A Comparison Between Self-Competence and Self-Liking: Effects of Individualism-Collectivism Cultural Priming and Sense of Achievement

A Report Submitted to
Department of Applied Social Studies
in Partial Fulfillment of the Requirements for the Bachelor Social Sciences in psychology

by

TAM Hoi Chi

April, 2009
Abstract

Objectives. The study examined the cultural differences in two-dimensional global self-esteem (self-competence and self-liking) among a bicultural Hong Kong sample by adopting a cultural priming method. The influence of a sense of achievement on the relationship between culture orientation and two-dimensional self-esteem was also investigated.

Methods. Bicultural college students from universities in Hong Kong completed two sets of questionnaires that distinguished between high and low sense of achievement among participants, and accessed their level of self-competence and self-liking under different manipulated conditions, respectively. In particular, the first set of questionnaire consisted of two parts: (1) screening task for sense of achievement; and (2) demographic information. The second set of questionnaire consisted of three parts: (1) culture primes; (2) manipulation check of cultural priming; and (3) measure of self-competence and self-liking.

Results. IND-primed participants were found to possess higher level of self-competence when compared with COL-primed participants, whereas COL-primed participants were found to possess higher level of self-liking when compared with
IND-primed participants. The self-competence ranking among four conditions was as follow: IND-primed high achiever > COL-primed high achiever > IND-primed low achiever > COL-primed low achiever, and the discrepancy among participants with low sense of achievement were greater than that among participants with high sense of achievement. The results showed trends in the direction predicted by the hypotheses, but none of the predicted differences were statistically significant.

**Discussion.** The present study provided evidence for the direction of cultural explanations on the two-dimensional self-esteem. Besides, the self-competence ranking among four conditions and the discrepancy among participants with low sense of achievement and among participants with high sense of achievement might reveal the difference of attribution styles among various cultural orientations and the effect of self-serving attribution style.
Acknowledgements

My warmest thanks go to Prof. Sik Hung Ng, my supervisor, for his inspiring guidance, encouragement and support throughout my research. Without his generous guidance, useful knowledge and invaluable advice, the present project will not come to a success.

Also, I would like to show my gratitude to all the participants, without their voluntary participation, the completion of the project would not have been possible.
City University of Hong Kong  
Department of Applied Social Studies  

Thesis Submission Declaration Form

Student Name: TAM Hoi Chi

Student No.:


Course Code: *SS4708 / SS5790*

Programme: *BSSPSY / PGDP*

Supervisor’s Name: Prof. Sik Hung, Ng

I have read and understood the following

- Section 2.3 of the City University Code of Student Conduct (http://www.cityu.edu.hk/arro/arro_new/frame_student_discip.htm): “Students must pursue their studies with academic honesty. Academic honesty is central to the conduct of academic work. Students are expected to present their own work, give proper acknowledgement of other's work, and honestly report findings obtained.”

- Department’s Statement on Plagiarism.

Thesis/Dissertation Checklist (please tick):

( √ ) This paper is my own individual work.

( √ ) This paper has not been submitted to any other courses.

( √ ) All sources consulted have been acknowledged in the text and are listed in the reference list, with sufficient documentation to allow their accurate identification.

( √ ) All quotations are enclosed in quotation marks and that the source for each quotation has an accurate citation.

Signature: ________________ Date: __30/04/2009__

*Delete as appropriate.
# Table of Contents

**Content**

Abstract ............................................................................................................................... ii

Acknowledgments .............................................................................................................. iv

Thesis Submission Declaration Form.............................................................................. v

Table of Contents .............................................................................................................. vi

List of Tables .................................................................................................................... viii

List of Figures .................................................................................................................. ix

1. **Introduction and Literature Review** ........................................................................ 1
   
   1.1. Introduction ........................................................................................................... 1
   
   1.2. Literature Review ................................................................................................. 4
       
       1.2.1. Culture syndrome: Individualism and Collectivism ........................................ 4
           
           1.2.1.1. The concepts of individualism-collectivism and its development ........... 4
           
           1.2.1.2. Related concepts about individualism-collectivism .............................. 8
           
           1.2.1.3. Distribution of individualism and collectivism ....................................... 8
           
           1.2.2. Two-dimensional global self-esteem: self-competence and self-liking ........ 11
           
           1.2.3. Culture and two-dimensional self-esteem .................................................. 13
           
           1.2.4. Self-competence and sense of achievement ................................................. 15
           
           1.2.5. The ranking of high/low achievers with different cultural-orientation on self-competence and the discrepancy of self-competence between them ................................................. 16
           
       1.3. Hypotheses .......................................................................................................... 18

2. **Method** .................................................................................................................... 20

   2.1. Design .................................................................................................................. 20
   
   2.2. Participants .......................................................................................................... 20
   
   2.3. Procedure ............................................................................................................ 21
   
   2.4. Materials ............................................................................................................. 21

3. **Results** ................................................................................................................... 26

   3.1. Statistical Analysis ............................................................................................... 26
   
   3.2. Descriptive Results ............................................................................................. 26
   
   3.3. Preliminary Analyses ........................................................................................... 28
   
   3.4. Reliability of Scales .............................................................................................. 28
   
   3.5. Manipulation Check ............................................................................................... 29
   
   3.6. Hypothesis Testing ............................................................................................... 30

4. **Discussion and Conclusions** ................................................................................... 35
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1. Discussion</td>
<td>35</td>
</tr>
<tr>
<td>4.2. Conclusion</td>
<td>44</td>
</tr>
<tr>
<td>5. References</td>
<td>45</td>
</tr>
<tr>
<td>6. Appendices</td>
<td>50</td>
</tr>
<tr>
<td>Appendix A</td>
<td>50</td>
</tr>
<tr>
<td>Appendix B</td>
<td>53</td>
</tr>
<tr>
<td>Appendix C</td>
<td>58</td>
</tr>
<tr>
<td>Appendix D</td>
<td>63</td>
</tr>
</tbody>
</table>
List of Tables

Table Title
Table 1. Demographic characteristics of participants among four groups……………… 27
Table 2. Independent samples t-tests for IND index and COL index among different priming groups…………………………………………………………………. 29
Table 3. The ANCOVA summary table for participants’ self-competence…………… 30
Table 4. The ANCOVA summary table for participants’ self-liking…………………. 31
Table 5. The 2×2 ANCOVA summary table for participants’ self-competence………. 32
Table 6. The Tukey’s HSD test for participants’ self-competence…………………….. 33
List of Figures

Figure Title
Figure 1. Adjusted mean self-competence among 2 (cultural prime) × 2 (sense of achievement) setting ........................................... 34
Chapter 1: Introduction and Literature Review

1.1. Introduction

Culture has been a controversial topic in psychology for over a long period of time. Since the idea of culture is somehow metaphysical and its related scope is so broad that it is hard to define. Kroeber and Kluckhohn (as cited in Triandis, 1996) observed that there are more than one hundred definitions suggested by different cultural anthropologists. So, one feasible way to study culture is to examine something more concrete—culture syndrome. According to Triandis (2000), culture syndrome is “a shared pattern of attitudes, beliefs, categorizations, self-definitions, norms role definitions, values, and other subjective elements of culture that is organised around some theme” (p.13). Among various culture syndromes, individualism-collectivism (IND-COL) probably captures psychologists and researchers’ attention most, and has been widely used for studying cross-cultural psychology. Generally speaking, individualism is accepted as a worldviews that centralizes the personal (i.e. personal goals, personal uniqueness, and personal control) and peripheralizes the social; while collectivism is a worldview that centralizes the social units (in-groups) with commonness (i.e. common fate, common goals, and common values) and peripheralizes the personal (as summarized in Oyserman, Coon, & Kemmelmeier, 2002). The strong interest of contemporary studies on IND-COL was greatly raised by the influential work
of Geert Hofstede in the 1980s (Oyserman, Coon, & Kemmelmeier, 2002). Hofstede facilitated comparative research by organizing cultural differences into overarching patterns, and as the result, prompted a rapidly expansion of cultural and cross-cultural research in the next 20 years and more. In Hofstede’s works, he contrasted societies and countries on the basis of differences in the level of individualism. To sum up, Hofstede believed that individualism is prevalent in most English-speaking countries, while collectivism is popularized in most Eastern countries (Hofstede, 1980). In Hofstede’s view, individualism and collectivism can be understood as two ends of a single continuum that individualism is the conceptual opposite of collectivism. High level in one end indicates low level in the other end, thus, high in both ends or low in both ends is not possible. Yet, being passed through the hard work of many years from researchers, the picture of individualism and collectivism becomes more concrete that things may not as simple as Hofstede deemed. Researchers like Singelis and Triandis argued that individualism and collectivism are not two ends of a single cultural dimension or syndrome, but coexisted in all cultures to different extents (e.g. Triandis, 1994b). Being high on one side does not indicate low on the other one. In this sense, high (or low) in both culture dimensions are possible. Also, the conceptual framework of IND-COL becomes more complex too. For instance, Singelis and Triandis suggested that both individualism and collectivism have two dimensions: horizontal and vertical dimensions.
(e.g. Singelis et al., 1994; Triandis, 1995). In recent time, IND-COL has become a more complicated concept than the earlier version held by Hofstede.

Previous studies about IND-COL showed that this culture syndrome contributes to a wide range of topics. Self-esteem is undoubtedly one of them. When it comes to global self-esteem, Morris Rosenberg seems to dominate the field. His Rosenberg self-esteem scale (RSES; Rosenberg, 1965) has been prevailing for half a century. However, recently, the position that global self-esteem consists of two distinct dimensions becomes more popular. The two-dimensional self-esteem model advocated by Tafarodi and Swann (1995) has been accepted as a new approach to investigate global self-esteem. In this framework, global self-esteem consisted of two related but distinct dimensions: self-liking and self-competence, which respectively represented the generalized sense of one’s worth as social object and generalized sense of one’s efficacy or power. Studies by Mar and his colleagues (Mar, DeYoung, Higgins, & Peterson, 2006) suggested that the approach of two-dimensional model may even interpret the idea of global self-esteem more properly than the Rosenberg’s model. Tafarodi conducted a series of studies to examine the relationship between individualism-collectivism (by using different cultural groups) and self-esteem by adopting the two-dimensional self-esteem approach (Tafarodi, Lang, & Smith, 1999, Tafarodi & Swann, 1996; Tafarodi & Walters, 1999). The results showed a significant
relationship between individualism-collectivism and two-dimensional global self-esteem. Individualistic samples and collectivistic samples are reported to link particularly with high self-competence and high self-liking respectively.

Based on the findings of previous studies, the present project aimed to replicate the results of Tafarodi’s previous studies (Tafarodi, Lang, & Smith, 1999; Tafarodi & Swann, 1996; Tafarodi & Walters, 1999) by adopting a cultural priming method on a bicultural Hong Kong sample. The relationship between individualism-collectivism and the two-dimensional global self-esteem are examined. Moreover, an attempt was also made to investigate the influence of a supposedly powerful factor (sense of achievement) of this relationship.

1.2. Literature Review

1.2.1. Culture syndrome: Individualism and Collectivism

Individualism and collectivism may be the most frequently investigated culture syndromes in the field of contemporary psychology. Throughout the last twenty to thirty years, the concept of individualism and collectivism has been developed from a single continuum to a multi-dimensional framework.

1.2.1.1. The concepts of individualism-collectivism and its development

At first, Hofstede (1980) computed an Individualism Index (IDV) based on his large-scaled research data bank. Countries, then, were classified as high IDV or low
IDV. Since, in Hofstede’s eyes, this culture syndrome was a single continuum, low IDV could be conceptualized as collectivism. Hofstede regarded individualism as a self-oriented attitude held by people. Individualists value oneself above all things. They emphasised personal autonomy, self-fulfilment and based their identities on personal accomplishments. On the other hand, collectivism (low IDV) is regarded as a group/social-oriented attitude held by people. Collectivists value group beyond oneself. They deem that individuals are bound and obligated mutually by groups. Their identities are based in the social system. Concluding Hofstede’s perspective, individualism focused on “I” while collectivism focused on “We”. Other psychologists and researchers on this field explain this culture syndrome, more or less, at the similar way. For instance, Triandis (1994a) elaborated the concept of IND-COL following the direction of Hofstede’s work, yet with a clearer and more detailed description. In the case of individualism, individual is the basic unit of social perception, whereas group is the basic unit of social perception in the case of collectivism. Individualists’ behaviour can be explained as reflecting personality, principles and attitudes (attitudes are more important than norms), whereas collectivists’ behaviour can be regarded as reflecting social/group’s norms (in-group norms are more important than attitudes). The self in individualistic culture is defined as an independent entity and their cognitions are more context independent, whereas the self in collectivistic culture is
defined in terms of relationships and in-groups (therefore, more interdependent) and
their cognitions are more context dependent. Also, individualists focus on their needs,
rights and capacity more, yet collectivists focus on the needs of their groups and
obligations more (See detail summary table at Triandis, 1994a, p.167-172). Lastly, the
perspective on relationships for individualists and collectivists are different too. The
relationships among individualists are relatively impermanent and non-intensive since
when the costs of a relationship exceed the benefits, the relationship is likely to be
given up. In contrast, the relationships among collectivists are relatively long-lasting
and intensive. Even if the costs of a relationship exceed the benefits, they tend to stay
with the relationship (Kim, Triandis, Kagitcibasi, & Yoon, 1994).

Passing through a period of time probing into the IND-COL syndrome,
psychologists and researchers (e.g. Harry C. Triandis, and Theodore M. Singelis) started
to be aware that individualism and collectivism may be multidimensional constructs
going beyond the conception brought up by Hofstede. The relationship of IND-COL is
not just two ends of a single continuum. For instance, according to Triandis (1994b),
both individualists and collectivists experience private, public, and collective
self-awareness, yet the differences are of degree rather than of kind. Individualism and
collectivism can coexist. Moreover, the fact that some individualists or collectivists do
things that are “strange” according to the explanation of individualism-collectivism
suggests that there may be different kinds of individualism and collectivism. For instance, East Asians avoid confrontation to prevent causing others to lose face (emphasising in-group harmony), yet it is common to cause people losing face in an Israeli kibbutz (Singelis et al., 1995). Instead, individualism and collectivism can be better understood as “domain-specific, orthogonal constructs differentially elicited by contextual and social cues” (Oyserman, Coon, & Kemmelmeier, 2002, p.8).

Hence, psychologists and researchers started to modify the conceptual framework of IND-COL. Triandis (1995) advocated that individualism and collectivism should be improved (better conceptualized) by postulating a new dimension—horizontal (emphasising equality) versus vertical (emphasising hierarchy). According to Triandis and Gelfand (1998), and Singelis et al. (1995), Horizontal individualism (H-I) is a cultural pattern where an autonomous self but with equal status with others is postulated. People in H-I want to be unique and distinct, but not be having higher status. Vertical individualism (V-I) is a pattern like H-I except inequality and urging on status are expected. People in V-I want to be unique and acquire status through competition. Horizontal collectivism (H-C) is a cultural pattern where an interdependent self that extremely similar to others and equality are postulated. People in H-C emphasise common goals with in-groups and sociability. Vertical individualism (V-C) is a pattern like H-C except inequality is expected. People in V-C believe that some people should
have more status than others. They are willing to sacrifice their personal goals for the
in-groups and support competitions of their in-group with out-groups. According to
Triandis (1995), all individuals possess all four kinds of cognitions (H-I, V-I, H-C, V-C),
the difference of orientation among people is, in fact, based on sampling of different
cognitions in different situations.

1.2.1.2. Related concepts about individualism-collectivism

The concepts of individualism and collectivism have been widely adopted as a
fruitful source of studying. They have been applied to many other topics like relating
them to the cultural definitions of self. According to Markus and Kitayama (1991), the
self in collectivist cultures (i.e. interdependent self) is assumed to be interdependent,
ensembled, enmeshed, and emphasising its social nature. Whereas, the self in
individualist cultures (i.e. independent self) is assumed to be self-contained, isolated,
independent, and clearly bounded. The link between individualism and independent
self-construal, and that between collectivism and interdependent self- construal are
obvious with research evidence (see Gudykunst, Matsumoto, Ting-Toomey, Nishida,
Kim, & Heyman, 1996; Markus, & Kitayama, 1991).

1.2.1.3. Distribution of individualism and collectivism

Although recent studies suggested that individualism and collectivism may not
simply be the two ends of a single continuum, there is still a general pattern for us to
figure out the distribution of this culture syndrome roughly. According to Triandis (1994a), individualism is maximal in complex and loose societies, while collectivism is maximal in simple and tight societies. Hofstede (1980) draw a general comment on the distribution of IND-COL based on the survey of 66 countries from 1967 to 1973. The individualism Index (IDV) collected in the survey indicated that the United State and many European countries like Great Britain, Sweden and Belgium were high in IDV, while many Asian countries (e.g. Thailand, Pakistan), and countries in Southern America (e.g. Peru, Venezuela) were low in IDV (that can be understood as high collectivism according to Hofstede’s perspective). Summarising Hofstede’s work, individualism is typical in United States and most of the English-speaking countries, while low individualism (collectivism) is characteristic of most Eastern countries. This statement has been confirmed by both historical and empirical methods (see Triandis, 1994a). Moreover, Triandis (1994a) also added that collectivism is prevalent among parts of Europe (e.g. Southern Italy, rural Greece) and most parts of Asia, Africa and Latin America.

However, the distribution of individualism-collectivism is just a rough demarcation. It is possible that a society includes both individualism and collectivism. Bi-culturalism is a paradigm that contrasts with mono-culturalism. According to Ng, Yam, and Lai (2007), cultures are distinct but separation from each other is not
necessary, bi-culturalism is “the coexistence of two mainstream cultures, with or without subsidiary cultures” (Ng, 2007, p.122). People in the bi-cultural situation face two or more languages, religions, ethnicities and lifestyles, to name but a few. With respect to Hong Kong, it definitely can be regarded as a bi-cultural city where people may possess both individualistic and collectivistic attitudes. As Ng (2007) mentioned, bi-culturalism has been long enough to mature in Hong Kong by the aid of the confluence of Chinese and Western cultures since 1984 (the year that the Treaty of Nanking was signed). Geographically, Hong Kong was just originally a tiny “fishing port” at the south edge of China. Yet, the historical background of being a colony of Britain and the inherent relationship with China have combined making Hong Kong into a bi-cultural city with thriving Chinese and Western cultures. Individualism and collectivism coexist in Hong Kong, and make Hong Kong become a unique cultural system that goes beyond the Mainland China and Britain.

One instance proving Hong Kong being a bi-cultural city is that the responses of Hong Kong samples to attitude items are not much different, in term of the level of individualism, from Illinois samples that assumed to represent individualistic samples (Singelis et al., 1995). Although Hong Kong samples are relatively collectivistic, their level of individualism is simultaneously high. This may indicate that Hong Kong is a bi-cultural system derived from two independent cultures. Using horizontal-vertical
dimensions of individualism-collectivism to fit into the case in Hong Kong, research has shown that both horizontal collectivism and horizontal individualism are quite high (e.g. Triandis, Chen, & Chan, 1998).

1.2.2. Two-dimensional global self-esteem: self-competence and self-liking

Since Rosenberg’s influential work (Rosenberg, 1965) punished, till now, the Rosenberg self-esteem scale (RSES) is the most common method to investigate into this form of self-evaluation. Rosenberg’s innovate perspective that construing self-esteem as a global evaluation of personal worth contributes remarkably to the success of Rosenberg and his scale. However, some recent scholars started raising the concerns that the global self-esteem should be a two-dimensional model (like self-competence and self-liking; Tafarodi & Swann 1995) rather than a uni-dimensional model. According to Mar, DeYoung, Higgins and Peterson (2006), the two-dimensional self-esteem model can even explain global self-esteem better than before Rosenberg’s view of self-esteem.

Tafarodi and Swann (1995) have shown that two correlated but distinct factors are revealed under the factor analyses of global self-esteem. Therefore, global self-esteem may be experienced in two distinct dimensions. In the dimension of self-competence, Tafarodi and Swann (1995) described that people experience the self as globally strong or weak in this dimension of self-esteem. The sense of self-competence is built from
successful manipulation of one’s environment. People with high self-competence possess a relatively “positive affective and valuative character” (p.325). In the dimension of self-loving, Tafarodi and Swann (1995) described that people experience the self as globally acceptable-unacceptable in this dimension of self-esteem. The sense of self-love is resulted from generalised other (esp. generalising significant others) first, then eventually developed a private standards for self-acceptance. People with high self-love have positive affect, self-acceptance, and feel comfortable in social settings. As summarised with the descriptions of Tafarodi and Swann (2001), self-competence is an “overall positive or negative orientation towards oneself as a source of power and efficacy” (p.654). On the other hand, Self-loving is a “chronic, overall sense of worth as an individual with social significance” (p.655).

Self-competence is relatively calibrated internally or defined autonomously, whereas self-loving is relatively dependent on social inferences. (Tafarodi & Swann, 1995). Self-competence is sensitive to “environmental feedback signaling the presence or absence of control and self-determination” (Tafarodi, Lang, & Smith, 1999, p.623), whereas, self-loving is sensitive to “interpersonal feedback expressing approval or disapproval” (p.623)

1.2.3. Culture and two-dimensional self-esteem
As Tafarodi (Tafarodi & Swann, 1996) proposed, the two dimensions of global self-esteem possess specific linkages to individualism and collectivism independently. As collectivism is highly socially sensitive, this orientation especially favors the development of self-liking dimension of self-esteem. A main feature of collectivistic culture—“harmonization of personal behaviour with norms, needs and expectations of one’s in-groups (e.g. family, friends, co-worker)” (p. 623) is supposed to foster social acceptance and approval, and those acceptance and approval should able to foster the sense of self-worth (i.e. self-liking). On the contrary, the sense of self-competence should hinder from the orientation of individualism since individualistic culture stands for independence and the tendency that emphasising self over all other social values. Therefore, the interpersonal relationship between individualists is less desirable than that between collectivists and hence, conflicts or disagreeable experiences are more likely to occur. Social acceptance and approval may also be lowered, and those negative interpersonal relationships should decrease the sense of self-liking.

The influence of individualism-collectivism on self-competence is similar but opposite to that on self-liking. The features of individualistic culture, like self-determination, independence and emphasising self over all others, all favor the promotion of sense of control. Also, the opportunities for people to pursue personal achievement are more valued in individualistic cultures. Those characteristics could
foster the development of the sense of personal efficacy (i.e. self-competence). On the contrary, the collectivistic culture emphasises social groups over the self. The sense of control among collectivists is lower, and the chances to acquire personal achievement are often limited due to focusing on groups’ welfare. Therefore, the development of self-competence is impeded in collectivistic culture.

The argument that collectivism is related to relatively higher self-liking but lower self-competence, and individualism is related to higher self-competence but lower self-liking is also supported by empirical investigations. Tafarodi and colleagues had conducted a series of cross-cultural studies (i.e. Tafarodi, Lang & Smith, 1999; Tafarodi & Swann, 1996; Tafarodi & Walters, 1999) to investigate the relationship between Individualism-collectivism and those two dimensions of global self-esteem. Samples of 343 American and 302 Chinese college students participated in the study (Tafarodi & Swann, 1996). The result showed the linkage predicted by the conceptual framework. The Chinese (representing collectivistic culture) sample was higher in self-liking but lower in self-competence, whereas the American (representing individualistic culture) sample showed reverse findings. Later, 94 British and 92 Malaysian students at the University of Wales, Cardiff participated in a similar study (Tafarodi, Lang & Smith, 1999). Malaysian (representing collectivistic culture) sample was higher in self-liking but lower in self-competence, whereas, British (representing
individualistic culture) sample showed reverse findings. Because of relying fully on Asian samples to represent the collectivistic culture, the difference may be due to common features of the Asian culture rather than the orientation of individualism-collectivism. So another study (Tafarodi & Walters, 1999) was conducted to deal with that limitation. Two European cultures (i.e. Spanish and British) were compared. As Hofstede (1980) claimed, Spanish were relatively collectivistic while British were relatively individualistic. 44 British and 41 Spanish students at the university of Wales, Cardiff were sampled in the study. Spanish (representing collectivistic culture) sample was higher in self-liking but lower in self-competence, whereas, British (representing individualistic culture) sample showed reverse findings. In this sense, the effect on self-liking and self-competence was really caused by individualism-collectivism rather than other common features of culture orientation.

1.2.4. Self-competence and sense of achievement

As discussed previously, the self-competence dimension of self-esteem focuses much on power, personal efficacy and the level of control. A person’s past achievements or the self-valuations of competence are the building blocks of self-competence. As Tafarodi and Swann (1995) mentioned, “facet-specific self-valuations of competence should be antecedent to the feeling of self-competence” (p.334). Intelligence and achievement in both academic and creative domains can
contribute to the self-competence independently. Self-competence, but not self-liking, was significantly correlated with IQ, grades and creative achievement (Mar, De Young, Higgins, & Peterson, 2006). Several studies found that self-competence was related with achievement. For instance, Shu (1978) observed that students with high achievement tend to possess higher level of self-competence significantly. Also, Marchant, Paulson and Rothlisberg (2001) observed that underachieving and students with learning disable tend to possess lower level of self-competence. Both theoretical conception and empirical evidences suggest that a sense of achievements and the self-valuation of competence should be the core of self-competence.

1.2.5. The ranking of high/low achievers with different cultural-orientation on self-competence and the discrepancy of self-competence between them

As reviewed previously, IND-COL and the sense of achievement both have their own influence on self-competence. Locally, sense of achievement should have a greater impact on self-competence since it relates more directly to self-competence conceptually than culture does. So, among four conditions (high sense of achievement& individualism; high sense of achievement& collectivism; low sense of achievement& individualism; low sense of achievement& collectivism) in a 2(culture) × 2(sense of achievement) setting, an individualist possesses a high sense of achievement should have the highest level of self-competence. A collectivist possesses
a high sense of achievement should have the next highest level of self-competence. An
individualist possesses a low sense of achievement should have a relatively low level
of self-competence, and finally, a collectivist who possesses a low sense of
achievement should have the lowest level of self-competence. Yet, would the
differences between four conditions be about the same? Logically, the discrepancy
between IND- and COL-oriented high achievers should be relatively small. Since sense
of achievement is the key factor to establish self-competence, people with high sense
of achievement should possess relatively high level of self-competence, no matter what
culture-orientation they possess (or say, the different should not be huge). Yet, the
discrepancy between IND- and COL-oriented low achievers should be dramatic. This
prediction is based on the different attribution style of individualists and collectivists.

According to Heine, Lehman, Markus, and Kitayama (1999), self-serving attribution
are more common among individualistic culture like North America than among
collectivistic culture like Japan. Basically, self-serving attribution is the notion that
people take credit for success but externalize failures (Miller & Ross, 1975). In general,
self-serving should be regarded as a kind of bias. However, sometimes it may be
adaptive to maintain the subjective well-being. As facing a negative feedback,
self-image somehow undoubtedly underwent a threat or a strike. If those negative
emotions cannot be resolved, one’s subjective well-being might be, more or less,
damaged. However, self-serving attribution can help people to maintain certain level of
self-image by externalise those failures. As Lee and Seligman (1997) found, although
White Americans possess more self-serving bias than Chinese, they are more
optimistic. So, when facing a negative feedback (like low sense of achievement),
collectivists are assumed to be suffered more than individualists.

Since negative feedback (represented by low sense of achievement) will be more
likely to trigger IND-oriented persons’ self-serving attribution. As the result,
IND-oriented low achievers are more likely to be protected from the negative impact
of that negative feedback. However, COL-oriented low achievers are with no tendency
to be protected by that particular attribution style (self-serving attribution). Thus, the
discrepancy of self-competence between IND- and COL-oriented low achievers should
be huge. On the contrary, since IND- and COL-oriented high achievers both possess a
certain high sense of achievement (a main contributor of self-competence), the cultural
orientation, merely, should not matter a lot. Thus, the discrepancy of self-competence
between IND- and COL-oriented high achievers should not be huge (as least not as
great as the case among low achievers).

1.3. Hypotheses

Based on the literature and research supports, three hypotheses were formed. They
were:
H1: Bi-cultural people were expected to be higher in self-competence (holding self-liking constant) when individualism-primed than when collectivism-primed.

H2: Bi-cultural people were expected to be higher in self-liking (holding self-competence constant) when collectivism-primed than when individualism-primed.

H3: Individualism-primed subjects with a high sense of achievement were expected to possess the highest self-competence; collectivism-primed subjects with a high sense of achievement were expected to possess the next highest self-competence; individualism-primed subjects with a low sense of achievement were expected to possess relatively low self-competence; and collectivism-primed subjects with a low sense of achievement were expected to possess the lowest self-competence.

Furthermore, the predicted difference between individualism- and collectivism-primed subjects with low sense of achievement on self-competence was expected to be greater than that between individualism- and collectivism-primed subjects with high sense of achievement.
Chapter 2 : Method

2.1 Design

The present study consisted of two parts. The first part was a brief screening task in order to distinguish between high and low sense of achievement among participants (by measuring their self-valuations of competence in various domains). Then, participants in the groups of high and low sense of achievement were randomly assigned in equal numbers to receive one of the two priming procedures (IND/COL). Totally, there were 4 experimental cells in a 2 (high versus low sense of achievement) × 2 (IND-primed versus COL-primed) factorial design in second part. Participants were assessed by self-evaluating questionnaire.

2.2. Participants

44 college students (22 males and 22 females) from universities in Hong Kong participated in the present study. They were from 19 to 27 years old ($M = 21.64$, $SD = 1.42$). All subjects were Hong Kong undergraduates that educated bilingually (English and Chinese) for a long period of time and lived in Hong Kong for most of their life time. A certain numbers of bi-cultural priming studies (as mentioned in Ng, 2007) had already proved that local students in universities could be regarded as bi-cultural subjects generally. Therefore, those subjects in present study were assumed to be a bi-cultural sample that suited the priming research.
2.3. Procedure

The first set of questionnaire was distributed to participants by a convenience sampling in order to distinguish their sense of achievement. After collecting and analyzing the data, participants were classified as either high achievement group or low achievement group by median split. Then, participants were allocated to receive IND/COL-prime equally and randomly. After receiving culture-priming, self-competence and self-liking were measured in the second set of questionnaire.

Before answering the questionnaires, participants were requested to read clearly about the instructions printed on the questionnaires to make sure that they understood the questionnaires. In order to encourage honest responding, no absolute answers to any questions and the confidentiality of data were emphasised. In present study, whole distributing and collecting questionnaires process was lasted for around 2 month time.

2.4. Materials

Culture priming. The “Similarities and differences with family and friends task” (SDFF; Trafimow, Triandis, & Goto, 1991) was designed to prime individualism or collectivism. Participants were instructed to merely think of the similarities with family and friends (in IND-prime) and the differences with family and friends (in COL-prime). In the present study, participants were also requested to write down those similarities or differences in order to ensure that they were concentrated upon the task.
Sumerian warrior story (Trafimow, et al., 1991) is another adopted material that designed to prime individualism or collectivism. Participants were given a story to read that was about choosing a warrior. The story consisted of 2 versions, which the main character chooses a warrior due to either that person’s individual talent (IND-prime) or the membership of family and tribe (COL-prime).

Although most of the studies were using European American and Western European as subjects, Asian (primarily Hong Kong) participants showed resemblance effect. Oyserman and Lee (2008) found that the SDFF and Sumerian warrior tasks had more consistent and robust effects on salient self-concept and were more suitable for Asian subjects, when compared with other common structured priming tasks.

Manipulation check for culture-priming. The Individualism and Collectivism Scale (Singelis et al., 1995) is designed to measure participant’s vertical and horizontal individualism and collectivism score. The scale contains 32-items inventory rated on a 9-point scale (from 1, totally disagree to 9, totally agree) and items can be divided into four subscales (i.e. HI, VI, HC, VC). Also, after essential reverse-recoding, items within each subscale could then be averaged to create an individualism index and a collectivism index, with the overall Cronbach’s alpha = .74 and .70 respectively for Asian (Sanchez-Burks, Sanchez-Burks, Lee, Choi, Nisbett, Zhao, & Koo 2003). Higher scores in the individualism index and collectivism index indicate more
individualistic and collectivistic, respectively. There is a shorten version of the IND-COL scale that developed by Triandis and Gelfand (1998). It consists of 27-item (5-item HI, 8-item VI & HC, 6-item VC) inventory. The scale has another 16-item version that is also shown the validity of the four constructs of individualism and collectivism in various non-Western samples like Hong Kong and Taiwan. However, as pointed out by Chen (2007), some relevant information deriving from the 27-item version was possibly failed to measure in the 16-item version. So, the present study adopted the 27-item version of the scale.

Global self-esteem. The Self-Liking/Self-Competence Scale Revised Version (SLCS-R; Tafarodi & Swann, 2001) is designed to assess the two-dimensional global self-esteem that advocated by Tafarodi and his colleagues. The scale contains 16-item content-free and context-free statements rated on a 5-point (from 1, strongly disagree to 5, strongly agree). Both subscales are balanced for wording, half negative and half positive. This revised version is better than the previous 20-item one (SLCS; Tafarodi & Swann, 1995) for several reasons. In SLCS, subscale intercorrelation is high and is limited by high population means for both subscales, while things have somehow improved in SLCS-R (see Tafarodi & Swann, 2001 for details).

Sense of achievement. The Self-Attributed Questionnaire (SAQ; Carson, Pelham, & Swann, 1989) is designed to assess the self-evaluations of various domains. Since
performances in different domains are reasonable indicators of sense of achievement, this scale is adopted in the present study. The scale is a self-report measure that contained 10 dimensions (e.g. intellectual ability, social skills, artistic and/or musical ability, athletic ability, & physical attractiveness). The performance comparing with people at the same age and college status (rated on a 10-point scale; from 1, bottom 5% of the ability for their age and college status to 10, the top 5%) and the importance (rated on a 9-point scale; from 1, not very important to 9, very important) on each domain is evaluated on the self-base. In order to create an aggregate score, method suggested in Marsh (1986) was adopted. The self-ratings on those 10 domains were transformed to the z-scores (i.e. -5, -4, -3, -2, -1, 1, 2, 3, 4, 5) and multiplied by the corresponding rating of importance. Then, these cross-products scores (self-ratings × importance rating) were summed to get one single SAQ score. By this method, self-rating of specific domains can be adjusted by the personal importance. For example, two subjects rate his/herself as relatively weak in social skills (e.g. a z-score of -1). If one considers social skills much (e.g. 7 on the 9-point scale) and the other one considers social skills less (e.g. 3 on the 9-point scale), the negative influences on the self for those two subjects should be different. The person that considers social skills more would have a more negative impact, although their self-rating is the same.

All scales adopted in the present study had been translated to the Chinese versions
via the method of back translation. Also, different versions of questionnaires according to the orders of the scales were formed to minimise order effect.
Chapter 3: Results

3.1. Statistical Analysis

A series of between-subjects Analysis of Covariance (ANCOVA) were conducted on the levels of self-competence and self-liking using self-liking/self-competence as covariates (due to the high conceptual relatedness and the overlap in variance) to access the variances among primes and achievement levels.

Also, an independent samples t-test was conducted to check the effect of the cultural primes.

3.2. Descriptive Results

The demographic information of participants among four groups was summarised in Table 1. Age range of participants was quite low since target was restricted to college students. Overall, the distribution of male and female was half and half. Over half of the participants were studying in year 3 or above. The main major of study among participants was art-related stream like humanities and social science.
<table>
<thead>
<tr>
<th>Variables</th>
<th>Participants among groups</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High performance, IND-primed</td>
<td>High performance, COL-primed</td>
<td>Low performance, IND-primed</td>
<td>Low performance, COL-primed</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Age ($M \pm SD$)</td>
<td>21.91 ($\pm 1.81$)</td>
<td>21.56 ($\pm 1.13$)</td>
<td>21.91 ($\pm 1.38$)</td>
<td>21.18 ($\pm 1.33$)</td>
<td>21.64 ($\pm 1.42$)</td>
<td></td>
</tr>
<tr>
<td>Gender ($N, %$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>7 (15.9)</td>
<td>6 (13.6)</td>
<td>5 (11.4)</td>
<td>4 (9.1)</td>
<td>22 (50)</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>4 (9.1)</td>
<td>5 (11.4)</td>
<td>6 (13.6)</td>
<td>7 (15.9)</td>
<td>22 (50)</td>
<td></td>
</tr>
<tr>
<td>Year of study ($N, %$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year1</td>
<td>--</td>
<td>--</td>
<td>1 (2.3)</td>
<td>2 (4.5)</td>
<td>3 (6.8)</td>
<td></td>
</tr>
<tr>
<td>Year2</td>
<td>5 (11.4)</td>
<td>3 (6.8)</td>
<td>2 (4.5)</td>
<td>3 (6.8)</td>
<td>13 (29.5)</td>
<td></td>
</tr>
<tr>
<td>Year3 or above</td>
<td>6 (13.6)</td>
<td>8 (18.2)</td>
<td>8 (18.2)</td>
<td>6 (13.6)</td>
<td>28 (63.6)</td>
<td></td>
</tr>
<tr>
<td>Major of study ($N, %$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Art-related (inc. Social Science)</td>
<td>9 (20.5)</td>
<td>8 (18.2)</td>
<td>9 (20.5)</td>
<td>8 (18.2)</td>
<td>34 (77.3)</td>
<td></td>
</tr>
<tr>
<td>Science-related</td>
<td>1 (2.3)</td>
<td>1 (2.3)</td>
<td>1 (2.3)</td>
<td>1 (2.3)</td>
<td>4 (9.1)</td>
<td></td>
</tr>
<tr>
<td>Business-related</td>
<td>1 (2.3)</td>
<td>2 (4.5)</td>
<td>1 (2.3)</td>
<td>2 (4.5)</td>
<td>6 (13.6)</td>
<td></td>
</tr>
</tbody>
</table>

$N = 44$
3.3. Preliminary Analyses

There was a substantial correlation between two dimensions of global self-esteem: self-liking and self-competence ($r = .62$, $p < .01$), which is matched with the conceptual relatedness of the two dimensions. Since self-competence is conceptually linked to the performance-related concepts, the linkage between self-competence and the performance-screening score from set 1 questionnaire was investigated, and a substantial correlation was found ($r = .61$, $p < .01$).

3.4. Reliability of scales

Reliability tests were conducted to examine the internal consistency of various measurement used in the present study.

For the Individualism and Collectivism Scale, four subscales HI, VI, HC and VC acquired Cronbach’s Alphas .72, .78, .76 and .72 respectively. The internal consistency of the IND-index (HI + VI) and COL-index (HC + VC) were even higher in the present study ($\alpha = .78$ and .86, respectively) when compared with the work of Sanchez-Burks et al. (2003).

For the Self-Liking/Self-Competence Scale Revised Version (SLCS-R), Cronbach’s Alphas for self-competence items ($\alpha = .76$) and self-liking items ($\alpha = .85$) were quite similar with those found in the study of Tafarodi and Swann (2001).
3.5. Manipulation check

The effects of culture-primes on the Individualism and Collectivism Scale were tested to check if the manipulation of primes was as intended. Independent samples $t$-test (shown in Table 2) revealed that the primes had a significant effect on making individualism and collectivism salient according to the tasks, $t(42) = 2.10, p < .05$ for the IND index and $t(42) = -2.19, p < .05$ for the COL index. Specifically, those who received the IND-prime ($M = 5.95, SD = 0.78$) reported on average higher levels of individualism than those who received the COL-prime ($M = 5.44, SD = 0.82$). Whereas, those who received the IND-prime ($M = 6.28, SD = 0.85$) reported on average lower levels of collectivism than those who received the COL-prime ($M = 6.82, SD = 0.80$).

The manipulation of primes (situational activation of individualism and collectivism) was successful.

Table 2

<table>
<thead>
<tr>
<th>Primes</th>
<th>IND</th>
<th>COL</th>
<th>$T$</th>
<th>$df$</th>
</tr>
</thead>
<tbody>
<tr>
<td>IND index</td>
<td>5.95(0.78)</td>
<td>5.44(0.82)</td>
<td>2.10*</td>
<td>42</td>
</tr>
<tr>
<td>COL index</td>
<td>6.28(0.85)</td>
<td>6.82(0.80)</td>
<td>-2.19*</td>
<td>42</td>
</tr>
</tbody>
</table>

Note. * = $p < .05$. Standard Deviations appear in parentheses below means.
3.6. Hypothesis Testing

H1: Self-competence. For H1, participants who received the IND-prime were predicted to get higher level of self-competence than those who received the COL-prime. One-way ANCOVA was conducted to examine the difference between the two priming groups, using self-liking as a covariate. As shown in Table 3, the adjusted mean score of self-competence for the IND-primed group and the COL-primed group were 22.03 and 20.38, respectively. The difference on self-competence was in the expected direction but not significant, $F(1, 41) = 3.20, p = .081, \eta^2 = .07$. Thus, H1 was only partially supported.

Table 3
The ANCOVA summary table for participants’ self-competence

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primes</td>
<td>29.21</td>
<td>1</td>
<td>29.21</td>
<td>3.20</td>
<td>.07</td>
</tr>
<tr>
<td>Self-liking (covariate)</td>
<td>265.31</td>
<td>1</td>
<td>265.31</td>
<td>29.10**</td>
<td>.41</td>
</tr>
<tr>
<td>Error</td>
<td>373.82</td>
<td>41</td>
<td>9.12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. ** = $p < .01$.

H2: Self-liking. For H2, participants who received the COL-prime were predicted to get higher level of self-liking than those who received the IND-prime. One-way ANCOVA was conducted to examine the difference between the two priming groups, using self-competence as a covariate. As shown in Table 4, the adjusted mean score of self-liking for the COL-primed group and the IND-primed group were 26.53 and 24.25,
respectively. The difference on self-liking was in the expected direction but not significant, \( F (1, 41) = 3.03, p = .089, \eta^2 = .07 \). Thus, H2 was only partially supported.

Table 4

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primes</td>
<td>56.02</td>
<td>1</td>
<td>56.02</td>
<td>3.03</td>
<td>.07</td>
</tr>
<tr>
<td>Self-competence (covariate)</td>
<td>538.53</td>
<td>1</td>
<td>538.53</td>
<td>29.10**</td>
<td>.42</td>
</tr>
<tr>
<td>Error</td>
<td>758.79</td>
<td>41</td>
<td>18.51</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. ** = \( p < .01 \).

H3: The ranking among four conditions and discrepancy in self-competence. For H3, the levels of self-competence were predicted as follow: IND-primed participants with high sense of achievement > COL-primed participants with high sense of achievement > IND-primed participants with low sense of achievement > COL-primed participants with low sense of achievement. A 2 (cultural prime) \( \times \) 2 (sense of achievement) ANCOVA was conducted to examine the difference between the four conditions, using self-liking as a covariate. As shown in Table 5, the main effect of sense of achievement was significant, \( F (1, 39) = 18.46, p < .001, \eta^2 = .32 \). Yet, the main effect of primes and the interaction effect (primes \( \times \) sense of achievement) were not significant, \( F (1, 39) = 3.12, p = .09, \eta^2 = .07 \), and \( F (1, 39) = 1.54, p = .22, \eta^2 = .04 \), respectively. The adjusted mean score of the IND-primed group with high sense of achievement, the COL-primed group with high sense of achievement, the IND-primed group with low
sense of achievement and the COL-primed group with low sense of achievement were 23.39, 22.98, 20.38 and 18.07 respectively. Since the actual rankings on the level of self-competence matched with the predicted rankings (IND-primed group with high sense of achievement > COL-primed group with high sense of achievement > IND-primed group with low sense of achievement > COL-primed group with low sense of achievement), a series of Tukey’s Honestly Significant Difference (HSD) tests (shown in Table 6) were further conducted to examine the differences between those four conditions. However, the differences between those four conditions were not statistically significant.

Table 5

*The 2×2 ANCOVA summary table for participants’ self-competence*

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Sense of achievement</td>
<td>118.27</td>
<td>1</td>
<td>118.27</td>
<td>18.46***</td>
<td>.32</td>
</tr>
<tr>
<td>(B) Primes</td>
<td>19.98</td>
<td>1</td>
<td>19.98</td>
<td>3.12</td>
<td>.07</td>
</tr>
<tr>
<td>A × B (interaction)</td>
<td>9.86</td>
<td>1</td>
<td>9.86</td>
<td>1.54</td>
<td>.04</td>
</tr>
<tr>
<td>Self-liking (covariate)</td>
<td>50.84</td>
<td>1</td>
<td>50.84</td>
<td>7.93**</td>
<td>.17</td>
</tr>
<tr>
<td>Error (within groups)</td>
<td>249.89</td>
<td>39</td>
<td>6.41</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* ** = p < .01, *** = p < .001.
Table 6
*The Tukey’s HSD test for participants’ self-competence*

<table>
<thead>
<tr>
<th>Comparisons</th>
<th>Mean difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>IND-priming group with high sense of achievement &amp; COL-priming group with high sense of achievement (Rank 1st &amp; 2nd)</td>
<td>0.41</td>
</tr>
<tr>
<td>COL-priming group with high sense of achievement &amp; IND-priming group with low sense of achievement (Rank 2nd &amp; 3rd)</td>
<td>2.60</td>
</tr>
<tr>
<td>IND-priming group with low sense of achievement &amp; COL-priming group with low sense of achievement (Rank 3rd &amp; 4th)</td>
<td>2.32</td>
</tr>
</tbody>
</table>

*Note.* Tukey’s HSD test required a minimum difference of 2.89 to be significant at $p=.05$.

Also, the adjusted mean self-competence score of IND-primed participants with high sense of achievement was slightly higher (1.78%) than that of COL-primed participants with high sense of achievement. The adjusted mean self-competence score of IND-primed participants with low sense of achievement was higher (12.82%) than that of COL-primed participants with low sense of achievement. The discrepancy among participants with low sense of achievement was greater than that among participants with high sense of achievement, as shown in Figure1. Thus, H3 was supported at a certain extent.
Figure 1. Adjusted mean self-competence among 2 (cultural prime) × 2 (sense of achievement) setting
Chapter 4: Discussion and Conclusions

4.1. Discussion

The results showed trends in the direction predicted by the three hypotheses, but none of the predicted differences were statistically significant. Hence, the three hypotheses received only partial support. Most of the findings corresponded with the results of previous studies or the theoretical framework of relevant concepts.

Participants who received the IND-prime did get a higher level of self-competence, compared to those who received the COL-prime. Basically, the direction matched with the findings of previous studies, yet result was insufficient in leading to a statistical significant level. Similar to that, participants who received the COL-prime did get a higher level of self-liking, compared to those who received the IND-prime. The direction had conformed, yet without meeting the significant level statistically. With the results of H1 and H2, the pattern between culture (IND-COL) and two-dimensional global self-esteem was again conformed. The results corresponded to the serial of cross-cultural studies conducted by Tafarodi and his colleagues (Tafarodi, Lang, & Smith, 1999; Tafarodi & Swann, 1996; Tafarodi & Walters, 1999). In those previous studies, different nationalities that represented different extent of individualism and collectivism were adopted as the samples. Overall, those studies found a consistent result that self-competence was higher among nationalities that represented
individualistic culture, whereas self-liking was higher among nationalities that represented collectivistic culture. Different from previous studies which usually compared samples drawn from separate nationalities or cultures, the present study used a within-group design by assigning subjects from the same nationality and culture to different culture priming conditions. Similarly, the present study was able to show a predicted direction that was consistent with previous cross-cultural design studies.

The present study somehow also showed the direction that self-liking seemed to relate with collectivism more but not with individualism, and self-competence seemed to relate with individualism more but not with collectivism. Collectivism and individualism fostered self-liking and self-competence independently and respectively. However, the results indicated that the effects of priming to produce a similar situation in cross-culture study on two-dimensional self-esteem were not strong enough in the present study. One possible reason was that self-esteem was supposed to be in a relatively chronic nature. Conceptually, self-esteem was relatively stable and needed certain of time to nurture. So, it might be hard for a person to make a huge change on self-esteem abruptly, just due to salient and cueing of a particular culture-orientation (IND/COL). As Tafarodi and Swann (1996) suggested, the nature of collectivism like social sensitivity and needs for seeking harmonization fostered social acceptance and approval, and therefore, favored the development of self-liking but discouraged the
development of self-competence simultaneously since the natures of individualism like independence and the tendency that emphasising self over all other social values (more likely to trigger conflicts, thus, lower social acceptance and approval). Also, the features of individualistic culture like self-determination, independence and emphasizing self over all others, as well as more opportunities to pursue personal achievement, fostered the promotion of sense of control, and therefore, favored the development of self-competence but discouraged the development of self-liking since the sense of control among collectivists was lower and the chances to acquire personal achievement were often sacrificed. As argued above, the development of self-competence and self-liking might not simply be affected by the orientation of IND-COL, but also the particular atmosphere provided by that culture-orientation. The primes might just be able to make a particular orientation more salient and accessible to a relatively small extent. So, only the direction could be found but not the statistically significant level. Although several previous studies like Ross, Xun and Wilson (2002) found that even the supposedly chronic measure of self-esteem (i.e. Rosenberg Self Esteem Scale) can be influenced by priming, evidence in the present study could not be shown. Cultural primes were only strong enough to reveal the direction in the present study. So one theoretical implication was that the two-dimensional global self-esteem: self-competence and self-liking might not merely
associate with culture-orientation, but more importantly, with the
encouragement/discouragement of developing particular dimension of global
self-esteem in particular culture. At the result, merely making temporary salient on
particular culture-orientation might not strong enough to affect those dimensions of the
global self-esteem significantly.

Furthermore, the predicted pattern of self-competence level among a 2 (cultural
prime) × 2 (sense of achievement) setting were confirmed. IND-primed participants
with high sense of achievement possessed the highest self-competence; COL-primed
subjects with high sense of achievement possessed the next highest self-competence;
IND-primed subjects with low sense of achievement possessed relatively low
self-competence; and COL-primed subjects with low sense of achievement possessed
the lowest self-competence. Although the differences between adjacent conditions
were not statistically significant, the overall pattern could still be revealed.

Also, the discrepancy between IND and COL-primed participants with high sense
of achievement was markedly smaller than that between IND and COL-primed
participants with low sense of achievement (1.78% vs. 12.82%). With the results of H3,
the influence of cultural primes among people with high and low sense of achievement
could be revealed although lacking a significant difference. The influence of cultural
primes among people with low sense of achievement was obviously greater than that
among people with high sense of achievement. This phenomenon might be explained by the existence and the use of self-serving attribution. The great discrepancy between IND and COL-primed participants with low sense of achievement might prove that self-serving attribution was existed among individualists. As suggested by Heine et al. (2001), when facing negative feedbacks, IND-oriented people and COL-oriented people tended to attribute the failures differently. IND-oriented people like Northern Americans were more likely to engage in self-enhancement strategies like externalizing those failures (by blaming the situations/environments) whereas COL-oriented people like Japanese did not show this attribution tendency, or even somehow show the opposite tendency: self-criticism (as mentioned in Heine, Lehman, Markus & Kitayama, 1999). COL-oriented people like Japanese had a tendency to internalize the failures liking blaming themselves for all the failures. Coming back to the present study, a low sense of achievement could be regarded as a negative feedback. When facing this, the difference in attribution style among IND-oriented people and COL-oriented people was supposed to enlarge the discrepancy on self-competence. Even if IND-oriented people possessed a low sense of achievement, they were somehow more likely to be protected by the self-serving attribution. So, a certain level of self-competence could still be maintained. However, if COL-oriented people possessed a low sense of achievement, they might not be protected by the self-serving
attribution but further harmed by the opposite attribution style (i.e. self-criticism). So, the self-competence of those people dropped dramatically. The theoretical implication of this was that an interesting interacting pattern of culture and sense of achievement was revealed. The impact of negative feedback on self-competence for COL-oriented people was greater than that for IND-oriented people. When facing a negative feedback, IND-oriented people might still be able to maintain a relatively normal level of self-competence. However, the level of self-competence of COL-oriented people was more likely to be affected by the negative feedback. In this sense, the self-serving bias, actually, had its own adaptive use on one’s self-image. Although the attribution might not match with the reality, it was effective to protect one’s self-image in certain extent.

Also, the implication could apply to the situation of Hong Kong. Different literatures and empirical results all suggested that collectivists were more likely to be affected by negative feedbacks. Although Hong Kong could be regarded as a bi-cultural city, the collectivism in Hong Kong was still very prevalent. According to Triandis, Chen and Chan (1998), the Hong Kong sample favored collectivism most. In this sense, people in Hong Kong might be more easily affect by negative feedbacks because they were less likely to possess a self-serving attribution. So, as collectivists, people in Hong Kong should notice this tendency that they might more likely internalize the failures (in fact, they might not be his/her false) and try to get rid of that.
With the awareness of that problem, people in Hong Kong might be able to cope with negative feedbacks more adaptively in order to maintain a relatively health self-image.

However, there were several limitations for the present study. First, the sample was perhaps too small to reveal the relationship between culture-orientation and two-dimensional global self-esteem. Although 44 participants were basically enough in a quasi-experimental design and the $F$ critical value ($F_c$) needed in order to lead to a significant statistical result would lower (with an observable difference) only if a large extra number of cases were added, the representativeness of the sample might not be very high. In order to getting closer to the population, a larger random sample was recommended in further studies. Second, monitoring and supervision of data collecting process in the present study was inadequate. In order to be more participant-friendly and convenient, certain level of control was sacrificed. Although the design of the present study was conceptually experimental, the study was carried out using questionnaires distribution. So, some variables and setting were not able to be controlled well, thus, the study might be affected. For instance, there were several special instructions in the priming process like using particular time (2 mins) to think about the similarities/differences with family and friends (in SDFF; Trafimow, Triandis, & Goto, 1991). Although black-and-white instruction was printed on the questionnaires, accompanied with the oral reminder, there was still no way to
guarantee compliance. Those detailed possible shortages, in fact, might have a significant impact on the accuracy of the study. So, a higher level of control would be recommended for avoiding possible confounding factors in further studies. Third, basing on the results of the present study, the suitability of using cultural priming method as a way to conduct study investigating such relatively chronic measurement (like self-esteem) was questioned. Although Ross, Xun and Wilson (2002) still reported that priming had certain level of influence on self-esteem, the opportunity to fail also existed (like, in the present study). Since there was already plenty cross-cultural evidence for culture and self-esteem, the present study was aimed to gather some evidence based on another method. However, due to the nature of self-esteem and the possible problem of using cultural priming method to conduct relevant studies, cross-cultural method might be more suitable for studies that contained variables which were supposedly of a chronic measure, unless a more suitable priming method and procedures were developed. One preliminary suggestion might be that in the priming, procedures that highlight the way to develop particular cultural orientation should be added. For instance, in the COL-prime, the recall of teaching to be humble and to maintain harmonization in social context and their importance should be stressed in order to bring back the collectivism-orientation permeated through the bi-cultural setting. Similarly, in the IND-prime, the recall of
encouragements to be outstanding (win the competitions) in school and its benefits
should be stressed in order to bring back the individualism-orientation permeated
through the bi-cultural setting. By that, the particular atmosphere provided by
individualism or collectivism might also be made salient. As the result, the priming
might have a larger chance to make an orientation salient more thoroughly, and this
might be more suitable for chronic measure of self-competence and self-liking. Of
course, above is only a preliminary suggestion to strengthen the effects of primes.

Further in depth considerations and probes are needed before claiming the feasibility
of those suggested procedures. Finally, an additional suggestion for further studies is
that the multi-dimensions of culture can be further examined. Since recent literature
(e.g. Triandis, 1995) suggested that both individualism and collectivism have
horizontal and vertical dimensions, studies focused on that recent theory is worth to
conduct. Due the limitation of recent priming technique (can only cue a particular
culture-orientation briefly), priming a particular culture-orientation with particular
dimension might not be workable or easy. That was also the reason that only
IND-prime and COL-prime were adopted in the present study. A clearer and more
integrated picture can be found by probing into that recent theory of IND-COL in
future.
4.2. Conclusion

Basically, all expected directions and patterns of the hypotheses had been supported, yet a statistically significant level was missing. This report not only provided some tentative evidence for the directions of cultural influence and sense of achievement on two-dimensional global self-esteem, the different patterns between discrepancies among people with high sense of achievement and that with low sense of achievement were also revealed. Due to the limitations of the present study, further studies are necessary for demonstrating the hypothesised effects. Urging on a more accurate and integrated picture among various variables, a cultural priming method that suits the measure of two-dimensional global self-esteem should be developed, and the measure of individualism-collectivism with horizontal-vertical dimensions, together with two-dimensional self-esteem, should be investigated in further studies.
References


Appendix A

Sample questionnaires (Set 1)

您好！本人為香港城市大學應用社會科學系心理學科三年級學生。現正進行一項
有關文化與自信的研究，這研究有助了解學生的文化取向對其自信心的影響。
現誠邀閣下參與是次研究，是次研究將包括兩次問卷調查 (是次問卷調查及一簡
單跟進問卷調查)。所有問題的答案沒有對錯之分，只需按自己的感受或情況回答
問題。閣下的所有資料均絕對保密，並只用作研究用途。您所提供的資料對是次
研究十分重要，在此多謝閣下的協助。

第一部份
這部份是有关你對自己的表現及能力的評估，請評估自己在下列十個項目的表現
（請與同齡的大學與大專生比較），請從下列 A 至 J 的量表中圈出你認為適合的字
母代表。

若我與同齡的大學與大專生在該項目上比較，我的表現應是…

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td>5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10%</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
<tr>
<td>20%</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
<tr>
<td>30%</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
<tr>
<td>50%</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
<tr>
<td>10%</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
<tr>
<td>20%</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
<tr>
<td>30%</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
<tr>
<td>50%</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
<tr>
<td>10%</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
<tr>
<td>20%</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
<tr>
<td>30%</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
<tr>
<td>50%</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
</tbody>
</table>

例: 若覺得自己的智力程度屬於同齡的大學與大專生中較低的 50%，請在相關項
目 (智力)旁圈上 “E”；若覺得自己的智力程度屬於同齡的大學與大專生中較高的
30%，請在相關項目 (智力) 旁的圈上 “G”；又若覺得自己的智力程度屬於同齡的大
學與大專生中最高的 5%，請在相關項目 (智力) 旁圈上 “J”，如此類推。

1. 智力
2. 交際技巧或
   能力
3. 美術及 / 或音
   樂才能
4. 運動才能
5. 外貌及外形
現在請估量以上各項目對你個人有多重要，請從下列 A 至 I 的量表中圈出你認為適合的字母代表，其中 A= 對我完全不重要，I= 對我極度重要。

<table>
<thead>
<tr>
<th>序號</th>
<th>項目</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.</td>
<td>領導才能</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
<tr>
<td>7.</td>
<td>常識</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
<tr>
<td>8.</td>
<td>情緒穩定性</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
<tr>
<td>9.</td>
<td>幽默感</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
<tr>
<td>10.</td>
<td>紀律性</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>序號</th>
<th>項目</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.</td>
<td>智力</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
<tr>
<td>12.</td>
<td>交際技巧或能力</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
<tr>
<td>13.</td>
<td>美術及/或音樂才能</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
<tr>
<td>14.</td>
<td>運動才能</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
<tr>
<td>15.</td>
<td>外貌或外形的吸引力</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
<tr>
<td>16.</td>
<td>領導才能</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
<tr>
<td>17.</td>
<td>常識</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
<tr>
<td>18.</td>
<td>情緒穩定性</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
<tr>
<td>19.</td>
<td>幽默感</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
</tr>
</tbody>
</table>
第二部份
個人資料

1. 姓名 (請務必填寫，以便跟進): ______________ 
2. 年齡: ______
3. 性別: ______
4. 教育程度: □ (1) year1 □ (2) year2 □ (3) year3 或以上
5. 主修科目: □ (1) 文科(包括人學科及社會科學) □ (2) 理科 □ (3) 商科 □ (4) 其他 (請註明: ____________ )
6. 學校成績 (CGPA): __________

問卷已完成，謝謝！
*日後會有簡短的跟進，謝謝您的協助！
Appendix B
Sample questionnaires (Set 2 IND)
您好！本人為香港城市大學應用社會科學系心理學科三年級學生。謝謝您參與是次研究，並在較早前完成一簡短問卷。是份問卷與早前的相約，所有問題的答案沒有對錯之分，只需按自己的感受或情況回答問題。閣下的所有資料均絕對保密，並只用作研究用途。您所提供的資料對是次研究十分重要，在此多謝閣下的協助。

受訪者姓名：________________
(請務必填寫，以便識別)

第一部份
在以下的兩分鐘，請思想是甚麼使你與你的家人及朋友有所不同，同時寫下那些不同之處（不需介懷想到多少不同之處，只需在限時內盡量思想即可）。

1. _____________________________________________
2. _____________________________________________
3. _____________________________________________
4. _____________________________________________
5. _____________________________________________
6. _____________________________________________
7. _____________________________________________
8. _____________________________________________
9. _____________________________________________
10. ____________________________________________
11. ____________________________________________
12. ____________________________________________
13. ____________________________________________
14. ____________________________________________
15. ____________________________________________
第二部份
請細閱以下一篇有關古美索不達米亞的故事，並回答有關的問題。

蘇多拉(Sostoras)是個古蘇美爾(ancient Sumer)的勇士，他對薩爾貢一世(Sargon I)統一美索不達米亞(Mesopotamia)一事上作出了重大的貢獻。因此，薩爾貢一世賞賜他為王，把一小王國分封給他管理。

約十年後，薩爾貢一世為新戰事而徵召勇士。蘇多拉有責任要派遣士兵幫助薩爾貢一世，同時他亦需決定差派誰來指揮部隊。

經長時間的思索後，蘇多拉最後決定差派提格拉特(Tiglath)指揮軍隊。提格拉特是個有才能的將軍，這個任命有數個好處。優秀的提格拉特會因此感激蘇多拉的賞識，這會鞏固蘇多拉在領地的政權。再者，讓提格拉特那麼優秀的將領代表自己可大大提昇自己的聲望。最後，差派他最優秀的將領─提格拉特出戰可令薩爾貢一世更大機會成功，結果有可能得到薩爾貢一世的賞賜。

你欽佩蘇多拉的做法嗎？ 請圈出你的選擇。

是     不確定     不是
1     2     3     4     5

第三部份
請細閱下列句子，並按照您的感覺在每句右邊圈出最適合您的數字。其中 1= 完全不同意，9 = 完全同意。

1. 我情願信賴自己多於他人。  1  2  3  4  5  6  7  8  9
2. 表現勝於他人對我來說是重要的。  1  2  3  4  5  6  7  8  9
3. 若我的同事(或同學)得獎，我會感到驕傲。

4. 父母與子女應盡可能多同在一起。

5. 我在多數時間均會依賴自己，而非依賴他人。

6. 勝利就是一切。

7. 我同事(或同學)的福祉對我來說是重要的。

8. 照顧家庭是我的職責，即使要犧牲我想要的。

9. 我時常做自己的事情(自己的事情自己做)。

10. 競爭是自然定律。

11. 對我來說，愉快就是抽時間與人相處。

12. 家人應同甘共苦，不論要犧牲甚麼。

13. 自主獨立是一個對我十分重要的個人身份 (personal identity)。

14. 當別人表現比我好時，我感到緊張和大受打擊 (aroused)。

15. 當與他人合作時，我感覺良好。

16. 尊重我團隊/組群的決定對我來說是重要的。

17. 作為一個獨特的個體對我來說是重要的。

18. 我享受在有競爭的環境下工作。
19. 若我的一個親屬有財政困難，在我能力範圍內我會幫忙。

20. 我們應教育小孩把責任放於享樂之前。

21. 有些人著重勝利，但我不其中之一。

22. 維持我的團隊/組群和睦對我來說是重要的。

23. 我通常會為我團隊/組群的利益而犧牲自我的利益。

24. 若沒有競爭，這是不可能有美好的社會。

25. 我喜歡與鄰居分享生活上的小事。

26. 當別人表現比我好時，我會感到煩擾。

27. 我的快樂主要取決於我四周的人的快樂。

第四部份
請細閱下列句子，並按照您的感覺在每句右邊圈出最適合您的數字。其中 1 = 非常不同意，5 = 非常同意。

非常不同意
非
常
不
同
意
非常同意
非
常
同
意

1. 我傾向於貶低自己。

2. 我能很有效地做自己的事。

3. 我非常安於自己的現況。
4. 我幾乎常常都能達成我嘗試作的事。 1 2 3 4 5
5. 我對自己的自我價值感到安心。 1 2 3 4 5
6. 有些時候，想起自己會令我感到不愉快。 1 2 3 4 5
7. 我對自己抱著負面的態度。 1 2 3 4 5
8. 我偶爾會感到難於達成對我重要的事。 1 2 3 4 5
9. 我對於自己感到極好。 1 2 3 4 5
10. 有些時候，我不諳於處理挑戰。 1 2 3 4 5
11. 我從不質疑自己的價值。 1 2 3 4 5
12. 我在很多事情上也有優秀的表現。 1 2 3 4 5
13. 有些時候，我不能達成我的目標。 1 2 3 4 5
14. 我十分有才華。 1 2 3 4 5
15. 我對自己沒有足夠的尊重。 1 2 3 4 5
16. 但願我在我作的事上能更熟練。 1 2 3 4 5

問卷已完成，謝謝！
Appendix C

Sample questionnaires (Set 2 COL)

您好！本人為香港城市大學應用社會科學系心理學科三年級學生。謝謝您參與是次研究，並在較早前完成一簡短問卷。是份問卷與早前的相約，所有問題的答案沒有對錯之分，只需按自己的感受或情況回答問題。閣下的所有資料均絕對保密，並只用作研究用途。您所提供的資料對是次研究十分重要，在此多謝閣下的協助。

受訪者姓名: _______________
(請務必填寫，以便識別)

第一部份

在以下的兩分鐘，請思想你和你家人的相同之處，同時寫下那些共通點（不需介懷想到多少相同之處，只需在限時內盡量思想即可）。

16. ____________________________________________
17. ____________________________________________
18. ____________________________________________
19. ____________________________________________
20. ____________________________________________
21. ____________________________________________
22. ____________________________________________
23. ____________________________________________
24. ____________________________________________
25. ____________________________________________
26. ____________________________________________
27. ____________________________________________
28. ____________________________________________
29. ____________________________________________
30. ____________________________________________
第二部份
請細閱以下一篇有關古美索不達米亞的故事，並回答有關的問題。

蘇多拉(Sostoras)是個古蘇美爾(ancient Sumer)的勇士，他對薩爾貢一世(Sargon I)統一美索不達米亞(Mesopotamia)一事上作出了重大的貢獻。因此，薩爾貢一世賞賜他為王，把一小王國分封給他管理。

約十年後，薩爾貢一世為新戰事而徵召勇士。蘇多拉有責任要派遣士兵幫助薩爾貢一世，同時他亦需決定差派誰來指揮部隊。

經長時間的思索後，蘇多拉最後決定差派提格拉特(Tiglath)指揮軍隊。提格拉特是蘇多拉的家族成員，這個任命有數個好處。蘇多拉可藉以表示對自己家族的忠誠，亦可鞏固其他家族成員對他的忠誠。再者，以提格拉特為軍隊的統領亦可增加家族的勢力和聲望。最後，如果提格拉特表現良好，薩爾貢一世會感激蘇多拉的家族。

你欽佩蘇多拉的做法嗎？請圈出你的選擇。

| 是 | 不確定 | 不是 |
| 1 | 2 | 3 | 4 | 5 |

第三部份
請細閱下列句子，並按照您的感覺在每句右邊圈出最適合您的數字。其中 1 = 完全不同意，9 = 完全同意。

| 完全不同意 | 完全同意 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

1. 我情願信賴自己多於他人。
2. 表現勝於他人對我來說是重要的。
<table>
<thead>
<tr>
<th>序号</th>
<th>陈述</th>
<th>倾向度</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>若我的同事(或同學)得獎，我會感到驕傲。</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>4</td>
<td>父母與子女應盡可能多同在一起。</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>5</td>
<td>我在多數時間均會依賴自己，而非依賴他人。</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>6</td>
<td>勝利就是一切。</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>7</td>
<td>我同事(或同學)的福祉對我來說是重要的。</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>8</td>
<td>照顧家庭是我的職責，即使要犧牲我也要的。</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>9</td>
<td>我時常做自己的事情(自己的事情自己做)。</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>10</td>
<td>競爭是自然定律。</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>11</td>
<td>對我來說，愉快就是抽時間與人相處。</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>12</td>
<td>家人應同甘共苦，不論要犧牲甚麼。</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>13</td>
<td>自主獨立是一個對我十分重要的個人身份(penonal identity)。</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>14</td>
<td>當別人表現比我好時，我感到緊張和大受打擊(aroused)。</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>15</td>
<td>當與他人合作時，我感覺良好。</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>16</td>
<td>尊重我團隊/組群的決定對我來說是重要的。</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>17</td>
<td>為作一個獨特的個體對我來說是重要的。</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>18</td>
<td>我享受在有競爭的環境下工作。</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
</tbody>
</table>
第四部份
請細閱下列句子，並按照您的感覺在每句右邊圈出最適合您的數字。其中 1= 非常不同意，5 = 非常同意。

19. 若我的一個親屬有財政困難，在我能力範圍內我會幫忙。 1 2 3 4 5 6 7 8 9

20. 我們應教育小孩把責任放於享樂之前。 1 2 3 4 5 6 7 8 9

21. 有些人著重勝利，但我不在其中之一。 1 2 3 4 5 6 7 8 9

22. 維持我的團隊/組群和睦對我來說是重要的。 1 2 3 4 5 6 7 8 9

23. 我通常會為我團隊/組群的利益而犧牲自我的利益。 1 2 3 4 5 6 7 8 9

24. 若沒有競爭，這是不可能有美好的社會。 1 2 3 4 5 6 7 8 9

25. 我喜歡與鄰居分享生活上的小事。 1 2 3 4 5 6 7 8 9

26. 當別人表現比我好時，我會感到煩擾。 1 2 3 4 5 6 7 8 9

27. 我的快樂主要取決於我四周的人的快樂。 1 2 3 4 5 6 7 8 9

17. 我傾向於貶低自己。 1 2 3 4 5

18. 我能很有效地做自己的事。 1 2 3 4 5

19. 我非常安於自己的現況。 1 2 3 4 5
20. 我幾乎常常都能達成我嘗試作的事。 1 2 3 4 5
21. 我對自己的自我價值感到安心。 1 2 3 4 5
22. 有些時候，想起自己會令我感到不愉快。 1 2 3 4 5
23. 我對自己抱著負面的態度。 1 2 3 4 5
24. 我偶爾會感到難於達成對我重要的事。 1 2 3 4 5
25. 我對於自己感到極好。 1 2 3 4 5
26. 有些時候，我不諳於處理挑戰。 1 2 3 4 5
27. 我從不質疑自己的價值。 1 2 3 4 5
28. 我在很多事情上也有優秀的表現。 1 2 3 4 5
29. 有些時候，我不能達成我的目標。 1 2 3 4 5
30. 我十分有才華。 1 2 3 4 5
31. 我對自己沒有足夠的尊重。 1 2 3 4 5
32. 但願我在我作的事上能更熟練。 1 2 3 4 5

問卷已完成，謝謝！
Appendix D

Statistical equation of the Tukey’s HSD test

\[ t_s = \frac{M_i - M_j}{\sqrt{\frac{MSE}{n_h}}} \]

M = treatment/group mean
n = number per treatment/group