

MACHIAVELLIAN AND ACHIEVEMENT ORIENTATIONS
AMONG FOREIGN AND AMERICAN MASTER'S STUDENTS
IN BUSINESS ADMINISTRATION¹

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Summary.—The Mach IV scale and the Mehrabian test of achievement orientation were administered to 185 students in two accredited programs for Masters of Business Administration. Of these, 70% were from foreign countries. An across-countries analysis of scores on both tests was applied to students from Algeria, Iran, the Philippines, Taiwan, and the United States. An analysis of similarities and differences based on cultural factors is provided. Predictions for each of the five countries derived from hypotheses generated on the basis of cultural background were confirmed more often for Mach scores than for achievement scores.

A number of studies have shown that cultural differences exist with respect to the values, work goals, and behavior of managers and workers in various countries. Haire, Ghiselli, and Porter (1966) in their study of 14 countries found that there was a strong, consistent tendency of managers in all countries studied to express a Theory X (McGregor, 1960) view of the nature of man but found definite clusterings of countries in terms of endorsing either "persuading" or "directing" as a managerial strategy. Ronen and Kraut (1977) assessed the importance of certain work goals among 4,000 technical employees working in 15 countries. They found that countries with a common economic orientation (technology) tended to cluster together but that culture and language represented divergent forces. Sirota and Greenwood (1971) who also gathered data on employees' work goals found remarkable similarity among several thousand salesmen, technical, and service personnel from 25 countries around the world. Although differences among nations were small, it was still possible for the authors to identify clusters of nations showing greater similarities within clusters than between clusters of nations.

The variables examined in the above studies were: (1) attitudes toward the nature of man, (2) attitudes toward authoritarian leadership, and (3) the importance of certain work goals. The present study examined the effect of cultural differences on two important dimensions of motivation: the motive to achieve and a manipulative form of power motivation labeled "Machiavellianism."

The most well-known measure of achievement motivation is the Thematic Apperception Test (TAT) which was used extensively by McClelland in his research (1961). McClelland and Winter (1969), using content analysis of suc-

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cess stories contained in children's fairy tales to determine the achievement motive of various countries, were able to demonstrate a relationship between the achievement motive and a country's level of economic development. An alternative method of measuring the achievement motive was developed by Mehrabian (1968) and is the method used in the present study. His instrument is in the form of a traditional paper-and-pencil test and is not dependent upon fantasy data. Mehrabian (1968) reports significant correlations (described later) for data collected with his instrument and the TAT.

Machiavellianism has independently been the object of research in recent years. In their original work in this area, Christie and Geis (1970) reported a series of studies that portray the person who consistently scores high on the Machiavellianism scale (high Mach) as an individual who tends to manipulate more, win more, and persuade others more than the person who scores low on the scale (low Mach). In a study of triads in a competitive game, high Machs showed a willingness to enter into coalitions and then break them, betraying a partner at a strategic moment. Moreover, in another study by Christie and Geis (1970) high Machs tended to be preferred as partners, were evaluated as being more persuasive, and were identified and selected as leaders more often.

In the present study achievement and Machiavellian orientations are explored among a number of U. S. and foreign students enrolled in two Master's (MBA) programs in business administration. From a larger number of countries represented, five, with sufficiently large sample sizes, were selected for analysis: Algeria, Iran, Philippines, Taiwan, and the United States. It was assumed that a relationship exists between the cultural background of each country and the Machiavellian and achievement motivations of its citizens.

In the United States the Protestant ethic is a determinant of the primary value system in the work arena. R. H. Tawney (1926) has shown how Protestantism historically laid the psychological foundation for the rise of capitalism. Calvin and Luther provided the justification for hard work and *striving* for success. Roger Brown (1965) has demonstrated the parallel between "striving for success" and "achievement motivation." Modern capitalism provides the structural framework for striving, through the mechanism of bureaucratic hierarchies. According to Weber (1947), an important feature of the ideal bureaucracy is that a manager purposefully deals with subordinates in an *impersonal* manner. Behavior is governed by a series of abstract rules providing no room for personal desires, feelings, or goals of the individual. This is consistent with the Machiavellian approach. The high Mach person "*displays affective detachment* in relation to others" (Christie & Geis, 1970).

Certain observations regarding Arab countries have a bearing on predicting their achievement motivation. Pezeshkpur (1978), a business and financial writer in Tehran, asserted that because Arabs believe that their destiny is more

dependent on the will of the Supreme Being than their own, they do not consider it worthwhile to seek and fulfill personal goals. "What is the use of arduous efforts when they may fail because they are against the will of God?" This implies the development of low achievement motivation.

The latter statement, in combination with the prior description of the Protestant ethic and capitalism, leads us to our first hypothesis: students from the U. S. and the Philippines will produce significantly higher achievement and Mach scores than those from the Arab countries.

The Philippine students are categorized with the American students because it is reasonable to assume that USA values were assimilated by the present Filipino students as they were socialized following the period from 1900 to 1946 when their country was governed by the United States. During that period, the government of the USA had provided a program of training in self-government, introduced a public school system, and assisted in applying American business values and methods. This leads to a second hypothesis: achievement and Mach scores of students from the Philippines and the U. S. will not differ significantly from each other.

The Algerian and Iranian students are also from countries with common cultural elements. Both of these countries have been influenced by Arab culture. Thus, in addition to the prediction regarding their scores included in our first hypothesis, a third was that both achievement and Mach scores of students from Algeria and Iran will not differ significantly.

Relative to students from Taiwan, the only remaining country in our sample, Oksenberg² found that, when Chinese students from Western-sponsored schools were compared with students from traditional schools, the former were significantly higher in Machiavellianism. This suggests that students from Taiwan will also score comparatively high in Machiavellianism. To the extent that they are "Westernized" their achievement scores should also be high. For our fourth and final hypothesis we predicted that achievement and Mach scores of students from Taiwan will fall into the midrange between the Arab group and the USA-Philippine group.

METHOD

Instruments

Mehrabian's (1968) measure of achievement and the Mach IV scale by Christie and Geis (1970) were used. These are described in order below.

The Mehrabian achievement scale was designed in its wording to reflect Atkinson's (1964) theory of motivation and related data which indicate the behavioral dispositions that differentiate high vs low achievers. One of Mehrabian's objectives was to develop a scale that did not depend upon fantasy data

²L. Oksenberg, Machiavellianism in traditional and Westernized Chinese students. (Unpublished manuscript, Columbia Univer., 1967)

and was more reliable than the TAT. Validity of the scales was investigated and described in detail (Mehrabian, 1963). Statistically significant coefficients were found in the relationship between scores and operationally defined achievement behavior.

In additional studies, Mehrabian (1968) found statistically significant coefficients in examining construct validity of the achievement scale against a number of standardized scales including the Task Orientation Scale (Bass, 1967), an achievement scale by Jackson (1967), and the TAT achievement scale. Research on the internal structure and reliability of the scale was also conducted by Mehrabian (1968) with positive results.

In the present study the Mach IV was used as the second instrument. Extensive research on scale construction is reported in Christie and Geis (1970). It was developed by taking statements from Machiavelli's writings with wording updated for the modern reader and converting them to items in a Likert-type scale. High correlations were obtained between Mach scores and predicted Machiavellian behavior in the laboratory. No significant relationships have been found between Mach scores and various measures of intellectual ability, political preference, or psychopathology.

Subjects

Subjects were 185 students at two accredited graduate programs in Business Administration in the San Francisco area. The total population was comprised of 70% ($n = 129$) foreign students from 33 countries and 30% ($n = 56$) from the USA. There were 138 males and 46 females ranging in age from 21 to 39 yr., with a mean of 26.9 for the total population. Many of these students were already in positions of management or supervision, and for many their education was subsidized by their employers.

Procedure

The questionnaires were distributed and completed during regular class time. Mehrabian's (1968) Achievement Scale made up the first section of the questionnaire which was followed by the Mach IV. Both scales were presented in standard seven-point Likert format from -3 "very strong disagreement" to $+3$ "very strong agreement." Countries represented by at least 12 students were chosen for analysis across countries. These countries were identified above.

RESULTS

Table 1 presents the basic population data and the mean scores by age, sex, and country. The scores of students from the five countries in our sample are shown separately. Also included is a rank ordering of scores on both tests by country of origin.

Table 2 presents the p values for t tests of the significance of the differences among the means of the five countries for both the Mach and Achievement scores.

TABLE 1
MACH AND ACHIEVEMENT MEANS OF COUNTRY, AGE, AND SEX

Group	n	Age	Mach IV		Achievement	
			M	Rank	M	Rank
All MBA students	185	26.9	73.83		114.01	
All women	46	26.7	73.76		107.78	
All men	139	27.4	74.38		114.41	
Foreign men	100	26.8	74.34		113.37	
Foreign women	29	25.7	74.48		107.90	
USA men	39	27.4	76.05		116.90	
USA women	17	27.2	72.53		108.06	
Taiwan	18	25.4	81.67	1	104.29	5
Philippines	12	25.3	76.03	2	117.58	1
USA	56	27.3	75.03	3	114.31	3
Algeria	18	30.0	70.61	4	108.39	4
Iran	30	24.6	68.58	5	114.68	2

Analysis of Means

Hypothesis 1 predicted that students from the Philippines and the USA would produce significantly higher scores on both tests than those from Arab countries. The results suggest that this hypothesis tends to be confirmed by the achievement scores but not by the Mach scores. On the one hand, the Philippine students produced a statistically significant higher achievement score (117.58) than any group, which supports the hypothesis. On the other hand, the USA score of 114.31 ranked third, just below the Iranians' score. In addition the second and third ranking Mach scores for the Filipinos (76.03) and Americans

TABLE 2
p LEVELS FOR t TESTS OF SIGNIFICANCE OF DIFFERENCES BETWEEN MEANS

	Means									
	Ach	Mach	USA		Iran		Philippines		Taiwan	
			Mach	Ach	Mach	Ach	Mach	Ach	Mach	Ach
USA	114.31	75.03								
Iran	114.68	65.58								
Philippines	117.58	76.03								
Taiwan	104.29	81.67								
Algeria	108.39	70.61								
USA										
Iran	.01									
Philippines		.02	.01	.05						
Taiwan	.01	.02	.01	.01	.01	.01				
Algeria	.01	.02		.01	.01	.01		.01	.01	

(75.03) were significantly lower than that of the top ranking Taiwanese (81.67), which tended not to support Hypothesis 1.

Hypothesis 2 stated that the scores of Filipino and American students on both tests would not differ significantly. This hypothesis tends to be confirmed by the Mach scores but not by achievement scores. As just mentioned, the second and third ranking Filipino and USA Mach scores were 76.03 and 75.03, respectively. The difference between the two was not statistically significant which tends to confirm Hypothesis 2. Again, the Philippine students' mean achievement score was significantly higher than that of the Americans, contrary to this hypothesis.

Hypothesis 3 predicted that the students from Algeria and Iran would not differ significantly on the two tests. This is supported by the Mach scores for the difference between scores for the two countries (70.61 and 68.58) is not statistically significant. However, the Algerian achievement score of 108.39 is significantly below that of the Iranians' score of 114.68, which tends not to support this hypothesis.

Hypothesis 4, which predicted that both the achievement and Mach scores of the Taiwanese students would fall into the midrange, was not supported by either test. The Taiwanese students ranked highest in Machiavellianism (81.67) and lowest in achievement (104.29).

DISCUSSION AND CONCLUSIONS

We had expected that the two countries whose values were associated with the Protestant ethic and capitalism (the USA and the Philippines) to show the highest degree of achievement and Machiavellian orientation. This occurred only for the Philippine students' scores on achievement. Neither country produced the highest Mach score. We had also expected that students' scores from the two countries would not differ significantly from each other on either scale. They did, in fact, differ significantly on achievement scores but not on Mach scores. Perhaps the explanation lies in available opportunities to engage in achievement behavior. In its early development of a capitalistic economy, it is likely that those Philippine citizens interested in business had been given more opportunity to strive for achievement and be more frequently rewarded for it than is the case for the more fully developed United States. For example, only 7% of the Philippine population are employed in manufacturing (Romulo, 1974) allowing much room for expansion and achievement behavior.

We had expected to discover common motivational characteristics for the two Arab countries (Iran and Algeria). This was observed with respect to the Mach scores but not for the achievement scores. On the achievement scale we found that the Iranian students scored significantly higher than the Algerian students. To a certain extent the Middle-Eastern students in our sample are representative of an Arab culture that traditionally condones manipulative behavior.

This may account for the similarity of Mach scores. However, the Iranian students in our sample were those who supported the relatively recent attempt by the Shah to "Westernize" their society. They would be the representatives of Iran who place value on achievement orientation.

With respect to Machiavellianism, both the USA and the Philippine students scored significantly lower than Taiwanese students. The question here is why the latter students produced the highest Mach scores and the lowest achievement scores. Although these results were not predicted by our hypothesis, this relationship is consistent with the findings of a study by Okanes and Murray (1980) in which men and women managers who scored very high on Mach tended to score significantly low on achievement.

At a very general level we have suggested that the cultural background of the students from certain countries predicts Machiavellian and achievement behavior. The USA epitomizes capitalism, Protestantism, and bureaucracy which is conducive to the development of Machiavellian and achievement behaviors. In varying degrees, Philippine and Iranian societies were affected by USA assistance to these countries. The MBA students from these countries appear to reflect this influence. The two Arab countries are similar in religion, although dissimilar in other cultural characteristics. A prediction was made that both countries would display a low achievement orientation because of a learned "fatalism" in relation to a belief in Allah. In reality, the MBA students from these countries were significantly different in achievement orientation (Iran ranked second out of five countries, and Algeria ranked fourth) but showed no significant differences in their Mach scores (low). Scores produced by students from Taiwan were, perhaps, most dramatic. They ranked highest in Machiavellianism and lowest in achievement orientation. As suggested earlier, evidence shows that "westernized" Chinese students produce higher Mach scores. This may explain the high Mach scores obtained by the Taiwanese students.

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