game. That is, both players, even the winner, end up with less than they started with. Go is a plus-sum game. A winner is determined by counting up the number of points that each player has surrounded minus the number of stones that has been captured. The number of points left under each player's control becomes the score. Both players establish territory, and both positions have integrity (except in complete mismatches). Since it is better to settle more land than less, someone wins, but two valid positions do coexist at game's end. The instructor can show pictures of a final go position, which would be too tedious to set up in class; a final chess position can be set up easily with a few pieces.

# Models of Mind

After the class has compared the games, we consider how they can be seen as representative of two models of the mind, or two ways of processing information. For example, the instructor can ask:

• If we look at each game as expressing a different thinking style, or even a different model of the mind, in what ways would you say they differed?

The responses take various forms, and the instructor may write key words on the board. The chess side of the equation may yield such terms as: aggressive, complicated, mathematical, dynamic, egocentric, political, narrow, "going for it", competitive, hostile, hierarchical, artistic, power oriented. The go mentality may be summarized by such terms as: decentralized, cooperative, organic, "taking the long view", subtle, dull, holistic, egalitarian, rhythmic, and non-individualistic.

# Application

The instructor next directs the class to the application of the comparison to the topic under discussion. In "Creativity", the models of mind approach move easily into a discussion of creativity themes. In "Sports and Society", we focus on management styles. The discussions raise a host of issues, and a brief selective summary will at least give an idea of the direction they take.

#### Management

In "Sports and Society", participants view the Japanese collective style of negotiation, the smaller wage gap between executives and line workers than exists in the U.S., and the Japanese early embrace of quality circles as parallel to the egalitarian character of the pieces in go. In contrast, the class sees American companies' greater tolerance of individualism, the more aggressive assertion of managerial authority in U.S. firms, and American's direct style of negotiation as reflections of the same dynamic spirit that animates chess.

I often note that Japanese society is strongly hierarchical in nature, and yet quite communal as well, by U.S. standards. I make the point that people's inter-relatedness goes hand in hand with an intense awareness of one's place in society. Similarly, in the more mobile and democratic American social structure, we might say that a great insecurity about one's "proper" place lies behind much of our aggression. I will ask the class to speculate on how these contrasts are represented in the games, and at the seeming contradiction between the anonymous stones of go and the rigidity of traditional Japanese roles. Often, students connect experiences doing business with the Japanese to the inherent contradictions in Japanese society which is often an opportune time to bring up internal contradictions in U.S. society or management practice.

In terms of strategic planning, the short-term thinking that afflicts U.S. firms is adduced as evidence of a less patient, more aggressive approach in line with the more focused, center-oriented nature of chess and the dynamic quality of its moves. Similarly, the longer-term, global perspective my students tend to associate with Japanese planning seems to them consistent with a game in which a piece may be set down in an area of the board and potentially ignored for a hundred moves.

Clearly, such observations could emerge apart from this activity. This exercise does generate many new perceptions, but it does so by suggesting, via the rich metaphorical implications of the games, new meanings derived from familiar material. The activity is intended to create knowledge and understanding, not to stand as proof of a particular

point of view either about the games or the cultures themselves. Students' observations have a lively quality that reflects the mentally stimulating structure of the activity, and these off-the-track insights generate a broader understanding of the contexts that shape managerial theory and practice. The activity causes management to be examined within a cultural venue that students find intriguing and that makes the idea of cultural differences more accessible and real to participants.

#### Problem Solving and Creativity

The quest for applications in problem-solving and creativity leads to far-ranging discussion about the issues set forth earlier in this paper pertaining to learning styles, creative thinking, and problem solving and to related themes, such as how the world view implicit in go may serve as a metaphor for business activity in the global economic environment. In "Creativity", we follow up the "models of mind" part of the activity by talking about metacognitive thinking. What is the benefit of examining one's thinking patterns? How can we reroute patterns of thought to exploit the systems represented in our extended metaphor by chess and by go? In what ways do the two games define two different problem solving algorithms?

## Recreation

In reference to recreation, as well as the use of sports as a lens by which to analyze society, this activity offers a unique educational approach in large part because chess and go are highly valued recreations that have been developed and refined for many centuries. Each represents a mix of art, mathematics, history, dramatic narrative, and exegesis. That games and sports can be so vital to cultural history and analysis can open up for students a new way of examining the contexts of their lives that is also very exciting to them. That the artifacts in this case are games bears out Huizinga's exalted view of the role of play in the development of culture, and can inspire recreation tprofessionals with a sense of the potency of the material with which they work.

## Multicultural Themes

The reasons why this activity develops multicultural awarness have been noted. The multicultural element is a critical one. At a time when educators are seeking new ways to explore diversity issues (Harvey & Allard, 1995) and in a period of intensifying globalization, we need to develop stimulating but non-threatening ways to establish creative discourse around these issues. Discussion of Japanese management practices, or, more generally, the customs of any particular group, are fine as far as they go, but how real are these "separate realities" to learners? The best way to learn about cultural differences and the common ground that transcends them is to experience them on their own terms, but this can be difficult to achieve in the classroom.

We can, however, take a cue from children on a playground where cultural differences dissolve like ice cream on a hot day amid the gleeful inventiveness and energy of children playing. Games have the ability to draw us into themselves. One of the most enjoyable aspects of teaching with these "props" is watching adults, sometimes after an initial wariness about the expectations of the activity, relax and enjoy complex, abstract, and challenging ideas made more enjoyable and accessible by the use of two artifacts of whimsy. The resulting delight in learning transforms the quality of the ideas themselves, and provides a model of education that can be applied elsewhere in a variety of contexts. From the multicultural perspective, the class achieves an insight into its own dominant culture as well as that of the Japanese that is more immediate and living than is often gotten from text, lecture, or discussion.

# Conclusion

The goal of this paper was to explain how chess and go can be used to stimulate ideas and discussion about management and problem solving styles, and how others may use the activity to address their disciplines, particularly in the fields of recreation and leisure studies. Whether or not one is interested in using these games in class, the method and structure of the activity itself can be transferred to other subjects and can accommodate the use of other props.

Any two (or more) cultural artifacts can represent their respective cultures provided they are deeply rooted in the character of the cultures themselves, as are chess and go. The object should also be complex enough – either visually, or in terms of use – to offer the chance to speculate and brainstorm about meaning.

Such an approach would also work with a wide range of topics. For instance, throughout history two contrasting artistic styles have often coexisted within the same society: classicism and romanticism in early 19th century France. Comparing two works of art can be useful when discussing the history of the period, art styles from other epochs, or even personality types in a psychology course. Contrasting Shaker furniture styles with ornate styles from the Gilded Age provides a great deal of insight into American history. The possibilities are endless for extending this metaphorically and visually based technique to other disciplines.

An additional benefit of using such props is their role in providing a safe way for some students to approach classroom discussion. There is little at stake, in terms of wrong or embarrassing answers, when talking about an item that at first glance has little to do with the required material, especially if the item comes from the world of play. The prop democratizes the classroom, because one never knows who will have an interest in the topic represented by the prop, who will become an instant, albeit unanticipated, expert. Departure from the structure of previous discourse opens up the vocabulary of the course to students who may not yet have found a voice.

As for go and chess, they are, in my view, something of a special case. Ancient, infinite, and entrancing, one might suspect they were invented to make the invisible plain, to project the workings of the mind onto the screen of the visible world. They are, in a sense, highly compressed data bases containing a rich store of information about the civilizations that have nurtured them since antiquity. They still have the power to surprise and inspire us and to galvanize both students and teachers into achieving new insights and understandings.

*Note 1:* Most people do not know t'ai chi. Instructors can, however, employ other analogies based on their own interests. Any experience of synergy will illuminate the difference in spirit between the games. For instance, gardening on a beautiful day when the work becomes effortless, a team working in synchronicity, peak moments felt while playing sports, or the trance-like rhythm of knitting all illuminate the shift that occurs when one merges with one's work or with another. This "merging" experience in which subject and object lost their polarized relationship to one another, works as a good entry point for considering different competitive or problem solving styles.

#### References

Allard, June, & Harvey, Carol P., Eds. (in press). Managing Diversity: Readings, Cases, and Exercises. New York: Harper Collins.

Caillois, Roger (1958/1979). Man, Play and Games. New York: Schocken Books.

Eales, Richard (1985). Chess: The History of a Game. New York: Facts on File Publications.

Gardner, Howard (1993). Multiple Intelligences: The Theory in Practice. New York: Basic Books.

Hall, Edward T. (1959/1969). *The Silent Language*. New York: Fawcett World Library.

Hall, Edward T. (1983/1984). The Dance of Life. Garden City, NY: Anchor Press.

Hall, Edward T. (1966/1982). The Hidden Dimension. Garden City, NY: Anchor Press.

Huizinga, Johan (1950/1955). Homo Ludens: A Study of the Play Element in Culture. Boston: The Beacon Press.

Kline, Peter (1988). The Everyday Genius: Restoring Children's Natural Joy of Learning – and Yours Too. Arlington, VA: Great Ocean Publishers.

Lakoff, George, & Johnson, Mark (1980). *Metaphors We Live By.* Chicago: The University of Chicago Press.

Mokyr, Joel (1990). The Lever of Riches. Oxford: Oxford University Press.

Murphy, Michael, & White, Rhea A. (1978). The Psychic Side of Sports. Reading, MA: Addison-Wesley Co.

Nelson, David; Joseph, George Gheverghese; and Williams, Julian (1993). Multicultural Mathematics. Oxford: Oxford University Press.

Ostrander, Sheila, & Schroeder, Lynn, with Ostrander, Nancy (1979). Super Learning. New York: Dell Publishing.

Smith, Arthur (1908/1985). The Game of Go: The National Game of Japan. Rutland, Vermont: Charles E. Tuttle Company.

Whiting, Robert (1977). The Chrysanthemum and the Bat. New York: Dodd-Mead.

Williams, Julian. Geometry and Art. In David Nelson et al (Eds.), *Multicultural Mathematics* (pp. 142-174). Oxford: Oxford University Press.

Williams, Linda Verlee (1983). *Teaching for the Two-Sided Mind*. New York: Simon and Schuster, Inc.