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Republic of China and Hong Kong**

**CEO Publication
T 88-13 (126)**

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May 1994

An earlier version of this paper was presented at the National Academy of Management meeting,
August 11-14, 1985, San Diego, California.

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MANAGERIAL VALUES IN THE PEOPLE'S REPUBLIC OF CHINA AND HONG KONG

ABSTRACT

This paper reports on a study of the managerial values in the People's Republic of China (PRC) and Hong Kong. We used discriminant analysis to predict membership in each society based on four work-related cultural values previously developed by Hofstede (1980). The four cultural values of power distance, uncertainty avoidance, masculinity, and individualism were significant in correctly classifying 100% of the cases. Further analysis revealed that it was the younger PRC managerial trainees who had work-related values that were very similar to those of Hong Kong managers of all ages. We discuss the implications of these findings for the convergence hypothesis and for Hong Kong's future competitiveness after it reverts to the PRC in 1997.

Please address all correspondence to the first author. We would like to express our appreciation to Geert Hofstede, Gordon Redding, the U.S. International Communications Agency, the University of Hong Kong, the Swedish Institute of Management, and the People's Republic of China for helping to make this research possible.

The convergence hypothesis (Kerr, Harbison, Dunlop, and Myers, 1960) has been the subject of considerable controversy ever since it was proposed (Form, 1979).

The central thesis of the convergence hypothesis is that the technological imperatives of industrialization cause a convergence in social institutions. Although the entire theory has never been tested in its entirety, because so few nations have undergone complete industrialization (Form, 1979) portions of the theory have been tested. We too tested a portion of the total theory. Specifically, we tested the proposition that with increased industrialization, managerial values converge. We examine this proposition by using the acquisition of four managerial values (Hofstede, 1980) by 175 management trainees from the People's Republic of China (PRC) and 175 management trainees from Hong Kong as the basis for predicting their membership in the PRC or the Hong Kong group. These 350 trainees from the PRC and Hong Kong were matched on the individual attributes of years of education and employment in order to control for their effect on cultural acquisition.

BACKGROUND

Industrialization and Managerial Values

The values of managerial and non-managerial workers individually change in response to increased industrialism. As Inkles and Smith (1974:4) have argued:

"Modern institutions need individuals who can keep to fixed schedules, and follow authorities legitimated not by traditional or religious sanctions but by technical competence. The complex production tasks of the industrial order, which are the basis of modern social systems, also make their demands. Workers must be able to accept both an elaborate division of labor and the need to coordinate their activities with a large number of others in the work force. Rewards based on technical competence and objective standards of performance, strict hierarchies of authority responsive to the imperatives of machine production, and the separation of product and producer, all are part of this milieu, and require particular personal properties of those who are to master its requirements."

In their discussion of managerial workers, Harbison and Myers (1959:130) argued that, "studies of the more advanced industrial countries illustrate convincingly the relation between the competence and performance of management and the facilities for developing managerial resources." That is, an essential prerequisite for developing an advanced industrial society is a skilled managerial work force. This training includes, in addition to specific skills (e.g., PERT, MBO), the acquisition of an appropriate system of values since values are closely associated with subsequent behavior (England & Keaveny, 1969). Therefore, industrialization is associated with a growth in the appropriate values and skills necessary for the management of industrial enterprises. The convergence hypothesis (Kerr et al., 1964) is consistent with Harbison and Myers (1959) position in the argument that the value systems of managers become increasingly similar with the "imperatives of industrialization."

Social Culture and Acquisition of Individual Values

Culture refers to the collective mental programming of individuals (Hofstede, 1980). As usually used "culture" is a group attribute and not an individual attribute per se. The acquisition of cultural values, however, is an individual attribute. The acquisition of cultural values is treated as acculturation (Hammond, 1964:447), as enculturation (Bohannon, 1963:16), or as socialization in the sense of gaining the appropriate values, role behaviors, developing skills and abilities, and adjusting to the group's norms (Feldman, 1981:309).

However, individuals vary in the extent to which they gain a society's cultural values (England, 1975). Reasons for individual differences include associated life experiences such as years of education and work experiences (Brim & Wheeler, 1966; Dasen, 1977; Inkles & Smith, 1974). These individual differences due to years

of education and work experience need to be controlled in order to examine the relationship between the acquisition of managerial values and industrialization.

Industrialization in the PRC and Hong Kong

Hong Kong is on the coast of Guangdong province of the PRC. Before 1842, Hong Kong was part of Imperial China. As a result of the first Opium War, the Treaty of Nanking ceded (among other things) Hong Kong Island "in perpetuity" to the British on August 29, 1842. On March 26, 1856 the Chinese Emperor ceded Kowloon Point and Stone-cutter Island to the British again "in perpetuity" as a result of the Second Opium War. To strengthen its Hong Kong possessions, the British forced Imperial China to lease 350 square miles of territory, including 233 more islands, for 99 years beginning July 1, 1898. The lease expires three days before June 30, 1997.

Negotiations concluded during the summer of 1984, will turn over all of the Hong Kong territory to the PRC in 1997.

Politically separated from the various Chinese governments in control since 1841, Hong Kong has been largely populated by Cantonese from Guangdong province. Although many Shanghaiese capitalists fled to Hong Kong with the fall of Shanghai in 1949, the majority of the population has remained Cantonese.

From 1937 through August of 1945 the Sino-Japanese War engulfed much of China and Hong Kong. Until August 1945 individuals growing up in China or Hong Kong faced very similar war-time conditions. From August 1945 until late 1949 Guangdong province was under the control of the Kuomintang Party and the Republic of China while Hong Kong returned to British sovereignty. It was not until the Communist offensive into Southern China and the fall of Nanking in 1949 that the Nationalist Kuomintang retreated from the Chinese mainland and Guangdong province to Taiwan. The People's Republic of China was founded in September 1949. It was only then that the PRC began to assert its political and economic

policies throughout the Chinese mainland. However, recovery from the Sino-Japanese War of 1937 to 1945 and the subsequent continuation of the Communist Revolution took time. It was not until 1953 that the first five year plan began, which aimed at industrialization.

From 1945 onward, Hong Kong received an enormous influx of refugees from the continued fighting between the Nationalists and Communists. Despite this influx of refugees and the surrounding turmoil, Hong Kong resumed its industrialization in 1945, eight years earlier than the PRC.

Comparable data for Hong Kong and the PRC on industrialization are limited. There are, however, two important trends from the available data presented in Table 1. The first trend from these data is that Hong Kong exceeds the PRC in the proportion of its appropriately aged school population enrolled in primary and university education and exceeds the PRC in energy consumption per person. The PRC exceeds Hong Kong in the proportion of appropriately aged individuals in secondary school and in steel consumption throughout the period. The second significant trend of these data is the rate of change in these absolute amounts. Both the PRC and Hong Kong have increasingly industrialized and in most areas except steel consumption, Hong Kong exceeds the levels of industrialization of the PRC when the data are normalized by population. However, the PRC has been increasing its industrialization at higher rates than Hong Kong.

Insert Table 1 about here

PRC Managerial Values

For at least 1200 years social rank in China was largely based on merit as demonstrated by successful performance in the dynastic system of examinations (Lee, 1954). The Confucian ideals of a meritocracy were governed by the concept

of face or "mien-tzu", literally "face" or "outside" that implies reputation and "lien" which refers to the confidence others place in one's integrity. Losing face refers to failing to meet the expectations of others for one's performance (lien) while gaining face refers to gaining social reputation (mien-tzu) (Ho, 1976).

Face acts as a powerful force for social control. Within organizations, subordinates are expected to exhibit trust in their superior's actions in order to be deserving of trust themselves. Interactions tend to be primarily vertical so increased respect of the superior can be achieved and competition between peers is high in order to receive trust from their superior (Birnbaum & Wong, 1985). Consequently, Chinese organizations tend to be made up of individuals who are linked vertically through a system of mutual obligations, but who compete for advancement with others at the same hierarchical level.

Except McClelland's early work (McClelland, 1963) and three recently published studies (Bai, 1987; Lai & Lam, 1986a, 1986b, 1986c; Shenkar & Ronen, 1987) little has been reported concerning current managerial values or attitudes in the PRC. The few reports that have emerged have pointed to a contradiction in PRC approaches. Characteristic of these competing views are the "mass line" and "democratic centralist" doctrines. As Falkenheim notes (1981:190),

Among the values to be reconciled, none is more central to China's revolutionary purposes than the values of 'control' and 'autonomy.' Chinese efforts to hold these two values in tension reflect the view that organizations in a revolutionary setting must, whatever their specific functions, be designed both to release and to direct human energies. In practice, however, these values have proved difficult to keep in creative balance. Instead, they have tended to subordinate one another in sequential fashion, with periods of overcontrol succeeded by excessive autonomy. This syndrome in the administrative sphere, captured in the maxim 'centralization causes death ... decentralization causes disturbances' (Hu Qiaomu, 1978:E9), suggests both the difficulties of reconciling these values and the inadequacies of cyclical corrective intervention."

Consistent with many other Communist societies, the PRC is based on principles of Marx and Lenin. Such communist societies have been characterized as low on freedom and high on equality (Hofstede, 1980:23). Since freedom implies unpredictability and uncertainty, the communist emphasis on lower freedom should be reflected by high scores on measures of uncertainty avoidance in which a group seeks to reduce uncertainty for its members. Further, the PRC is a Chinese society that historically has demonstrated a strong preference for collective actions (Pye, 1982) and uncertainty avoidance (Hofstede, 1980) which are consistent with communist values. This joint historical and communist emphasis may help account for Lai and Lam's report that the PRC had the highest uncertainty avoidance scores of any country for which these scores have been reported (Lai & Lam, 1986b:36)

The communist societies emphasis on equality implies that power differences are minimized and should be reflected in low scores on power distance, or the extent to which unequal power is accepted. These arguments are consistent with Lai & Lam's (1986b) findings that the PRC had lower scores for power distance than other Chinese societies.

The emphasis on lower freedom and higher equality also implies less emphasis on the individual and more emphasis on the collective. Mao Tse-tung, for example, argued that individualism was evil and a characteristic of selfishness and aversion to discipline characteristic of the petty bourgeoisie (Ho, 1978). However, the empirical evidence so far reported indicates that PRC managers who were strong party members were the only ones to adopt Mao's position (Lai & Lam, 1986b).

Chinese society has historically been a society dominated by respect for a hierarchy of authority (Hofstede, 1980; Redding & Hicks, 1983; Shenkar & Ronen, 1987) and for masculine values of competition and achievement (Eberhard, 1971; Lee, 1954; Oh, 1976). However, communist societies with their emphasis on equality are likely

to emphasize giving service, concern for interpersonal relationships, and better physical working conditions and are not likely to emphasize advancement and earnings (as important). Those values concerned with advancement and earnings we usually associate with masculinity and the values of service, interpersonal relations, and working conditions we generally associate with femininity (Hofstede, 1980:261). Previous findings by Lai and Lam (1986b) indicated that the PRC had the lowest masculinity scores of any society.

Consequently the PRC, as a communist society should encourage the acquisition of managerial values that are low on power distance, individualism, and masculinity and high on uncertainty avoidance.

Hong Kong Managerial Values

Hong Kong is a society characterized by free market capitalism. The Hong Kong Government follows the British colonial tradition of indirect rule in which the colonial government refrains from initiating changes in the social life of the population. However, previous extractive policies have not been followed in the period of de-colonialization following the Sino-Japanese War. The post-war period of colonial administration in Hong Kong has been marked by the formation of a limited, law-abiding, and aloof government (Wong, 1983). Consequently, the Hong Kong culture places a high value on freedom rather than control.

Despite the differences in government policies between Hong Kong and the PRC, Hong Kong Chinese have frequently been described as westernized only in a superficial sense (Agassi & Jarvie, 1969; Millar, 1979; Moore, 1981; Wong, 1983). "They have adopted western costumes, but many of them still uphold traditional Chinese values on important aspects of social living" (Wong, 1983:2). As a Chinese society, Hong Kong shares the tradition of control hierarchies and the masculine values of achievement. Hofstede's (1980:315) empirical results are consistent with

these theoretical expectations. He found that Hong Kong was higher than the 40 country average on the cultural values of power distance and masculinity and lower than the average on the cultural values of uncertainty avoidance and individualism.

Differences Between PRC and Hong Kong Managerial Values

Differences between managerial values in the PRC and Hong Kong are expected to be between power distance, uncertainty avoidance, masculinity, and individualism. These expectations are reflected in the first four hypotheses.

- H₁: The value of power distance will be higher in Hong Kong than in the PRC *ceteris paribus*.
- H₂: The value of uncertainty avoidance will be higher in the PRC than in Hong Kong, *ceteris paribus*.
- H₃: The value of masculinity will be higher in Hong than in the PRC, *ceteris paribus*.
- H₄: The value of individualism will be higher in Hong Kong than in the PRC, *ceteris paribus*.

Because of the lower initial level and faster rate of industrialization in the PRC compared to Hong Kong, we expect younger managerial trainees who grew up in the PRC to have acquired different managerial values than older managerial trainees. Industrialization requires a technically trained work force including managers who are willing and able individually to achieve positions of greater authority and to exercise control over the means of production. Further, with industrialization has come increased egalitarianism as worker-manager interdependence, greater, education, and the middle class has increased (Béteille, 1969). The industrialization requirements for individual achievement are closely related to the managerial values of masculinity, and individualism while increased egalitarianism is associated with decreased power distance. Further, the willingness to assume the inherent risks of management, in which decision consequences are not certain and may have major effects on others, is a requirement related to the managerial value of reduced

uncertainty avoidance. Therefore, we expect older PRC managerial trainees raised during a less industrialized period and exposed to slower rates of industrialization, to have acquired greater degrees of power distance and uncertainty avoidance, but to have acquired lower masculinity and individualism managerial values than younger individuals. Further, since Hong Kong was more highly industrialized and increased its industrialization at a slower rate than in the PRC, both younger and older managerial trainees faced very similar conditions and so age should have little relationship to the acquisition of cultural values. These arguments are presented in the following hypotheses.

- H₅: Age will be positively related to power distance in the PRC, but not in Hong Kong, *ceteris paribus*.
- H₆: Age will be positively related to uncertainty avoidance in the PRC, but not in Hong Kong, *ceteris paribus*.
- H₇: Age will be negatively related to masculinity in the PRC, but not in Hong Kong, *ceteris paribus*.
- H₈: Age will be negatively related to individualism in the PRC, but not in Hong Kong, *ceteris paribus*.

METHOD

Sample

Because of the difficulty in collecting empirical data in the PRC, a convenience sample was drawn from participants at executive programs conducted in Hong Kong, Guangzhou, Tianjin, and Beijing between 1982-87. Although these PRC data represent a small non-representative sample in relationship to the potential sampling frame, they were collected from different locations across China and over time.

Demographic and managerial value data were collected from all participants who returned Chinese language questionnaires anonymously to the investigators during each class session. Of the 254 individuals from the PRC who returned completed

questionnaires, the sample was reduced to 175 because 30 individuals did not complete sufficient demographic information to permit matching them with comparable managers from Hong Kong. We could not obtain close matches on years of education and work experience for 49 additional PRC respondents.

The Hong Kong sample consisted of 929 Chinese including executive program trainees, managerial and professional employees (e.g., financial analysts) from 24 multinational banks, the Hong Kong Telephone Company, 13 schools, and three units within the Hong Kong Government's Labour Department. From this pool of respondents 175 were selected who matched the 175 PRC respondents on years of education and work experience, and managerial level. As Table 2 shows, both samples consisted predominantly of males in their early to middle 30's who were management trainees.

Insert Table 2 about here

Measurement

Managerial values of power distance, uncertainty avoidance, masculinity, and individualism were measured using Hofstede's (1980) Values Survey Module (VSM). Demographic information on respondent age, gender, years of formal education, work experience, and management level was collected by the same instrument.

Validity

The Value Survey Module (VSM) instrument we used has been validated for national cultures in 40 societies (Hofstede, 1980; Hofstede & Bond, 1984). In addition, however, we conducted our own validation of the VSM at both the societal and individual levels. The validity coefficient between the data from our Hong Kong sample collected from 1982-87 and the data reported for Hofstede's Hong

Kong sample collected between 1967-72 was 0.68. Since Hofstede (1980) did not report data for the PRC we computed the validity coefficient between our PRC data and data reported on the PRC by Lai and Lam (1986b). Our PRC validity coefficient with Lai and Lam's (1986b) work was 0.57 even though the Lai and Lam variable computations were different (1986b:34) than Hofstede's method which we used. Although not as large as we would like, these are respectable validity coefficients, particularly when one considers Lai and Lam's different computational procedure and changes in the VSM scores over time, a point we take up later in our discussion.

Although our validation analysis and Hofstede's (1980) own reports for the validity of the VSM were consistent, they were all at the group or societal level and not at the individual level used in this study. Consequently, each respondent's individual acquisition of the four managerial values was assessed by calculating the individual's scale score consistent with Hofstede's (1980) scoring method for groups.¹ In addition, the group score for the PRC and Hong Kong was calculated for each of the VSM variables using Hofstede's (1980) method. The results of the predictive validity coefficients between the individual and the group scores are presented in Table 3. All of the predictive validity coefficients were high.

Insert Table 3 about here

Reliability

Split-half reliability coefficients were constructed in which the PRC and Hong Kong samples were each randomly split into two sub-groups and the individually constructed VSM scale scores were correlated between the two sub-groups. This method was used because Hofstede's (1980) scoring procedure is based on a regression equation with a minimum set of orthogonal independent variables predicting each of the four VSM variables constructed as factor scores after a QV

factor analysis of all the VSM items. Consequently the minimum set of independent variables used to construct each of the four VSM variables are not highly intercorrelated which means that some traditional reliability coefficients (e.g., Cronbach's Alpha) based on linear composites of highly related variables are non-sensical. The results of the split-half reliabilities were all high and are presented in Table 4.

Insert Table 4 about here

A Chinese language version of the questionnaire instrument was carefully developed using the back translation method (Brislin, 1980). The instrument was first translated from English into Chinese by a paid professional translator and then back translated into English by the investigators and then back into Chinese and then English once again. This procedure insured an accurate prose translation that was decentered from a literal English language translation (Werner & Campbell, 1970) although a psychometric analysis was not conducted (Julin, Drasgos, & Komocar, 1982). In the PRC, only the Chinese language version was used while both the Chinese language and the English language versions were used in Hong Kong depending on the respondent's fluency in English.

Before conducting the hypotheses tests, we attempted to insure that the culture acquired was the society's culture and not an organization's culture. Since all PRC respondents were employed by their government, we were only able to test the possibility of confounding due to organization cultures on the Hong Kong set of respondents. Since no more than four respondents worked for any one Hong Kong organization, we tested the Hong Kong data set by creating a dummy variable for whether the respondent was employed by a governmental non-profit or private profit-seeking organization. We regressed each cultural value on this dummy variable while controlling for the individual attributes of age, gender, years of

education, years of work experience, and managerial level. The results show that the Hong Kong respondent's membership in either public or private organizations failed to significantly explain any of the variance in any of the four cultural values. These Hong Kong results suggest that the Value Survey Module measures societal culture as argued and tested by Hofstede (1980) and not a public or private organizational specific culture.

Analysis

A discriminant analysis was used to determine whether respondents from the PRC could be differentiated from those respondents from Hong Kong based on their scores on the cultural values of power distance, uncertainty avoidance, masculinity, and individualism. Following the discriminant analysis, a hierarchical multiple regression analysis was conducted to test the hypotheses concerning the relationship of respondent age on the four cultural values.

RESULTS

The correlation matrices presented in Table 5 show that multicollinearity was not a problem in the discriminant and regression analyses.

 Insert Table 5 about here

We employed the step-wise discriminant approach because we had no a priori theoretical rationale for including all possible discriminators in the analysis simultaneously. Before generating discriminant functions the two groups (PRC and Hong Kong) should be significantly different on the four culture scales. This is a test of group centroids and is conventionally measured by the Wilks' lambda statistic. As Table 6 shows, Wilks Lambda was .86 with a F-ratio value of 52.21 significant at .00001 indicating that the PRC and Hong Kong managers were significantly different on the cultural scales.

The discriminating function accounted for 100% of the variance. Examination of the standardized canonical discriminant function coefficients indicates that individualism is the largest contributor, followed in order by power distance, uncertainty avoidance, and masculinity. These results indicate that during the 1982-87 period, the acquisition of power distance and masculinity were higher in Hong Kong than in the PRC, although as Table 2 indicates the acquisition of individual masculinity values were not significantly different between the two societies. The acquisition of uncertainty avoidance and individualism were higher in the PRC than in Hong Kong. These findings confirm our hypotheses except for the fourth which predicted higher individualism in Hong Kong than in the PRC.

 Insert Table 6 about here

The prediction results in Table 7, show that 100% of the managers studied were correctly classified using the discriminant function.

 Insert Table 7 about here

Recall that we controlled for the effects of individual life experiences such as years of education and employment through matching of the PRC and Hong Kong samples. However, in addition to years of education and employment, other individual characteristics such as gender (Whiting, 1961) and age (Brim & Wheeler, 1966; Dasen, 1977; Inkles & Smith, 1974) may influence the acquisition of cultural values. In order to examine the effects of age, gender, management level, years of education, and years of occupation we analyzed their relationship to each of the four managerial values in each society.

In the PRC, age was related to uncertainty avoidance, masculinity, and individualism. Years of formal education was only related to masculinity in the PRC. In Hong Kong, the years of formal education was significantly related to

power distance, uncertainty avoidance, and masculinity while gender was related only to masculinity. These findings suggest that managerial level was not significantly related to the acquisition of cultural values in either the PRC or Hong Kong. Also, gender was only significantly related to the acquisition of masculine managerial values in Hong Kong. As we expected, age of the respondents was not related to any of the managerial values in Hong Kong, but was significantly related to three out of the four values in the PRC. We further explored the relationship between age and managerial values through hierarchical regression analysis and tests of our fifth, sixth, seventh, and eighth hypothesis.

Our fifth hypothesis that power distance was positively related to age in the PRC, but not in Hong Kong was not supported in the PRC, but was supported in Hong Kong. However, our sixth hypothesis, that age would be positively associated with uncertainty avoidance in the PRC, but not Hong Kong was supported. Also, the seventh hypothesis that age would be negatively related to masculinity in the PRC, but not in Hong Kong was supported. Finally, individualism was significantly related to age in the PRC, but not in Hong Kong although the relationship was positive rather than negative as we had proposed in our eighth hypothesis.

We explored the relationship of age to the other possible explanatory variables further by creating moderating variables and entering them into a hierarchical regression. These age moderated variables were created by taking the product of age and years of formal education, managerial level, years of employment, and gender to learn if older or younger more educated managers, higher ranking managers, longer term managers, and male or female managers acquired culture differentially. The results in Table 8 show that there were no significant interaction effects of age and the other independent variables with the acquisition of managerial values.

Insert Table 8 about here

A summary of the hypotheses and the results on the individual acquisition of managerial values is presented in Table 9.

Insert Table 9 about here

Group Level Managerial Values Over Time

In addition to the hypotheses tests of the individual acquisition of managerial values, we explored the data to determine if any changes had occurred in the values at a group level within the PRC and Hong Kong over time. Since our data were collected in two waves (1982-84 and 1985-87) we divided our sample into two time periods and analyzed them graphically and through a oneway analysis of variance to determine the direction and difference over time within and between the two societies.

The results are presented in Table 10 and in Figures 1, 2, 3, and 4. As the results show, power distance, uncertainty avoidance, and individualism managerial values declined while the masculinity managerial value increased for both the PRC and Hong Kong between the 1982-84 and 1985-87 time periods. The conservative post-hoc Scheffe test indicated a significant decrease in power distance for Hong Kong between the two time periods but insignificant differences between the other power distance scores. The Scheffe tests indicated significant differences between uncertainty avoidance and masculinity for all scores except the 1982-83 Hong Kong and 1985-87 PRC scores. Scheffe tests of differences between the individualism scores showed a significant difference between the PRC and Hong Kong in 1982-84, but no significant difference between these two societies in 1985-87. Further, there were significant differences in the individualism scores between the 1982-84 Hong Kong Score and the 1985-87 PRC score. Worth noting is that the 1985-87 scores on

the managerial values for uncertainty avoidance and masculinity in the PRC were not significantly different from the uncertainty avoidance and masculinity scores for Hong Kong in 1982-84. Further, as of 1985-87 there was no significant difference between the PRC and Hong Kong in the managerial values of power distance and individualism. Based on these limited data, the managerial values of the PRC and Hong Kong are changing in the same overall direction and in the case of masculinity and individualism are converging.

Insert Table 10 about here

Insert Figure 1 about here

Insert Figure 2 about here

Insert Figure 3 about here

CONCLUSIONS

We have analyzed a closely matched set of managerial trainees from the PRC and Hong Kong in order to predict society membership based on the acquisition of four cultural values previously developed and validated in 40 countries by Hofstede (1980). We controlled for the effects of life experiences such as years of education and work experience through the process of matching. The results of the discriminant analysis show support for an explanation of membership in the PRC and Hong Kong based on the acquisition of all four cultural values.

Most significant in discriminating group membership was the acquisition of the managerial value of individualism followed by power distance, uncertainty avoidance, and masculinity. Age was a significant predictor of uncertainty

avoidance, masculinity, and individualism in the PRC, but not in Hong Kong. That is, in the PRC, younger managers raised during a period of rapid industrialization have gained greater propensity for taking risks, for traditional masculine values, and for greater collectivism and less individualism than their older comrades. In addition, more highly educated managerial trainees reported greater risk propensity and masculine values in both the PRC and Hong Kong. Gender was only associated with power distance in the PRC where females tended to have gained less tolerance for power distance than males. In the PRC females and males were equally likely to gain higher uncertainty avoidance, masculinity, and individualism values. However in Hong Kong, females were significantly less likely to have acquired masculine values than males and were equally likely as males to have acquired strong values for power distance, uncertainty avoidance, and individualism.

Even though these findings are based on a limited sample, they suggest a continued convergence of managerial values between PRC and Hong Kong managers as industrialization continues. Such a convergence of managerial values should prove particularly beneficial to the transitional period when the Royal Crown Colony of Hong Kong reverts to the PRC in 1997 since managers from both the PRC and Hong Kong will need to work collaboratively together to ease the transition. Further, the economic success of Hong Kong in competitive international markets indicates that PRC managers who share the managerial values of Hong Kong managers and who are able to work collaboratively with their Hong Kong counterparts should provide a critical ingredient for the PRC's international competitiveness into the 21st century.

¹Interested investigators should write to Geert Hofstede for permission to use the VSM instrument and for instructions in how to score it. The address is:

Dr. Geert Hofstede, Director
Institute for Research on
Intercultural Cooperation
Velperweg 95
6824 H Arnhem
The Netherlands

Please send a copy of Geert Hofstede's written permission for using the VSM to the first author for a copy of the individual acculturation calculation procedures.

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TABLE 1
Industrialization Indicators for the PRC and Hong Kong

	2	1	2	1	2	1	2	1	2	1		
	HKong	PRC	HKong	PRC	HKong	PRC	HKong	PRC	HKong	PRC		
	Popul. Millions	Prim. Students % Student Pop.	2ndary Students % Student Pop.	Univ. Students % Student Pop.	Energy Consum. Kg/Person	Steel Consumpt Kg/Person						

Comparable data for both China and Hong Kong prior to 1949 was not available												
1949	541.7											
1950	552.0								2.6	50.0		
1951	563.0								2.4	33.0		
1952	574.8								3.4	38.0		
1953	588.0								4.5	39.0		
1954	602.7								4.6	53.0		
1955	614.7								5.7	51.0		
1956	628.3								8.6	81.0		
1957	2.7	646.5					427.6		8.8	107.0		
1958	2.9	659.9					413.4		12.0	75.0		
1959	3.0	672.1					417.9		20.0	92.0		
1960	3.1	662.1	100%				447.1		27.0	98.0		
1961	3.2	658.6	100.0%		15.4%		1.2%		21.0	96.0		
1962	3.3	673.0					534.7		17.0	130.0		
1963	3.4	691.7					596.5	419.8	16.0	150.0		
1964	3.5	705.0			15.2%		1.0%	577.1	441.2	13.0	151.0	
1965	3.6	725.4			15.0%		1.0%	636.1	444.9	14.0	162.0	
1966	3.6	745.4	100.0%		15.1%		1.0%	683.2	476.8	17.0	115.0	
1967	3.7	763.7	100.0%		15.4%		0.9%	793.0	330.7	20.0	104.0	
1968	3.8	785.3	100.0%		15.9%		1.0%	786.8	423.9	21.0	119.0	
1969	3.9	806.7	100.0%		15.9%		1.6%	961.1	429.7	26.0	129.0	
1970	4.0	829.9	100.0%		17.0%		1.6%	951.5	503.5	29.0	158.0	
1971	4.1	852.3	100.0%		18.2%		1.8%	1066.7	458.0	31.0	162.0	
1972	4.1	871.8			18.4%		1.8%	1021.8	468.6	33.0	142.0	
1973	4.2	892.1			16.9%		2.0%	985.8	436.7	36.0	156.0	
1974	4.3	908.6						525.0				
1975	4.4	924.2			19.4%		2.3%	1078.0	476.1	38.0	166.0	
1976	4.4	937.2			20.7%		2.3%	483.2		32.0	264.0	
1977	4.5	949.7			21.8%		2.2%	1452.5	533.2	33.0	262.0	
1978	4.6	962.6		93%		51.0%		1498.9	600.7	46.0	247.0	
1979	4.9	975.4			25.1%	79.0%	3.1%	1.0%	1450.4	608.3	47.0	275.0
1980	5.0	987.1						1425.6	588.1	45.0	284.0	
1981	5.2	1000.7	100.0%		26.4%		3.5%	1488.5	570.8			
1982		1015.4	100.0%	99%	27.5%		3.9%					

Average	3.9	818.4	100.0%	97.3%	18.8%	65.0%	1.9%	1.0%	895.2	485.2	21.2	133.0
=====												

Sources: 1 = Statistical Yearbook of China

2 = UN Statistical Yearbook for Asia and the Far East

Note: Blank space indicates data were not available.

TABLE 2
Means and Standard Deviations

Variables	PRC (N = 175)		Hong Kong (N = 175)		Oneway ANOVA F-Ratio
	Mean	Standard Deviation	Mean	Standard Deviation	
Power Distance	71.3	67.2	96.2	61.3	13.1**
Uncertainty Avoidance	70.4	64.0	47.8	71.3	9.7**
Masculinity	37.4	113.0	48.2	91.5	1.0
Individualism	171.0	74.0	131.4	54.2	32.7**
Age in Years(a)	3.1	.9	3.5	1.3	10.0**
Gender(b)	1.2	.4	1.3	.5	5.9*
Mgmt. Level(c)	1.9	.9	1.7	.8	6.2*
Yrs of Educ.(d)	3.2	1.3	3.4	1.3	1.5
Yrs in Occup.	2.3	.6	2.2	1.1	.7

Where: a: 1 = Less than 20 years old 5 = 50-59 years old
 2 = 20-29 years old 6 = 60 years and older
 3 = 30-39 years old
 4 = 40-49 years old

b: 1 = male 2 = female

c: 1 = Non-manager 3 = Manager of managers
 2 = Manager of workers

d: 1 = Non-high school or equivalent graduate
 2 = High school or equivalent graduate
 3 = Non-college graduate
 4 = College graduate
 5 = Post-college

e: 1 = Less than 5 years 4 = 16 to 20
 2 = 5 to 10 years 5 = Over 20 year
 3 = 11 to 15 years

*: $p < .05$; **: $p < .01$

TABLE 3
 Predictive Validity of
 Individual and Group Level Value Survey Module Scores

	Group!	Individual!!	Difference
PRC			
PDI	81.4	81.3	-.1
UAI	93.2	95.7	2.5
MAS	-111.6	-72.1	39.5
IDV	-8.7	-10.0	-1.3
Predictive validity coefficient = .991059			

HONG KONG

PDI	112.3	110.2	-2.0
UAI	48.2	48.2	0.0
MAS	38.6	38.6	0.0
IDV	38.3	38.3	0.0

Predictive validity coefficient = .999992

Where: ! = Hofstede (1980) aggregate calculation method and
 !! = Individual calculation method¹
 PDI = Power Distance Index
 UAI = Uncertainty Avoidance Index
 MAS = Masculinity
 IDV = Individualism

TABLE 4
Split-Half Reliabilities

	PRC	Hong Kong
PDI	.974430	.894783
UAI	.885403	.961951
MAS	.955242	.900355
IDV	.987326	.974076

Where: PDI = Power Distance Index
UAI = Uncertainty Avoidance Index
MAS = Masculinity
IDV = Individualism

TABLE 5
Correlation Matrices

	PDI	UAI	MAS	IDV	SEX	AGE	EDU	YRE	LVL
TOTAL SAMPLE (N=350)									
PDI	1.00								
UAI	-.09	1.00							
MAS	-.01	-.11*	1.00						
IDV	-.07	.02	.09	1.00					
SEX	-.01	-.06	-.14**	-.12*	1.00				
AGE	-.06	.15**	-.13*	.06	-.07	1.00			
EDU	-.09	-.22**	.27**	.04	-.05	-.01	1.00		
YRE	-.04	.13*	-.11*	.04	-.12*	.22**	-.06	1.00	
LVL	-.09	-.03	-.01	.07	.09	.06	.18*	-.13*	
PRC SAMPLE (N = 175)									
PDI	1.00								
UAI	-.13	1.00							
MAS	-.10	-.03	1.00						
IDV	-.01	-.03	.11	1.00					
SEX	-.12	.09	-.09	-.20**	1.00				
AGE	-.09	.23**	-.33**	.26**	-.19**	1.00			
EDU	-.05	-.17*	.19**	.13	-.10	-.03	1.00		
YRE	-.01	.09	-.19**	-.05	.05	.21**	-.03	1.00	
LVL	-.13	.06	.02	.12	-.14*	.27**	.28**	-.04	
HONG KONG SAMPLE (N = 175)									
PDI	1.00								
UAI	.01	1.00							
MAS	.11	-.04	1.00						
IDV	-.03	-.18	.10	1.00					
SEX	.05	-.13	-.21**	.04	1.00				
AGE	-.10	.15*	.01	.01	-.04	1.00			
EDU	-.17	-.25**	.37**	-.03	-.02	-.02	1.00		
YRE	-.05	.14	-.06	.10	-.20**	.24**	-.08	1.00	
LVL	.02	-.18*	-.10	-.10	.36**	-.06	.08	-.23**	

Where: * = $p < .05$ two-tailed and ** = $p < .01$ two-tailed

PDI = Power Distance AGE = Age in Years
 UAI = Uncertainty Avoidance EDU = Years of Education
 MAS = Masculinity YRE = Years in Occupation
 IDV = Individualism SEX = Gender
 LVL = Managerial Level

TABLE 6
Results of Discriminant Analysis (Stepwise)

CANONICAL DISCRIMINANT FUNCTIONS				
Function	Eigenvalue	%of Variance	Cumulative	Canonical Correlation
1	.1629	100.00	100.00	.3742

After Function	Wilks Lambda	F-Ratio	Chi ²	Significance
1	.86	52.21	4	.00001

STANDARDIZED DISCRIMINANT
CANONICAL FUNCTION COEFFICIENTS
(N = 350)

Variables

Power Distance	-.45
Uncertainty Avoidance	.40
Masculinity	-.18
Individualism	.79

TABLE 7

Prediction Results of Group Classification

Actual Group	No. of Cases	Predicted Group Membership	
		PRC	Hong Kong
PRC	175	175 100.0%	0 0%
Hong Kong	175	0 0%	175 100.0%

Percentage of grouped cases correctly classified: 100.0%

TABLE 8

Hierarchical Regression Analysis of Management Values
Unstandardized (Standardized) Regression Coefficients

	PRC (N = 175)			
	PDI	UAI	MAS	IDV
SET B				
AGE	-7.17 (-.09)	16.82 ** (.22)	-45.39 ** (-.34)**	22.28** (.26)**
EDU	-1.96 (-.04)	-8.48 * (-.17)*	13.49 * (.15)*	7.07 (.12)
LVL	-8.47 (.11)	4.50 (.06)	5.90 (.05)	-.55 (-.01)
YRE	1.62 (.01)	3.95 (.04)	-20.28 (-.10)	-11.96 (-.09)
SEX	-27.15 * (-.16)*	19.31 (.12)	-37.37 (-.13)	-26.40 (-.14)
EXPLAINED VARIANCE (R²)				
SET B:	.01	.07	.15	.09
SET B + AGE*EDU DIFFERENCE:	.02 +.01	.06 -.01	.12 -.03	.01 -.08
SET B + AGE*LVL DIFFERENCE:	.00 -.01	.07 .00	.10 -.05	.01 -.08
SET B + AGE*YRE DIFFERENCE:	.03 +.02	.06 -.01	.10 -.05	.01 -.08
SET B + AGE*SEX DIFFERENCE:	.01 .00	.07 .00	.10 -.05	.01 -.08

Where:

PDI= Power Distance	EDU= Yrs. Education	F-ratio
UAI= Uncert. Avoid.	LVL= Mgmt. Level	* = p<.05
MAS= Masculinity	YRE= Years Employed	** = p<.01
IDV= Individualism	SEX= Gender	
AGE= Age in Years		

TABLE 8 - continued

Hierarchical Regression Analysis of Management Values
Unstandardized (Standardized) Regression Coefficients

	PDI	Hong Kong (N = 175)		IDV
		UAI	MAS	
SET C:				
AGE	-4.53 (-.09)	7.08 (.12)	2.29 (.03)	-.83 (-.02)
EDU	-8.64 * (-.18)*	-13.60** (-.24)**	26.42 ** (.36)**	-.48 (-.01)
LVL	.49 (-.01)	-10.43 (-.11)	.19 (.00)	-8.21 (-.11)
YRE	-2.14 (-.04)	3.49 (.05)	-7.42 (-.09)	4.79 (.09)
SEX	4.01 (.03)	-12.79 (-.08)	-42.98 ** (-.21)**	12.13 (.10)
EXPLAINED VARIANCE (R ²)				
SET C	.01	.09	.16	-.004
SET C + AGE*EDU	.08	.09	.16	.01
DIFFERENCE:	+.07	.00	.00	+.01
SET C + AGE*LVL	.01	.09	.20	-.01
DIFFERENCE:	.00	.00	+.04	+.006
SET C + AGE*YRE	.05	.09	.16	-.00
DIFFERENCE:	+.04	.00	.00	.00
SET C + AGE*SEX	.01	.09	.16	-.01
DIFFERENCE:	.00	.00	.00	+.01

Where:

PDI= Power Distance EDU= Yrs. Education F-ratio
 UAI= Uncert. Avoid. LVL= Mgmt. Level * = p<.05
 MAS= Masculinity YRE= Years Employed ** = p<.01
 IDV= Individualism SEX= Gender
 AGE= Age in Years

TABLE 9

Hypotheses and Summary of Findings

Hypotheses	Findings
H ₁ : The value of power distance will be higher in Hong Kong than in the PRC, <i>ceteris paribus</i> .	Supported
H ₂ : The value of uncertainty avoidance will be higher in the PRC than in Hong Kong, <i>ceteris paribus</i> .	Supported
H ₃ : The value of masculinity will be higher in Hong than in the PRC, <i>ceteris paribus</i> .	Supported, but no significant difference
H ₄ : The value of individualism will be higher in Hong Kong than in the PRC, <i>ceteris paribus</i> .	Not Supported
H ₅ : Age will be positively related to power distance in the PRC, but not in Hong Kong, <i>ceteris paribus</i> .	Not supported
H ₆ : Age will be positively related to uncertainty avoidance in the PRC, but not in Hong Kong, <i>ceteris paribus</i> .	Supported
H ₇ : Age will be negatively related to masculinity in the PRC, but not in Hong Kong <i>ceteris paribus</i> .	Supported
H ₈ : Age will be negatively related to individualism in the PRC, but not in Hong Kong, <i>ceteris paribus</i> .	Supported in Hong Kong, but not in the PRC

TABLE 10

Group Scores Over Time on Power Distance (PDI),
Uncertainty Avoidance (UAI), Masculinity (MAS),
and Individualism (ISM)

Variable	Period	N	PRC	N	HOK
PDI	1982-84	39	84.36	157	103.38
PDI	1985-87	136	67.59	18	33.61
UAI	1982-84	39	96.5	157	62.85
UAI	1985-87	136	54.46	18	-10.79
IDV	1982-84	39	180.62	157	168.27
IDV	1985-87	136	131.83	18	127.17
MAS	1982-84	39	-67.91	157	67.63
MAS	1985-87	136	38.10	18	136.33

		PDI			
		Gp1	Gp2	Gp3	Gp4
Gp1					
Gp2					
Gp3			*		
Gp4		*		*	

		UAI			
		Gp1	Gp2	Gp3	Gp4
Gp1					
Gp2		*			
Gp3		*			
Gp4		*	*	*	

		MAS			
		Gp1	Gp2	Gp3	Gp4
Gp1					
Gp2		*			
Gp3		*			
Gp4		*	*	*	

		IDV			
		Gp1	Gp2	Gp3	Gp4
Gp1					
Gp2					
Gp3		*	*		
Gp4		*			

Where: * \leq .05 Post Hoc Scheffe Test

Gp1 = PRC 1982-84 Gp3 = HOK 1982-84
Gp2 = PRC 1985-87 Gp4 = HOK 1985-87

FIGURE 1

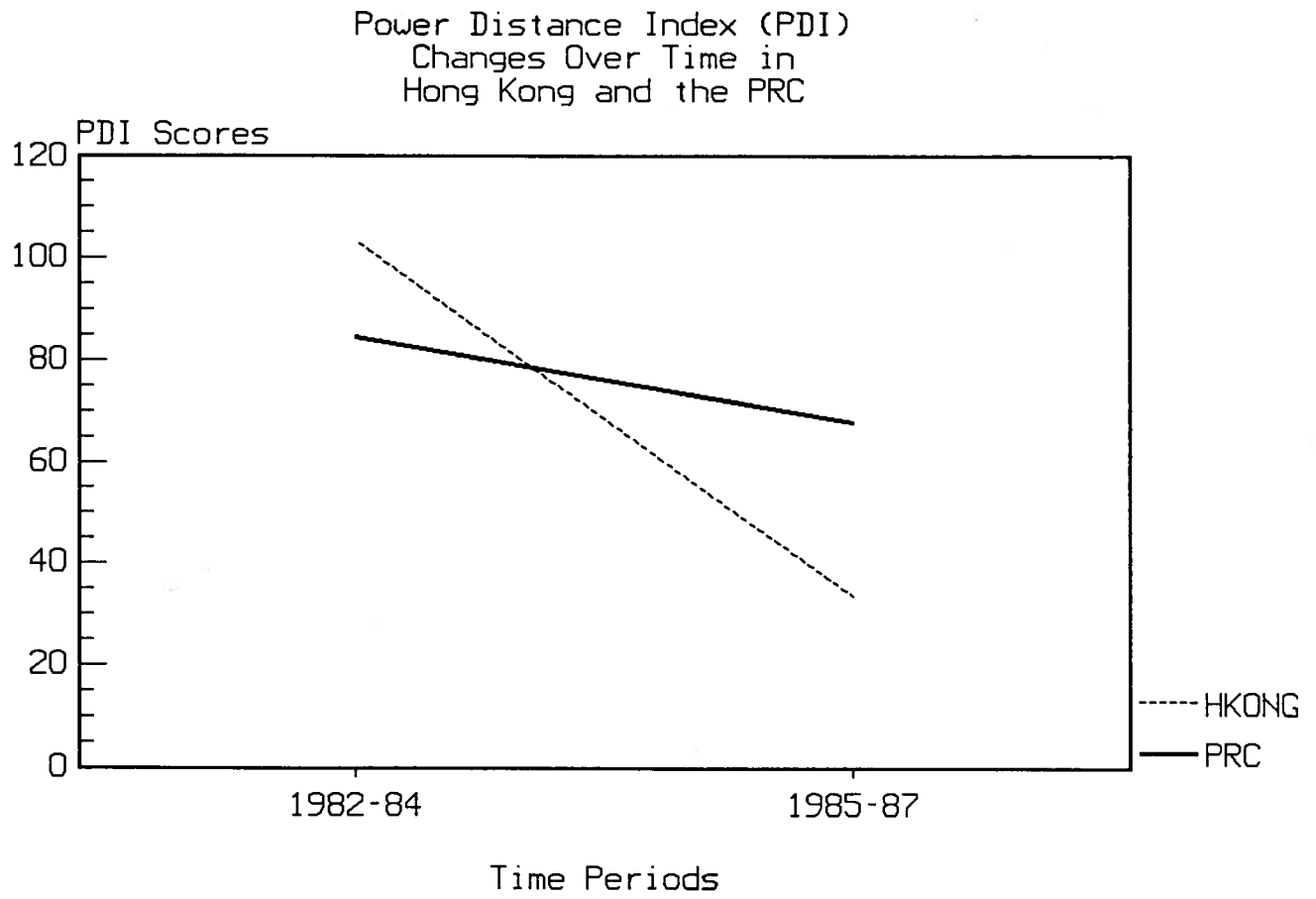


FIGURE 2

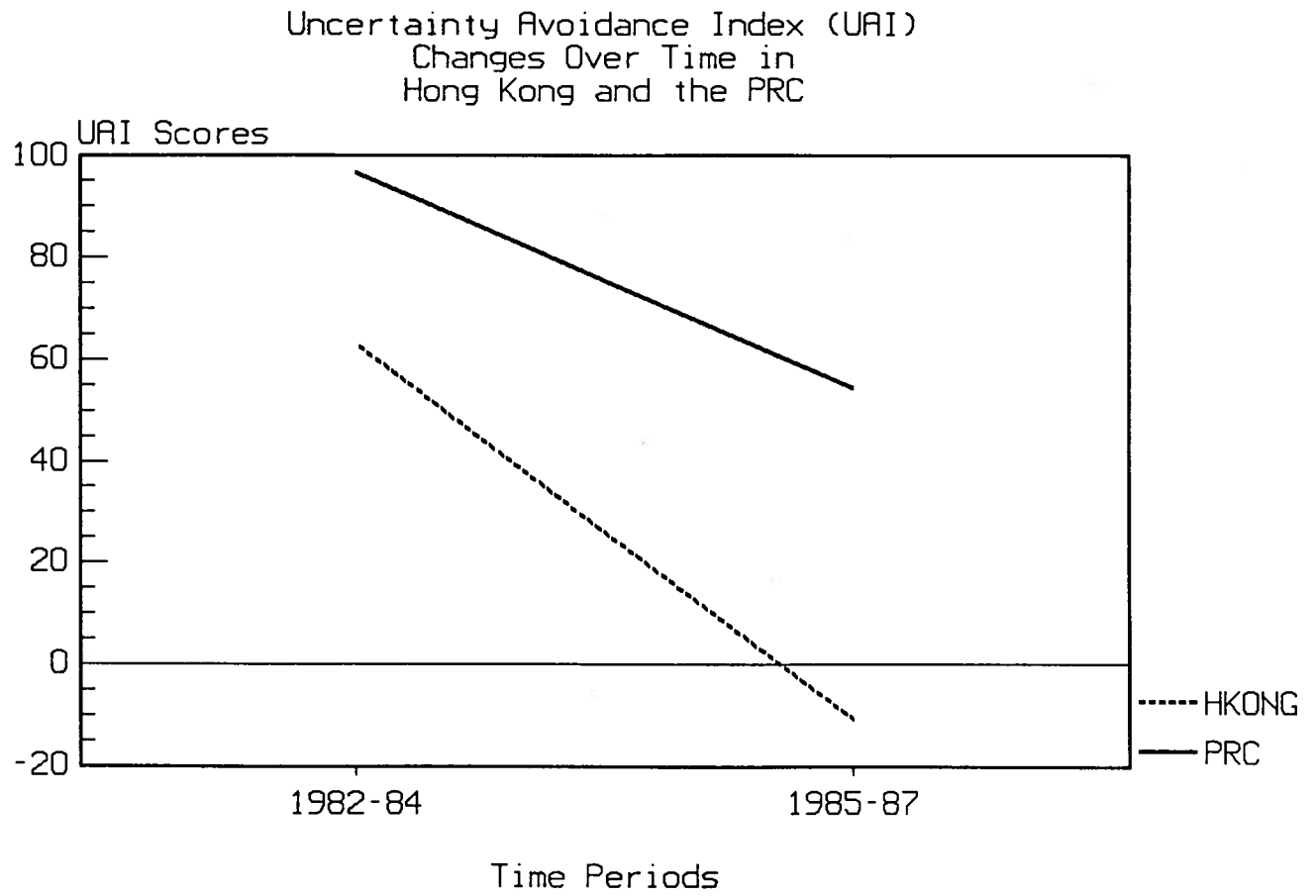
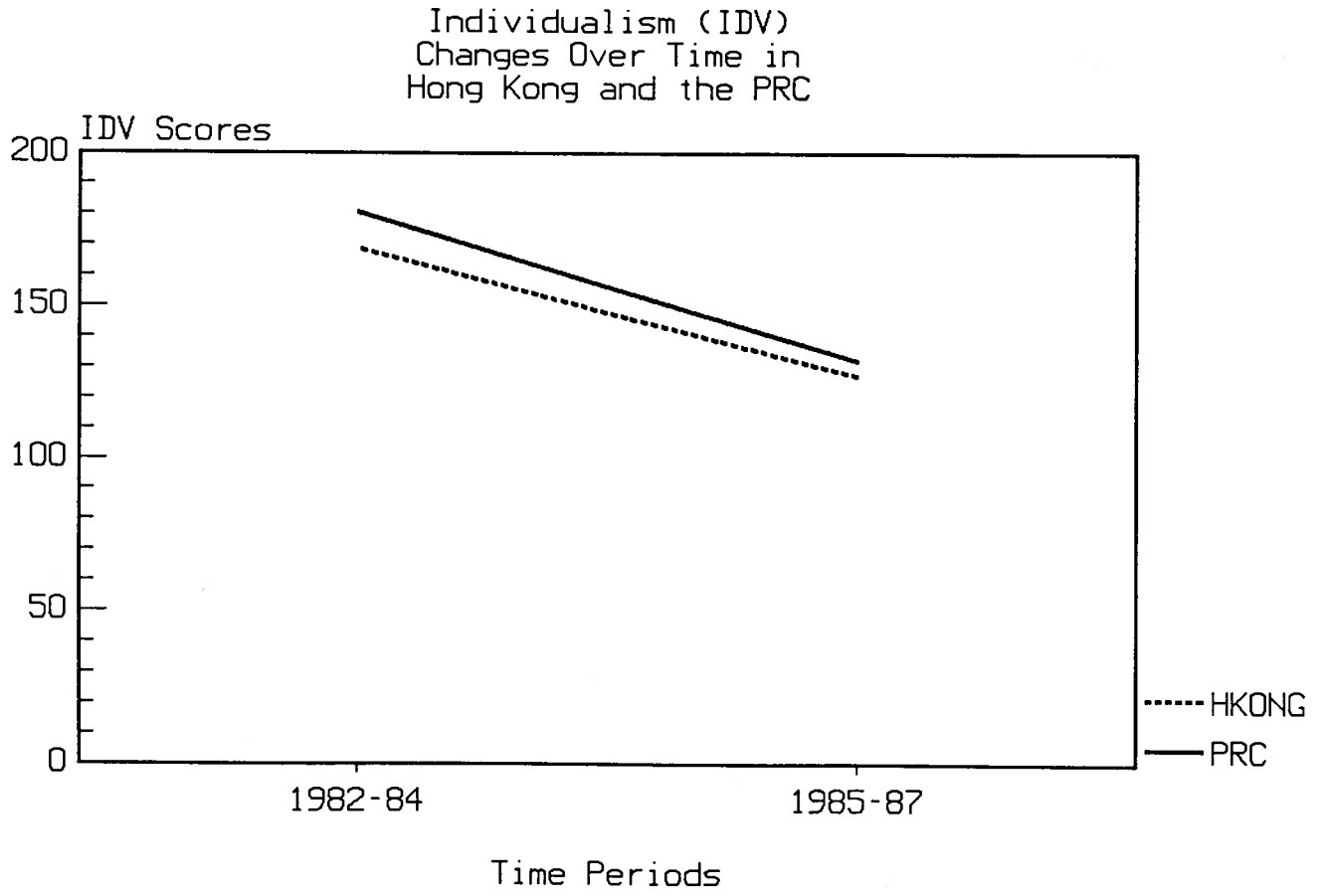


FIGURE 3



FIGURE 4



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