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<td>Jacqueline Goodnow</td>
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Dimensionality of Modernity in Singapore Among Chinese Adolescents

Agnes Chang Shook Cheong
George Cooney
Millicent Poole
Jacqueline Goodnow

ABSTRACT

The present study examined the relationships between aspects of individual modernity among Chinese adolescents in Singapore aged fifteen years (N = 250, M = 122, F = 128). The Aspects chosen are those seen by Inkeles (1969), changes that occur in a country's modernization as being required in order to cope with the various need for

achievement, efficient time-management, future-planning and autonomous decision-making. While there is strong interdependence among achievement motivation, future-planning and time-management of both genders, autonomy emerges as a separate dimension.

Introduction

This study is concerned with the inter-relationships between four attitudes held by male and female adolescents in Singapore. These attitudes have to do with achievement motivation, time management, future planning and autonomy: four attitudes which Inkeles (1969) sees as needed in order to cope with the physical, social, economic and political changes that occur in the course of an area's modernization. Inkeles sees the need for autonomous decision making, achievement motivation, effective time management and skilful future planning as being complementary components of what he terms individual modernity.

Strong evidence has been found in several developing countries (Argentina, India, Chile, Nigeria, Pakistan, Israel) for this model of individual modernity (Inkles & Smith, 1974) among adults, although several researchers (Dawson, Law, Leung & Whitney, 1971; Inkeles, 1977; Jones, 1977; Portes, 1973) have shown that this concept is not necessarily uni-dimensional. This is not surprising as modernity in Western countries may not be identical with that in developing countries that are undergoing social and economic changes. The first is, in the broadest sense, the organic product of structural differentiation and growth, while the second is, to a large extent, the result of cultural diffusion (Horowitz, 1970). In developing countries, modernity does not necessarily weaken or undermine tradition (Gusfield, 1967) nor does tradition necessarily impede individual modernity (Bellah, 1965; Bendix, 1967; Gusfield, 1967) or technological change. Certain forms of tradition have, in fact, given powerful historical support to rapid development, with Japan providing the most
relevant example (Apter, 1976; Bellah, 1965; Bendix, 1967).

Singapore, a society espousing modernity and yet inculcating traditional values especially in relation to the home, is thus an interesting society in which to investigate the inter-relationship between these four aspects of modernity in adolescents. Previous studies on modernity (e.g. Inkeles & Smith, 1974) have focussed on adults rather than on young people in transition to adulthood. Western developmental psychology literature documents certain value differences amongst adolescents and their parents and suggests that socialization via the media and schooling, is changing the impact of the family on value formation (Lerner & Spanier, 1980; Feather, 1980; Dweck & Elliott, 1983). Is it possible that in a culture such as Singapore, where Western media transmit Western lifestyles and values, the influence of the family in attitude formation is lessening?

The study reported here is part of a larger study on the differential effects of home and school on attitudes towards modernity in adolescents in Singapore (Chang, 1984). This study investigates the inter-relationship between the four attitudes towards achievement motivation, time management, future planning and autonomy among Chinese adolescents in Singapore.

Method

Sample
The sample consisted of 250 Grade 10 Chinese students (122 males and 128 females) drawn from six schools in Singapore. Their average age was 15 years. Schools were selected from the three types of schools, Premier, Mission and Government, in Singapore. The Premier schools are geared towards academic achievement, and select students, on this basis, at the completion of primary schooling. Mission and Government schools are more comprehensive, catering for a wider range of students. Only Chinese students were used, as Chinese comprise over 76% of the Singapore’s population.

Attitude Scales
Where possible standard scales were used; but because the majority of the previous studies in this area had been concerned with adults, scale had to be constructed for time management and future planning. These scales were constructed from larger pools of items which were pilotted on a separate sample of adolescents. Final scales were constructed after factor and item analyses, and the use of judges to assess construct validity of items.

Achievement Motivation
Murray (1938; pp 157-226) sees achievement motivation as the need to master, manipulate or organize ideas; to do this as rapidly and as independently as possible; to overcome obstacles and to attain a high standard. To measure this trait, the Aberdeen Academic Motivation questionnaire (Entwistle, 1968) was employed. It comprises 21 items such as: “I would be unhappy if I were given lower marks than usual in a test”, and “It is important to me to do well at school”. A test-retest reliability coefficient of 0.81 was achieved.

Time Management
Attitudes towards time management were taken to include management of time by self and others, profitable use of time, attitude towards time and use of free time (Mehta, Sundberg, Kohila & Tyler, 1972; Szalai, 1972; Poole & Chang, 1983). A total of 28 items were in the final scale (α = .60), e.g. “I believe that ‘time is money’”, “I like to plan my work ahead of time”, and “Clock watchers are a nuisance”. This scale was developed by the author (Chang, 1984) after piloting a larger pool of items and analysing these through factor and item analysis.

Future Planning
Future planning was taken to encompass educational and vocational aspirations, life plan, delay of gratification and awareness of future planning (Berger, Berger & Kellner, 1973). The final scale comprised 18 items selected from a larger pool of items which had been pilotted on a separate sample of adolescents (α = .72). Sample items included: “I have a general life plan in mind (education,
career, marriage, etc.), "I must do well in my examinations so that I can receive a place in the Junior college of my choice".

**Autonomy**

Autonomy was taken as the need to be independent and free to act, (Inkeles, 1969), to be independent from others’ opinions (e.g. parents, church leaders), and to have freedom from restraint (Murray, 1938). The final scale comprised 22 items, 14 of which were taken from Tyler's Life Possibilities Questionnaire (Tyler, 1978) and the California Psychological Inventory (Kurtines, 1978). Sample items were: "I do not like to be told by others what to do and what not to do", "I value my freedom above all else".

The study found that high scores on the four scales implied a high level of achievement motivation efficiency in time-management, an orientation towards the future and a desire for independence.

**Procedure**

The first author administered the questionnaires. In each school the subjects were tested in groups with adequate time given for the completion of the questionnaires.

**Results**

Because the sampling was not random a 3 x 2 MANOVA was carried out initially to examine school and gender differences for the four variables. Only gender differences were significant, (Table 1) so the data were pooled across school type and correlations calculated separately for males and females (Table 2). From Table 1 it can be seen that females are more academically motivated (p < .001) and efficient in time-management than the males (p < .001). Males also appear to be less future-oriented and have less desire for autonomy than the females, but the differences in their means are not significant. Despite these differences in means, however, the patterns of correlations (Table 2) between the variables are similar for males and females.

For both genders attitudes towards achievement motivation, future planning and time-management correlate significantly and positively with each other showing strong interdependence of these attitudes. On the other hand, attitude towards autonomy has no significant relationships with any of the other three variables in the case of females, and only with time management for males. The correlational data thus suggest that the four aspects of modernity fall into two groups; one comprising achievement motivation, time-management and future planning, and the second, autonomy.

To investigate this further a confirmatory factor analysis using COSAN (Fraser, 1982), was carried out for males and females separately (Table 3) specifying the existence of only

| Table 1: Comparison of Means and Standard Deviations of Variables by Gender |
|-----------------------------|-----------------------------|-----------------------------|-------------|
|                             | Male (N = 122)              | Female (M = 128)            | Univariate  |
|                             | Mean | S.D. | Mean | S.D. | F   | P   |
| Achievement Motivation      | 86.81| 8.88 | 91.59| 8.41 | 19.12| .00 |
| Time-Management              | 97.17| 8.48 | 101.13| 6.42 | 17.80| .00 |
| Future-Planning              | 42.52| 6.06 | 43.84| 5.00 | 3.31 | .07 |
| Autonomy                     | 76.33| 7.41 | 77.06| 6.28 | .72  | .40 |

\[ df = 1,248 \]
TABLE 2: CORRELATIONS BETWEEN THE FOUR ATTITUDES

<table>
<thead>
<tr>
<th></th>
<th>Achievement Motivation</th>
<th>Time Management</th>
<th>Future Planning</th>
<th>Autonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement Motivation</td>
<td></td>
<td>.33*</td>
<td>.46*</td>
<td>-.04</td>
</tr>
<tr>
<td>Time-management</td>
<td>.37*</td>
<td></td>
<td>.34*</td>
<td>-.04</td>
</tr>
<tr>
<td>Future-planning</td>
<td>.47*</td>
<td>.52*</td>
<td></td>
<td>-.17</td>
</tr>
<tr>
<td>Autonomy</td>
<td>.07</td>
<td>.26*</td>
<td>.18</td>
<td></td>
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* Significant at p = .01

The correlation above the diagonal are for females and those below the diagonal are for males.

TABLE 3: FACTOR LOADINGS FOR CONFIRMATORY FACTOR ANALYSIS

<table>
<thead>
<tr>
<th></th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Loading</td>
<td>Standard Error</td>
</tr>
<tr>
<td>Achievement motivation</td>
<td>.573</td>
<td>.10</td>
</tr>
<tr>
<td>Time management</td>
<td>.666</td>
<td>.10</td>
</tr>
<tr>
<td>Future planning</td>
<td>.791</td>
<td>.10</td>
</tr>
<tr>
<td>Autonomy</td>
<td>.254</td>
<td>.10</td>
</tr>
<tr>
<td>X²</td>
<td>3.32</td>
<td>.19</td>
</tr>
<tr>
<td>df</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>p</td>
<td>.19</td>
<td></td>
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</table>

one trait. While for both males and females, the one factor model is sufficient (Males: X² = 3.32, df = 2, p = .19; Females: X² = 1.92; df = 2, p = .38), the factor loadings for autonomy are small (males: .254; females: -.156) in relation to the other loadings and their standard errors.

A second analysis was carried out, with the factor loading of autonomy set to zero and its uniqueness set to one. The loadings for the other variables remained the same (to one decimal place) but the overall X² values increased to 9.143 for males (df = 4, p = .06) and 3.79 for females (df = 4, p = .40). The changes in the X² values were not significant (males: X² = 5.82, df = 2, p>.05; females: X² = 1.87, df = 2, p>.05). Hence, although the solution with all variables loading on a single factor fits the data, so does the model with achievement motivation, time management and future planning loading on one factor and autonomy being a unique factor. The indications are also that the separation of the first three attitudes from autonomy is more distinct in females than males.

Discussion

The results of the present study suggest that modernity is not a unidimensional concept. Although Inkeles (1969) saw high achievement motivation, efficient time-management, autonomous decision-making and far-sighted future-planning as complementary components of individual modernity, supported by cross-cultural research (e.g. Inkeles & Smith (1974) conducted in Argentina, Chile, India, Israel, Nigeria and Pakistan), the results from the present study suggest no such unidimensionality among adolescents in Singapore with desire for autonomy separated from the other three traits.

One explanation for the difference between these results and those of Inkeles & Smith (1974) may lie in the fact that their study involved adults whereas this study involved
adolescents. It may be that adolescents and adults perceive autonomy in different ways. In adults autonomy or independent action may be seen in the light of decision making in occupations (McClelland, 1961; Meichenbaum, 1977), whereas in adolescents, independence connates freedom and acting according to one’s wishes. Hence, while in adults the need for autonomy may be seen as congruent with achievement motivation, time management and future orientation, in adolescents this may not be so.

In a society such as Singapore deference to the wisdom and experience of seniors is strongly advocated, (Wilson, 1978; Wu, 1980) and political argument, debate and opposition are seen as destabilizing and detracting from the more pressing issues of economic growth (Chan, 1976). In the view of Singapore’s Second Deputy Prime Minister, “If Third World societies are not to relapse into anarchy as modernization gathers pace, more and not less authority and discipline are necessary” (Rajaratnam, 1977). With this background it is likely that adolescents see achievement motivation, time management and future planning as congruent with modernization and economic growth, but independence as a different concept. Independence or autonomy is seen as individual freedom, rather than autonomous decision making in an occupational setting.

The results suggest that the notion of individual modernity and the associated traits is in need of re-examination. One obvious question relates to the measures used, and whether a trait such as autonomy has the same meaning throughout the lifespan of an individual. A record question relates to whether the other three behaviours are always cohesive. Would the same results be obtained with a replication of the study with another Asian sample taken from Japan, Korea or Hong Kong where the extent of industrialization and modernization is comparable to Singapore? Would, perhaps, time-management be isolated out in other Asian and African countries where time-keeping is more elastic? Are the four traits of modernity really cohesive and interdependent in Western developed countries where individualism and autonomy are highly valued? A further examination of individual modernity and its associated characteristics seems essential in relation to the cultural background, values and needs of particular modernizing societies.

REFERENCES


