Achievement motivation recently has been examined as a four-factor construct. Fiji, part of the British Commonwealth, provides an interesting testing ground for the question of different achievement patterns for different ethnic groups. The achievement motivation levels of high school students from four ethnic groups and university students from Fijian and Indo-Fijian ethnic groups were examined using a four-factor scale, self-esteem, and attitudes toward women. Significant ethnic group differences on the achievement motivation and self-esteem measures were found. The pattern of scores differed from the United States pattern, partially accounting for differential educational achievement by ethnic group. Sex differences were found on achievement motivation levels and attitudes measures, similar to those found in the United States. The findings suggest that sex-role socialization may have greater cross-cultural generalizability than achievement socialization. (Author/JAC)
CROSS-CULTURAL PATTERNS IN ACHIEVEMENT MOTIVATION:
ETHNIC GROUP AND SEX COMPARISONS IN FIJI

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Cross-Cultural Patterns in Achievement Motivation--Ethnic Group and Sex Comparisons in Fiji

Achievement motivation recently has been examined as a four factor construct (Spence & Helmreich, 1978). In various studies in the U.S. (Spence, 1979), a pattern of relatively high Mastery (challenge) and Work Orientation (effort), and relatively low Competitiveness (interpersonal) scores has been found associated with high achievement, as measured by grade point average, salary, and scientific attainments. A fourth factor, Personal Unconcern (negative fear of success) has not been strongly related to the achievement indices. Sex differences also emerge, with college males outscoring females on Mastery and Competitiveness, and college females outscoring males on Work Orientation.

Given the great interest in achievement motivation cross-culturally, it would be important to use this new measure to determine if similar patterns appear in other cultures or are unique to the U.S, or indeed, unique to the predominantly white population tested by Helmreich and Spence. Fiji, part of the British commonwealth, provides an interesting testing ground for the question of different achievement patterns for different ethnic groups. Although the population is 44% Fijian, 50% IndoFijian, 2% Part-European (Part-Fijian), and 1% Chinese, only 33% of those passing the Fiji Junior Exam (at the end of Form IV), and only 18% of those passing the University Entrance exam are Fijian (Baba, 1979). University admission procedures at the University of the South Pacific (USP) somewhat balance the ethnic distribution of the two major groups by awarding scholarships on a 50:50 racial basis, but four times as many Fijians as IndoFijians
fail to complete their first year. This imbalance in education achievement has been of great concern to educators and government officials, since it creates an imbalanced pool of qualified job applicants. In terms of employment, most IndoFijians (57%) are wage earners and 26% are self-employed, whereas a high percentage of Fijians (35%) are villagers, 44% are wage earners, and only 10% are self-employed (Bureau of Statistics, 1979).

Ethnic group differences in Fiji adolescents previously have been found in self-esteem and locus of control (Kishor, in press), in philosophy of human nature (Stewart, Mulipola-lui, & Laidlaw, 1980), and in occupational values (Bennet & Tiy, 1976). IndoFijian adolescents appear to have higher self-esteem, more internal locus of control, and a greater belief in the trustworthiness of other people than do Fijians. Since self-esteem has been found related to career decision-making (Kishor, in press) and to achievement motivation (Husaini, 1974), it may be another factor accounting for the imbalanced achievement of the two main ethnic groups. Thomas (1979) found that Fijian children, when compared to West Samoans, were more likely to use a competitive strategy in a reward allocation task, although Fijians tend to be very cooperative using other criteria. It is not clear how IndoFijians would function on these tests.

Sex differences in achievement motivation in Fiji also are likely to be found. Although females are nearly one half of all secondary school students, they are only one third of University students, and are disproportionately present in various occupations (Bureau of Statistics, 1979). Adolescent Fiji females have been found to have a more external locus of control (Kishor, in press), and a higher level of belief in the trustworthiness
of people (Stewart et al., 1980) than do adolescent males. Sex may interact with ethnic group on a number of variables related to level of achievement. Thomas (1975) has found IndoFijians to emphasize more sex-role differentiation in their child-rearing practices than do Fijians, and nearly twice as many Fijian women are economically active as are IndoFijian women (21% to 12%) (Bureau of Statistics, 1979).

The current study examines ethnic and sex differences on three variables related to achievement: achievement motivation, self-esteem, and attitudes toward women’s roles (Spence, Helmreich, & Stapp, 1974). Fijian, IndoFijian, Part-European, and Chinese students in Form IV were studied since 60% of the population is still in school at that time. Fijian and IndoFijian university students also were tested, and grade comparisons were made for these two ethnic groups. The selectivity of USP (only 1% of the population attend) makes university status a useful index of achievement. Where possible, comparisons with U.S. students are also made.

Method

Subjects. Of 607 Form IV students from five mixed-race schools in the capital, Suva, 504 subjects (average age 15.2, SD = .66) were chosen on the basis of ethnic group membership: 87 male and 108 female Fijians, 118 male and 80 female IndoFijians, 34 male and 39 female Part-Europeans, and 19 male and 19 female Chinese.

Socioeconomic status (SES) of the sample was determined by jointly considering father’s occupation and highest level of education obtained by either parent. Based on this system, 9% of the students could be classified as upper class, 30% as upper middle class, 38% lower middle class, and 10% lower class or unemployed (12% were unclassifiable). SES breakdown by
Cross-Cultural Patterns

ethnicity for those who could be classified can be seen in Table 1. A $\chi^2$

Insert Table 1 about here

test shows that the distribution is significantly imbalanced ($p < .001$).

Fijians are overrepresented in the lower class, Indo-Fijians and Chinese are
concentrated in the lower-middle class, and Part-Europeans are concentrated
in the upper and upper-middle classes. These proportions reflect the urban
nature of the sample. Since only 30% of ethnic Fijians and 40% of Indo-
Fijians reside in urban areas, the sample is not representative of the
national population, and generalizations must be limited to urban dwellers.

The 240 university students from USP (23 male and 26 female Fijians,
80 male and 61 female Indo-Fijians, average age 19.6, $SD = 3.98$) were
selected from a group of 329 students drawn from five different courses,
by eliminating students over age 27 and those from countries other than Fiji.
The sex and race breakdown of the sample is fairly representative of the
full-time population of USP students.

Of the university sample, 5% could be classified as upper class, 18%
as upper middle class, 24% as lower middle class, and 38% as lower class or
unemployed (15% were unclassifiable). The higher proportion of lower class
students amongst the university sample than in the secondary school sample
can be accounted for by the predominance of scholarship students at the
university, and the urban background of the secondary school students. The
socio-economic background of the university sample also differs from that
of the college sample tested by Helmreich and Spence (1978), who were mostly
from the upper and upper middle classes. Categorization schemes were not directly comparable, however. SES breakdown by ethnicity for those who could be classified can be seen in Table 1. The ethnic distribution shows no significant differences.

**Materials.** The 32-item Work and Family Orientation Scale (WOFO, Helmreich & Spence, 1978), the 16-item Texas Social Behavior Inventory (Helmreich & Stapp, 1974) -- a measure of self-esteem, and the 15-item version of the Attitudes toward Women Scale (AWS, Spence et al., 1973) were utilized. Since the language of instruction, business and government in Fiji is English, all questionnaires were administered in that language although vocabulary and sentence structure were simplified for and pre-tested with Form III students to ensure that the words and procedures utilized were understandable.

The validity of these instruments in a cross-cultural setting has yet to be tested satisfactorily. The AWS and the TSBI, in translation, have been used with Brazilian and Lebanese college students (Spence & Helmreich, 1978) but no external validity checks were utilized in those studies. In the present testing situation, the four WOFO scales were correlated with teacher assessments of "Attitude to studies" in 10 subject areas for 95 Form IV students from one school. The only significant correlation with this external referent was for female students on the Mastery scale (r (45) = -.325). Since the validity of this external criterion is unclear, the meaning of the correlation also is unclear. However, the face validity of all questions was checked with Fijian, IndoFijian, and European educators. Some modifications of questions were made on this basis to take into account culture-specific meanings. For example, the TSBI question, "I make a point of
of looking other people in the eye" was changed to "I try to act confidently around other people" because eye contact in Fiji is seen as an impudent, not a confident behavior. Similarly on the AWS scale, the activities in the question "It is ridiculous for a woman to run a locomotive and for a man to darn socks" were changed to "drive a bus" and "wash dishes," respectively, to conform to local norms. No substantive changes were made on the WOFO scale, since it was not deemed necessary by the native professionals.

Procedure

The three questionnaires were administered as part of a larger test battery during regular classroom periods to Form IV students in two 40-minute sessions on two consecutive days, and to USP students in one 50-60 minute session. Students were requested to participate in a cross-cultural study on attitudes, and anonymity of responses was assured. Only the experimenter was present during testing sessions.

Results

Two-way analyses of variance for Ethnic group and Sex were performed using an unweighted means analysis on all measures.

Secondary School

Achievement Motivation. There was a significant effect of Ethnic group on Work Orientation ($F(3, 496) = 2.64, p < .05$) and for Competitiveness ($F(3, 496) = 5.14, p < .01$). Part-Europeans had the highest Work Orientation scores ($M = 20.6$), Chinese the lowest ($19.0$), Fijians ($M = 14.9$) and Part-Europeans ($14.5$) scored higher than Chinese ($13.1$) and IndoFijian ($13.4$) students on Competitiveness. There were marginally significant ($p < .10$) sex differences for these same achievement components, with females outscoring males on Work Orientation, and males outscoring females on Competitiveness.
A marginally significant (p<.10) Sex by Ethnic group interaction also occurred on Work Orientation due to the lower scores of Chinese males.

Since WOFO has not been used with U.S. high school students, no cross-cultural comparisons were possible for these scales.

**Self-Esteem.** There were no significant Sex or Ethnic group effects on Self-Esteem scores. Both sexes, however, had significantly lower scores than U.S. high school students (Spence & Helmreich, 1978) (p<.001, Male \( t(486) = 3.920, M_s = 36.0 \) and 38.8, respectively; Female \( t(618) = 3.828, M_s = 35.9 \) and 38.8, respectively).

**Attitudes toward Women.** There was a highly significant Sex difference on AWS scores (\( F(1, 496) = 19.53, p<.01 \)), with females scoring higher (more liberal) than males (\( M_s = 24.9 \) and 21.8, respectively). There was a marginally significant (p<.10) interaction with Ethnic group caused by the low scores of Fijian females (\( M = 22.8 \)).

Both sexes had lower (more traditional) scores than their U.S. counterparts (Spence & Helmreich, 1978). The difference for females was stronger (p<.001, \( \bar{z}(636) = 9.374, U.S. M = 30.6 \)), than for males (p<.10, U.S. M = 23.3).

**University Achievemen**

**t**

**Motivation.** For Fijian and IndoFijian students, Ethnic group was a significant effect on Competitiveness (\( F(1, 186) = 9.89, p<.05 \)) and on Work Orientation (\( F(1, 186) = 9.89, p<.01 \)), with Fijians outscoring IndoFijians (\( M_s = 14.9 \) and 13.4 respectively on Competitiveness, and 21.9 and 20.2, respectively on Work Orientation). Sex was significant on Competitiveness (\( F(1, 186) = 4.68, p<.05 \)) and on Mastery (\( F(1, 186) = 6.22, p<.05 \)).
with males outscoring females on both measures (M̄ = 14.8 and 13.6, respectively, on Competitiveness, and 18.9 and 17.0, respectively, on Mastery). There was a significant interaction for Competitiveness (F(1, 186) = 5.56, p<.05) caused by the high scores of male Fijians (M = 16.1). Sex was marginally significant on Work Orientation (p<.10), with females outscoring males.

Comparisons of Fiji and U.S. college students (Helmreich & Spence, 1978) revealed that Fiji students of both sexes scored higher on Work Orientation than their U.S. peers (male t, p<.10; female t(936) = 2.78, p<.01; M̄s = 21.2 and 20.3, respectively). Fiji males scored significantly lower than U.S. males on Personal Unconcern (t(708) = 2.695, p<.01; M̄s = 9.2 and 10.0, respectively), and Fiji females scored significantly higher than U.S. females on Competitiveness (t(936) = 3.289, p<.01; M̄s = 13.6 and 12.2, respectively).

Self-Esteem. IndoFijians had somewhat higher Self-Esteem scores than did Fijians (p<.10). There was no difference between Fiji and U.S. scores for college students (Spence & Helmreich, 1978).

Attitudes Toward Women. Sex was highly significant on AWS scores (F(1, 186) = 52.56, p<.001) with females scoring higher (more liberal) than males (M̄s = 29.6 and 22.4, respectively). Fiji and U.S. college females (Spence & Helmreich, 1978) scored similarly on the scale, but Fiji males scored significantly lower than U.S. college males (U.S. M̄ = 26.2, t(456) = 3.886, p<.001).

Grade Level Comparisons

Two-way analyses of variance also were performed for each sex separately for Grade and Ethnic group (Fijians and IndoFijians only),
Achievement Motivation. There was a significant Grade effect for both Work Orientation ($F(1, 575) = 5.00, p<.05$) and Personal Unconcern ($F(1, 575) = 5.62, p<.05$), with university students outscoring secondary school students on both measures (Work Orientation $Ms = 21.1$ and $19.6$, respectively; Personal Unconcern $Ms = 9.4$ and $8.0$, respectively). These effects also were significant for each sex separately ($p<.01$). There was a significant effect on Mastery ($F(1, 272) = 8.78, p<.01$) for females only, with higher scores by secondary school than by university students ($Ms = 18.8$ and $17.0$, respectively).

There was a marginal Grade by Ethnic group interaction ($p<.10$) for Work Orientation, with Fijian university students having the highest scores. Female Fijians outscored female IndoFijians on this measure at both grade levels ($F(1, 127) = 5.86, p<.05$). On Competitiveness, Fijian students again outscored IndoFijians over grades, but this effect was stronger for males ($F(1, 304) = 19.56, p<.01$) than for females ($p<.10$).

Only Mastery scores showed a sex difference over grades ($p<.10$), with males outscoring females.

Self-Esteem. Significant effects on Self-Esteem scores occurred only for males. University males had significantly higher scores than Form IV males ($Ms = 37.6$ and $35.8$, respectively; $F(1, 285) = 4.52, p<.05$). Indo-Fijian males also had significantly higher scores than Fijian males across grades ($Ms = 32.7$ and $33.8$, respectively; $F(1, 285) = 5.62, p<.05$).

Attitudes toward Women. University students scored higher on AWS than secondary school students overall ($p<.10$), this effect being most significant for females separately ($F(1, 271) = 21.40, p<.001$, $Ms = 29.6$ and $24.3$).
respectively). Over grades, females significantly outscored males ($F(1, 575) = 10.72, p < .01, M_s = 27.0$ and $24.2$, respectively). There was a marginally significant ($p < .10$) Grade by Sex interaction caused by the extremely high scores of female university students.

**Discussion**

The major ethnic group difference for both grade levels occurs on the Competitiveness scale of WOFO: Fijians consistently outscore IndoFijians, an effect most marked for males. For Form IV students, Part-Europeans also outscore Chinese students on this measure. Questions on this scale emphasize the importance of winning, doing better than others, and the enjoyment of competing. Thomas (1979) also found Fijian youths to choose a more competitive strategy in a coin allocation task than did a Polynesian group (West Samoans); in fact the Fijians scored similarly to the New Zealanders. It may be that sports have a differential influence on the ethnic groups, with Fijians and Part-Europeans being the keener athletes. The implications for actual achievement are unclear, but Spence (1979) did find that low Competitiveness scores combined with high Mastery and Work Orientation scores were the most facilitative of achievement in the U.S.

Social class also may be a factor here since other research has found social class and achievement motivation to be related in a linear manner (e.g., Rosen, 1962), and since the four ethnic groups in Form IV do vary in SES status. More Part-Europeans and Fijians are in the two upper class groups and they also have the highest Competitiveness scores. However, social class differences do not exist on the university level, yet the ethnic group difference between Fijians and IndoFijians remains.
Fijians also outscore IndoFijians on Work Orientation, but this effect is significant only for females and for university students. Since the university sample outscores the Form IV sample on this measure, only Fijian students with exceptional high Work Orientation scores appear to make it to university. This may be because educational achievement is less common for Fijians than for IndoFijians (Baba, 1979). Fijians' high Work Orientation scores combined with their high Competitiveness scores may not be facilitative of actual achievement. The significant Work Orientation effect for Form IV students shows that Part-Europeans have higher scores than Chinese students. Perhaps the extreme minority status of the Chinese as well as their generally low socioeconomic status have a depressing effect on these scores.

The higher scores on Work Orientation for Fijian females over grades may be related to the fact that Fijian women are more likely to be employed outside the home than are IndoFijian women (Bureau of Statistics, 1979). These scores do not appear related to attitudes toward women's roles since there is not ethnic group difference on AWS scores.

An ethnic group difference appears over grades on Self-Esteem for males. IndoFijians score higher than Fijians, consistent with Kishor's (in press) finding using a different measuring instrument. Such a difference may partially account for the differential achievement patterns in the two groups, since high self-esteem appears facilitative of high achievement and more certainty regarding careers (Kishor, in press; Spence & Helmreich, 1978). No difference in scores was found for females, however.

Sex differences are strongest during university, with males outscoring females on Competitiveness and Mastery, and females outscoring males on Work
Orientation. These results parallel those found for U.S. college students 
(Spence, 1979), and may reflect different meanings of achievement for the 
sexes (Hoffman, 1975). The similarity of sex differences in the two 
countries may reflect the common influence of British culture, or the 
pervasiveness of sex-role norms.

In both countries, sex differences in Personal Unconcern are minimal, 
but U.S. college males significantly outscore their Fiji counterparts. 
This cultural difference may reflect the different emphasis on group 
approval in the two countries, at least for males. In this regard, it is 
striking that in Fiji, university students score significantly higher than 
Form IV students on this measure, suggesting that an overconcern with the 
opinions of others may be counterproductive to advancement in education.

The higher Work Orientation scores of Fiji university students than 
of their U.S. counterparts suggest that university selection in Fiji may 
focus on those who are motivated to work hardest. The higher score on 
Competitiveness of Fiji females than of U.S. females suggests that university 
women in Fiji may have to be more oriented toward competition than those 
in the U.S., perhaps because they are outnumbered 2:1.

On Self-Esteem scores, Fiji and U.S. college students are similar, but 
Fiji Form IV students of both sexes score significantly lower on this 
measure than their U.S. counterparts. This difference may reflect the 
somewhat younger age and grade level of the Fiji students than of the U.S. 
sample, since self-esteem scores do increase with age (Coopersmith, 1967). 
Indeed, in Fiji, university males have higher scores than Form IV males. 
Another explanation may be that secondary school students in Fiji are more 
unsure of themselves than U.S. students because the educational system in
Fiji has a certain percentage of failures built into the system. As in the U.S., no sex difference in self-esteem is found (Spence & Helmreich, 1978).

Strong sex differences appear regarding attitudes toward women. Females score in a more liberal direction than do males, a finding consistent with those from the U.S. and other countries (Spence & Helmreich, 1978). University students are more liberal in their attitudes than Form IV students, an effect most marked for females. In fact, Fiji university females score similarly to U.S. college females, whereas the other groups score significantly lower than their U.S. counterparts. Since attending university is more selective in Fiji than in the U.S., and is more unusual for females than for males, it is not surprising that those females who do attend have the most liberal views. The sex-role norms of the culture, however, appear to be somewhat more traditional than those of the U.S.

Caution must be utilized in drawing conclusions from these results since the validity of the tests for cross-cultural use have not been firmly established. Research is currently in progress on the relationship between the WOFO scales and scores on the Fiji Junior Exam, an external index of achievement. The similar pattern of sex differences on WOFO in Fiji and in the U.S. suggests some validity as does the grade pattern, if attendance at the university can be taken as a relevant criterion.

University students of both sexes outscored Form IV students on Work Orientation and Personal Unconcern, suggesting that these factors are facilitative of educational achievement in Fiji. For females, low Mastery scores also appear facilitative. This pattern differs somewhat from that
found to be related to achievement in the U.S. (Spence, 1979), and may reflect a pattern of achievement unique to Fijian culture, with some variation by ethnic group. SES differences in the samples may be related to the achievement pattern differences. It is also possible for grade differences to reflect purely developmental differences. Unfortunately, Helmreich and Spence did not use the final form of WOFO with high school students, so direct comparisons are not possible. However, the previous version of the scale (WOFO2, Spence & Helmreich, 1978) revealed higher scores on all scales for university females than high school females, and for all scales but Competitiveness for university males. This pattern too differs somewhat from that found in Fiji, particularly regarding Mastery, again suggesting the possibility of special cultural patterns.

In summary, different cultural patterns in achievement appear to be reflected in different patterns in achievement motivation and self-esteem, at least in an urban sample. Clarifying the specific nature of the patterns involved would be important not only for further understanding of the concepts (i.e., their cultural relativity or generalizability), but also for social planning. Given the strong cultural differences found, it is striking how similar are the sex differences. This similarity suggests that sex-role socialization may have greater cross-cultural generalizability than may achievement socialization.
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Footnotes

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3 Classification scheme was suggested by Dr. Warwick Elley, Institute of Education, University of the South Pacific, and is available from the author.

4 Appreciation goes to USP staff members Nand Kishor, Cliff Benson, Tupeni Baba, and Warwick Elley for their help in these refinements.
Cross-Cultural Patterns

Table 1
Percent Distribution of SES by Ethnicity and Grade

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<th>Upper-Middle</th>
<th>Lower-Middle</th>
<th>Lower</th>
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