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**A CROSS-CULTURAL INVESTIGATION OF THE
EFFECTS OF INTRINSIC AND EXTRINSIC ASPIRATIONS
ON SUBJECTIVE WELL-BEING AND SUBJECTIVE
VITALITY**

BY

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in Partial Fulfillment of the Requirements for the Degree of

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in the Department of Applied Social Studies

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ABSTRACT

Objectives: The present study aimed to investigate the predicting effect of an individual's type of aspirations on positive and negative affect as well as subjective vitality in a convenience sample of Hong Kong and Canadian individuals. Few studies to date have investigated the effects that one's aspirations have on both subjective well-being and subjective vitality, and no prior research in this area has been conducted in the Hong Kong context. Cross-cultural differences in types of aspirations and their effects on well-being and subjective vitality were examined. **Methods:** 150 Hong Kong Chinese and 150 Canadian participants were recruited for the study. Participants filled out a questionnaire consisting of items from the Aspirations Index, International Positive and Negative Affect Schedule Short Form, and Subjective Vitality Scale. **Results:** Canadians had higher mean levels of intrinsic aspirations and Hong Kong Chinese participants had higher mean levels of extrinsic aspirations. The effects that intrinsic and extrinsic aspirations had on an individual's well-being and subjective vitality were also found to differ between cultures. **Conclusion:** Possible explanations for the results were discussed, and the findings may have been due in part to the different emphasis the respective cultures place on certain values. Suggestions for future studies and implications were also outlined.

Keywords: Subjective vitality; Positive affect; Negative affect; Subjective well-being; Intrinsic aspirations; Extrinsic aspirations

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CHAPTER ONE: INTRODUCTION

1.1 *The Pursuit of Happiness in the West*

We have all heard the age old question “can money buy happiness?” Folk wisdom would tell us that money cannot buy happiness, but such an answer may leave a curious individual unsatisfied. However, progress in the development of theoretical constructs as well as advancements in psychological research methods have allowed psychologists to examine how an individual’s goals, values, and personal motives are affecting their experience of well-being (Emmons, 1986; Sheldon & Kasser, 1995). Therefore, such inquiries about happiness can now be empirically tested, and more specific questions related to one’s aspirations can be investigated. For instance, how does striving for money or other extrinsic goals affect our emotions and well-being? How exactly do such goals affect our passion and zest for everyday life, or the energy we have to carry out our daily activities and routines? On top of all this, questions regarding the universality of such beliefs have only begun to be explored. How, for example, are individuals from different cultures affected by their desires to get rich, become famous, or impress others?

Perhaps to research the answers to such questions, one may wish start by focusing on North America specifically. After all, money, fame, and good looks lie at the heart of popular North American culture and are often used as displays of an indication of one’s level of success in life (Ryan, 1993). Achieving the ‘American dream’ depends, at its core, on financial success, and many of the values inherent in modern society in the West indicate that the accumulation of wealth is a necessary precondition to happiness (Derber,

1979). For example, compared to individuals from Hong Kong, Canadians were found to hold stronger beliefs about possession-defined success and the pursuit of happiness through the accumulation of goods (Ang, 2000). Furthermore, surveys conducted in the United States show that, despite an increase in mean income over the past 60 years, no increase in happiness has resulted over the same time period (Layard, 2010). After rigorous controlling, one study even showed a negative correlation between subjective well-being and average income in each individual American state, leading the researchers to hypothesize that higher wages were merely compensating for a lower quality of life and vice versa (Oswald & Wu, 2010). Several decades ago, Bandura (1979) emphasized that when striving for external rewards, feelings of self-efficacy should lead to better adjustment when the outcome in question is valued by the individual. Money certainly seems to be highly valued in North America. Why then does monetary success not seem to result in higher well-being?

Consumerism, which did not exist until the mid-eighteenth century, arose as a gradual shift from a trend of buying based on needs to a desire to purchase ever-increasing amounts of possessions and services (Stearns, 2006). A new way of thinking has emerged since then. One now sees the accumulation of possessions as a way to express their personality, and the notion of ‘consuming your way to happiness’ has become seemingly widespread in the West, and increasingly in the East as well. As countries have become increasingly prosperous, significant advances have been made, and the import of goods from all over the globe has become possible. However, to the extent that individuals are purchasing goods in order to impress others and to feel important, such a way of being may actually detract from their happiness. Beneath much

of consumerism lies status-seeking behaviours and conspicuous consumption. When we make decisions about what to purchase in order to impress others, we essentially derive our sense of self-worth from how we're doing in relation to other people (Wong & Ahuvia, 1998).

Maslow (1954) asserted that humans possess a drive toward growth and achievement of their full potential, and that an individual who is not self-actualizing is restless, uninspired, and discontent. However, he explained that strong external demands cause individuals to relinquish their own self-actualization in the pursuit of acceptance or outcomes from others (Maslow, 1956). Consequently, to the extent that financial success is representative of an external demand, chasing the American dream may actually detract from self-actualization potentials and render individuals uninspired and unhappy.

Modern psychological research has also discovered links between one's subjective sense of vitality, their level of well-being, and the aspirations they hold. Specifically, Ryan & Frederick (1997) reported associations between subjective vitality and self-actualization, self-esteem, and positive mental health. At the same time, they found that external motivations such as money and image were linked to various forms of psychological distress and to lower vitality. Subsequent research has shown that business students who believed that money, popularity, and the accumulation of material goods were of high importance were shown to report lower levels of vitality and happiness, and to have higher instances of psychological problems (Kasser & Ahuvia, 2002). However, very little research has aimed to discover the universality of the link between one's goals, well-being, and subjective vitality, and no studies to date have explored these factors in the Hong Kong context. The understanding of cultural differences in beliefs related to

wealth and other extrinsic and intrinsic motivations could lead to great insights regarding differing senses of purpose in life and the implications such beliefs have on experiences of well-being and overall passion and motivation for routine life.

Thus, the present study has several objectives. Firstly, it aims to compare the aspirations of individuals from an East Asian culture with those of individuals from a Western Anglo-Saxon culture. The East Asian culture will be represented by a sample from Hong Kong, a Special Administrative Region of China, while the Western Anglo-Saxon culture will be represented by individuals from Canada. As a second objective, the study will investigate whether holding intrinsic or extrinsic aspirations will lead to differential outcomes in subjective well-being, and ultimately, subjective vitality. Intrinsic aspirations refer to striving for self-actualization, the betterment of society, or secure relationships. Extrinsic aspirations, on the other hand, are goals such as the accumulation of wealth or goods or the desire to improve one's image. Differences between the two cultures will be explored in terms of the relationships between intrinsic and extrinsic aspirations, subjective vitality, and subjective well-being. Underlying reasons behind aspirations and group differences will also be discussed.

1.2 The Hong Kong Culture

Historically rooted in Confucianism, Hong Kong's culture at its heart emphasizes the importance of public face (Wong & Ahuvia, 1998). However, Hong Kong and other East Asian countries are at the same time becoming increasingly consumer-driven societies, and the East Asian region is on par to become the largest luxury goods market in the entire world (Wilson, 1994). With Hong Kong having the largest exposure to

Western culture among Asian societies (Wong & Ahuvia, 1998), it may be expected that it shares many of the same values as North American societies.

1.2.1 The Nature of Aspirations in Hong Kong

A significant concept in Confucian societies is that of *mien-tzu* (面子), or public face, which—when applied to materialism – can be seen as the striving for a socially desirable and ostentatious appearance (Hu, 1944). In Confucian cultures, there is a constant concern for *mien-tzu*, which affects all members of the larger social network in a mutually coercive manner (Yau, 1986). In Hong Kong in particular, the desire for *mien-tzu* combined with the shortage of resources and prospects in such a geographically confined area, leads to overconsumption by the most affluent individuals. This overconsumption subsequently raises the standard for those of lesser economical means, who work harder to achieve an increasingly higher standard of living and to fit in with society (Zheng, 1992).

Furthermore, Hong Kong was found to have higher levels of hedonic print advertising than the surrounding countries of Taiwan and Mainland China, which may be due to increased exposure to Western culture (Tse, Belk, & Zhou, 1989). Waters (1995) has also compared Hong Kong to America, arguing that individuals from each area are strongly concerned with becoming rich as quickly as possible and spending the money on material possessions.

Thus, on the surface level, Hong Kong residents seem to hold similar values to their Western counterparts. Many are subsequently under the assumption that the import of ‘Western goods’ into Asian cities such as Hong Kong means that a Western

materialistic view of the world has also been adopted in those areas (Brannen, 1992). However, the products may be purchased for different reasons (Wong & Ahuvia, 1998) or their meanings may be different (Brannen, 1996) in each respective culture.

However, as previously discussed, there is significant value placed on public face in Confucian culture. Redding and Ng (1989) even argued that much of an individual's behaviour in Confucian societies can be traced back to the desire to maintain face. Thus, as Wong and Ahuvia (1998) explained, such individuals are motivated to maintain their status in society, and therefore are highly conscious of how others perceive them. However, modesty is also highly valued in traditional Confucian cultures. How then does the concept of *mien-tzu* when applied to consumption fit in? The notion seems overly pretentious to be compatible with values such as humility. Tu (1992) explains how formerly conservative regions in Southeast Asia have transformed into capitalist economies, and how this change has resulted in traditional Confucian values such as humility being superseded by a progressively increasing focus on success and financial achievement.

1.3 *Concepts of Vitality*

1.3.1 *Concepts of Vitality in the West*

Western psychological concepts of vitality date back to Freud, who postulated that Eros, an innate drive for reproduction, was a limited source of energy within each of us (Cervone & Pervin, 2008). A contemporary instrument called the Profile of Mood States (POMS), a measure of transient moods, contains a factor called vigor-activity which is a positive mood state representative of a feeling of aliveness or energy (McNair,

Lorr, and Doppleman, 1971). In the literature, subjective vitality is proposed to be a reflection of organismic well-being that is related to psychology as well as physiology. However, other high-energy states such as anxiety, anger, or mania are unrelated to the concept of subjective vitality (Ryan & Frederick, 1997).

1.3.2 Concepts of Vitality in Chinese Culture

Concepts relating to vitality and energy have been an important part of history of Chinese culture for thousands of years. In Chinese schools of thought, *chi* or *qi* refers to a significant force of energy that flows in the body (Ragin, 2011). This energy force is seen as a source of life, inspiration, and direction (Jou, 1981). In ancient China, the Taoists used the concepts of *chi* and *jing* to refer to the feeling of having an abundance of mental energy within (Liao, 1990). Furthermore, numerous health practices in Traditional Chinese Medicine including herbal therapies, acupuncture, and massage therapy aim to reestablish balances of energy within the body in order to restore an individual's health. In each of the concepts, the holistic view of maintaining a proper balance of energy within the body is a central belief relating to well-being (Chen, 2001).

Since many individuals in Hong Kong are users of Traditional Chinese Medicine as a supplement to Western medicine (Lam, 2001), it's expected that the Hong Kong participants will share many of the same concepts of vitality and subjective well-being as the Canadian participants. Even though the two groups may share surface-level differences in beliefs, at the root of both sets of beliefs are holistic views of medicine. In both Traditional Chinese Medicine and Western medicine, vitality is seen as a sign of a fully functioning individual, or the manifestation of physical and mental health.

1.4 *Comparison between Cultures*

At a superficial level, the 'Hong Kong dream' seems very similar to the American Dream of prosperity and material success; individuals from both Hong Kong and North America are seemingly striving for the same things in order to achieve happiness. Sachs (2003) examined the reliability of the Satisfaction with Life Scale (SWLS) in American, Mainland Chinese, Hong Kong, and Korean university students. It was determined that Hong Kong university students were, on average, more similar in life satisfaction to American students than their Mainland Chinese and Korean counterparts. However, Wong and Ahuvia (1998) argue that what are seemingly Western materialistic values in East Asian countries such as Hong Kong are actually a result of an interdependent self-concept and are therefore not necessarily reflective of individual goals or traits.

According to Markus and Kitayama (1991), Western cultures tend to construe the self as *independent* and emphasize independence and autonomous behaviour, while Eastern cultures construe the self as *interdependent*, incorporating in-group members and broader qualities of the social environment into the concept of self (see also Singelis, 1994; Trafimow, Triandis & Goto, 1991). These assertions have even been tested using brain imaging techniques. It has been found that the medial prefrontal cortex of the brain, which has developed specialized functions in social behaviour such as perceiving people and mental state attributions (Mitchell, Macrae, & Banaji, 2004), is used to represent both the self and one's mother in Chinese individuals but only the self in Westerners (Zhu, Zhang, Fan, & Han, 2007). Therefore, Westerners see themselves as distinct from others but there is an overlap between the representation of the self and significant others in the brains of Chinese individuals.

Thus, because East Asian culture emphasizes the public, outer self, the group norms and goals promote the accumulation of observable public belongings since an individual may be acting to increase the perceived status of the family. In other words, in societies such as Hong Kong which are hierarchical, financially driven, and family-oriented, striving for wealth and possessions may actually be a result of the emphasis that the interdependent self-construal places on conformity to social norms (Wong & Ahuvia, 1998). One must live up to the expectations of society or else risk being looked down upon socially. Pressures such as these could have strong effects on an individual striving to maintain social face; one's image is largely linked to one's subjective well-being, and being unable to present oneself in a positive manner could have severe negative psychological implications.

In summary, though it seems Hong Kong Chinese and Western individuals are striving for extrinsic goals in a similar way, the reasons behind their goals differ in a fundamental way; Westerners may be pursuing money, fame, and image out of a desire for personal satisfaction, happiness, or autonomy, while individuals from Hong Kong have such aspirations as a result of a drive to maintain the image of their family or to live up to social norms. The present study aims to discover some of the implications that these differing drives have on subjective well-being and subjective vitality in each culture. However, without taking into account the reasoning behind striving for extrinsic goals, the present predicts that there will be no significant difference in the presence of extrinsic goals between Canadian and Hong Kong participants.

1.5 *Subjective Well-Being*

For a large part of the past century, psychology's primary focus has been to alleviate psychological illness, and up until the past several decades, little research was being done to promote the importance of self-improvement and well-being. However, after a shift in focus toward prevention in the 1960s, recent research on well-being has been abundant (Ryan & Deci, 2001). The complication lies in the fact that different researchers conceptualize well-being in different manners. Yet two major perspectives have emerged which allow for empirical investigation into the construct of well-being. Although based on two distinct philosophies, the two approaches to well-being overlap one another considerably (Ryan & Deci, 2001). *Hedonic* or subjective well-being essentially equates well-being with pleasure or happiness (Kahneman, Diener, & Schwarz, 1999), while the *eudaimonic* approach (Waterman, 1993) equates it with being fully functioning (Ryff & Singer, 1998) or with self-actualization and the realization of one's true nature (Ryan & Deci, 2001). The present study takes a eudaimonic approach at the emotional level, using the presence of positive affect and the absence of negative affect as proxy measures for subjective well-being. In this manner, the definition of subjective well-being proposed by Argyle and Crossland (1987) and Diener (2000) is being used. That is, subjective well-being is an individual's cognitive and emotional appraisal of the conditions in their life.

1.6 *The Psychology of Materialistic Values*

The American Dream, and now seemingly the 'Hong Kong Dream', of striving for wealth and the accumulation of material goods – is it a healthy dream from a

psychological standpoint? Kasser and Ryan (1993) argued that such goals may in fact be harmful to well-being, comparing the presence of financial objectives and the prospect of attaining those goals with aspirations for affiliation, self-acceptance, and community feeling in samples of adolescents. In support of Rokeach's (1973) hypothesis, they indeed found that as an individual placed more importance on financial goals, lower well-being and overall functioning self-report and interviewer ratings were obtained. The results make sense considering that goals such as money, fame, and looks which are so salient in American culture are dependent upon another person for judgment, approval, or reward. Such goals are, for that reason, *extrinsic* or external to the individual, and are relatively devoid of value in and of themselves. That is, their attainment provides no inherent satisfaction, yet the appeal of admiration from others or the promise of power and sense of self-worth is attractive to some individuals (Kasser & Ryan, 1996). Such findings have lead researchers to differentiate between two types of goals, each of which affect an individual in a unique way.

1.7 *Intrinsic and Extrinsic Goals and their Effect on Well-Being*

From research predominantly based on Deci and Ryan's (1985, 1991) self-determination theory and also on other humanistic theories (Maslow, 1954; Rogers, 1961), Kasser and Ryan (1996) proposed that there were two types of goals and values, intrinsic and extrinsic, and that both correlate contrarily with an individual's well-being. Individuals who are concerned with intrinsic values such as self-acceptance, affiliation, and community feeling are more likely to have a higher overall sense of well-being since these individuals are more often compelled to seek out experiences which will satisfy their basic psychological needs. In other words, these goals are like natural expressions of

growth and self-actualizing tendencies which are natural to human beings (Kasser & Ryan, 1996; Maslow, 1954). Conversely, those with extrinsic values such as marital success, fame, and image may engage in activities which are detrimental to their well-being since their chosen experiences fail in some way to meet their needs (Kasser, 2002). Such goals are dependent upon contingent reactions from others, and are typically aspired for as a means to another end (Kasser & Ryan, 1996).

Several studies have shown that adolescents, university students, and adults who are motivated by extrinsic values are more likely to report psychological problems such as anxiety, depression, and substance abuse, and less likely to report feelings of self-actualization, subjective vitality, or positive affect (Kasser & Ryan, 1993, 1996, 2001; Sheldon & Kasser, 1995, 1998; Williams, Cox, Hedberg, & Deci, 2000). On the other hand, individuals who are intrinsically oriented experience the opposite (Kasser & Ahuvia, 2002). Kasser (2002) argues that having materialistic, extrinsic values is detrimental to well-being since the psychological needs for authenticity, connectedness, security, and esteem are not being satisfied as the individual engages in experiences that detract from their fulfillment. On the other hand, it has been proposed that individuals with materialistic values have low well-being since they have been unsuccessful in achieving the very things they value; in other words, their low well-being is due to low goal attainment (Oishi, Diener, Lucas, & Suh, 1999). Regardless, prior research shows that even if successfully attained, materialistic values do not increase well-being. Not only has it been shown that high expectations with respect to materialistic achievements are linked to low well-being (Kasser & Ryan, 1993, 1996), but research has also suggested that (a) well-being in adults who had previously attained a relatively high

level of financial resources was negatively correlated with their degree of materialistic values (Kasser & Ryan, 1996), (b) high achievement of materialistic success is not related to higher well-being (Kasser & Ryan, 2001; Oswald & Wu, 2010, Ryan, Chirkov, Little, Sheldon, Timoshina, & Deci, 1999; Sheldon & Kasser, 1998), and (c) well-being does not subsequently increase as an individual becomes more prosperous, i.e. after winning the lottery (Brickman, Coates, & Janoff-Bulman, 1978; Diener, Sandvik, Seidlitz, & Diener, 1993). Furthermore, in the United States, higher national income has not resulted in higher well-being, with surveys indicating that since 1950 there has been no change in the level of Americans' happiness (Layard, 2010). Thus, the results from previous research show that higher levels of financial gain do not seem to have an effect on well-being, and that even striving for extrinsic goals can negatively affect well-being. Therefore, in the present study it is predicted that in both groups holding intrinsic goals will be related to positive affect, while extrinsic goals will be related to negative affect.

1.8 Subjective Well-being and its Relation to Subjective Vitality

A series of studies by Ryan and Frederick (1997) have discovered relationships between various constructs and subjective vitality. Specifically, they have shown subjective vitality to be negatively correlated with anxiety, depression, and other forms of psychopathology, and positively related to mental health and positive affect. Sheldon, Ryan, & Reis (1996) also found that positive and negative affect predicted ratings of state psychological vitality in a sample of university students, with negative affect being related to lower vitality ratings and positive affect being related to higher ratings. Therefore, previous research has shown that subjective well-being is certainly linked to subjective vitality and that negative states and dysfunctions are negatively related to

subjective vitality. Thus, in the present study, it was hypothesized that positive affect would predict subjective vitality in both Hong Kong and Canadian individuals, and that negative affect would negatively predict subjective vitality.

1.9 Intrinsic and Extrinsic Goals and their Relation to Subjective Vitality

Having centrally held intrinsic and extrinsic goals has also been directly linked with subjective vitality. Kasser and Ryan (1993) found support for their hypothesis that individuals who placed higher importance on financial success than intrinsic values such as affiliation or community support would have lower levels of vitality. It has also shown that having intrinsic goals is correlated with higher subjective ratings of vitality and that having extrinsic goals is negatively correlated with subjective vitality in samples of both undergraduate students and adults (Kasser and Ryan, 1996). Therefore, the present study also hypothesized that, regardless of nationality, having intrinsic goals would predict subjective vitality yet having extrinsic goals would negatively predict subjective vitality.

1.10 The Present Study

The purpose of the present study was to test the predictions outlined in the theoretical model (see Figure 1). The model indicates that intrinsic and extrinsic goals will predict subjective well-being (operationalized as the presence of positive affect and absence of negative affect), and that subjective well-being, in turn, will predict subjective vitality. The model also shows that intrinsic and extrinsic goals can directly predict subjective vitality. Many of these relationships have been established by previous studies (e.g., Kasser & Ahuvia, 2002; Kasser & Ryan, 1993, 1996; Ryan & Deci, 2000; Ryan & Frederick, 1997), but to the author's knowledge, no prior research has tested all of the

variables together in a comprehensive model. Also, there is a lack of research on these variables in East Asia, and the present study aims to test whether findings from previous studies also apply in the Hong Kong context.

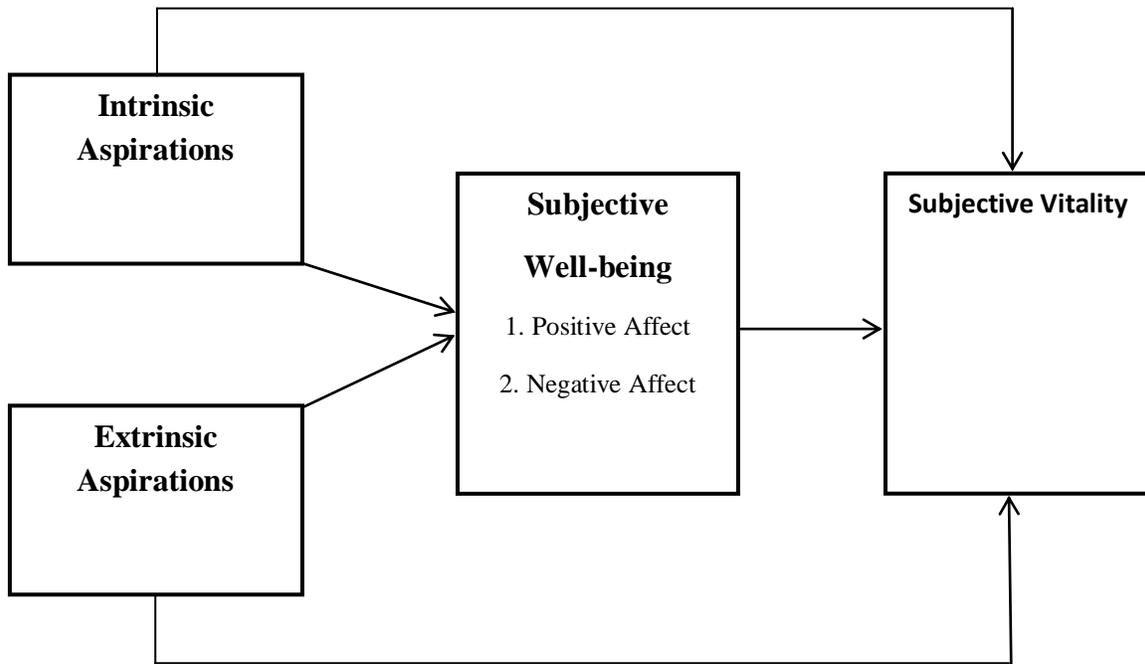


Figure 1. The Theoretical Model of Subjective Vitality. Intrinsic and extrinsic aspirations predict positive and negative affect, which, in turn, predict subjective vitality. Intrinsic and extrinsic aspirations also directly predict subjective vitality.

1.10.1 Hypotheses

Based on the previously discussed research findings related to the topics of extrinsic and intrinsic goals, subjective well-being, and subjective vitality, the current study aims to test nine hypotheses. Specifically, they include:

H1: There is no significant difference in the presence of extrinsic goals between Hong Kong Chinese and Canadian participants.

H2: Intrinsic goals will exert a positive predicting effect on positive affect in both groups.

H3: Extrinsic goals will exert a negative predicting effect on positive affect in both groups.

H4: Intrinsic goals will be negatively associated with negative affect in both groups.

H5: Extrinsic goals will be associated with negative affect in both groups.

H6: Positive affect will positively predict subjective vitality in both groups.

H7: Negative affect will negatively predict subjective vitality in both groups.

H8: Intrinsic goals will exert a significant predicting effect on subjective vitality in both groups.

H9: Extrinsic goals will be negatively related to subjective vitality in both groups.

1.10.2 Additional Exploratory Research Questions

Additionally, the study aims to answer the following exploratory research questions:

- (1) Are there differences between the subjective well-being or subjective vitality levels of those of Canadian and Hong Kong nationalities?
- (2) How is subjective vitality related to age in each group?
- (3) Does the theoretical model depicted in Figure 1 provide accurate directional predictions?
- (4) Do the two groups differ in their specific aspirations? How does each specific aspiration affect subjective well-being and subjective vitality for each group?

CHAPTER 2: METHODOLOGY

2.1 *Participants*

The study adopted a convenience sample method for recruiting participants. A total of 150 Hong Kong Chinese individuals were recruited from Hong Kong universities and public areas and another 150 individuals of Canadian nationality were recruited from Canadian universities, in public, and through personal contacts or referrals. Individuals of all ages were eligible to participate in the study permitting they were from Hong Kong or Canada. A total of 307 individuals were originally recruited to participate; however, seven were not of Hong Kong or Canadian nationality and therefore were dropped from the study. The demographic information of the individuals who were retained ($N = 300$) is as follows: 57.7% were female, 42.3% were male, 50% were of Hong Kong nationality, and 50% were of Canadian nationality. Two participants did not report age. The mean age of the remaining participants ($N = 298$) was 30.15, and the average age of the Hong Kong participants ($M = 29.62$, $SD = 6.06$) was comparable to the average age of the Canadian participants ($M = 30.67$, $SD = 8.55$).

2.2 *Procedure*

Prior to conducting the main study, a brief pilot study was conducted with students from the Master of Social Sciences in Applied Psychology program at the City University of Hong Kong in order to test the length of time necessary to fill out the questionnaire as well as the format and comprehensibility of the translated version of the questionnaire. The main study was then conducted in university classrooms and public areas on campuses. Beforehand, potential participants were briefed on the general nature

of the study. All participants were asked to fill out a 15-minute questionnaire after agreeing to participate. Assurances of anonymity and confidentiality were also given. All participation was on a volunteer basis and no monetary compensation was given to individuals participating in the study.

2.3 *Materials*

The questionnaire was a self-report measure which was made up of four parts, and was a composite of several psychological instruments designed to measure subjective vitality, positive and negative affect, and both intrinsic and extrinsic aspirations (Appendix A). All measures were adopted from the English versions and were translated into Cantonese by two initial translators. A consolidated Cantonese version was constructed, with any differences between the versions being discussed and agreed upon by the initial translators. Next, two other bilingual translators back-translated the scales to English and a second consolidated version was created. The author subsequently cross-checked the back-translated English version with the original version to check for any discrepancies. The final version of the questionnaire for use with Cantonese speaking participants was subsequently reviewed by the author's supervisor and was then tested in a pilot study for comprehension and face validity.

2.3.1 *Subjective Vitality*

In order to measure subjective vitality, the Subjective Vitality Scale (Ryan & Frederick, 1997) was used. The Subjective Vitality Scale was chosen to measure subjective vitality since it is a measure of enduring characteristics of individuals as opposed to less enduring temporary state measures of vitality, and it has also found to be

positively correlated with self-actualization and self-esteem measures and to be negatively correlated with depression and anxiety. The original version was validated with seven items; however, a six-item version was used for the purposes of this study since Busic, Rubio, and Hood (2000), using confirmatory factor analyses, found that a six-item version had superior psychometric properties. Participants indicated their responses on a seven-point Likert scale, with 1 representing *strongly disagree* and 7 representing *strongly agree*. An individual's level of subjective vitality was determined by averaging the scores for the six items. A higher score represented a higher level of subjective vitality and vice versa.

2.3.2 *Positive and Negative Affect*

The relationship between culture and well-being is now being studied more rigorously as new statistical techniques have emerged in the past 15 years which allow for inter-cultural comparisons of psychological constructs (Little, 1997; Ryan & Deci, 2001). The International Positive and Negative Affect Schedule Short Form (I-PANAS-SF) was selected because it was designed for use with nonnative English speakers with its clear language and ease of understanding (Thompson, 2007). The original Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) has been criticized due to its colloquial North American expressions which validation studies have shown may not translate well internationally (Crawford & Henry, 2004). The scale contains 10 items which measure how frequently individuals feel positive affect (e.g., attentive, active) and negative affect (e.g., ashamed, afraid) in general in their lives. Participants responded on a five-point Likert scale, with 1 indicating *never* and 5

indicating *always*. Higher scores on each respective subscale indicated higher levels of positive and negative affect.

2.3.3 Aspirations

The Aspirations Index (Kasser & Ryan, 2004) measures individuals' relative strength of intrinsic and extrinsic aspirations. The original Aspirations Index (Kasser & Ryan, 1996; Kasser & Ryan, 2008) included seven categories of aspirations with five specific items within each category. The scale was also made up of two subscales, with the extrinsic aspirations subscale consisting of the categories of wealth, fame, and image, and the intrinsic aspirations subscale consisting of the categories of community contributions, meaningful relationships, and personal growth. A seventh category, health, was deemed to fit into neither the intrinsic nor extrinsic subscales. For each aspiration, participants were to rate: (1) the personal importance of the aspiration, (2) to what extent they believed themselves able to attain the aspiration, and (3) how much of the aspiration they had already attained. Each aspiration was measured on a seven-point Likert scale, ranging from 1 denoting *not at all* to 7 denoting *very*.

However, the present study used a modified version of Kasser & Ryan's (2004) Aspirations Index which made several changes. Firstly, the question regarding how much of the aspiration had already been attained was changed to a more direct question regarding commitment (e.g., *How committed are you to attaining this goal?*). Secondly, the question regarding the expectancy of attaining the goal was removed entirely since it was of no interest in the present study. Therefore, similar to Tabachnick, Relyea, and Miller's (2008) study, two questions were asked in regard to each aspiration: (1) a

question regarding the personal importance of the aspiration, and (2) a question regarding the direct commitment to attaining the aspiration. From research based on Miller and Brickman's (2004) model of future-oriented motivation as well as Bandura's social-cognitive theory (1986, as cited in Tabachnick, Relyea, and Miller, 2008), it was found that importance and commitment were two of the most important aspects of goals. Finally, only six of the seven aspirations categories were used in the present study. The health category was not used since it did not fall neatly into either of the extrinsic or intrinsic aspiration factors. Many past studies have also dropped this aspiration category (Kasser, Ryan, Zax, & Sameroff, 1995; Ryan et al., 1999; Williams et al., 2000). Total scores were calculated for each aspiration category by combining and averaging the answers to both questions for each aspiration in that category. Both an overall extrinsic and intrinsic aspiration score were subsequently calculated by averaging the subscale scores of the three extrinsic aspirations as well as the three intrinsic aspirations, respectively.

2.3.4 Demographics

Participants' age, gender, and nationality were also asked.

CHAPTER 3: RESULTS

3.1 Preliminary Data Analysis

3.1.1 Measures of Central Tendency

Descriptive information about the variables of interest is presented in Table 1. Overall, participants were found to have higher levels of positive affect ($M = 17.96$, $SD = 2.62$) than negative affect ($M = 13.79$, $SD = 1.87$). Intrinsic goals ($M = 5.55$, $SD = .70$) were also found to be more common, on average, than extrinsic goals ($M = 3.52$, $SD = 1.04$) among participants.

Table 1

Measures of Central Tendency, Reliability, and Sample Items of Scales Used in the Present Study

| Scale | Sample Item(s) | M | SD | α Reliability |
|--|---|----------------|--------------|----------------------|
| Subjective Vitality Scale | I feel alive and vital. I nearly always feel alert and awake. | 4.98 | .93 | .83 |
| International Positive and Negative Affect Schedule Short Form | To what extent do you generally feel: Positive affect: alert Negative affect: ashamed | 17.96 13.79 | 2.62 1.87 | .63 .43 |
| Aspirations Index ^a | Intrinsic goal: To grow and learn new things. Extrinsic goal: To be famous. | 5.55 3.52 | .70 1.04 | .87 .93 |

Note. α reliability refers to Cronbach alpha reliability

^a A modified version of the Aspirations Index (Kasser & Ryan, 2008) was used.

3.1.2 Scale Reliabilities

For each scale and subscale used in the study, Cronbach alpha reliabilities were calculated in order to measure internal consistency. A summary of the Cronbach alpha

reliabilities are provided in Table 1. The Subjective Vitality Scale had an alpha reliability value of .83. The positive and negative affect subscales of the International Positive and Negative Affect Schedule Short Form (I-PANAS-SF) had respective alpha reliabilities of .63 and .43. Finally, the Intrinsic and Extrinsic subscales of the Aspirations Index had alpha reliability values of .87 and .93, respectively.

3.1.3 Overall Correlations Matrix

Pearson product-moment correlation coefficients of the variables of interest are presented in Table 2. Most of the variables were found to be significantly inter-correlated in the predicted directions, with the exception of extrinsic aspirations, which were not significantly correlated to positive affect, negative affect, or subjective vitality. Previous research (Kasser & Ryan, 1996) has reported significant correlations between subjective vitality and both extrinsic and intrinsic goals.

Positive and negative affect were found not to be significantly correlated, $r(298) = .048, ns$. Therefore, they were not combined to form one overall subjective well-being score as been done in past studies (e.g., Bradburn, 1969). However, the results are in line with previous research (Diener & Emmons, 1984; Larsen, Diener, & Emmons, 1985; Russell & Carroll, 1999; Watson et. al, 1988) which found that positive and negative affect were independent dimensions. Thus, positive and negative affect scores were kept independent for hypothesis testing.

Table 2

Correlation Analysis Results in the Present Study

| Variable | 1 | 2 | 3 | 4 | 5 |
|--------------------------|-------|------|-------|--------|---|
| 1. Intrinsic Aspirations | 1 | | | | |
| 2. Extrinsic Aspirations | -.02 | 1 | | | |
| 3. Positive Affect | .45** | -.08 | 1 | | |
| 4. Negative Affect | -.14* | .04 | .05 | 1 | |
| 5. Subjective Vitality | .40** | .04 | .57** | -.21** | 1 |

* $p < .05$. ** $p < .01$.

3.2 Cross-Cultural Comparison

3.2.1 Demographics

The sample in the present study was composed of two groups: a group of Hong Kong individuals and a group of Canadians. There were 150 participants recruited for each group. Chi-square tests and an independent samples t-test were conducted to examine group differences in demographic characteristics (see Table 3). Hong Kong Chinese participants ranged in age from 20-47 while Canadian participants ranged from 21-59. Levene's Test for Equality of Variances was significant ($F(1, 296) = 14.31, p = 0.00$), indicating that the variances of the two groups were unequal. However, there were found to be no significant ($p < .05$) age differences between groups. Though each group had more females than males, there was also no significant difference in gender. Overall, the demographic characteristics of the two groups were quite similar.

Table 3

Summary of Demographic Characteristics

| Gender | Hong Kong Chinese (N = 150) | | Canadian (N = 150) | | χ^2 | | |
|--------|--------------------------------|------|-----------------------|-------|----------|-------|----------|
| | N | % | N | % | | | |
| Male | 70 | 46.7 | 57 | 38.0 | 2.31 | | |
| Female | 80 | 53.3 | 93 | 62.0 | | | |
| | Mean | SD | Range | Mean | SD | Range | <i>t</i> |
| Age | 29.62 | 6.06 | 20-47 | 30.67 | 8.55 | 21-59 | -1.22 |

* $p < .05$, ** $p < .01$

3.2.2 Inter-Correlation of Variables across Nationalities

In general, correlation analysis results were quite similar for Hong Kong Chinese and Canadian individuals (see Table 4). However, several minor differences are interesting to note. While positive affect was weakly correlated with negative affect in Hong Kong Chinese ($r(148) = .18, p < .05$), a weak negative correlation was observed in Canadians ($r(148) = -.13, p > .05$). Associations between intrinsic aspirations and both positive affect and subjective vitality were found to be stronger in Canadians. Also, positive affect was correlated more strongly with subjective vitality in Canadians ($r(148) = .77, p < .01$) than in Hong Kong Chinese ($r(148) = .43, p < .01$).

Between group comparisons by t-test also indicated significant differences in measures of intrinsic aspirations, extrinsic aspirations, and positive affect. Results indicated that there was a significant difference in intrinsic aspirations between the two groups ($t(298) = -4.09, p < .01$). These results suggest that Canadians ($M = 5.39, SD = .63$) had a higher overall mean level of intrinsic aspirations than did those of Hong Kong nationality ($M = 5.39, SD = .62$).

Table 4

Correlation Matrices of Hong Kong Chinese and Canadian Participants

| | 1 | 2 | 3 | 4 | 5 |
|------------------------------------|-------|------|-------|--------|------|
| Hong Kong Chinese (N = 150) | | | | | |
| 1. Intrinsic Aspirations | 1.00 | | | | |
| 2. Extrinsic Aspirations | .09 | 1.00 | | | |
| 3. Positive Affect | .30** | -.12 | 1.00 | | |
| 4. Negative Affect | -.20* | .08 | .18* | 1.00 | |
| 5. Subjective Vitality | .36** | -.09 | .43** | -.25** | 1.00 |
| Canadian (N = 150) | | | | | |
| 1. Intrinsic Aspirations | 1.00 | | | | |
| 2. Extrinsic Aspirations | .01 | 1.00 | | | |
| 3. Positive Affect | .55** | .10 | 1.00 | | |
| 4. Negative Affect | -.11 | .02 | -.13 | 1.00 | |
| 5. Subjective Vitality | .51** | .10 | .77** | -.179* | 1.00 |

* $p < .05$, ** $p < .01$

Significant group differences were also found in mean levels of extrinsic aspirations ($t(297) = 5.33, p < .01$) and positive affect ($t(297) = -3.53, p < .01$). In terms of extrinsic aspirations, Hong Kong Chinese ($M = 3.83, SD = 1.05$) had higher mean levels than did Canadian individuals ($M = 3.21, SD = .95$). Canadians had higher positive affect ($M = 18.48, SD = 2.49$) than Hong Kong Chinese individuals ($M = 17.43, SD = 2.65$). However, no significant differences were found between the groups on measures of negative affect or subjective vitality. The means and standard deviations are presented in Table 5.

3.2.3 Age and its Relation to Subjective Vitality

An exploratory aim of the present study was to observe whether subjective vitality increased or decreased with age, and whether the effect was the same in both groups of participants. Age may have an effect on subjective vitality, but that effect may differ

Table 5

Variable Means, Standard Deviations, and t-values by Nationality

| | Hong Kong Chinese | | Canadian | | t-value |
|-----------------------|-------------------|------|----------|------|---------|
| | Mean | SD | Mean | SD | |
| Intrinsic Aspirations | 5.39 | 0.63 | 5.72 | 0.73 | -4.09** |
| Extrinsic Aspirations | 3.83 | 1.05 | 3.21 | 0.95 | 5.33** |
| Positive Affect | 17.43 | 2.65 | 18.48 | 2.49 | -3.53** |
| Negative Affect | 13.75 | 2.00 | 13.83 | 1.73 | -0.40 |
| Subjective Vitality | 5.08 | 0.83 | 4.89 | 1.02 | 1.78 |

* $p < .05$, ** $p < .01$

across nationalities. A two-way analysis of variance tested the reported subjective vitality of different age groups among both Hong Kong Chinese and Canadian individuals. The effect of age ($F(1, 285) = .35, p = .85, \eta^2 = .005$) was not found to be significant.

However, subjective vitality was shown to differ across nationalities ($F(1, 285) = 7.9, p = .01, \eta^2 = .027$). The interaction of age and nationality was also significant ($F(4, 285) = 2.51, p = .04, \eta^2 = .034$).

As Figure 2 shows, Hong Kong Chinese individuals were found to report higher subjective vitality across most age groups. The difference was most salient in the 30-34, 35-40, and 40 and older age groups. In fact, for Canadians, subjective vitality was reported to be lowest in the 35-40 age range, but for Hong Kong Chinese individuals in the same age range, subjective vitality was reported to be highest. Subjective vitality was therefore found to differ with age, but the effect was dependent on an individual's nationality.

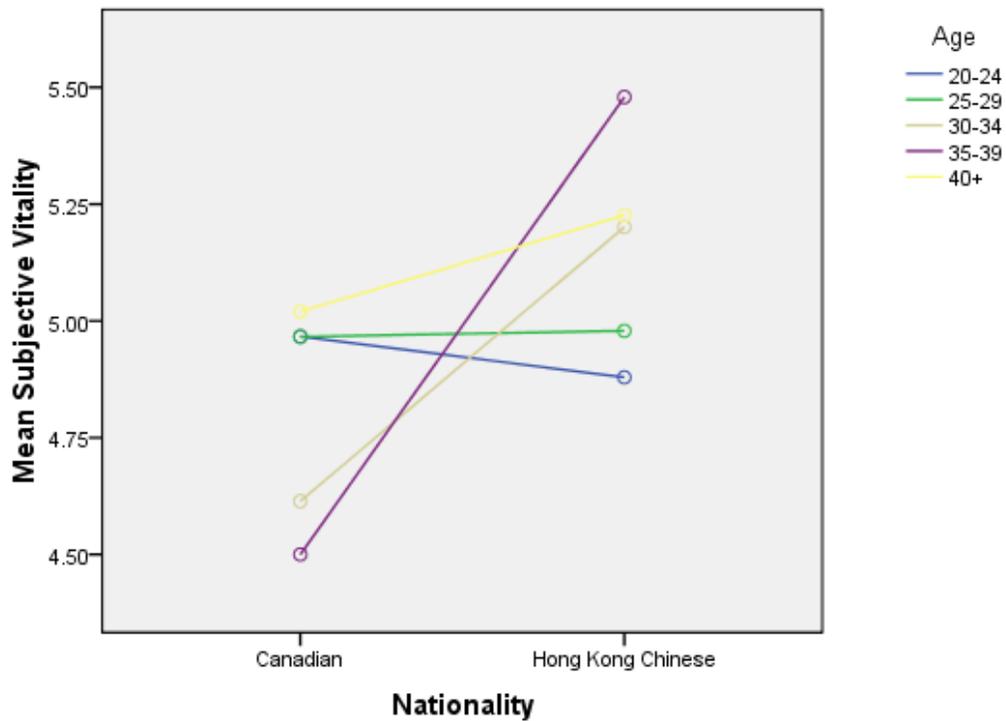


Figure 2. Mean Subjective Vitality by Age and Nationality.

3.3 *Intrinsic and Extrinsic Aspirations as Predictors of Positive Affect*

It was predicted that that intrinsic aspirations would promote positive affect and that extrinsic aspirations would negatively predict positive affect in both Canadians and Hong Kong Chinese individuals. To test these hypotheses, the intrinsic and extrinsic

aspirations scores were entered into a regression model to first observe their effects on positive affect in each respective cultural group.

3.3.1 Positive Affect in Hong Kong Chinese

The results showed that together, intrinsic and extrinsic aspirations accounted for 11% of the variance in positive affect, as indicated by the R^2 value. The standardized beta coefficient for intrinsic aspirations ($\beta = .31, p < .01$) was positive and significant, indicating that aspiring for intrinsic goals such as meaningful relationships or community contributions promotes positive affect. However, the standardized beta coefficient was only moderately significant for extrinsic aspirations ($\beta = -.15, p > .05$), indicating only a weak negative relationship with positive affect.

3.3.2 Positive Affect in Canadians

For Canadians, intrinsic and extrinsic goals were shown to account for 31% of the variance in positive affect. Intrinsic aspirations ($\beta = .54, p < .01$) were shown to be positively associated with positive affect but extrinsic aspirations ($\beta = .09, ns$) were not found to be negatively associated with positive affect.

3.4 Intrinsic and Extrinsic Aspirations as Predictors of Negative Affect

It was also hypothesized that extrinsic aspirations would promote negative affect and that intrinsic goals would negatively predict negative affect in each group.

Hypotheses were again tested using linear regression.

3.4.1 *Negative Affect in Hong Kong Chinese*

Results of linear regression analysis showed that extrinsic and intrinsic goals accounted for 5% of the variance in negative affect. Intrinsic aspirations ($\beta = -.20, p < .05$) had a significant standardized beta coefficient but extrinsic aspirations did not ($\beta = .09, ns$).

3.4.2 *Negative Affect in Canadians*

For Canadians, results showed that together, intrinsic and extrinsic aspirations explained only 1% of the variance in negative affect. Neither intrinsic aspirations ($\beta = -.10, ns$) nor extrinsic aspirations ($\beta = .02, ns$) had a significant standardized beta coefficient. Therefore, intrinsic goals were found to be negatively associated with negative affect in Hong Kong Chinese and non-significantly associated in Canadian individuals. Though extrinsic goals were shown to be weakly associated with negative affect in both groups, the associations were non-significant in each case.

3.5 *Relationship between Types of Aspirations, Well-being, and Subjective Vitality*

Hypothesis 6 predicted that positive affect would positively predict subjective vitality and hypothesis 7 predicted that negative affect would negatively predict subjective vitality. Also, hypothesis 8 predicted that intrinsic goals would predict subjective vitality while hypothesis 9 predicted that extrinsic goals would be negatively associated with subjective vitality. To test the effects of positive and negative affect as well as types of aspirations on subjective vitality, linear regression analysis was conducted. All relevant variables were entered into the equation in order to test for each one's unique effect on subjective vitality.

3.5.1 *Subjective Vitality in Hong Kong Chinese*

The results illustrated that altogether, positive affect, negative affect, intrinsic aspirations, and extrinsic aspirations accounted for 32% of subjective vitality in the participants, and that all variables except for extrinsic aspirations predicted subjective vitality as expected. The standardized beta coefficients for positive affect ($\beta = .43, p < .01$) and negative affect ($\beta = -.30, p < .01$) were both significant and in the predicted directions. That is, positive affect was found to promote subjective vitality and negative affect was found to negatively predict subjective vitality. Intrinsic aspirations ($\beta = .17, p < .05$) also predicted subjective vitality as expected; however the standardized beta coefficient for extrinsic aspirations ($\beta = -.03, ns$) was negative yet non-significant.

3.5.2 *Subjective Vitality in Canadians*

Together, the four predictor variables were able to explain 61% of subjective vitality in the participants, which is nearly double the variance explained by the model for Hong Kong Chinese individuals. Interestingly, however, only positive affect ($\beta = .71, p < .01$) could significantly predict subjective vitality. The strong relationship indicates that in Canadians, positive affect is by far the most important factor in promoting subjective vitality. Negative affect ($\beta = -.08, ns$), extrinsic aspirations ($\beta = .01, ns$), and intrinsic aspirations ($\beta = .10, ns$) were all found to have non-significant weak relationships with subjective vitality. The associations between negative affect and intrinsic aspirations with subjective vitality, however, were in the predicted direction. A summary of the standardized beta coefficients for all comparisons is presented in Table 6.

Table 6

Summary of Standardized Beta Coefficients by Nationality

| | Hong Kong Chinese | Canadian |
|--------------------------|-------------------|----------|
| DV: Positive Affect | | |
| 1. Extrinsic Aspirations | -.15 | .09 |
| 2. Intrinsic Aspirations | .31** | .54** |
| R-squared | .11 | .31 |
| DV: Negative Affect | | |
| 1. Extrinsic Aspirations | .09 | .02 |
| 2. Intrinsic Aspirations | -.20* | -.10 |
| R-squared | .05 | .01 |
| DV: Subjective Vitality | | |
| 1. Extrinsic Aspirations | -.03 | .01 |
| 2. Intrinsic Aspirations | .17* | .10 |
| 3. Positive Affect | .43** | .71** |
| 4. Negative Affect | -.30** | -.08 |
| R-squared | .32 | .61 |

* $p < .05$, ** $p < .01$

3.6 *Correlations between Specific Aspirations*

One of the exploratory research questions posed in the present study was regarding group differences in terms of specific aspirations. In order to investigate whether such differences did exist, correlations between the intrinsic life goals of personal growth, meaningful relationships, and community contribution as well as the extrinsic life goals of wealth, fame, and image were first compared between Hong Kong Chinese and Canadian participants (see Table 7). It was found that personal growth was correlated with fame ($r(149) = .22, p < .01$) and that relationships were correlated with

wealth ($r(149) = .25, p < .01$) and fame ($r(149) = .29, p < .01$) in Hong Kong Chinese participants but not in Canadians. Generally, however, across both groups, moderate correlations were found within subdomains; extrinsic goals were correlated with other extrinsic goals and intrinsic goals were correlated with other intrinsic goals. No strong correlations ($>.70$) were found and therefore group differences in the separate aspirations were tested for.

Table 7

Correlation Matrices of Hong Kong Chinese and Canadian Participants' Specific Aspirations

| | 1 | 2 | 3 | 4 | 5 | 6 |
|-----------------------------|-------|-------|-------|-------|-------|------|
| Hong Kong Chinese (N = 150) | | | | | | |
| 6. Personal Growth | 1.00 | | | | | |
| 7. Relationships | .38** | 1.00 | | | | |
| 8. Community Contribution | .24** | .24** | 1.00 | | | |
| 9. Wealth | .14 | .25** | -.16* | 1.00 | | |
| 10. Fame | .22** | .29** | .04 | .59** | 1.00 | |
| 11. Image | .02 | .06 | -.20* | .56** | .61** | 1.00 |
| Canadian (N = 150) | | | | | | |
| 6. Personal Growth | 1.00 | | | | | |
| 7. Relationships | .52** | 1.00 | | | | |
| 8. Community Contribution | .44** | .30** | 1.00 | | | |
| 9. Wealth | .03 | .01 | .04 | 1.00 | | |
| 10. Fame | -.10 | -.14 | .16 | .53** | 1.00 | |
| 11. Image | -.04 | -.07 | .05 | .45** | .61** | 1.00 |

* $p < .05$, ** $p < .01$

3.7 Measures of Central Tendency for Specific Aspirations

Overall, Hong Kong participants were found to aspire to each of the intrinsic goals of more strongly than Canadians. At the same time, Canadians were found to have significantly higher aspirations for each of the extrinsic life goals except for community

contribution; however, Canadians ($M = 5.07, SD = 1.21$) still aspired to community contribution more than Hong Kong Chinese ($M = 4.79, SD = 1.00$) despite the non-significant difference ($t(150) = -2.15, ns$). Both Hong Kong Chinese and Canadians were found to strive most strongly for relationships as an intrinsic goal and wealth as an extrinsic goal (see Table 8).

Table 8

Means, Standard Deviations, and t-test Comparisons of Aspirations by Nationality

| Aspiration | Hong Kong Chinese | | Canadian | | <i>t</i> |
|------------------------|-------------------|-----------|----------|-----------|----------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | |
| Personal Growth | 5.59 | 0.85 | 5.95 | .83 | -3.67** |
| Relationships | 5.79 | 0.77 | 6.13 | .76 | -3.82** |
| Community Contribution | 4.79 | 1.00 | 5.07 | 1.21 | -2.15 |
| Wealth | 4.12 | 1.22 | 3.79 | 1.09 | 2.51* |
| Fame | 3.35 | 1.13 | 2.51 | 1.07 | 6.60** |
| Image | 4.00 | 1.33 | 3.34 | 1.27 | 4.40** |

* $p < .05$, ** $p < .01$

3.8 *Specific Aspirations as Predictors of Subjective Well-Being and Subjective Vitality*

Another aim of the research was to explore how each specific intrinsic and extrinsic aspiration affected subjective well-being and subjective vitality in each ethnic group. In order to investigate this, the subdomains of extrinsic aspirations (personal

growth, relationships, and community contribution) and intrinsic aspirations (wealth, fame, and image) were entered as predictors into a linear regression model. Positive and negative affect were also entered as predictors of subjective vitality in order to control for their effects. A summary of all standardized beta coefficients is presented in Table 9.

3.8.1 Specific Aspirations as Predictors of Subjective Well-being in Hong Kong Chinese

Together, the sub-goals accounted for 16% of positive affect and 7% of negative affect, respectively, in Hong Kong Chinese participants. Significant predictors of positive affect included relationships ($\beta = .25, p < .01$) and wealth ($\beta = -.27, p < .01$), which had a negative predicting effect on positive affect. None of the sub-goals were found to be significant predictors of negative affect.

3.8.2 Specific Aspirations as Predictors of Subjective Well-Being in Canadians

For Canadian participants, the sub-goals explained 43% of the variance in positive affect but only 3% of the variance in negative affect. Personal growth ($\beta = .45, p < .01$), community contribution ($\beta = .26, p < .01$), and wealth ($\beta = .24, p < .01$) were all found to exert positive predicting effects on positive affect. Also, image ($\beta = -.27, p < .01$) was found to have a negative association with positive affect. None of the sub-goals were found to be significant predictors of negative affect.

3.8.3 *Specific Aspirations as Predictors of Subjective Vitality in Hong Kong Chinese*

The results confirmed the present study's previous findings that positive and negative affect both significantly promote subjective vitality in opposite directions for Hong Kong Chinese. Controlling for these effects, however, none of the specific aspirations were found to significantly predict subjective vitality. Despite this, it is interesting to note that the wealth sub-goal had a moderate negative association with subjective vitality ($\beta = -.18, p = .06$). The model was able to explain 38% of the variance in subjective vitality.

3.8.4 *Specific Aspirations as Predictors of Subjective Vitality in Canadians*

Similarly, regression results were analogous to the study's previous findings that positive affect was associated with subjective vitality but that negative affect did not have a significant association in Canadian participants. After controlling for positive and negative affect, it was found that the sub-goals of personal growth ($\beta = .32, p < .01$) and wealth ($\beta = .15, p < .05$) were positively associated with subjective vitality. At the same time, relationships ($\beta = -.13, p < .05$) and fame ($\beta = -.20, p < .01$) were found to exert negative predicting effects on subjective vitality. None of the other sub-goals were found to have a significant association with subjective vitality in Canadians. Overall, the model explained 70% of the variance in subjective vitality.

Table 9

Summary of Standardized Beta Coefficients of Specific Aspirations as Predictors in Hong Kong Chinese and Canadians

| | Hong Kong Chinese | Canadians |
|---------------------------|-------------------|-----------|
| DV: Positive Affect | | |
| 1. Personal Growth | -.01 | .45** |
| 2. Relationships | .25** | -.06 |
| 3. Community Contribution | .15 | .26** |
| 4. Wealth | -.27** | .24** |
| 5. Fame | .15 | .15 |
| 6. Image | -.07 | -.27** |
| R-squared | .16 | .43 |
| DV: Negative Affect | | |
| 1. Personal Growth | -.17 | -.06 |
| 2. Relationships | .03 | .09 |
| 3. Community Contribution | -.11 | -.15 |
| 4. Wealth | .15 | -.01 |
| 5. Fame | -.11 | .10 |
| 6. Image | .046 | -.04 |
| R-squared | .07 | .03 |
| DV: Subjective Vitality | | |
| 1. Positive Affect | .38** | .63** |
| 2. Negative Affect | -.27** | -.07 |
| 3. Personal Growth | -.04 | .32** |
| 4. Relationships | .05 | -.13* |
| 5. Community Contribution | .25 | -.03 |
| 6. Wealth | -.18 | .15* |
| 7. Fame | .09 | -.20** |
| 8. Image | .09 | .09 |
| R-squared | .38 | .70 |

* p < .05, ** p < .01

3.9 Summary of Results

The present study found that the predicted paths outlined in the theoretical model were not all significantly supported. It was predicted that, in both groups, intrinsic aspirations would predict positive and negative affect and that positive and negative affect would, in turn, predict subjective vitality. As a result of the findings of the study, the resultant model of subjective vitality is presented. Figure 3 shows the path model with standardized beta coefficients. In Hong Kong Chinese participants, all proposed paths except for extrinsic aspirations → subjective well-being → subjective vitality and extrinsic aspirations → subjective vitality were significantly supported ($p < .05$).

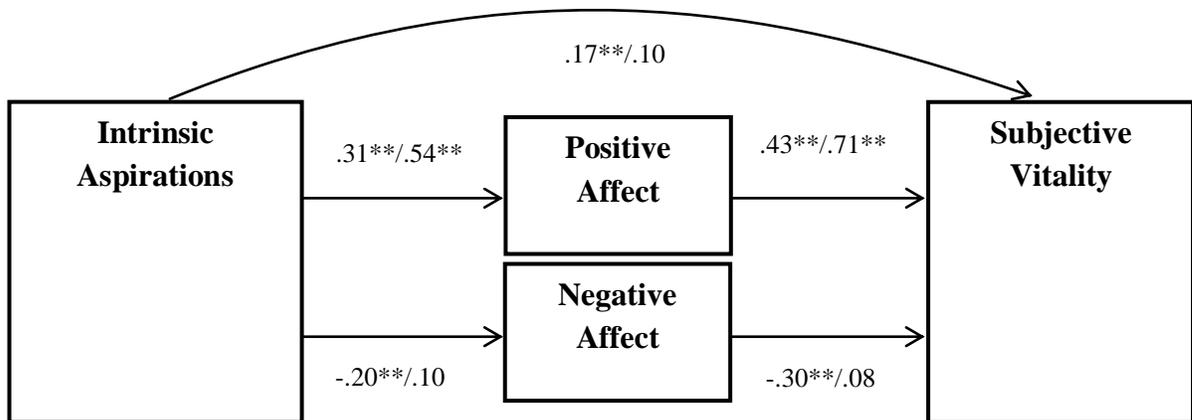


Figure 3. The Resultant Model of Subjective Vitality with Standardized Beta Coefficients.

Note. The number before the slash is the standardized beta coefficient of the Hong Kong Chinese sample and the number after the slash is the standardized beta coefficient of the Canadian sample. Extrinsic aspirations were entered into the regression equations but are not shown in the resultant model since they were not found to be a significant predictor of any other variable. * $p < .05$, ** $p < .01$.

However, in Canadian participants, the only proposed pathway that was significantly supported ($p < .05$) was intrinsic aspirations → positive affect → subjective vitality. Hong Kong Chinese participants were also found to have higher mean levels of extrinsic aspirations than Canadians. However, subjective vitality levels were not significantly different between the two groups. Hong Kong Chinese were found to aspire most strongly to each of the extrinsic goals (wealth, fame, and image), while Canadian participants were found to aspire most strongly to each of the extrinsic goals (personal growth, relationships, and community contribution). In Hong Kong Chinese participants, none of the specific aspirations were shown to predict subjective vitality; however, in Canadian participants, striving for personal growth and wealth positively predicted subjective vitality while striving for relationships and fame negatively predicted subjective vitality. Also, subjective vitality was found to differ with age, yet the effect was dependent on an individual's nationality. In general, individuals over 30 years old in Hong Kong tended to report higher levels of subjective vitality than individuals of the same age in Canada.

CHAPTER 4: DISCUSSION AND CONCLUSIONS

4.1 *Types of Aspirations in Hong Kong Chinese and Canadian Participants*

Compared to Hong Kong Chinese participants, Canadians were found to have higher levels of intrinsic aspirations. Conversely, Hong Kong Chinese were found to have higher levels of extrinsic aspirations. Thus, hypothesis 1 was not supported. It was predicted that both groups would have equal levels of extrinsic aspirations since previous research (Sachs, 2003; Waters, 1995) has found similarities between the nature of aspirations of individuals from Hong Kong and North America. Also, Hong Kong has a high level of exposure to Western culture (Wong & Ahuvia, 1998). Ang (2000) found that, compared to Hong Kong Chinese, Canadians were found to hold stronger beliefs about the power of money. However, as she argued, such differences may be explained by Canada's relatively lower cost of living and strong social welfare system. Therefore, results of the present study may be compatible with Ang's (2000) findings. Despite having stronger beliefs about the power of money, Canadians may not aspire to wealth as strongly as Hong Kongers since financial security may be more easily attained in Canada

What's more, individualistic societies such as Canada have a much different view of the self than that of collectivist societies such as Hong Kong. Individuals in individualistic societies tend to view the self as independent while individuals in collectivist societies have an interdependent view of self, seeing themselves as connected with friends, family, and peers, and being affected more so by others' appraisals (Markus and Kitayama, 1991; Zhu, Zhang, Fan, & Han, 2007). Due to concern for others, Hong Kong Chinese individuals may value conformity more than self-improvement, and

having such values may lead individuals to strive for external rewards and relinquish their own wants and desires. Such environments that value conformity do not typically support the development of intrinsic sources of fulfillment, and instead emphasize external aspirations (Kasser, Ryan, Zax, & Sameroff, 1995). In line with this, the Confucian concept of *mien-tzu*, or the desire to maintain a socially desirable appearance, may have a different meaning in capitalistic Asian societies such as Hong Kong and may subsequently put increasing focus on extrinsic success and financial achievement (Tu, 1992).

4.2 *Subjective Well-Being and Subjective Vitality in Hong Kong Chinese and Canadian Participants*

One of the aims of the present study was to explore the differences between the subjective well-being and subjective vitality levels of Hong Kong Chinese and Canadian participants. Canadians were found to have significantly higher levels of positive affect than Hong Kong Chinese, but the groups did not differ in levels of negative affect or subjective vitality. The differences in positive affect may be partially explained by the fact that individuals in independent and interdependent cultures (Markus & Kitayama, 1991) have difference experiences of positive and negative affect. Specifically, individuals in interdependent cultures such as Hong Kong may have stronger motivations to control or to allow their affect to go unexpressed (Bagozzi, Wong, & Yi, 1999). The findings were consistent with past studies that have shown that East Asians report less positive affect than Westerners (Kitayama, Markus, & Kurokawa, 2000; Oishi et al., 1999).

In both groups, having intrinsic aspirations was correlated with positive affect; however, the correlation was much stronger in Canadians. Since Hong Kong Chinese were found to have lower levels of intrinsic aspirations, this may help explain why Canadians were found to have higher levels of positive affect. The groups also did not differ in their reported levels of subjective vitality.

4.2.1 Subjective Vitality and Age in Each Group

Another exploratory research objective was to investigate how subjective vitality was related to age in each group. Subjective vitality was indeed found to differ with age, but the relationship was slightly different for Hong Kong Chinese and Canadian participants. For the participants in their 20s, there was little difference between the subjective vitality of both groups. However, an interesting trend was observed in the middle-aged groups. For Hong Kong Chinese, subjective vitality was highest in participants that were 30 and older, but for Canadians, subjective vitality was lowest for participants in their 30s. For participants over 40, Hong Kong Chinese still reported higher mean levels of subjective vitality than Canadians. It could be that Western individuals in their 30s differ somehow from Hong Kong individuals of the same age, either in terms of psychology (i.e., positive and negative affect) or life situation (i.e., age of children or marital status), or that subjective vitality's meaning is dependent upon culture. Regardless, further investigation into the relationship between age and subjective vitality across cultures should be conducted.

4.3 *Relationship between Intrinsic and Extrinsic Goals and Positive Affect*

It was hypothesized that in both groups, intrinsic goals would predict positive affect and extrinsic goals would negatively predict positive affect. However, the findings did not support the predicted relationship between extrinsic goals and positive affect. In both groups, only intrinsic goals predicted positive affect. Oishi et al. (1999) asserted that individuals with extrinsic values may suffer from lower well-being only if they are unable to attain their aspirations. Thus, it may be that having extrinsic aspirations may not negatively predict positive affect unless such goals are unattained in the long run. In conclusion, hypothesis 2 was supported but hypothesis 3 was not.

4.4 *Relationship between Intrinsic and Extrinsic Goals and Negative Affect*

Though intrinsic aspirations were found to negatively relate to negative affect in both groups of participants, the relationship was only significant for Hong Kong Chinese. However, extrinsic aspirations were not found to relate to negative affect in either group. The results were not in line with previous research that found that placing strong importance on extrinsic aspirations was related to negative affect (Kasser & Ahuvia, 2002; Kasser & Ryan, 1993, 1996; Ryan et al., 1999). However, these previous studies only reported correlations between aspirations and indicators of subjective well-being and did not use extrinsic aspirations as predictors. As the present study has shown, when controlling for intrinsic predictions, extrinsic aspirations may not predict negative affect. Further studies should be conducted to attempt replicate these findings. Overall, partial support was found for hypothesis 4 since the relationship was true in both groups but

only significant for Hong Kong Chinese participants. No support was found for hypothesis 5.

4.5 Relationship between Positive and Negative Affect and Subjective Vitality

In both groups, positive affect was correlated with subjective vitality and negative affect was negatively correlated with subjective vitality. However, when other variables were controlled for, no significant support was found for negative affect's negative association with subjective vitality in Canadian participants; still, a non-significant negative relationship was still shown. Yet in both groups, positive affect predicted subjective vitality. The relationship was especially strong in Canadian individuals. In Hong Kong Chinese participants, negative affect negatively predicted subjective vitality. Overall, the results supported previous findings regarding the relationships between positive and negative affect and subjective vitality (Ryan & Frederick, 1997; Sheldon et al., 1996). Therefore, strong support was found for hypothesis 6 and hypothesis 7 was significantly supported only in Hong Kong Chinese, though the trend was still observed in Canadians.

4.6 Relationship between Intrinsic and Extrinsic Goals and Subjective Vitality

It was predicted that, regardless of nationality, having intrinsic goals would promote subjective vitality and that extrinsic goals would negatively promote subjective vitality. In fact, extrinsic goals were not found to be a significant predictor of subjective vitality in either group. Also, while intrinsic goals were found to correlate with subjective vitality in both groups, intrinsic goals were a significant predictor of subjective vitality only in Hong Kong Chinese participants. However, a non-significant positive relationship

between intrinsic goals and subjective vitality was also observed in Canadian participants. Kasser & Ryan (1993, 1996) found that having intrinsic goals was positively correlated with subjective vitality while having extrinsic goals was negatively correlated with subjective vitality in samples of undergraduate students. However, the present study used a convenience sample of individuals of all ages, and thus fundamental differences could exist between the samples. Furthermore, the previous relationships have only been demonstrated by correlational research, so it's possible that extrinsic goals do not in fact predict subjective vitality when intrinsic goals as well as positive and negative affect are controlled for. Nonetheless, further research is needed to examine the relationships between aspirations and subjective vitality. Overall, significant support was found for hypothesis 8 in Hong Kong Chinese only. However, no support was found for hypothesis 9.

4.7 Directional Predictions of the Theoretical Model of Subjective Vitality

As outlined in the theoretical model of subjective vitality, it was hypothesized that in both groups, intrinsic and extrinsic aspirations would predict positive and negative affect, which would, in turn, predict subjective vitality. Also, intrinsic and extrinsic aspirations were hypothesized to be predictors of subjective vitality. However, extrinsic goals were not found to be a significant predictor of positive affect, negative affect, or subjective vitality in either group. To the author's knowledge, this was the first study to investigate the relationships between all of the variables used in the present study. The findings indicate that in both Canadians and Hong Kong Chinese individuals, having extrinsic aspirations may not have any positive or negative influence on well-being or subjective vitality. Rather, the study shows that more important are having intrinsic

aspirations, as these types of goals are shown to positively promote subjective well-being and, in turn, subjective vitality. These relationships were shown to be true in both an East Asian and Anglo-Saxon Western culture, attesting to the possibility that these pathways are generalizable across other cultures. However, interesting differences between the cultures were observed in the intrinsic aspirations → negative affect and negative affect → subjective vitality pathways. For Hong Kong Chinese, having intrinsic goals was shown to decrease negative affect. This result makes sense considering individuals high in negative affect are shown to focus on avoiding negative outcomes (Watson & Clark, 1993), since having intrinsic goals would make an individual more likely to focus on producing positive outcomes such as secure relationships or personal growth. Nonetheless, for Canadians, having intrinsic aspirations did not significantly relate to negative affect. Likewise, for Hong Kong Chinese individuals, having negative affect was shown to negatively influence subjective vitality. Before conclusions can be drawn regarding these differential effects, however, more research is needed to confirm these relationships across different samples.

4.8 *Specific Aspirations of Hong Kong Chinese and Canadian Participants*

An interesting trend was observed in regards to each respective culture's specific aspirations. Not only were Canadian participants found to have higher levels of overall intrinsic aspirations, but they were found to have higher levels of *each* specific intrinsic aspiration (personal growth, relationships, and community contribution). Only in the case of community contribution was the difference not significant. At the same time, Hong Kong participants had higher overall levels of extrinsic aspirations, as well as higher

mean levels of each extrinsic aspiration. Namely, they were found to have aspirations for wealth, fame, and image more so than Canadians.

These findings necessitate cautious interpretation. Though it may seem that on the surface Hong Kong Chinese have more materialistic aspirations, the reasons they hold extrinsic aspirations may be different than the reasons Westerners have for the same aspirations. The goals of wealth and image may be very much related, and they may have their roots in deep psychological needs as opposed to being merely superficial desires. As Ryan & Deci (2000) explain, the satisfaction of needs is enabled through the internalization and integration of a unique set of values and behaviours which are endorsed by an individual's culture. Hong Kong and other East Asian cultures have social norms which promote the accumulation of observable public belongings in order to increase the image of the family, and striving for wealth and possessions may actually be a result of the emphasis that the interdependent view of self places on conformity to social norms (Wong & Ahuvia, 1998). Since the representation of the self in the brain of Chinese individuals has been shown to overlap with the representation of significant others (Zhu, Zhang, Fan, & Han, 2007), one's self image is related to the image of the family at a biological level. Therefore, striving for wealth may be seen as more of a necessity for Hong Kong Chinese individuals. Also, as individuals from Hong Kong integrate their regulation, such extrinsic motivations can also become self-motivated (Ryan & Deci, 2000). Thus, what seem like extrinsic motivations can actually be authentic aspirations which are directed by the self.

Even where extrinsic financial aspirations are representative of personal goals for Hong Kongers, the collectivist cultural environment may cause individuals to view

conformity as a necessity for acquiring a job and achieving material success as a means of escape. As a result, these individuals may strongly value wealth or other extrinsic goals relative to intrinsic goals such as personal growth or contributing to the community (Kasser et al., 1995). The emphasis that the culture in Hong places on *mien-tzu*, or social face (Zheng, 1992), also explains why image may be more important than relationships to Hong Kong Chinese individuals, and why 'fame' may have been a more common aspiration as well. In fact, previous studies (Kasser & Ryan, 1993, 1996) have referred to the sub-goal of fame in a slightly different manner, dubbing it 'social recognition'. Thus, for some Hong Kongers, a good image and positive social recognition may be seen as precursors necessary to securing relationships, while Canadians may have stronger aspirations for relationships since they place less emphasis on such concerns. These findings offer strong support for the notion that the desire for *mien-tzu* affects all members of Confucian societies such as Hong Kong (Yau, 1986).

According to Maslow's (1954) Self-Actualization Theory, humans possess a drive toward growth and achievement of their full potential. Yet, this notion is in contrast to the East Asian societies on the public, outer self (Wong & Ahuvia, 1998). By Maslow's criteria, an individual and autonomous person would be self-actualizing and functionally healthy in an Anglo-Saxon culture such as Canada. In Hong Kong however, the same individual may be considered maladjusted and psychologically impaired, since they are too focused on themselves. Thus, the finding that Canadians had stronger aspirations for personal growth is not surprising. The independent view of self that individuals in Western cultures tend to have emphasizes independence and autonomous behavior, which would motivate an individual to improve themselves (Markus & Kitayama, 1991).

It has also been shown that Westerners enhance themselves differently than Easterners due to the personal importance placed on cultural ideals. Westerners tend to improve themselves on traits related to the ideals of individualistic culture, while Easterners tend to improve themselves on traits related to the ideals of collectivist culture (Sedikides, Gaertner, & Vevea, 2005). For Canadians, striving for personal growth may be representative of the individualistic values of autonomy and independence. For Hong Kong Chinese, however, improving one's financial situation or striving for image are certainly representative of collectivist values.

Interestingly, Kasser and Ryan (1993) found links between aspirations for community contribution and self-actualization in a Western sample, indicating that Western individuals who strive to improve themselves may also be more likely to place a higher importance on helping the community at large. The present study also found stronger relations between aspirations for personal growth and community contribution in Canadians than in Hong Kong Chinese. The same drives for community contribution and personal growth operate in Hong Kong individuals as well, but as previously discussed, they may manifest themselves in different ways which involve their social group and that are related to other seemingly extrinsic motivations.

4.8.1 Specific Aspirations and their Relation to Subjective Well-Being and Subjective Vitality

No specific extrinsic or intrinsic aspiration was found to predict negative affect in either group. However, interesting differences were found between the groups in terms of predicting effects on positive affect and subjective vitality which may help to shed some

light on the present study's other findings. In Hong Kong Chinese participants, only aspirations for relationships were found to have a positive predicting effect on positive affect. However, for Canadians, aspiring for relationships negatively promoted subjective vitality and, though non-significant, such aspirations were also negatively related to positive affect. Therefore, it's interesting that Canadians were found to aspire more strongly to relationships, since only Hong Kongers achieved positive psychological benefits from doing so. The results indicate that in Canadians, striving for relationships may come at an energy cost.

Wealth was found to be a negative predictor of positive affect in Hong Kong Chinese; however, wealth was found to positively predict positive affect in Canadians. Similar relationships were found between wealth and subjective vitality for each group. Again, this result may be explained by the fact that compared to Hong Kong Chinese, Canadians have been found to hold stronger beliefs about how far money can go (Ang, 2000). For Canadians, a strong social welfare system and cheaper real estate may mean that striving for money may be more psychologically empowering, while for Hong Kong Chinese living in a society where money doesn't go as far, aspirations of wealth seem to detract from well-being and personal energy.

For Canadians, personal growth and community contribution were also significant positive predictors of positive affect, and personal growth was also the strongest aspirational predictor of subjective vitality. These findings again attest to the theory that individualistic cultural ideals (Sedikides, Gaertner, & Vevea, 2005) may motivate individuals to improve themselves on traits such as autonomy and independence (Markus & Kitayama, 1991) as part of a drive toward self-actualization (Maslow, 1954). No other

aspirations were found to be significant predictors of positive affect in Hong Kong Chinese participants.

Overall, aspirations exerted little impact on subjective vitality in Hong Kong Chinese participants; no specific aspiration was found to be a significant predictor of subjective vitality. However, wealth had a moderate negative relationship with subjective vitality. For Canadians, neither extrinsic nor intrinsic goals collectively exerted a significant predicting effect on subjective vitality.

4.9 Limitations

The present study has five limitations which warrant discussion. Firstly, the theories on which the study is based have not been shown to be universal, and therefore may not be sensitive to cross-cultural issues. For example, the present study found support for the fact that Hong Kong Chinese and North American individuals may attach different meanings to various aspirations, such as the desire to maintain a socially desirable image. Related to this limitation is the fact that the scales were translated from English to Chinese for the first time. Though the present study used a back-translation procedure which can be useful as a remedy to some problems which accompany translation (van de Vijver & Leung, 1997), such a method of translation also has its disadvantages. For example, such methods focus on language only, and are unable to accommodate for cultural differences in meaning (Geisinger, 2003). Therefore cultural differences in meaning may have been exacerbated if words did not have conceptually equivalent meanings in both languages. Thirdly, the study relied on self-report measures of aspirations, affect, and other outcomes of well-being. Thus, caution must be exerted in

interpreting the findings, as participants may have had a tendency to answer the questionnaire items in a more positive light if they believed that doing so was more appropriate or acceptable. Also, it should be noted that differences may have existed between the two groups of participants. The sample from Canada was mostly from the Canadian capital city of Ottawa, which has a population of only about one million people. Individuals living in Hong Kong, a city with a much larger population, may naturally aspire to more extrinsic goals since Hong Kong is one of the world's leading international financial centers and has a major capitalist service economy. Finally, the measures of aspirations did not take into the account the unique differences individuals had in their goals. In this way, they did not take into the account the relative centrality (Rokeach, 1973) of an individual's goals. In other words, the study measured the presence of different intrinsic and extrinsic aspirations but did not assess, for example, how a certain individual may have much stronger intrinsic aspirations than extrinsic aspirations.

4.10 Implications and Recommendations for Further Study

The present study has several implications which may help better understand how aspirations and their relation to positive outcomes such as well-being and vitality may be culturally dependent. The study found that some of the goals that strived for most strongly in each respective culture actually had negative effects on an individual's well-being and vitality. For example, Hong Kong individuals strived most strongly for wealth, yet wealth was shown to be negatively related to both positive affect and subjective vitality. Compared to Hong Kong Chinese, Canadians strived more strongly for relationships, yet doing so was shown to negatively related to subjective vitality. Overall, the present study implied that re-evaluating one's goals in terms of one's own personal

and cultural values may help to benefit one psychologically. Also, the fact that vitality tended to increase with age in Hong Kong Chinese and decrease with age in Canadians implied that the groups may conceptualize vitality differently, or that vitality may have a different meaning in each respective culture. For Hong Kong Chinese, vitality may be viewed more psychologically as a source of inspiration and direction (Jou, 1981) while for Westerners, the focus may be more on the physical aspects of energy. Regardless, the findings implied that individuals who are suffering from a lack of energy may need to focus on the psychological underpinnings of such symptomology instead of merely the physical. Also, the study showed that the presence of intrinsic aspirations were the most important types of aspirations to have, as they were shown to promote positive affect, which in turn was shown to promote subjective vitality in both groups. Such benefits were shown to exist even after controlling for extrinsic aspirations, which were shown not to be related to positive affect, negative affect, or subjective vitality. Therefore, the findings imply that even if an individual strives for extrinsic goals such as wealth or image, having intrinsically-related goals may still be of psychological benefit. Furthermore, these relationships were shown to be true in both groups, and suggest the possible generalizability of the findings across other cultures.

However, in lieu of the limitations of the study, and because a large part of the research was exploratory in nature, there is a need to replicate the findings before larger conclusions can be drawn. In terms of future direction, there is a need for stronger translation of the measurement scales which assess take into account culturally specific meanings. Also, assessment of the relative centrality of goals across cultures may shed some light on how striving for certain goals more than others may affect individuals

differently in regards to their subjective well-being and subjective vitality. Future studies should consider taking into account the difference between one's aspirations (e.g., Kasser & Ryan, 1993, 1996). It would also be interesting to measure the underlying motivations behind one's aspirations in order to gauge more specifically why the cultures differ in their types of goals. Finally, measuring the aspirations of those in a larger, more financially-driven Western environment such as New York with those of individuals in Hong Kong may make for a more accurate comparison. Future research in this area may consider making use of such a comparison.

4.11 Conclusions

In conclusion, the present study found that despite Hong Kong's strong exposure to Western culture, individuals living in the metropolis were still found to differ from Westerners in their aspirations. The study explored a variety of aspirations and found that having certain goals had different outcomes for Hong Kong Chinese and Canadians in terms of subjective well-being and subjective vitality. Overall, subjective vitality was found to be most strongly influenced by the presence of positive affect for both groups. Generally, Hong Kong Chinese participants were found to have more extrinsic aspirations such as those for wealth, fame, and image, and Canadian participants were found to strive more for intrinsic aspirations such as personal growth, relationships, and contribution to society as a whole. However, it was found that the goals of fame and image for Hong Kong Chinese may reflect the desires for social recognition, the maintenance of public face, and a socially desirable appearance, which stem from Confucian values and a collectivist culture. At the same time, Canadians strived most strongly for personal growth, and doing so was found to promote positive affect and

subjective well-being. The drive for personal growth was thought to be related to the independent view of self which is idealized in individualistic cultures and which promote drives for autonomy and independence. Overall, the study showed that cultural differences strongly influence not only what an individual strives for, but also the implications that certain aspirations have for an individual's well-being and feelings of personal energy. In other words, the present study found that the answers to questions such as "can money buy happiness" are dependent on one's culture and its influences on how individuals perceive their social environments.

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