

**DIFFERENCES IN MANAGERIAL VALUES:  
A STUDY OF U.S., HONG KONG AND PRC MANAGERS**

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Abstract

In this study of convergence/divergence of managerial values, four Western-developed measures (Machiavellianism, locus of control, intolerance of ambiguity and dogmatism) and the four dimensions of the Eastern-developed Chinese Value Survey (Confucian dynamism, human-heartedness, integration, and moral discipline) were the measures used. The findings indicate that often times both culture and the business environment interact to create a unique set of managerial values in a country.

When emerging economies around the world adopt the free enterprise system of the West, do they also take on the values assumed in the West to be a part of a capitalistic system (Bond & King, 1985)? The argument that exposure to Western ways of engaging in business will result in adoption of Western values suggests that the demands and opportunities of a technologically advancing society shape value systems that respond to industrialization rather than to indigenous cultural forces (Eisenstadt, 1973; Mouton & Blake, 1970; Pascale & Maguire, 1980). In contrast, is the argument that culture is a sufficiently powerful force to insure that managerial values will continue to remain different for businesses from different countries despite the impact of Western style industrialization (Abegglen, 1957; Cole, 1973; Evans, 1970; Kelley & Reeser, 1973; Lincoln, Olson & Hanada, 1978).

Using both Western and Eastern developed measures, this study compares the values of managers from the U.S., Hong Kong and the PRC to accomplish two objectives: to help understand convergence or divergence of managerial values, and to investigate similarities and differences of managerial values in the countries being studied. Comparison of managerial values is relevant for international business relations in general and should provide insights into the specific countries in this study.

### **SOURCES OF MANAGERIAL VALUES**

As "... concepts or beliefs about desirable end states or behaviors that transcend specific situations, guide selection or evaluation of behavior and events, and are ordered by relative importance," values play a crucial role in a manager's decision process (Schwartz & Bilsky, 1987). Therefore, it is important, to understand the source of the values that managers hold (Stewart, 1985). Previous research has identified two major forces that influence the formation of values held by managers engaged in international business (Ronen, 1986; Webber, 1969). These forces are national culture and business environment.

### **NATIONAL CULTURE VERSUS BUSINESS ENVIRONMENT**

"Culture is an elusive concept, "... a fuzzy, difficult-to-define construct." (Triandis, Bontempo, Betancourt, Bond, Leung, Brenes, Georgas, Hui, Marin, Setiadi, Sinha, Verma, Spangenberg, Touzard & Montmollin, 1986). This view that culture is difficult to define has been shared by others (see Ajiferuke & Boddewyn, 1970; Kelly & Worthley, 1981). Nonetheless, some reasonable efforts have been made to identify the phenomenon. Hofstede and Bond (1988) define culture as "the collective programming of the mind that distinguishes the members of one category of people from those of another." This programming is likely to be

ingrained in the individual by adolescence. Ajiferuke and Boddewyn (1970) add that, while over time each generation may modify or redefine its beliefs and values, culture may be viewed as those beliefs and values that are widely shared in a specific society at a particular point in time.

Triandis et al. (1986) propose that a way to understand culture is to identify dimensions of cultural variation, such as Hofstede (1980), Triandis (1984) and the Chinese Culture Connection (1987) have done. Thus, culture may be viewed as a group's "collective being" which is both static and dynamic in nature, and may be studied by looking at the dimensions of the "collective being" at a point in time as well as over time.

In contrast to the concept of culture, which argues that differences among societies results from their parochial sets of values, the concept of business environment as a more cosmopolitan influence suggests a force leading to homogeneity among various societies (Ronen, 1986). In this context, environment, refers to the economic and socio-political systems within which an organization must function in the normal course of business (Kelley, Whatley & Worthley, 1987). Today's organizations typically must consider, either directly or indirectly, the influence of foreign as well as domestic economic and socio-political systems (Tung & Miller, 1990).

For example, Webber (1969) argues that the spread of industrialization from developed to less developed countries will lead to a homogenizing effect in its own right. However, industrialization also means increased common education to support the technology, and thus further increases the homogeneity across societies. Likewise, Child (1981) has found industrialization effects to manifest themselves in more homogenous organizational structures and technologies.

Implicit in the observation that industrialized business organizations have become more similar in terms of contextual variables such as complexity, formalization and centralization is the assumption that common ways of organization lead to common business practices and in turn to similar managerial values (Negandhi, 1975). On the other hand, Ottaway, Bhatnagar and Korol (1989) report significant differences between cultures on their survey of beliefs about work. As such, there is evidence which suggests that the global business environment has a converging effect on values held by managers, just as other evidence suggests that culture has a diverging effect on these values (Ricks, Toyne & Martinez, 1990).

While both culture and environment may influence managerial values (Kelley & Worthley, 1981; Webber, 1969), the question drawing much attention in the current literature is one of significance: are we developing a converging global standard for business practices or will divergent national differences dominate

business relationships between the companies of different countries (Adler & Graham, 1989; Dunphy, 1987; Hofstede, 1983; Kelley et al., 1987; Ricks et al., 1990).

### **CONVERGENCE VERSUS DIVERGENCE**

The convergence approach proposes that managers in industrialized nations will embrace the attitudes and behaviors common to managers in other industrialized nations despite cultural differences. In contrast, the divergence view purports that individuals will retain diverse, culturally-based values despite any economic and social similarities between their nations (England & Lee, 1974; Kelley & Reeser, 1973). However, the anthropology roots of acculturation theory suggest a third alternative. When two cultures meet, a blending may result in some new cross-bred form of values (Beals, 1953). Little attention has been paid to this third alternative in the recent research on the convergence-divergence controversy.

#### **Approach of Recent Research on Convergence versus Divergence**

The convergence-divergence controversy has inspired considerable debate (Ricks et al., 1990), about the significance of culture and environment on managerial values (Child, 1981; Beres & Portwood, 1981; Hofstede, 1983; Ronen, 1986). Of particular concern are early research studies dealing with the contribution of culture, which Negandhi (1983) criticizes for not separating cultural influences from other environmental influences.

Kelley, Whatley and Worthley (1987) begin to address Negandhi's challenge in research designed to isolate cultural influences from environmental influences so that the effects of each may be better understood. To control for cultural differences, they used groups of individuals who had moved from one country to another. These expatriates were defined as culturally similar to their previous country and environmentally similar to their new country. While valid, this approach may have limitations. Their subjects always consisted of immigrants to the U.S. and not vice versa. Since these individuals left their native countries to start new lives in the United States, they may be thought of as "leavers," with perhaps different values from the "stayers" who chose to remain in their native cultures (Dore, 1979). Now living in the U.S., these "leavers" are a minority in a dominant other culture. The result is that these groups may not accurately reflect the value system of the countries they left.

## STUDY DESIGN AND LOCATION

### Design

In this study, we identified countries in which the mix of culture and environment permitted comparisons similar to those made by Kelley and Worthley (1981) and Kelley et al. (1987). Residents of these countries epitomize the values of the "stayers" since they have not left their homeland. Also, they are not an immigrant minority trying to cope in a new country. Since managers in this study represent their own country, as they would in the world of international business, this design may provide a more applied view of the impact of culture and environment upon managerial values. However, this approach also has its limitations since it is a cross-national study of a dynamic process. Nonetheless, it does provide a point-in-time comparison upon which future research could build.

### Countries Selected

The three countries selected for this study, the United States, Hong Kong, and the PRC, provide the cultural and environmental diversity needed to study the convergence/divergence of managerial values. At one extreme is the U.S., an individualistic, Western culture with a capitalistic business environment that evolved out of the English legal and political systems, and that epitomizes the height of technological development.

At the other extreme is the People's Republic of China (PRC), a collective Eastern culture with socialistic legal and political systems that grew out of communist doctrine (Lan, 1987) and, a technological base that is underdeveloped. While the PRC has embarked upon a modernization policy, the socio-political and economic infrastructures are not self-supporting (Chiu, Jao & Wu, 1987; Tung, 1990; Youngson, 1983). Therefore, culturally and environmentally, the PRC, which is a unique blend of socialism and Confucianism, remains a true contrast to the United States and other developed Western nations (Tung, 1990).

Between these extremes is Hong Kong, the quintessential example of a recently emerged capitalistic state (Bond & King, 1985). Hong Kong's socioeconomic and political systems are very different from those of the PRC (Tung, 1990). As a British colony, its economic, educational and legal systems grew out of English tradition and are reasonably comparable to those of the United States. Also, the technologies of Hong Kong's industries rival the technologies used in developed countries of the West (Cheng, 1986). At the same time, approximately 98 percent of its population are Cantonese-speaking natives who follow traditional Chinese cultural patterns (Bond & King, 1985; Wong, 1986).

Hong Kong's well-developed financial system has kept it at the forefront of world commerce (Cheek-Milby & Mushkat, 1989; Cheng, 1986). Since the PRC has not developed the internal structures necessary to engage in world commerce, Hong Kong serves as the main link between China and the West. Thus, Hong Kong is a base for overseas companies engaged in Chinese ventures and functions as a conduit for goods to flow from China to the West (Lethbridge, 1984). As such, Hong Kong is constantly in touch with both worlds.

The result is that Hong Kong is an interesting blend of East and West (Lau & Kuan, 1988). As a capitalistic economy that developed out of a Western influence, Hong Kong is environmentally compatible with the United States. On the other hand, adherence to Confucian values and traditional Chinese customs makes Hong Kong culturally comparable to the PRC.

As Kelley et al. (1987) note, it is important to identify a group that has a similar set of economic, legal and educational systems with one of the comparison groups and a common culture with the other comparison group. In this study, the Hong Kong managers are the subjects who are environmentally influenced by the West and culturally influenced by the East. Put simply, Hong Kong managers are the product of capitalism and Confucianism.

## **MEASURES**

### **Selection Criteria**

We had three objectives in mind when selecting the measures for this study: to develop a balanced view of the subjects; to be sensitive to socially desirable response biases; and to minimize design concerns. Taken as a whole, the instruments that would meet our criteria would indicate the managerial behavior common to a group.

To develop a balanced view of the subjects, we needed to overcome the problem that measures developed in one culture may appear strange to members of another culture or may totally miss an important aspect of the other culture (Adler, Campbell & Laurent, 1989; Munroe & Munroe, 1986; Schwartz & Bilsky, 1987). Therefore, we decided to use measures developed in both the West and East.

To be sensitive to the issue of socially desirable response biases, we sought measures that would be perceived as non-threatening by the respondents. An unacceptable measure would ask respondents to discuss their jobs, other workers, or their work behavior. Some subjects could perceive negative responses to these questions as threatening to their own well-being or job security (Zerbe & Paulhus, 1987). This concern

has been shown to be particularly valid for PRC subjects (Adler, Campbell & Laurent, 1989; Whyte & Parish, 1984). For example, Adler, Campbell and Laurent's (1989) research found that using a measure that asked hypothetical questions about the actual, day-to-day managerial views and behaviors of PRC respondents yielded confusing results. Therefore, we selected a group of trait measures to unobtrusively capture the essence or profile of the average manager in each country.

Finally, the intact group design used in cross-national survey research presents inherent design difficulties (Poortinga & Malpass, 1986). Therefore, our third objective sought to select well-developed and rigorously tested measures.

### **The Selected Measures Cluster**

We selected Machiavellianism, dogmatism, locus of control, and tolerance of ambiguity--all well known and tested--as the Western-developed measures. While identifying well-developed Eastern measures was a more challenging task, The Chinese Culture Connection (1987), an international network of colleagues orchestrated by Michael H. Bond came to our rescue. Their instrument, the Chinese Value Survey (CVS), consists of four dimensions: Confucian dynamism, human-heartedness, integration, and moral discipline. As will be discussed in more detail in the following sections, these measures fit well the focus of this research.

### **Western Measures**

***Machiavellianism.*** One of the most researched and tested measures of an individual's willingness to use social power (see Madonna, Wesley & Anderson, 1989; Panitz, 1989; Zook, 1985), Machiavellianism is a measure of the degree to which a person places self-interest above the interest of the group (Jaffe, Nebenzahl, Gotesdyner, 1989) and is a common construct in the Western culture. Working in a group with high MACH cultural values may require an individual to operate from a perspective of less trust and greater need of security. Dealing with a company within a high MACH culture may require greater reliance upon contracts while dealing with a low MACH company may permit using fewer formal negotiations. The MACH scale also can be an indicator of a manager's preference for following the formal authority structure or for using more circuitous means of influence (Christie, 1968).

***Dogmatism.*** Like Machiavellianism, dogmatism has been extensively researched and tested (see Chandrasekaran & Kirs, 1986; Fiechtner & Krayner, 1987; Martenson, 1987) and is an integral part of the U.S. language. It refers to the degree to which a person is not flexible or open to new ideas. Highly dogmatic managers tend to reject new ideas with the philosophy that, "if the old ways were good enough for my

predecessors, they are good enough for me" (Schulze, 1962). Low dogma individuals may be more tolerant of new ideas introduced by other cultures and perhaps more willing to move toward converging values. The dogmatic manager may be a literal follower of company policy (e.g., if the company says it is true, then it definitely is the truth that everyone should follow). For highly structured tasks, the dogmatic view may be beneficial; however, for more creative tasks this approach may be problematic (Fiechtner & Krayner, 1987).

***Locus of control.*** This construct indicates an individual's feeling of self-control. Individuals with high perceptions of self-control (internals) tend to be more aggressive, feeling that their attempts to influence others will be fruitful. In contrast, externals, less often attempt to influence others (Rotter, 1966). The research on this construct has been extensive (see Blau, 1987, Hollenbeck, O'Leary, Klein & Wright, 1989; Spector, 1988). While some have raised questions about the unidimensionality of this measure, its predictive value remains intact (Chan, 1989). Much of the research relates to behavior in the workplace. For example, people who feel they are not in control are probably not effective managers in a dynamic market economy and are likely to feel more comfortable with the status quo than with the uncertainty of change over which they perceive no control (Govindarajan, 1989; Hendricks, 1985).

***Intolerance of ambiguity.*** Measures of intolerance of ambiguity have been used extensively in research conducted across a number of cultures (See Bhushan & Amal, 1986; Curley, Yates & Abrams, 1986; Dollinger, 1983). Intolerance of ambiguity identifies a manager's ability to function and make decisions in an uncertain environment (Martin & Westie, 1959). Individuals intolerant of uncertainty tend to view situations as either black or white; for them, there is no grey. As noted previously, the international business arena is a place where uncertainty can be high (Adler & Graham, 1989), therefore, this construct has definite implications for the international workplace. Tolerance for ambiguity effects a manager's ability to make decisions with less than perfect information. The degree of formalization (i.e., rules and regulations) seen as appropriate is also influenced by one's tolerance for ambiguity. This measure appears to be somewhat comparable to Hofstede's (1980) uncertainty avoidance dimension.

### **Eastern Measures**

The CVS, which was developed to identify values indigenous to the Chinese culture, focuses on the fundamental values held by Chinese people: Confucian work dynamism, human-heartedness, integration, and moral discipline. However, researchers have been able to compare the CVS dimensions to Western-developed measures. For example, when compared with Hofstede's (1980) IBM research, three of the four

CVS dimensions aligned closely with three of the four Hofstede dimensions (Hofstede & Bond, 1988). The non-matching CVS dimension was Confucian dynamism. Moreover, the Hofstede dimensions and the Rokeach Value Survey dimensions align closely (Hofstede & Bond, 1988). Thus, the CVS, which focuses upon Eastern values, is comparable to Western instruments while adding an element missing from the Western-developed measures.

***Confucian work dynamism.*** This dimension looks at a society's search for virtue (Hofstede & Bond, 1988). It reflects the teachings of Confucius that emphasize a social hierarchy or structure (Louie, 1980). It can be characterized by a respect for tradition with a strong desire to save "face." It also implies a need to order relationships by status and to respect the order of that status. Confucian work dynamism fills a void in the content of Western instruments which, not too surprisingly, do not include Confucian values in their constructs (Hofstede & Bond, 1988).

***Human-heartedness.*** This dimension deals with an individual's level of social consciousness or awareness. It is a measure of one's compassion toward others. It is characterized by the need to be kind, forgiving and courteous. In the business setting, it may be viewed as presenting a contrast between the task-oriented and people-oriented styles of management. Human-heartedness also may be viewed as comparable to Hofstede's (1980) masculinity dimension.

***Integration.*** This dimension focuses upon social stability and can be characterized by having tolerance for others. Integration also places importance upon being trustworthy, and enjoying a close friendship. It corresponds to Hofstede's power distance dimension which identifies the degree of power distance that is seen as appropriate between a superior and a subordinate. In the organizational context, it can be an indicator of the degree of centralization that is deemed appropriate.

***Moral discipline.*** The focus of this dimension is upon keeping oneself under control in relation to others. It is characterized by the need to be moderate, prudent and adaptable. Following the "high road" is a part of moral discipline. This dimension corresponds to Hofstede's individualism/collectivism and identifies whether individuals see themselves as an integral part of a group or not. It is an indicator of whether the good of the group or the good of the individual is more important to an individual.

These measures were selected to capture unobtrusively the essence of managers' values. Other valid measures exist. However, when taken as a whole, we believe that the selected measures provide a research instrument that allows us to investigate the values and trait that determine managerial behavior while meeting

the requirements set for the design. These measures are different from those used in previous research efforts (e.g., Harpaz, 1990; Hofstede, 1980; Kelley et al., 1987; Rokeach, 1973). However, they are sufficiently similar to measure the same basic phenomenon. Thus, this study may serve as a point of comparison to previous research findings while also making a unique contribution by adding data on PRC managers, a group of increasing interest and importance in international business.

### **HYPOTHESES**

From the diverse literature on convergence versus divergence, the potential outcome relationships may be viewed as points on a continuum (Webber, 1969; Ronen, 1986). At one polar extreme is convergence; at the other, divergence. Convergence, in this study, would be found if the Hong Kong managers adopted Western values; divergence, if they maintain Eastern values. Therefore, it was hypothesized that the US and the PRC will be polarized on the variables in the study.

Between these extremes is a form of acculturation where neither convergence nor divergence accurately explain the phenomenon. This situation would occur in this study if the competing influences of the Eastern culture and the Western environment result in a unique value that has clearly emerged from these influences. These unique cross-bred values cause what we shall call "crossvergence." In this study, a crossvergence situation is one in which the values of Hong Kong managers are unique from those of either U.S. or PRC managers, but are influenced by both.

#### **Convergence**

If there is a significant difference between Hong Kong and the PRC, but no difference between Hong Kong and the United States, then cultural influences would be rejected while the environmental influences would remain tenable. Thus, the data would tend to support the convergence perspective.

#### **Divergence**

If there is a significant difference between Hong Kong and the United States but no difference between Hong Kong and the PRC, then environmental influences would be rejected while the cultural influences would remain tenable. Thus, the data would tend to support the divergence perspective.

#### **Crossvergence**

If Hong Kong is significantly different from both the U.S. and the PRC, it would be unique unto itself, crossvergence. For a crossvergence situation to occur, there would have to be not only significant differences between each pairing of the three countries, but also the Hong Kong values would have to be located

between those of the United States and the PRC. Statistically, there are other possible outcomes but these outcomes are neither theoretically nor empirically supported by any of the reviewed literature, and therefore, not included in the discussion.

## METHOD

### Subjects

The sample consisted of 326 managers from the United States (n=62), Hong Kong (n=182) and the People's Republic of China (n=82). Individuals, who were full-time employees and part-time graduate students, were asked to identify two managers from their companies who would volunteer to participate in this survey. As such, there were no more than two subjects from any one organization. Table 1 presents the demographic data.

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As large and as diverse as the PRC is, it can not be assumed to have a single culture. Therefore, we set out to determine what would be a good representative of business in the PRC. Shanghai was selected because it traditionally has been the center of commerce in the PRC and reflects the business values of the mainland. The U.S. sample of managers came from corporations located in the northeast. Since Hong Kong is much smaller than either the United States or the PRC, the sample in Hong Kong was territory-wide.

### Procedure

Subjects were asked to respond to a survey which was composed of a cluster of the previously identified instruments and a brief demographic data section. These instruments were translated into Chinese and back-translated until there was agreement among the translators that both the English and Chinese versions were comparable. The order of the instruments was varied. Subjects were told that there were no right or wrong answers, but that it was only their opinions which mattered, and they should simply respond with how they felt about each item.

### Measures

***Machiavellianism.*** Christie's Mach IV (20-item) instrument was used for this measure (Christie, 1968). Scores can range from 40 to 160. Higher scores on the instrument suggest a preference for the use of social power.

**Locus of control.** Rotter's 23-item instrument on internal versus external control was used (Rotter, 1966). Scores can range from 0 to 23. Higher scores on the instrument indicate a strong tendency to feel externally controlled.

**Intolerance of ambiguity.** Martin and Westie's 8-item scale was used (Martin & Westie, 1959). Scores can range from 5 to 40. Higher scores on the instrument show a desire for more certainty.

**Dogmatism.** Schulze's Short Dogmatism Scale (10-item) was used for this measure (Schulze, 1962). Scores can range from 10 to 70. Higher scores indicate a more rigid personality.

**Chinese Value Survey.** The Chinese Culture Connection's 40-item scale was used (Chinese Culture Connection, 1987). Within the instrument are four dimensions: Confucian dynamism, human-heartedness, integration, and moral discipline. Scores can range from 1 to 9. Higher scores indicate a stronger belief in fundamental Chinese values.

**Social desirability.** Crowne and Marlowe's (1964) 33-item scale was selected as the measure of social desirability. This measure was used as a covariate to help to adjust for differences in response patterns. Social desirability was developed to measure candor and social politeness (Crowne & Marlowe, 1964) and has been used by researchers to adjust for possible response set tendencies (Smith, 1967). Different cultures place different values on these items, and therefore, may respond in differing patterns to questionnaire items. Using this measure as a covariate may help to increase the precision of the analysis and adjust for some differences across the countries due to differences in socially desirable response patterns.

### **Design and Analysis**

Due to their inherent differences, the Western and Eastern measures were analyzed separately. The first step of each analysis was a one-way multivariate analysis of covariance (MANCOVAs). In this process, the multivariate significance of the social desirability measure as a covariate was tested. In the event that the covariate did not meet a .05 significance level, a MANOVA was used for the analysis. Both multivariate analyses had three levels (U.S., Hong Kong and PRC). The dependent variables for the Western analysis were the scores for Machiavellianism, locus of control, intolerance of ambiguity and dogmatism. The dependent variables for the Eastern measures were the scores for Confucian dynamism, human-heartedness, integration, and moral discipline.

The multivariate techniques were used to control experiment-wise error rate with multiple dependent measures. When a significant effect was found in the multivariate analyses, the second step was to calculate

the univariate analyses for the effect. Finally, significant effects found in these analyses were further tested for differences between individual groups using the Bonferroni adjusted t-tests based on the adjusted means, error terms and degrees of freedom from the univariate analyses (Kirk, 1982).

## RESULTS

### Western-developed measures

A MANCOVA was performed. The test for the covariate (social desirability) was significant ( $p < .05$ ), thus the covariate was retained. The MANCOVA analysis indicated a significant effect for differences between countries ( $\lambda = .571$ ,  $df = 4, 2,322$ ,  $p < .001$ ). Since this effect was significant, univariate ANCOVA's were used to determine significance for the four dependant measures.

***Machiavellianism.*** An ANCOVA showed the main effect was significant ( $F = 7.40$ ,  $df = 2, 322$ ,  $p < .001$ ;  $\eta^2 = .05$ ). F-test values are reported in Table 2. The mean for the U.S. managers was 83.9. For the Hong Kong managers, the mean was 89.5, and for the PRC managers, 86.1. Means, standard deviations and sample sizes are reported in Table 2. Internal consistencies (Chronbach's Alpha) for non-Western countries are .66 for Hong Kong and .73 for the PRC.

The Bonferroni t-tests, as reported in Table 3, indicated significant differences between U.S. and Hong Kong managers ( $t = 3.79$ ,  $df = 241$ ,  $p < .05$ ), with the mean score for Hong Kong managers higher than the U.S. managers' mean score. No significant differences were found between the Hong Kong and PRC groups ( $t = 0.23$ ,  $df = 261$ , ns). The mean for the PRC managers was significantly higher than the U.S. managers' mean score ( $t = 3.54$ ,  $df = 141$ ,  $p < .05$ ). As indicated by the eta, the practical difference among mean scores for the three countries is not substantial.

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***Locus of control.*** The ANCOVA identified a significant main effect ( $F = 30.28$ ,  $df = 2, 322$ ,  $p < .001$ ;  $\eta^2 = .16$ ). The mean for the U.S. sample was 8.1, for Hong Kong it was 10.8 and for the PRC, 12.3. Internal consistencies are .74 for Hong Kong and .75 for PRC. The Bonferroni t-tests found significant differences between the U.S. and Hong Kong managers ( $t = -5.26$ ,  $df = 241$ ,  $p < .05$ ). The Hong Kong and PRC managers were also significantly different on the locus of control dimension ( $t = -4.96$ ,  $df = 261$ ,  $p < .05$ ). As would be

expected given the mean values, the U.S. and PRC managers are significantly different ( $t=-8.35$ ,  $df=141$ ,  $p<.05$ ). The practical difference among the groups is moderate, as indicated by an eta of .16.

***Intolerance of Ambiguity.*** The ANCOVA showed a significant main effect ( $F=39.69$ ,  $df=2,322$ ,  $p<.001$ ;  $\eta^2=.21$ ). The means for the U.S., Hong Kong and PRC managers were 19.8, 22.1 and 24.7, respectively. Internal consistencies are .68 for Hong Kong and .65 for PRC. The Bonferroni t-tests found the U.S. and Hong Kong managers to be significantly different ( $t=-3.11$ ,  $df=241$ ,  $p<.05$ ). The Hong Kong and PRC managers were also significantly different on this dimension ( $t=-5.88$ ,  $df=261$ ,  $p<.05$ ). Likewise, given the mean values, the U.S. and PRC managers were also significantly different ( $t=-4.14$ ,  $df=141$ ,  $p<.05$ ). The practical difference among the groups is moderate.

***Dogmatism.*** A significant effect was identified by the ANCOVA ( $F=30.98$ ,  $df=2,322$ ,  $p<.001$ ;  $\eta^2=.17$ ). The mean for the U.S. managers was 34.7, for the Hong Kong managers, it was 43.6 and for the PRC managers, 42.1. Internal consistencies are .57 for Hong Kong and .20 for PRC. A significant between group difference was found for the U.S. and Hong Kong managers ( $t=-8.00$ ,  $df=241$ ,  $p<.05$ ). No significant difference was found between the Hong Kong and PRC managers ( $t=1.06$ ,  $df=261$ , ns). For the U.S. and PRC managers, a significant difference was also found ( $t=-6.35$ ,  $df=141$ ,  $p<.05$ ). The practical difference among the groups is moderate.

### **Eastern-developed Measures**

A MANCOVA was performed. The test for the covariate (social desirability) was not significant, thus the covariate was not retained and a MANOVA was used. The MANOVA analysis indicated a significant effect for differences between countries ( $\lambda=.776$ ,  $df=4,2,322$ ,  $p<.001$ ). Since this effect was significant, univariate ANOVA's were used to determine significance for the four dependant measures.

***Confucian dynamism.*** An ANOVA showed the main effect for differences between countries ( $F=3.49$ ,  $df=2,322$ ,  $p<.05$ ;  $\eta^2=.02$ ). The mean for the U.S. sample was 4.9. For the Hong Kong managers the mean was 5.1, and for the PRC managers, 5.3. Internal consistency for the US measure is .49, for Hong Kong, .54 and for the PRC, .73. The Bonferroni t-tests found the U.S. and Hong Kong managers to be significantly different ( $t=-3.05$ ,  $df=241$ ,  $p<.05$ ). The Hong Kong and PRC managers also were significantly different on this dimension ( $t=-3.17$ ,  $df=261$ ,  $p<.05$ ). Likewise, the U.S. and PRC managers were significantly different ( $t=-5.17$ ,  $df=141$ ,  $p<.05$ ). The practical difference among the groups is minimal.

**Human-heartedness.** An ANOVA showed the main effect for differences between countries ( $F=20.81$ ,  $df=2,322$   $p < .001$ ;  $\eta^2=.13$ ). The mean for the U.S. sample was 5.9. For the Hong Kong managers the mean was 5.5, and for the PRC managers, 4.9. Internal consistency for the US measure is .50, for Hong Kong, .60 and for the PRC, .81. The Bonferroni t-tests found the U.S. and Hong Kong managers were significantly different ( $t=3.68$ ,  $df=241$ ,  $p < .05$ ). The Hong Kong and PRC managers were significantly different on this dimension ( $t=-5.49$ ,  $df=261$ ,  $p < .05$ ). The U.S. and PRC managers were also significantly different ( $t=7.56$ ,  $df=141$ ,  $p < .05$ ). The practical difference among the groups is moderate.

**Integration.** An ANOVA showed the main effect for differences between countries ( $F=23.16$ ,  $df=2,322$ ,  $p < .001$ ;  $\eta^2=.15$ ). The mean for the U.S. sample was 5.7. For the Hong Kong managers the mean was 5.6, and for the PRC managers, 5.1. Internal consistency for the US measure is .59, for Hong Kong, .66 and for the PRC, .77. The Bonferroni t-tests found the U.S. and Hong Kong managers were not significantly different ( $t=0.87$ ,  $df=241$ , ns). The Hong Kong and PRC managers were significantly different on this dimension ( $t=6.89$ ,  $df=261$ ,  $p < .05$ ). The U.S. and PRC managers were also significantly different ( $t=6.20$ ,  $df=241$ ,  $p < .05$ ). The practical difference among the groups is moderate.

**Moral discipline.** An ANOVA showed the main effect for differences between countries was not significant ( $F=1.30$ ,  $df=2,322$ , ns). Therefore, no further analyses were run.

## DISCUSSION

The multivariate analyses indicate that there were significant differences between respondents of the three countries on all four Western measures, and three of the four dimensions of the Eastern measure. Only the moral discipline dimension was non-significant. The Bonferroni t-test comparisons showed that for each of the 7 significant measures, there were significant differences between the responses of U.S. and PRC managers.

### Evaluation of the Hypotheses

This finding supports the premise of our analysis that U.S. and PRC managers are significantly different. This finding also supports the view that the three theory based hypotheses (i.e., convergence, divergence, crossvergence) are the only hypotheses that need to be considered.

**Convergence.** The data of this study provide little support for the convergence hypothesis. Only for the Integration dimension of the CVS are Hong Kong and PRC managers significantly different, while Hong Kong and U.S. managers are not significantly different. The U.S. and Hong Kong managers had significantly higher

scores than the PRC managers, and at first, this may appear counter intuitive. However, values that are held by Chinese, may be held even more strongly by others. And, the direction of these findings is consistent with Bond's (in press) findings using college students as subjects.

The convergence view also might receive some support from the findings for moral discipline. One possible explanation for the non-significant findings for moral discipline is that convergence has already occurred across the three countries. However, another explanation is that Moral Discipline represents a value that has long been held across the three countries in this study.

**Divergence.** The data also give some support to the divergence hypothesis. For Machiavellianism and dogmatism, there is a split between the Eastern (i.e., Hong Kong and PRC) and Western (i.e., U.S.) cultures. Both Hong Kong and the PRC respondents scored significantly higher than the U.S. respondents on these two measures. The managers in industrialized Hong Kong had values comparable with the managers in the non-industrialized PRC suggesting that similar cultures lead to similar managerial values. This finding--culture is significant--supports the previously hypothesized condition for the divergence viewpoint. These results suggest that Chinese managers tend to rely more heavily upon informal means of influence than formal authority channels, placing more emphasis on personal relationships and trust and less on legal contracts. Likewise, Chinese managers dogmatically tend to hold precedent to be more important than innovation.

**Crossvergence.** The crossvergence outcomes for the Hong Kong managers were identified by both Western and Eastern measures. Locus of control and intolerance of ambiguity are the Western measures that identify a crossvergence outcome. Confucian work dynamism and human-heartedness are the corresponding Eastern measures. The mean scores of the Hong Kong managers are almost exactly midway between the scores of the U.S. managers and the PRC managers for each of these four measures. Further, the scores of the Hong Kong managers are significantly different from the scores of both the U.S. and PRC managers.

Based upon these findings, it appears that when it comes to perceptions of internal versus external control, the Hong Kong managers have adopted, in part, the self-directed view of the Western manager while not totally forsaking a cultural background that emphasizes external control. Similarly, on the dimension of intolerance of ambiguity the Hong Kong manager has adapted sufficiently to deal with the ambiguities of a free-market society while not totally forsaking a culture which places emphasis on order and status (Chinese Culture Connection, 1987; Hofstede & Bond, 1988).

The Confucian impact on the importance of hierarchy and status differential are not as pronounced in Hong Kong as they are in the PRC. With the Western influence in education and business that has been present in Hong Kong for the past century, this is a reasonable outcome (Bond & King, 1985). The modernization of Hong Kong has apparently resulted in some modification to century old values. Likewise, the Hong Kong managers show a more caring and employee-oriented perspective than their PRC counterparts. In Hong Kong one can find employees and managers from East and West working for one another. As such, it appears that the Hong Kong manager may have developed a modified style to cope with both types of employees (Smith & Peterson, 1988). Therefore, while culture has a significant effect upon these four measures, environment also has an impact.

### **Comparison with Findings from Previous Research**

To try to put the findings of this study in context with previous research, we shall compare our findings with those from three studies which have comparable samples: Hofstede (1980), the Chinese Culture Connection (1987), and Tung (1988). Hofstede and the Chinese Culture Connection report empirical data for the U.S. and Hong Kong, but perform no test of significance between these two countries. Tung's study takes a conceptual look at Hong Kong and the PRC. Similar to our study, the Hofstede study took its subjects from the business world; the Chinese Culture Connection used college students. Hofstede and Tung used the four Hofstede dimensions: Power distance, Individualism, Masculinity, and Uncertainty Avoidance. The Chinese Culture Connection used the four dimensions from the Chinese Value Survey (CVS), that were previously discussed in this study. From our study, we shall compare the four CVS dimensions and our Intolerance of Ambiguity measure.

Comparisons were made across the four studies on the three Hofstede dimensions that correlate with CVS dimensions (i.e., Power Distance with Integration, Individualism with Moral Discipline, Masculinity with Human-heartedness). However, as the Chinese Culture Connection noted, correlations between dimensions do not suggest identity of dimensions. Also, we compared our Intolerance of Ambiguity findings with Hofstede's and Tung's findings on Uncertainty Avoidance, and our Confucian Dynamism findings with the Chinese Culture Connection's findings on that dimension. However, given the methodological differences among these four studies and the fact that they span more than a decade, we present the following comparisons as food for thought for future research, and not as conclusions of this study.

**Power Distance - Integration.** Hofstede (1980) reported that the U.S. respondents, who ranked 38th out of the 53 countries in his study, were well below average on Power Distance and much lower than the 15th ranked Hong Kong subjects who have been described as somewhat high on Power Distance. The Chinese Culture Connection (1987), in its study of college students, showed Hong Kong lower on Integration than the U.S. and identified the U.S. score as relatively high. Since Power Distance and Integration are inversely related, this relationship is consistent with Hofstede's findings. However, the distance between them appears to be less.

It is extremely difficult to make meaningful comparisons of these studies because of their methodological and scaling differences. Therefore, a Z-score approximation is used so that we can better compare the factor scores of the CVS to the other studies. The Z-score equivalents for the Chinese Culture Connection's factor scores shows the U.S. at the 67th percentile and Hong Kong at the 54th percentile. Both countries are within the third quartile with the U.S. at the high end. In our study, we found no significant difference between the U.S. and Hong Kong. Both indicated a relatively high Integration score or correspondingly, a relatively low Power Distance score.

Over the past decade the Hong Kong scores may have moved from relatively high to low on Power Distance. Do these findings suggest that Hong Kong is evolving through-time to be more "Western" on the dimension of Power Distance/Integration? Future research might look at the effect of capitalism upon the issue of Integration/Power Distance. Is this an area where environment can have a significant impact? With all the new capitalistic economies that are emerging around the world today, there is likely to be a wealth of data available for a longitudinal study of this issue.

Regarding the PRC, Tung hypothesized that China might be expected to have a lower Power Distance score than Hong Kong, in part, because "China is deemed to have a classless society" and because reforms have been implemented to do away with the special privileges enjoyed by some cadres. However, we are not surprised that our findings indicated a stronger feeling of Power Distance in the PRC than in the U.S. and Hong Kong. While Communism espouses a classless society, the reality is that there are recognized groups of "haves" and "have-nots" and that movement from one group to another is very difficult. In capitalistic societies, movement between these groups is more a function of one's skills and abilities than one's birth right or political preference. Also, our findings on the PRC are not inconsistent with the possibility raised previously that capitalism may lead to lower levels of Power Distance.

**Individualism - Moral Discipline.** Hofstede found that the U.S. ranked 1st in Individualism while Hong Kong had a somewhat lowly 37th ranking. Given what we know about the Chinese and American societies, these findings seem fairly intuitive. The Chinese Culture Connection found that the U.S. students responded much lower on the Moral Discipline dimension than did their Hong Kong counterparts. Since Moral Discipline is inversely correlated with Individualism, the implication is that U.S. subjects would score higher on Individualism. However, when the Chinese Culture Connection factor scores are converted to Z-scores, one sees that the U.S. score is at the 24th percentile, while the Hong Kong score is at the 43rd percentile. Therefore, while both the Individualism and Moral Discipline scores show U.S. and Hong Kong respondents as having comparable relationships, the positions on the two continua are dramatically different. A recent study by Punnett and Withane (1990) reports comparable findings.

For Hofstede's Individualism dimension, the U.S. score is at the very high end of the continuum. This would be comparable to being at the very low end of the Moral Discipline dimension. Hong Kong is at the lower-middle end of the Individualism scale. In contrast, for the Chinese Culture Connection's Moral Discipline dimension, the U.S. is near the line between the first and second quartile, while Hong Kong is in the second quartile near the mid-point. For the U.S., this would give it an Individualism score of just above average, a stark contrast to Hofstede's findings that the U.S. was highest on Individualism.

In part, a reason that may help to explain the differences between the Moral Discipline and Individualism findings is that the correlation ( $r = -.54$ ) between these two dimensions is not overly strong. The reason for the fairly low relational strength may be clarified by looking at the five items that make up the Moral Discipline dimension. Moderation, keeping oneself disinterested and pure, and having few desires are the three items with positive factor loadings. Adaptability and prudence are the two negatively loaded items. When looking at how these items relate to individualism, their sign should be switched due to the inverse relationship between Moral Discipline and Individualism. The five Moral Discipline items are consistent with the concept of Individualism, but clearly they do not capture the total essence of the construct. Therefore, we shall proceed with caution when cross-comparing findings from these two dimensions.

Tung hypothesized that, on Individualism, she would expect the PRC responses to be comparable to those from Hong Kong. She based this conclusion on the importance of family and Communism in China. Family is the source of identity in the Chinese culture and Communism extends the family to include the

nation. Our study found no significant difference among the three countries in the study. All three groups of respondents were in the lower-middle range, with scores of approximately 4 on a 9-point scale.

Our findings are consistent with Tung; we both see similarity between Hong Kong and the PRC. Our findings are also partially consistent with those of the Chinese Culture Connection. The findings on U.S. subjects are consistent for our study and the Chinese Culture Connection's study. Where we vary is with the Hong Kong subjects. The Chinese Culture Connection found them to place a higher value on Moral Discipline than we did. Could this mean that the Hong Kong managers are actively reshaping their values in this area, as they also might be doing in the Power Distant area? Or, could the differences in subject pool be responsible for this difference? This issue is another one that we see as important for future research to explore and to assist by collecting through-time data.

***Masculinity - Human-heartedness.*** Hofstede's Masculinity and the Chinese Culture Connection's Human-heartedness are most aptly viewed, for this study, as dimensions which provide a contrast between being task-oriented and people-oriented. High scores on Masculinity and Human-heartedness indicate a task orientation. The Hofstede and Chinese Culture Connection studies obtained similar results for the U.S. and Hong Kong. Both found that the U.S. and Hong Kong scored high on their respective dimensions.

Tung hypothesized that the PRC would have a moderate score on the Masculinity dimension since China is "...a mixed picture...it scores high on some of the Masculinity norms and low on others." As such, she predicted that the PRC would score lower than Hong Kong.

The findings from our study are consistent with those of Hofstede, the Chinese Culture Connection and Tung. We found the PRC to be most people-oriented (i.e., least Masculine). Also, their Human-heartedness score of 4.9 on our 9-point scale was, as Tung described it, moderate. Our study and those of Hofstede and the Chinese Culture Connection found both the U.S. and Hong Kong to be above average. However, while the Hofstede and the Chinese Culture Connection studies found apparently little difference between the U.S. and Hong Kong, our study identified the U.S. as being higher on the Human-heartedness scale. The basic consistency of findings across studies and across time suggests that some of the other dimensions may be more interesting for future research. However, given the importance of a manager's orientation toward coworkers, this dimension should not be forgotten.

***Uncertainty Avoidance - Intolerance of Ambiguity.*** Hofstede found that while the U.S. was slightly higher than Hong Kong in Uncertainty Avoidance, both countries were well below the average. Tung

hypothesized that the PRC would have a low level of Uncertainty Avoidance, in part, due to the political upheavals which the country has had to live through since 1949.

Uncertainty Avoidance did not correlate with any of the CVS dimensions. Hofstede and Bond (1988) acknowledge that Uncertainty Avoidance, which Hofstede had described as man's search for Truth, may not be an essential issue with the Chinese. In our study, we used Intolerance of Ambiguity, a construct that is somewhat similar to Uncertainty Avoidance. However, the instrument we selected was designed to measure one's tolerance for ambiguity as conceptualized in the original work on the authoritarian syndrome (Martin & Westie, 1959). It identifies intolerant, authoritarian individuals as those who tend to see grey-shaded situations as either black or white. These are individuals who also tend to seek unambiguous solutions for complex problems. As such, the Intolerance of Ambiguity measure focus upon the more specific issues, such as decision making style and degree of rules and regulations desired, rather than focusing upon the more global issue of man's search for Truth. Therefore, while the constructs are somewhat similar, the actual focus of each is sufficiently different to suggest that comparing the findings from them should be done cautiously.

Our finding that U.S. managers were significantly more tolerant of ambiguity than their Hong Kong counterpart, and in turn, that the Hong Kong managers were significantly more tolerant than the PRC managers is not consistent with Hofstede's Uncertainty Avoidance findings. However, the finding that open-market managers tolerate ambiguity better than managers in China's centrally planned economy appears to be logical. Also, it appears that Hong Kong managers are different from their U.S. counterparts. Therefore, do these findings suggest a crossvergence of values or are they in a process of through-time evolution? Again, more research is needed to approach a definitive answer.

***Confucian Dynamism.*** Our findings are consistent with those of the Chinese Culture Connection. As expected, the Hong Kong subjects scored higher than the U.S. subjects in both studies on Confucian dynamism, an Eastern construct based upon the teachings of Confucius. Also, we found that the PRC managers scored significantly higher than the Hong Kong managers. These findings may suggest that Americans have yet to embrace or assimilate these Eastern-based values. These findings also may show that people in Hong Kong have modifying their concept of Confucian teachings to fit their Western-based capitalistic economy. As in our discussion of Intolerance of Ambiguity, the question of crossvergence or through-time evolution arises for the Hong Kong subjects.

In comparing our data with findings from previous research, we have raised a number of questions that might be explored through systematic research across the globe. We believe the questions lead to three major issues. What is the role of crossvergence in the convergence-divergence debate? Do all cultural values change at the same rate of speed or do we need to treat these values as individual entities that are not necessarily so inter-linked with other values of a culture that one or more cannot change independent of the others? Finally, how can we determine which values are (or if values are) in a through-time evolutionary process or if they are in a fairly steady state?

A final thought for future research is raised in a recent study by Punnett and Withane (1990). They have identified industry as a potentially useful covariate in the study of cross-cultural values. It was not used in this study, but might be considered for future research.

### **CONCLUSION**

Understanding managers' values is critical in a global economy, since the business philosophy of a given country depends, to a large degree, upon the values held by those in management. What is valued by managers in a given country influences how those individuals make business decisions (England & Lee, 1974; Haire, Ghiselli & Porter, 1966; Weinshall & Tawara, 1977/78). When business situations are uncertain or difficult to quantify, managers tend to rely heavily on their value systems to make decisions (Child & Tayeb, 1982/83; Davis & Rasool, 1988; Schilit, 1988). The international business arena has more uncertainty than a domestic one (Adler & Graham, 1989). Thus, managers in an international business environment tend frequently to rely on their value systems when making business decisions (Lai & Lam, 1986).

In this study, we took a cross-cultural look at the values that managers hold. Within our data, there is some support for both the divergence and convergence views. However, the majority of our findings for measures developed with both Eastern and Western constructs supported the crossvergence view.

One important conclusion that this study points toward is that values must be viewed individually and not as a bundled entity. Some values may change while others do not. Some values may change more rapidly than other values. Other unique values may evolve from a combination of influences. These findings are consistent with those of Bond and King (1985). Their study of the effects of Westernization in Hong Kong found that 79% of their sample felt they were Westernized in some respect. However, when asked if they were Chinese in some internal characteristics, 71% of the respondents answered affirmatively. Therefore, the results of this study and previous research argue for the concurrent possibility of convergence, divergence

and crossvergence depending upon a variety of factors including the values measured and the countries studied.

It is also possible that the crossvergence findings are a stage in a dynamic evolving process that is moving toward convergence (Ouchi, 1981). Time and longitudinal analyses will be needed to answer this question. However, our findings do support the contention that for today and the foreseeable future, different national cultures will contribute to the unique behaviors of managers in the different industrialized nations.

More specifically, we may look at the implications of these findings for the particular countries studied in this analysis. The differences in values which this study identified among the U.S., Hong Kong and PRC managers suggest that management on both sides of a relationship should be aware of their counterparts' differences in philosophy. In particular, managers of U.S. companies have been slow to perceive a need to consider cultural differences (Tung & Miller, 1990). For example, Tung (1981) reports that as many as forty percent of employees assigned to overseas positions fail in their jobs, not because of a lack of ability, but because they do not understand the cultural differences of the foreign country. Punnett and Yu (1990) found that their U.S. respondents did not rank differences in decision making or negotiating styles as important factors in doing business with the PRC. Adler and Graham (1989) note that undesirable outcomes at the negotiation table are often the result of cross-cultural communication problems. U.S. companies have tended to adopt the attitude that international business is the same as intra-national business (Tung & Miller, 1990). The findings of this study question the wisdom of that perception.

Far more isolated has been China. Little data have been available on the value orientation in the PRC since 1949 (Lai & Lam, 1986). However, since its leaders now espouse their desire to have China become a part of the international economic community, understanding their value system has become increasingly important. Those engaged in Chinese joint ventures already are aware of this. Also, these findings suggest that while a common cultural thread exists between Hong Kong and PRC managers, there are sufficient differences here to support the view that the resumption of sovereignty in 1997 may prove to be a difficult process of adjustment (Cheng, 1986; Chiu et al., 1987, Youngson, 1983).

As a concluding thought, it also may be important to acknowledge that values may differ between groups within a nation (Specter & Solomon, 1990). Male managers may have different values than their female counterparts; tomorrow's managers, today's youth, may have different values than present management. To understand more fully the values of managers in different nations, research should look not

only at cultural and environmental influences, but also at how different population segments within a nation view their values.

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**TABLE 1**  
**Demographic data, by country, for the subjects in the study**

<u>Demographics</u>	<u>U.S.</u>	<u>Hong Kong</u>	<u>PRC</u>
Age (mean # of years)	37	35	39
Gender (% male)	54%	79%	92%
Education (mean # of years)	15.0	13.7	14.5
Managerial Experience (mean # of years)	6.9	6.0	5.7
Number of Employers (mean #)	3.0	3.2	2.5

**TABLE 2**  
**Means and Standard Deviations of Each Group**  
**for the Eastern and Western Measures of Values**

<u>Measures</u>	<u>Country</u>	<u>Mean</u>	<u>SD</u>
<u>Western-developed</u>			
Machiavellianism	United States	83.9	10.60
	Hong Kong	89.5	15.80
	PRC	86.1	17.43
Locus of control	United States	8.1	4.01
	Hong Kong	10.8	4.15
	PRC	12.3	3.95
Intolerance of ambiguity	United States	19.8	4.59
	Hong Kong	22.1	4.68
	PRC	24.7	4.78
Dogmatism	United States	34.7	8.41
	Hong Kong	43.6	7.74
	PRC	42.1	5.37
<u>Eastern-developed</u>			
Confucian work dynamism	United States	4.9	0.58
	Hong Kong	5.1	0.56
	PRC	5.3	0.57
Human-heartedness	United States	5.9	0.78
	Hong Kong	5.5	0.73
	PRC	4.9	0.53
Integration	United States	5.7	0.43
	Hong Kong	5.6	0.59
	PRC	5.1	0.65
Moral discipline	United States	4.0	0.80
	Hong Kong	4.2	0.86
	PRC	3.9	0.96

**TABLE 3**  
**F-values of the ANCOVA for the Eastern and Western Measures of Values**

<u>Measures</u>	<u>F</u>
<u>Western developed</u>	
Machiavellianism	7.40 <sup>***</sup>
Locus of control	30.28 <sup>***</sup>
Intolerance of ambiguity	39.69 <sup>***</sup>
Dogmatism	30.98 <sup>***</sup>
<u>Eastern developed</u>	
Confucian work dynamism	3.49 <sup>*</sup>
Human-heartedness	20.81 <sup>***</sup>
Integration	23.16 <sup>***</sup>
Moral Discipline	1.30

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

TABLE 4

**Bonferroni t-test Comparisons of Difference between Countries  
for the Measures Found Significant in the Analyses of Variance**

<u>Measures</u>	<u>Groups compared</u>		
	<u>US-HK</u>	<u>HK-PRC</u>	<u>US-PRC</u>
<u>Western developed Measures</u>			
Machiavellianism	3.79*	-0.23	3.54*
Locus of control	-5.26*	-4.96*	-8.35*
Intolerance of ambiguity	-3.11*	-5.88*	-4.14*
Dogmatism	-8.00*	1.06	-6.35*
<u>Eastern developed Measures</u>			
Confucian work dynamism	-3.05*	-3.17*	-5.17*
Human-heartedness	3.68*	5.49*	7.56*
Integration	0.87	6.89*	6.20*
Moral Discipline	-1.85	-0.16	1.84

\*  $p < .05$ , where \* indicates comparisons significant at the .05 level controlling for experiment-wise error rate.