PROGRESS IN ASIAN SOCIAL PSYCHOLOGY

Conceptual and Empirical Contributions

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Contributions in Psychology, Number 42

PRAEGER

Westport, Connecticut
London
Part I: Contributions to Asian Social Psychology

Library of Congress Cataloging-in-Publication Data

Progress in Asian social psychology: conceptual and empirical contributions / edited by Kuo-Shu Yang ... [et al.]

p. cm.—(Contributions in psychology, ISSN 0736-2714 : no. 42)
Includes bibliographical references and index.
ISBN 0-313-32463-8 (alk. paper)
HM1027.A78 P76 2003
302'.095—dc21 2002030337

British Library Cataloguing in Publication Data is available.
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Library of Congress Catalog Card Number: 2002030337
ISBN: 0-313-32463-8
ISBN: 0736-2714
First published in 2003

Praeger Publishers, 88 Post Road West, Westport, CT 06881
An imprint of Greenwood Publishing Group, Inc.
www.praeger.com

Printed in the United States of America

The paper used in this book complies with the
Permanent Paper Standard issued by the National

10 9 8 7 6 5 4 3 2 1
CHAPTER 8

The Impact of Collectivism and Situational Variations on the Motivation to Achieve in Singapore

Weining C. Chang and Lilian Quan

Since McClelland's seminal publication *The Achieving Society* (1961), achievement and achievement motivation in collectivist cultures have been an area of research fraught with conceptual confusion and contradictory findings (e.g., Sagie, Elizur, & Yamaguchi, 1996). Forty years after McClelland's original studies, researchers have now gained a better understanding of both the concept of culture as well as the concept of the motivation to achieve. Specifically, two lines of development are pertinent here: (1) a broader definition of collectivism as both a culture dimension and an individual difference construct—at both levels, the construct could be multidimensional (Triandis, 2000), and (2) a multidimensional conceptualization of the motivation to achieve construct that takes into consideration both task-oriented motives as well as social-ego-oriented motives that might be associated with the former (Spence, 1983). With these theoretical advances, researchers are now addressing both culture and achievement motivation in ways that take into consideration the multidimensional and multilevel nature of culture and psychological processes. Furthermore, it has been increasingly recognized that within different cultures, collectivism and individualism may operate differently (Sinha & Tripathi, 1994). In East Asian countries, these two dimensions are sometimes positively correlated with each other (see, e.g., Chan & Koh, 2000), suggesting that individualism and collectivism might be two separate but parallel constructs. It follows that collectivism and individualism might have different impacts on individual psychological variables, and these impacts have to be analyzed separately.
These theoretical advances also lead to questions about some of the research practices used in culture and motivation studies. First of all, researchers often confuse the cultural level of analysis with the individual level of analysis. Second, drawing the conclusion that motive is higher in certain cultures and lower in certain other cultures requires the assumption that the construct is the same in structure and in meaning across cultures. Neither of these assumptions can be made across a large number of cultures (D'Andrade, 1992; Maehr & Nicholls, 1980; Spence, 1985). Third, the motivation to achieve has been treated as a trait, or a dispositional construct. Situational variations of the motive have been less attended to. These confounding practices must be addressed before the question as to whether collectivism has any effect on the motivation to achieve can be answered.

In this study focus is on identifying the relationship between individual differences in collectivism, termed allocentrism (Triandis, 2000), and the individual's motivation to achieve. In other words, a within-culture design with the individual level of analysis was used. In line with the within-culture design, a measure of achievement motivation that has been extensively validated to incorporate the local meaning of achievement and the motivation behind it (Chang, Wong, Teo, & Fam, 1997) was chosen as the dependent variable. Addressing discussions on the trait-state variation of basic human psychological process (Mischel & Shoda, 1995), the fluctuations of motive in situations that involved different incentive structures were investigated.

The motivation to achieve may assume different meanings in different cultural communities, depending on the culture-specific meaning of achievement (Maehr & Nicholls, 1980). Within the collectivist context, achievement and achievement motivation tend to be more socially oriented in their meanings and goals. Motives in the West tend to be associated with individually oriented meanings and goals (Yu & Yang, 1994). With the socially oriented meanings of achievement, the motivation to achieve may involve both task-oriented motives as well as socially or ego-oriented motives. This mixture of task-oriented and ego-oriented dimensions in the motivation to achieve construct was found to be the case in Singapore (Chang, Wong, & Teo, 2000). Owing to this difference in the meanings and goals for achievement, the relationship between collectivism and individuals' motivations to achieve may differ within the cultural context. In a low collectivist context, high individual allocentrism may be associated with low motivation to achieve; however, in a high collectivist context, high allocentrism may be associated with high motivation to achieve.

MULTILEVEL ANALYSIS OF COLLECTIVISM

In Singapore, collectivism and individualism have been found to be positively correlated with each other (Chan & Koh, 2000). In other words, individuals who are high on collectivism may not necessarily have low individualism. If independence, which implies individualism, supports the motivation to achieve, as proposed by McClelland (1961), it does not necessarily follow that interdependence, a consequence of collectivism (Triandis, 2000) suppresses the development of this motive. Furthermore, individualism and collectivism do not exist in a vacuum; they coexist with other values and beliefs. Culture is multifaceted; the effect of one aspect of culture is embedded within the context of other aspects that are also present in the culture. Therefore, depending on the context, the same cultural variable may have differing effects on a given psychological construct. In the United States Rosen and D'Andrade (1959) found that parental emphasis on mastery promotes achievement motivation in children. This parental emphasis on mastery in white middle-class Protestant families—the cultural context in which most contemporary psychological studies have been conducted—often coincides with parental emphasis on individual independence. Recent studies of ethnic minorities in the United States have found that for Afro-Americans, a sense of solidarity with one's ethnic group is positively related to persistence in achievement-related tasks (Oyerman, Ager, & Grant, 1995). In Oyerman, Ager, and Grant's study, it was interdependence rather than independence that was positively correlated with the motivation to achieve. Could it then be that within the collectivist context, the individual's motivation to achieve is fostered and positively supported by a sense of belongingness (see, e.g., Ramirez & Price-Williams, 1976)? These studies point to the possibility that the relationship between achievement and collectivism depends on the context of a network of other variables in which the relationship takes place.

Singapore is a modern Confucian state (Tu, Heitmanek, & Wachman, 1992) and has maintained some values traditionally considered Chinese. Chang and Wong (1998) found that highest among the values endorsed by Singaporeans is a cluster of intertwined values denoting industry and civic harmony. This value orientation constitutes the cultural context in which the motivation to achieve assumes its unique meaning and psychological significance. In Singapore, achievement is not only an individual endeavor, it is also relevant to the people who form the social network of the individual (Chang & Mohammed, 2000). It is therefore not surprising to find that in Singapore the motivation to achieve is positively correlated with the motivation for affiliation (Ang & Chang, 1999), in contrast to findings on the relationship in the West (Mehrabian, 1970). These findings suggest that individual collectivism in Singapore may not have a negative impact on the motivation to achieve.

COLLECTIVISM AND SITUATIONAL VARIATION

Taking a broader view of culture, Triandis (1995) proposed that researchers might look at collectivism as both an internalized belief toward a group, and a principle with which a society is organized. The second meaning of collectivism refers to it as a way of using the collective as a unit for social transaction and economic analysis. In other words, collectivism may be a way in which
work and reward are organized and distributed in society. It is now maintained by most researchers (Triandis, 2000) that a society is not exclusively individualistic or collectivistic. Collectivist societies are those in which there are more situations that call for collectivist actions, while individualist societies are those in which there are more situations that call for individualist actions. A more sophisticated conceptualization of the relationship between collectivism and individualism and the motivation to achieve is therefore possible. Instead of asking whether achievement motivation develops in collectivist cultures, it is possible to ask whether achievement motivation is higher or lower when the group is the unit of analysis or when the individual is the unit of analysis. In other words, instead of analyzing the culture, analysis of the situations in which achievement motivation may be induced or activated is likely to produce more relevant results.

Disposition and Situational Interactions Related to the Motivation to Achieve

In this study, situations are used to study the variation in the motivation to achieve. Since the first achievement motivation study, achievement motives have been considered a trait of the individual; that is, individuals vary from each other in terms of their dispositional levels of achievement motivation. However, for a given individual, motivation can be activated or deactivated by the situation. In other words, motivation can be raised or lowered by perceived incentives in the situation (McClelland, 1953). To test this proposition, this study addressed the following questions: Can situational variables in work and reward structure be independent in activating motivation? Do people of high or low collectivism respond to different situational cues in activating motivation?

Four styles of work–reward structure commonly applied in school-related work in Singapore have been identified: teamwork–team reward, individual work–individual reward, teamwork–individual reward, and individual work–team reward. In other words, though Singapore is considered collectivist in general (Hofstede, 1980), schoolwork in Singapore is not always a team effort. Within each class, grades are distributed according to individual performance. More important, an individual's grade is assessed on the relative standing of the student's performance against members in the cohort. In addition to individual grades, rewards can be in the form of a team or class prize awarded to the entire class. Some times in group projects, one individual may do the work for the entire group, though the prize is given to the whole group. In other occasions, individuals may work together as a group to complete a project, knowing that only one member of the team may be given the reward, such as in class production of drama where the leading man or woman may be identified to receive the praise or blame for the entire cast. Therefore, both work organization and reward distribution can be either group-based or individual based in Singapore. Scenarios were developed to simulate each of these realistic work and reward practices in the empirical study presented later.

MULTIDIMENSIONS OF THE MOTIVATION TO ACHIEVE

The motivation to achieve has been found to incorporate both task-related motives (Murray, 1938; White, 1959), as well as the ego–socially-related motives, such as competitiveness (Chang, Wong, & Teo, 2000). In Singapore, the motivation to achieve is also a mixture of task- and ego-related motives. Similarities and differences have been found between Singaporean's and American's conceptualization and manifestation of the motivation to achieve (Chang & Mohammed, 2000). We modified an extensively validated scale, the Work and Family Orientation Scale (Spence, 1983) to reflect the conceptualization and manifestation of the motivation to achieve in Singapore more validly. This new scale was labeled the Attitude Toward Work (ATW) (see Appendix 1) scale; it was used in this study to measure the general need for achievement (nAch). The dimensions of ATW can be further grouped into the task-related dimensions: Work Ethics, Mastery, and Meeting Challenges; and the socially related dimension, Competitiveness.

Contemporary research in the motivation to achieve takes into consideration this multidimensional conceptualization of the concept (Baron & Harachiewicz, 2001). The task versus social dichotomy in the basic motivation to achieve has also been investigated by Harachiewicz, Barron, Lehto, Carter, and Elliot (1997). Their studies indicated that task-related motives to achieve and socially-related motives to achieve produce different consequences. It would be logical to assume that the task-related dimensions and the socially-related dimension of achievement motivation might be activated by different antecedents. These antecedents would include both cultural variables and situational variables.

THIS STUDY

With reference to the recent advances in understanding of collectivism and the motivation to achieve, this study asks the following research questions: Focusing on the individual level of analysis, does high or low allocentrism affect an individual's basic motivation to achieve? Do situational variations in task or reward distribution affect an individual's achievement motivation? We postulate the following hypotheses: (1) Within the context of Singapore, contrary to the McClelland–Winterbottom hypothesis regarding individual levels of collectivism allocentrism predict the motivation to achieve. However, the effect of allocentrism differs from one dimension of the ATW to another. Among the different dimensions, people with high collectivism show higher levels of the work ethic and lower levels of competitiveness. (2) The motivation of
Singaporeans to achieve is affected by manipulation of the different ways in which work and reward are organized. Situational variables that involve work organization and reward distribution influence the motivation with respect to the work ethic and competitiveness. We hypothesized that the work ethic would be higher when there is a clear contingency between work and reward. As suggested by the classical Skinnerian paradigm, behavior-reward contingency leads to higher action potential and motivation for the behavior. (3) Individual or group-based work organization and reward distribution influence the competitiveness of the individual. (4) There is an interaction effect between work-reward organization and allocentrism: People with lower allocentrism are more affected by the unit of analysis used in work and reward distribution than people with higher allocentrism.

No specific hypotheses were made concerning the dimension of meeting challenges or the dimension of mastery. The concept of mastery is related to intrinsic interest in the task (Deci, 1975). Since the task itself was not varied, but only the situational context of the task changed, the mastery dimension is not expected to vary with the work-reward structures. Similarly, the amount of uncertainty involved in the task was not varied, so no specific hypotheses about the effect of situations on the dimension of meeting challenges were made.

Method

Study Design

A two (allocentrism) x four (individual work--individual reward, group work--group reward, individual work--group reward, and group work--individual reward) mixed factorial design was used. Allocentrism was the between-subject independent variable. Scenarios depicting different work-reward organizations were the within-subject factor.

Participants

A randomized stratified sampling was conducted in a neighborhood secondary school in Singapore to select a sample that matched the ethnic composition of Singapore according to national statistics. Eighty students were sampled (forty males and forty females, sixty-two Chinese, eleven Malays, and seven Indians). The students ages ranged from 14 to 17 years old, with a mean age of 15.1. Based on their scores on the Singapore Collectivism scale (Singh & Vasoo, 1994) they were grouped, using median split, into high allocentrist and low allocentrist groups.

Instruments

Two scales were used: (1) the Singapore Collectivism scale (Singh & Vasoo, 1994), a measure that specifically addresses the manifestation of collectivism in Singapore, and (2) the Attitude Toward Work scale, a measure of the motivation to achieve. Internal reliability of each measure was assessed prior to the study using a group of university students in Singapore. The internal reliability of the Singapore Collectivism scale was found to be 0.90, and the internal reliability of the Attitude Toward Work scale was found to be 0.81 for the entire scale, and 0.62 for Mastery 1--Quality of Work, 0.71 for Mastery 2--Meeting Challenges, 0.70 for Work Ethic, and 0.77 for Competitiveness. All were within the acceptable range. In addition, scenarios were developed to simulate realistic work and reward practices.

Procedure

The experiment was conducted in a classroom on the participants campus during a recess period. Each participant read a booklet containing all four conditions. After reading each condition, the participants rated themselves on the Attitude Toward Work scale. The order of presentation of the four scenarios was counterbalanced across the participants to control for order effect. The scenarios are presented in Appendix 2.

Results

Descriptive statistics of the study are presented in Table 8.1.

Effects of Allocentrism

We took the average of the Attitude Toward Work measure across the four situations as the trait or individual difference measure of the motivation to achieve, designated as nAch. The means and standard deviations for the high and low collectivists are presented in Table 8.1. High and low allocentrists differed marginally on their overall nAch. The mean of high allocentrists was 3.65; the mean of low allocentrists was 3.51, F(1, 78) = 1.90, p = 0.06. High allocentrists showed a slightly higher motivation to achieve than low allocentrists.

As hypothesized, allocentrism had different effects on different dimensions of the motivation to achieve. The main effect was significant for mastery, F(1, 78) = 9.95, p < 0.005, and meeting challenges, F(1, 78) = 4.38, p < 0.05; but not significant on competitiveness, F(1, 78) = 0.78, p > 0.05, or work ethic, F(1, 78) = 2.79, p > 0.05. High allocentrists scored higher on task-related dimensions of the ATW, although lower on the competitiveness dimension than the low allocentrists.

Attitude Toward Work—nAch

Different work-reward organizations were found to affect the overall motivation to achieve, F(3, 76) = 3.67, p < 0.05. In descending order, the mean for individual work-individual reward was 3.63, for group work-group reward was 3.58, for group work-individual reward, 3.57, and for individual work--
Achievement and Achievement Motivation

The Impact of Collectivism and Situational Variations

Table 8.1
Means and Standard Deviations of Competitiveness, Mastery, Meeting Challenges, Work Ethics, and nAch

<table>
<thead>
<tr>
<th>Work-Reward Distribution</th>
<th>IW-IR</th>
<th>GW-IR</th>
<th>IW-GR</th>
<th>GW-GR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Allocentrics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competitiveness</td>
<td>3.17 (.90)</td>
<td>3.09 (.88)</td>
<td>3.00 (.86)</td>
<td>3.05 (.87)</td>
</tr>
<tr>
<td>Mastery</td>
<td>4.04 (.45)</td>
<td>4.01 (.44)</td>
<td>4.02 (.40)</td>
<td>4.02 (.44)</td>
</tr>
<tr>
<td>Meeting Challenges</td>
<td>3.12 (.57)</td>
<td>3.09 (.65)</td>
<td>3.03 (.87)</td>
<td>3.10 (.56)</td>
</tr>
<tr>
<td>Work Ethics</td>
<td>3.92 (.69)</td>
<td>3.90 (.64)</td>
<td>3.72 (.71)</td>
<td>3.89 (.57)</td>
</tr>
<tr>
<td>nAch</td>
<td>3.57 (.41)</td>
<td>3.52 (.43)</td>
<td>3.44 (.40)</td>
<td>3.51 (.35)</td>
</tr>
<tr>
<td>High Allocentrics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competitiveness</td>
<td>2.93 (.62)</td>
<td>2.93 (.78)</td>
<td>2.93 (.64)</td>
<td>2.93 (.77)</td>
</tr>
<tr>
<td>Mastery</td>
<td>4.35 (.42)</td>
<td>4.31 (.47)</td>
<td>4.33 (.43)</td>
<td>4.26 (.50)</td>
</tr>
<tr>
<td>Meeting Challenges</td>
<td>3.38 (.49)</td>
<td>3.28 (.53)</td>
<td>3.31 (.52)</td>
<td>3.32 (.50)</td>
</tr>
<tr>
<td>Work Ethics</td>
<td>4.10 (.52)</td>
<td>3.98 (.56)</td>
<td>4.01 (.49)</td>
<td>4.15 (.51)</td>
</tr>
<tr>
<td>nAch</td>
<td>3.69 (.32)</td>
<td>3.62 (.36)</td>
<td>3.64 (.33)</td>
<td>3.66 (.31)</td>
</tr>
</tbody>
</table>

Key: IW = individual work; IR = individual reward; GW = group work; GR = group reward.

group reward, 3.54 (see Figure 8.1). The interaction effect between allocentrism and work-reward organization was small and did not reach statistical significance, $F(3, 76) = 1.20, p > 0.05$.

Since different effects were found on different dimensions of the motivation to achieve, these results are presented separately for each dimension (see Figure 8.2).

Competitiveness

Though there was no overall effect across the four work-reward conditions on competitiveness, $F(3, 76) = 1.31, p > 0.05$, comparisons across individual cells revealed interesting differences. Effect of individual versus group reward distribution was found in competitiveness $F(1, 78) = 6.41, p < 0.05$. When reward was distributed on an individual basis, competitiveness was higher, $M = 3.03$. When reward was distributed on a group basis, competitiveness was lower, $M = 2.97$. No other comparisons were significant. There was no interaction effect between allocentrism and work-reward organizations, $F(3, 76) = 0.94, p > 0.05$.

The Work Ethic

There was an overall effect of work-reward distribution on the work ethic, $F(3, 76) = 4.60, p < 0.01$. Interaction effect between allocentrism and work-reward distribution was not significant, $F(3, 76) = 2.16, p > 0.05$. As with competitiveness, further investigation suggested that when reward and work are consistent, that is, group work-group reward and individual work-individual reward, the work ethic is higher ($M = 4.0$). When there is inconsistency, the work ethic is lower ($M = 3.85$), $F(1, 78) = 11.42, p < 0.001$.

Mastery and Meeting Challenges

As predicted, no significant situational effects were found, $F(3, 76) = 1.39, p > 0.05$. Neither were any situation-allocentrism interaction effects found on meeting challenges, $F(3, 76) = 1.40, p > 0.05$. 

Figure 8.1
Means of nAch on Work-Reward Distribution
Within the collectivist culture of Singapore, individuals with high allocentrism showed higher overall motivation to achieve. Differences found in the various dimensions of motive were small. Especially where the work ethic and competitiveness were concerned, the differences did not reach statistical significance. In addition, with the exception of competitiveness on which high allocentrist scored lower than low allocentrist, the high allocentrist scored higher on all dimensions of the motive to achieve. These results cannot be interpreted without taking into consideration the general value orientation of the Confucian cultural context, in which both individual achievement and collectivism are highly valued (Chang & Wong, 1998). The finding that high allocentrist scored higher on achievement motivation can be seen as reflecting the culture’s dual emphasis. Within this context, it is also logical to expect that the competitiveness dimension would be lower in those with high allocentrism. In other words, the relationship between collectivism and achievement motivation might be context dependent. In other collectivist cultures in which individual mastery and competence are not emphasized, individual differences in allocentrism may be unrelated to achievement motivation.

Fiske (1992) suggested that collectivism and individualism are related to how resources are distributed in a society. Applying this theoretical conceptualization of collectivism, we tested the effect of four scenarios of individual versus group emphasis in work and reward distribution. For the overall level of the motivation to achieve, results suggested that individual-based work and rewards seem to be the most effective in activating the motivation to achieve, followed by group-based work and rewards. Inconsistency in work organization and reward distribution seem to be the least motivating. Even within a highly collectivist society such as Singapore, individual-based work and rewards are still the most motivating.

The results revealed that the two task-related dimensions—mastery and meeting challenges—were not affected by the work and reward distribution. This finding may suggest that these two dimensions might be the intrinsic motivation proposed by Deci (1975). They are motives somewhat immune to variation in work and reward structure.

We found that the work ethic, a dimension related to an individual’s effort expenditure, is highly susceptible to variations in the incentive structure. Specifically, when there is high contingency between work and reward, the work ethic was high. When the contingency was inconsistent, the work ethic was low. This result can be easily explained in terms of the operant conditioning principle, which suggests high contingencies between behavior and reward lead to an increase in the rewarded behavior. This principle seems to apply to both high and low collectivists somewhat equally.

Competitiveness was found to vary with reward distribution but not work organization. When reward was given on an individual basis, competitiveness was high. When given on the group basis competitiveness was low. This result seems to be self-explanatory. Individuals compete when there is incentive to

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**Figure 8.2**

Means of Competitiveness, Mastery, Meeting Challenges, and Work Ethics on Work-Reward Distribution

<table>
<thead>
<tr>
<th>Competitiveness</th>
<th>Work Ethics</th>
<th>Meeting Challenges</th>
<th>Work-Reward Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Graph 1" /></td>
<td><img src="image2.png" alt="Graph 2" /></td>
<td><img src="image3.png" alt="Graph 3" /></td>
<td><img src="image4.png" alt="Graph 4" /></td>
</tr>
</tbody>
</table>

Key: 1 = individual work—individual reward; 2 = group work—individual reward; 3 = individual work—group reward; 4 = group work—group reward.

No significant situation effects were found on mastery, \( F(3, 76) = 1.10, p > 0.05 \), and no significant allocentrism and situation interaction effect was found either, \( F(3, 76) = 0.39, p > 0.05 \).

**Discussion**

This study addresses the question of whether collectivism matters in an individual’s motivation to achieve. The answer has long eluded cross-cultural researchers. This study used a cultural psychology approach by treating collectivism as a within-culture variable. Collectivism was operationalized in two ways: (1) as allocentrism, an individual difference variable, and (2) as a situational variable, which varied as the unit of analyses in work—reward organization. Using this approach, the findings should also be interpreted by taking into consideration the general cultural context in which the relationship unfolded.

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compete. They compete when only one member of the group could emerge to receive the recognition and reward. Outperforming the others, breaking out from the pack, becomes necessary for the reward in these situations. Based on this finding, the paradoxical phenomenon of the competitive student often observed in East Asian schools can be explained. If students are graded according to their relative standing in the class, and if opportunities for career placement (reward) are based on school grades, even students in the most collectivist societies become highly competitive. Many Confucian societies practice meritocracy in performance evaluation and reward distribution. Meritocracy in many of these Confucian societies is based on individual performance evaluation. No wonder Asian students are highly competitive in their achievement pursuits.

In summary, the question of whether collectivism has an effect on the motivation to achieve can be answered with the current conceptual advances. With a finer differentiation of the motivation to achieve and a broader definition of collectivism, this study has identified how the dimensions of achievement motivation are differentially related to collectivism. In addition, the relationships seem to be context dependent. An individual’s motivations to achieve is positively predicted by the individual’s allocentrism in Singapore, a collectivist society. Variations in the dimensions of the motive were related to situational variations in the unit of analysis. This last finding reinforces a current trend in seeing culture in situations whereby the traditional cultural differences can sometime be seen in different situations within the same cultural community (Gardner, Gabriel, & Lee, 1999; Hong, Morris, Chiu, & Benet-Martinez, 2001).

APPENDIX 1

Scale Items of the Attitude Toward Work Scale

**Competitiveness**

10. I will not be satisfied with good performance unless I perform better than others.
14. It is important to me to perform better than others on a task.
16. It annoys me when other people perform better than I do.
17. I feel bad when I do not outperform others even if I did a good job.
19. I feel winning is important in life.
22. I work harder when I am in competition with others.

**Mastery**

9. I find satisfaction in exceeding my past performance even if I do not outperform others.
13. When I am engaged in a task I like to find the most efficient ways to get the job done.

15. I take pride in a job well done.
21. I feel good when I complete a task that requires a high level of skills.
23. I like to work on problems that will really make me learn.
24. I like to work in situations where there are obstacles to overcome in order to reach a higher goal.

**Meeting Challenges**

1. It excites me to work on a new and unfamiliar task.
3. I like to try new and innovative projects that will really test my efforts.
5. I would rather do a job with high uncertainty of outcome and high reward than a secure job with low reward.
8. I avoid projects with uncertainty of success.
12. I more often attempt difficult tasks that I am not sure I can do than easier ones I believe I can do.
20. I would rather do something at which I feel confident and relaxed than something which is challenging and difficult.

**Work Ethics**

1. I like to work.
2. I feel good when I am working.
6. It is bad to be idle.
7. Once I undertake a task I persist.
11. I take pride in working hard.
18. I believe hard work is the key to success.

APPENDIX 2

Group Versus Individual Work and Reward Scenarios

**Group Work and Group Reward**

Your teacher has just given the class a project to do. The project is to be done in groups. The project topic can be anything of your group’s choice. Only one group with the best project performance will be awarded. In addition, each member of the group with the best project will get a Swatch watch.

**Individual Work and Individual Reward**

Your teacher has just given the class a project to do. The project topic can be anything of your choice. Only one student with the best project will be awarded for good performance. In addition, the student with the best project will get a Swatch watch.
Group Work and Individual Reward

Your teacher has just given the class a project to do. The project is to be done in groups. The project topic can be anything of your group's choice. Though it is a group project, individual performance is assessed. Only one student with the best performance will be awarded with a distinction for good performance. In addition, the student with the best performance will get a Swatch watch.

Individual Work and Group Reward

Your teacher has just given the class a project to do and divided the class into small groups. Each student is to work on one part of a project alone. Members of the group will then put the parts together to complete the project. The entire project will then be assessed. Only the group with the best project will be awarded for good performance. In addition, each member of the group with the best overall performance will get a Swatch watch.

NOTES

1. This chapter was presented at the Third International Conference of the Asian Association for Social Psychology, August 4-6, 1999, Academia Sinica, Nankang, Taiwan.
2. Preparation for this chapter was partially supported by the National University of Singapore, Faculty of Arts and Social Sciences, Faculty Research Grant RP 390006 given to the first author.
3. We use the conventional abbreviated form, nACh (Murray, 1938), for achievement motivation, to indicate the overall or scale score of the entire scale of the Attitude Toward Work.

REFERENCES


