

Religiosity and Subjective Wellbeing in Christianity, Buddhism and Taoism

by

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DEAKIN UNIVERSITY
CANDIDATE DECLARATION



I certify that the thesis entitled: Religiosity and Subjective Wellbeing in Christianity, Buddhism and Taoism

submitted for the degree of Doctor of Philosophy

is the result of my own work and that where reference is made to the work of others, due acknowledgment is given.

I also certify that any material in the thesis which has been accepted for a degree or diploma by any university or institution is identified in the text.

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(Please Print)

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Date.....22 November 2010.....

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ABSTRACT

This thesis concerns the relationship between religion and subjective wellbeing (SWB). Study 1 investigated the relationship between three religions (Christianity, Buddhism and Taoism) and SWB within the revised homeostatic model which integrates affective (content, happy and excited), cognitive (self-esteem, optimism and perceived control) and experiential factors in relating to SWB. Chinese samples in Hong Kong and Australia were obtained either by convenience sampling or direct recruitment from religious organizations.

Through the use of questionnaire, it was found that religiosity and spirituality-religion satisfaction were significantly and positively correlated with SWB, and spirituality-religion satisfaction was comparatively a more powerful predictor of SWB. Additionally, spirituality-religion satisfaction generally met the inclusion criterion as a domain of the Personal Wellbeing Index. Peace was studied as a salient affect of the religious believers. It was found that this affect was a significant predictor of SWB and that the believers' SWB was higher than for non-believers.

Three forms of self-esteem were studied as cognitive buffers for homeostasis. These were religious self-esteem, a newly created construct, collective self-esteem, and non-religious self-esteem (Rosenberg). Religious self-esteem predicted SWB for all religious respondents and was particularly powerful for the Christians. Interestingly, a significant negative correlation was found between religious self-esteem and non-religious self-esteem. Collective self-esteem also predicted SWB variance for the Chinese respondents, though it was intriguing that this was stronger for the Australian Chinese than the Hong Kong Chinese. Explanations are in the context of migrant status. It was concluded that the homeostatic model was generally supported.

Study 2 attempted to confirm the peace-SWB connection found in Study 1 by examining whether the Christians scored higher on the peace-related affects (at ease, relaxed, serene and calm) and whether these affects predicted higher SWB variance for them than the non-believers. Supportive data were obtained for the Christians' higher ratings on these affects, but counter-evidence was also found as these affects made higher SWB contribution for the non-believers. These inconclusive findings warrant further inquiry. Moreover, in order to better understand the secondary control techniques used by the Christians, a new Christianity secondary control scale comprising vicarious and interpretive control was created. It explained unique SWB variance while none was made by the generic secondary control scale. Thus, the predictive usefulness of this new scale was substantiated.

Study 3 investigated whether the Australian-Chinese differences in SWB could be attributed to cultural response bias. Using data from Study 1 and 2, four samples were compared as the Australians, first generation Chinese immigrants, second generation Chinese immigrants, and Hong Kong Chinese. As it is postulated that the occurrence of cultural response bias is due to the influence of Chinese culture, its manifestation was predicted to be the highest for Hong Kong Chinese, followed by Australian Chinese immigrants and second generation, and the lowest for Australians. These predictions were generally supported.

In summary, this thesis contributes to understanding in two ways. First, it expands on current psychological knowledge regarding the affective and cognitive factors that influence the relationship between religion and SWB. Second, cultural response bias is verified as contributing to the SWB difference between the Australians and Hong Kong Chinese.

CHAPTER 1: STUDY ONE

1.1 Introduction

Religion is an important aspect of human experience as it relates to the meaning of life (Hadaway, 1978; Moberg, 1979). Religion can be understood as human beings' relation to that which they regard as holy, sacred, spiritual or divine. It is commonly regarded as consisting of a person's relation to god or spirit (Britannica Concise, 2002). From the psychological perspective, religion incorporates certain characteristic feelings and emotions such as wonder, awe and reverence. The religious people also tend to show a concern for the values, virtues and morals as prescribed by their religion, and to seek appropriate action to embody them (Britannica Concise, 2002). In the contemporary Chinese societies of Mainland China and Hong Kong, the most commonly practiced religions are Christianity, Buddhism and Taoism (Religion in China, 2010; Religion in Hong Kong, 2010).

In the psychological field, many studies have demonstrated that religion is positively associated with subjective well-being (SWB) (Emavardhana & Tori, 1997; Flanagan, 2003; Lai, 2004; Liao, 1989; Neighbors et al., 1983; Poloma & Pendleton, 1991). SWB can be defined as the affective and cognitive evaluation people make about how happy and satisfied they are with their lives (Campbell et al., 1976; Cummins et al., 2002; Diener, 2000). This study therefore attempts to investigate the relationship between the three religions of Christianity, Buddhism and Taoism with SWB in both the Hong Kong Chinese and Australian Chinese societies.

The main objectives of this study are as follows:

- (1) To investigate whether the three religions of interest are positively related to their adherents' SWB.
- (2) To examine whether spirituality-religion (S-R) can be established as a life domain in the Personal Wellbeing Index (PWI) for the three religions in question.
- (3) To study the relationship between religions and SWB within the revised homeostatic model of SWB (Lai, 2006), thereby allowing a further empirical test of this new model.
- (4) To study collective self-esteem (CSE) and a newly created construct as religious self-esteem (RSE) in interaction with the homeostatic model.
- (5) To study the affects of peace and alertness as predictors of SWB.

CHAPTER 2: LITERATURE REVIEW FOR STUDY ONE

2.1 Personal Wellbeing Index

There are many different approaches to the measurement of SWB. This section presents some general issues pertaining to SWB measurement, which is then followed by an examination of the Personal Wellbeing Index (PWI).

Poor Correspondence between Subjective and Objective Predictors of Quality of Life

Traditionally, happiness is viewed in terms of the objective and tangible conditions of life (Shea, 1976). For example, it is assumed that the more money people have, the higher is their well-being (Easterlin, 1974). Moreover, the goodness of human societies has been measured through Gross Domestic Product (GDP), which represents the value of all goods and services produced within a nation (Wilson, 1972). However, it is now evident that there is no simple and direct relationship between such objective conditions and SWB.

With respect to the relationship between wealth and life satisfaction, early researchers such as Strumpel (1973) and Campbell (1974) noted that over the previous few decades, America had experienced a massive increase in population wealth, yet the experience of living for many people had deteriorated through an upturn of crime, violence and civil disorder. Similarly, whereas GDP has risen in other western countries over the past decades, no such increase is evident in the measures of life satisfaction (Durning, 1993; Eckersley, 2000). Clearly, therefore, GDP disregards other important aspects of human life. However, Veenhoven (1991) argued that increasing wealth is important for wellbeing in poorer countries. He explained that the rich and poor nations tend to vary in the meeting of basic physical needs, and therefore wealth contributes to SWB primarily in meeting these needs. In addition, there is cumulative evidence revealing that wealth or income is weakly correlated with individuals' quality of life (Andrews & Withey, 1976; Campbell et al., 1976; Cummins, 2000; DeNeve & Cooper, 1998; Diener, 1984; Diener & Lucas, 1999; Diener & Biswas-Diener, 2002; Diener et al., 1999, 2000; Max-Neef, 1995; Myers, 2000).

A poor correspondence between objective and subjective measures of quality of life is also found for other life conditions such as standard of living, health and education. Concerning standard of living, studies revealed that the rating of desirability of a living place is different between using the objective criteria and the subjective judgment by the inhabitants (Boyer & Savageau, 1981; Edgerton, 1990; Mitchell, 1971; Muoghalu, 1991). For the life condition of health, supportive data

from Okun and George (1984), and Brief et al. (1993) respectively showed that, on a population basis, objective health on average correlated only about 0.1 with life satisfaction. Pertaining to the relationship between educational level and life satisfaction, the correlations are as weak as 0.07 (Pollner, 1989), 0.17 (Mookherjee, 1992) and 0.08 (Kelley & Evans, 1996).

In view of the above, it can be reasonably deduced that SWB is a subjective state that is fairly independent of the objective conditions. Indeed, early in the 1970's, Campbell (1974) proposed that it is essential to look beyond the material conditions of life which have traditionally been accepted as criteria of well-being, into that subjective world of feelings and emotions where the quality of life is ultimately determined. Further, Campbell and other scholars (1976) elaborated that though people live in an objective environment, they tend to perceive the world subjectively in their own way. Thus, the idiosyncrasy in perception of the objective environment is influenced by personal characteristics such as individual experience, attributes of personality and social location, etc. Subsequent to their proposal, the view that the study of life quality needs to incorporate SWB has been widely accepted in the psychological field (Cummins, 2003; Cummins et al., 2007a; Diener, 1984, 1994; Diener & Larsen, 1993; Myers & Diener, 1995; Veenhoven, 1991). Because of this, researchers tend to adopt the approach that the objective and subjective dimensions of life quality are separate entities that normally bear little or no relationship to one another, and so must be separately measured (Andrew & Withey, 1976; Campbell et al., 1976; Cummins, 1998; Strumpel, 1974). Hence, many psychological instruments have been developed to measure directly the subjective quality of life, and the PWI is one of them.

Applicability of the Measurement Instrument

A psychological measure can be said to have high applicability if it is reliable and valid when used with general and specific populations, as well as when it is applied cross-culturally. While there are over 800 instruments purporting to measure life quality (<http://www.deakin.edu.au/research/acqol/instruments/index.htm>); many of these have been designed to measure the SWB of particular population sub-groups. For example, those disadvantaged groups relating to some medical conditions, low income, or having a congenital condition such as an intellectual disability. One of the problems with such scales is their deficit orientation, in that a high score indicates a relative lack of disability or absence of a disease symptom, rather than a high quality of life e.g. the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire (Aaronson et al., 1993). Another problem concerns the limitation in interpreting the data, in that the quality of life experienced by the minority groups cannot be norm-referenced back to the general population.

In this context, it is necessary to develop an assessment of quality of life that is relevant and applicable to both the general population and specific population groups. Indeed, a SWB measure with wide applicability is crucial, in that the data derived from such instrument helps the policy-makers to understand the SWB parameters of the populations, as well as identifying the disadvantaged sub-groups whose SWB is below the normative level (Cummins et al., 2007a). Armed with such information, remedial actions through the provision of additional resources or formulation of some effective public health interventions can be implemented by the policy-makers, with a view to enhancing the SWB of the disadvantaged groups to normal level.

Other than this, cross-cultural applicability of a measurement is of equal importance. As noted by Lau et al. (2005), almost all scales to measure SWB have been developed in Western countries. It is therefore of practical significance to develop SWB measures having cross-cultural validity in order to validly measure SWB from different cultural milieu.

Global vs. Specific Measures

As SWB is by definition subjective, the use of self-report is necessary. In this respect, there are generally two dimensions of measurement in which people's feelings about themselves can be tapped, that is, global versus specific measures (Diener et al., 2000).

The archetypal global report comprises the single question as "How satisfied do you feel about your life as a whole?" on a scale ranging from "Delighted" to "Terrible" (Andrews & Withey, 1976). Another type is multi-item scales such as the Satisfaction with Life Scale (Diener et al., 1985), which is designed to measure global life satisfaction throughout 5 items, each of which involves an overall judgment of life in general. With respect to the specific measures of SWB, they adopt the life domain approach. This approach employs a domain-level representation of global life satisfaction. In this context, the individual items of the life domain scales refer to specific life aspects and the scores are averaged to produce a measure of SWB (Campbell et al., 1976; Diener, 1984; PWI; International Wellbeing Group, 2006).

Since the global and specific measures relate to differential dimensions of SWB measurement, they therefore yield different kinds of information about SWB. For the global measures, they are based on the assumption that well-being is a pervasive quality of experience which can be represented by a single measure

(Campbell et al., 1976; Diener et al., 2000); and Diener et al. (2000) elaborated that such kind of experience reflects the dispositional tendencies of individuals relating to the nature of SWB. Thus, this kind of measure provides global information about how people view themselves through global satisfaction judgments.

Meanwhile, other than the dispositional factor which distinguishes one individual from another, there are specific areas of life experience in which a person may feel more or less rewarded. Hence, specific measures have been designed to yield information for some identifiable aspects of life. As noted by Schwarz and Strack (1991), when people are asked to evaluate their overall happiness with a single question, they usually can provide an evaluation of life in an astonishingly short amount of time e.g. a couple of seconds. They suggested that this is because people employ a heuristic strategy (a cognitive shortcut), rather than carry out detailed calculations of summing weighted positive and negative experiences to arrive a general happiness value. However, when respondents are asked to make judgments on major areas of life satisfaction such as job or marriage, such judgments rely more heavily on individuals' true experience, which in turn necessitate deeper information processing in order to make the judgments (Diener et al., 2000). Hence, it seems that more cognitive processing is performed for specific measures. In fact, it is found that the more cognition is involved, the further away is the measurement from the essence of SWB; thus, the resulting satisfaction judgment becomes less dispositional but more experiential in nature (Diener et al., 2000). In this regard, Cummins et al. (2003) argued that this phenomenon can be reflected by the lower aggregate score exhibited by the life domain measures due to the diminished influence of the positivity supplied by dispositional homeostasis.

All-in-all, it seems that the global and specific measures offer different levels of information about SWB. The global measures tap closer to the essence of SWB and therefore convey information which is more dispositional in nature. However, as more cognition is involved using more specific measures, these tap the more specific level of life experience, and so the information revealed becomes more experiential in nature. It therefore follows that a complete understanding of quality of life experience requires both types of measurement (Campbell et al., 1976; Diener et al., 2000). In fact, this view is consistent with the measurement principles which have been agreed upon by an international panel of individuals working in the area of quality of life in 2002 (Schalock & Verdugo, 2002).

As abovementioned, the life domain measures rest on the assumption that life can be divided into different components and their aggregate satisfaction expresses

the overall SWB. A major problem with this approach relates to the appropriate criteria in choosing the set of domains, since there can be infinite facets of life experience. In this respect, there is converging agreement within literature that the criteria should be a minimal set of domains that are broad enough to take account of a heterogeneous population (Campbell et al., 1976; Cummins et al., 2002; Diener, 1984; Felce & Perry, 1995; Flanagan, 1978; Heady & Wearing, 1992). Hence, it seems that in reducing the broad aspects of life into manageable number, the domains should exhibit the defining characteristics of being parsimonious and descriptive of generic life areas (Hagerty et al., 2001; Schalock et al., 2000). One such scale is the PWI.

Personal Wellbeing Index

The PWI forms a part of the Australian Unity Wellbeing Index (AUWI). The AUWI has been developed as a tool to measure SWB of the Australian population and has been regularly employed for this purpose since 2001. This index comprises two sub-scales, the Personal and National Wellbeing Index.

In its standard administrative form, the PWI is immediately preceded by a single item asking people to rate their life satisfaction as a whole. This is followed by asking people how satisfied they are with the eight life domains comprising the PWI. These domains are standard of living, personal health, achieving in life, personal relationships, personal safety, community-connectedness, future security and spirituality/religion. The domain scores are then aggregated and averaged to indicate SWB.

With respect to the choice of life domain, the design of PWI is based on the first-level deconstruction of the item of satisfaction with life as a whole, in that each of the domains is designed to represent a broad and semi-abstract area of life (PWI; International Wellbeing Group, 2006). Hence, the 8 domains constitute the minimum set of domains which is sufficiently broad to apply to all populations (Lau et al., 2005; PWI; International Wellbeing Group, 2006). Moreover, the domains together can describe the experience of overall life satisfaction (Cummins et al., 2008), and this is verified by using the criterion that each domain must contribute unique variance when the domains are collectively regressed against satisfaction with life as a whole (PWI; International Wellbeing Group, 2006). Hence, the domain measures of the PWI tend to comprise the most parsimonious set of life domains covering the generic life areas.

The item “Satisfaction with Life as a Whole” is not a component of the PWI. However, its existence serves the functions of providing supplementary information on the overall life satisfaction, as well as being a separate variable that helps to test the construct validity of the PWI using multiple regressions.

Extensive psychometric analyses have shown the PWI to be a valid, reliable and sensitive instrument (Cummins et al., 2003; Lau et al., 2005; PWI; International Wellbeing Group, 2006). For example, the index has demonstrated extraordinary stability over time. Since the first survey in April 2001, the index has varied by just 2.7% for the Australian population and the most volatile domain (standard of living) has varied only by 3.2% (Cummins et al., 2003; Lau et al., 2005; PWI; International Wellbeing Group, 2006). The Cronbach’s alphas lie between 0.70 and 0.85 (PWI; International Wellbeing Group, 2006). Moreover, its high construct validity is demonstrated by the fact that the eight domains of the scale consistently form a single stable factor and predict over 50% of the variance in ‘satisfaction with life as a whole’ in Australia and other countries (PWI; International Wellbeing Group, 2006). Besides, the PWI appears sensitive to differences in gender, age and geographic location (Cummins et al., 2003; PWI; International Wellbeing Group, 2006).

The PWI is also characterized by the fact that each life domain describes a broad aspect of life which is amendable to both objective and subjective measurement. This is based on the fundamental principle that quality of life exists as separate objective and subjective dimensions. Though the PWI basically measures the subjective dimension, this criterion allows the possibility that a parallel objective scale could be constructed (PWI; International Wellbeing Group, 2006).

Another important advantage of PWI is its wide applicability as a measurement instrument. It has been developed in parallel forms which allow an appropriate version of the scale to be used with the general population and the population sub-groups as school-age children and adolescents; pre-school age children; and people who have intellectual disability or other form of cognitive impairment (PWI; International Wellbeing Group, 2006). In addition, the PWI has been demonstrated to be cross-culturally valid in relation to Australia and Hong Kong (Lau et al., 2005). In this study, the PWI showed comparable psychometric performance in terms of its reliability, validity and sensitivity.

All-in-all, the strengths of the PWI as a SWB measuring tool are that it is parsimonious, descriptive of generic life areas, and having high applicability to diverse populations. However, it should be noted that the PWI is not a static device.

In fact, it is still an ‘evolving’ instrument undergoing modification once new data and theory become available. This is well illustrated by the addition of an eighth domain of Spiritual/Religious satisfaction in 2006 (PWI; International Wellbeing Group, 2006).

2.2 Normative Level of Subjective Well-Being

In the field of psychology, there are cumulative studies supporting some striking characteristics of SWB. Perhaps the most important of these is that SWB is relatively stable and moderately positive (Cook, 2002; Cummins, 1995, 1998, 2003; Cummins et al., 2007a). Based on this evidence, it is reasonably deduced that there is a normative level of SWB experienced by people (Cummins, 1995, 1998, 2003). This section reviews the core features of SWB, and shows the formulation of normative ranges.

Subjective Well-Being is Stable

A considerable body of data suggests a high level of stability in SWB over time. For example, Headey and Wearing (1989) reported coefficients of 0.64, 0.51 and 0.52 when using the Life Satisfaction Index in measuring a general population sample, respectively, at two, four and six years. Costa and McCrae (1989) reported correlations of 0.47 to 0.63 when employing some SWB instruments over a two-year period. Bowling (1996) reported correlations of 0.46 to 0.65 in the life satisfaction of elderly people over a three-year period. Suh et al. (1996) reported correlations of 0.56 and 0.61 respectively, for the positive and negative affect in college students over a two-year period.

This intriguing feature of stability is further exemplified by the empirical studies documenting that SWB is not free to vary in response to external changing conditions (Brickman & Campbell, 1971; Diener & Lucas, 1999; Kahneman, 1999; Myers, 2000; Tversky & Griffin, 1991). In 1978, Brickman, Coates and Janoff-Bulman reported that lottery winners were not happier than non-winners and that people with paraplegia were not substantially less happier than those who could walk. Moreover, longitudinal studies that tracked changes in happiness over time provided further evidence in this regard. For instance, Suh et al. (1996) found that good and bad life events affected happiness only if they occurred in the past two months, but more distant past events did not predict happiness. Furthermore, in a number of studies, researchers have traced reactions to the death of a spouse, showing that emotional reactions usually rebound after this major life event (Bonanno et al., 2002; Bonanno et al., 2004; Lucas et al., 2003). Hence, it seems that people appear to be relatively stable in happiness despite most changes in fortune.

SWB stability is usually explained in terms of a genetic predisposition, in that individuals have a set-point for SWB to which they generally return. This was first proposed by Headey and Wearing (1989) who demonstrated that, while negative life events tend to depress SWB, the influence is usually short-term, and people tend to recover their base-line levels some time later. Subsequent to this, there is a host of research supporting this set-point theory of happiness (Ashby et al., 1999; Davidson, 1999; Depue & Collins, 1999; Gray 1990; Kagan, 2003; McCrae & Costa, 1990; Robinson et al., 2001). And, indeed, converging evidence supports that this set point is genetically determined (Braungart et al., 1992; Diener et al., 1999; Lykken & Tellegen, 1996; Lyubomirsky et al., 2005b).

Subjective Well-Being is Positive

In addition to its stability, people tend to experience a moderately positive level of well-being. In this regard, the existence of the negative skew in the data of subjective quality of life is ubiquitous (Becker, 1968; Boucher & Osgood, 1969; Cummins, 1995, 2000; Diener et al., 2006; Goldings, 1954; Headey & Wearing, 1988, 1992; Lyubomirsky et al., 2005b; Taylor et al., 1983). It seems likely that the tendency to adopt a positive outlook on life is hereditary, in that humans benefit from having an evolved device that allows the maintenance of life satisfaction within some higher level range, that is optimal for the survival of the population (Becker 1968; Biswas-Diener et al., 2005; Cummins, 2003; Diener & Diener, 1996; Fredrickson, 1998; Lyubomirsky et al., 2005a).

Normative Level of Subjective Well-Being

Based on an analysis of published data, Cummins (1995, 1998, 2003) formulated the normative range of well-being at both the population and individual level.

At the level of population, Cummins (1995) combined the population means from 16 life satisfaction studies that were conducted in Western nations. Data were standardized to a statistic called the percentage of scale maximum (%SM) which converted the scale scores onto a standard 0 – 100 range. The combination of these population means yielded a mean and standard deviation (SD) of $75 \pm 2.5\%SM$. Hence, the range 70-80%SM described two SDs around the mean and was defined as the normative range of SWB.

When non-Western population samples were included, the mean dropped slightly and the variance increased to become $70 \pm 5\%SM$. (Cummins, 1998). If two SDs were used to describe a normative range of values, the means of all Western and

non-Western populations fell within 60-80%SM. Thus, notwithstanding the huge diversity of life styles, standards and cultural norms between countries, there is a remarkable level of uniformity in their reported well-being.

A very consistent degree of variance was also demonstrated in the distribution of life satisfaction scores of individuals. In Western countries, the normal range within general population samples was approximately 40-100%SM (Cummins, 2003; Cummins & Nistico, 2002) when using data from the single item concerning satisfaction with life as a whole. When including the Western and non-Western countries, the normative intra-population range was 30-100%SM (Cummins, 2003).

These normative ranges have been confirmed and refined by subsequent studies. Some of them are cited as illustration. In Australia, for the past 19 surveys conducted through the Australian Unity Wellbeing Index project since 2001 (Cummins et al., 2008), the PWI has varied over a total range of only 3.1 points (73.2 to 76.3), and the measure of life satisfaction as a whole has merely fluctuated over 3.9 points (75.23 to 79.12). In statistical terms, their averaged means over the 19 surveys are 74.89 (SD=12.37) and 77.51 (SD=17.31) correspondingly, which fall within the normative population range of 70-80 points for Western countries.

Additionally, in the cross-cultural studies conducted by Lau et al. (2005) and Lai (2006), it was found that the means of SWB for the Hong Kong Chinese were respectively 65.9 (SD=16.9) and 69.5 (SD=11.23), with both values fell within the stipulated range of 60-80, which is the normative level inclusive of both Western and non-Western populations.

All-in-all, normal SWB is characterized by relatively high stability and moderate positivity; and normative ranges can be formulated. This provision of normative levels of SWB is highly contributory in the psychological field: First, it facilitates the interpretation of SWB data from empirical studies. Second, it provides the rationale for SWB comparative studies based on population norms.

2.3 Subjective Well-Being Homeostasis

In the previous section, SWB has been characterized as stable and positive, such that a normative level of SWB can be formulated (Cummins, 1995, 1998). These findings have led to the proposal that SWB is under the influence of a homeostatic system designed to hold its value within a narrow, positive, set-point-range for each individual (Cummins, 1995, 2003). This system works in a manner analogous to the homeostatic maintenance of body temperature such that SWB is

actively controlled and maintained (Cummins & Nistico, 2002; Cummins et al., 2007a). The SWB homeostatic system, which works to maintain SWB within the optimal range of 70-80%SM, is adaptive for effective functioning (Cummins & Nistico, 2002). In fact, studies have indicated that extremely high and low levels of SWB are undesirable. High well-being can result in unrealistic optimism, overconfidence and risk-taking behaviours (Jensen & Mechell, 1997; Spies et al., 1997). Alternatively, low well-being is associated with poor social functioning (Veenhoven, 1994), drug dependence (McKeon, 1986) and depression (Cummins & Nistico, 2002).

The homeostatic model of SWB has been developed to explain the SWB homeostasis (Cummins et al., 2002), and is presented in Figure 1. The model integrates personality (extraversion and neuroticism), cognition (self-esteem, optimism and perceived control) and experiential (positive or negative life experiences) factors as determinants of SWB. It proposed that SWB is under homeostatic control, whereby personality and cognitive factors combine to meet the challenges of life in order to maintain a high and stable set-point of SWB.

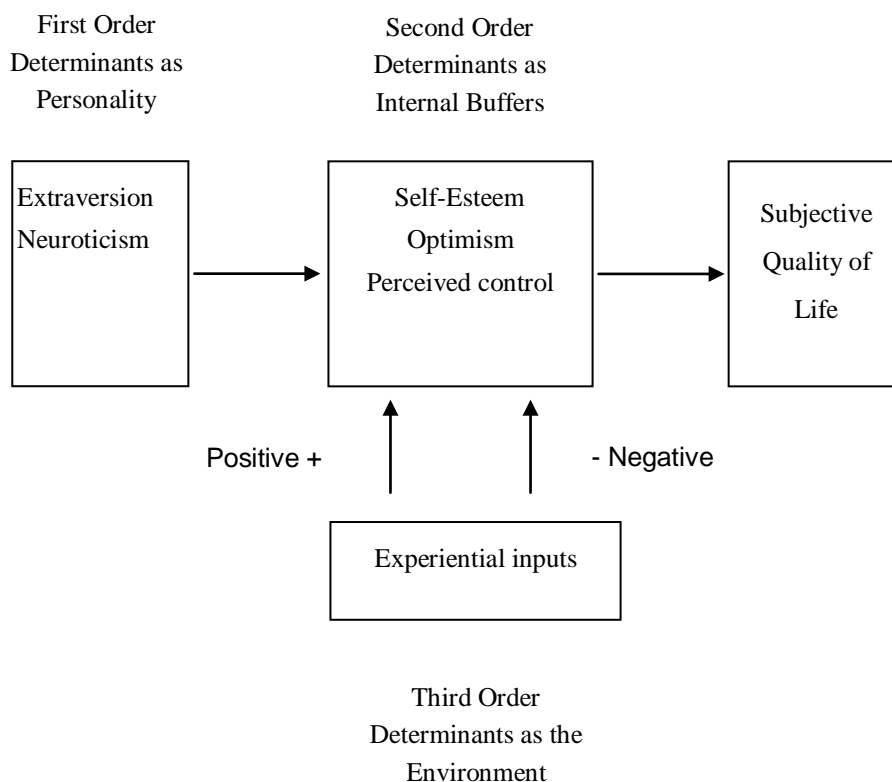


Figure 1. The Homeostatic Model of SWB (adapted from Mellor, Cummins, Karlinski & Storer, 2003)

According to the homeostatic model, personality is the primary determinant

of homeostasis. The personality trait of extraversion is related to positive affect (Fujita et al., 1991; Watson & Clark, 1992), whereas neuroticism is related to negative affect (McLennan & Bates, 1993; Wilson & Gullone, 1999). These two personality dimensions provide a steady affective background that determines each set-point-range for SWB. However, these views have recently been overturned. Davern and Cummins (2006) have demonstrated that personality is only a weak predictor of SWB when the influence of core affect is taken into account, and therefore is not the driving force behind SWB. In the following section, there is a depiction of core affect and its relation with SWB.

2.3.1 Core Affect

Core affect is the neurophysiological state consciously accessible as the simplest raw (non-reflective) feelings, which may be conceptualized as a deep form of trait affects or moods existing without objects (Russell, 2003). In investigating the structure of core affect, many researchers suggested that core affect can be described by a set of underlying dimensions. For instance, Wundt (1924) concluded from introspection of affective reactions to auditory rhythms that three dimensions may account for all possible differences between affective states: pleasure-displeasure, strain-relaxation, and excitement-calmness. Later, Schlosberg (1952, 1954) proposed an additional dimension, corresponding to sleep-tension. However, more recent evidence from judgments of similarity between affective adjectives (Reisenzein, 1994; Russell, 1978, 1979), judgments of facially expressed emotions (Russell & Bullock, 1985), self-reported mood (Feldman-Barrett, 1996; Myers & Shack, 1989), and psychophysiological measurements (Cacioppo et al., 1999; Lang, 1995) suggests that two dimensions are sufficient.

In a two-dimensional structure, core affect is organized in a circular or circumplex structure with the two main affect dimensions reflect degrees of pleasure and arousal (Russell, 1980) (see Figure 2). The horizontal dimension, pleasure-displeasure, ranges from one extreme e.g. agony, through a neutral point to its opposite extreme e.g. ecstasy. The feeling is an assessment of one's current condition (Russell, 2003). The vertical dimension, activation-deactivation, ranges from sleep, then drowsiness, through various stages of alertness to frenetic excitement. The feeling is one's sense of mobilization and energy (Russell, 2003). In this relation, core affect incorporates both dimensions of hedonic affect and activation.

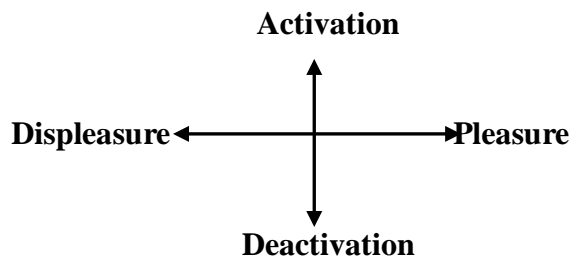


Figure 2. A Circumplex Representation of Core Affect (Russell, 2003)

With a view to investigating how core affect is linked to SWB, Davern and Cummins (2006) conducted two studies to examine the composition of SWB in terms of the relative contributions of affect and cognition to SWB, as well as to understand the affective content of SWB. For the conduct of study, thirty-one affect items were selected from literature to represent the circumplex. According to their study, the circumplex model of affects was produced by plotting the location of all thirty-one affective descriptors using the CIRCUM program by Browne (1992) and Fabrigar et al. (1997). As they mentioned, this program provides an estimate of the polar angle between 0° and 360° for each affect item enabling them to be plotted on a circle. The affect item of pleased was specified as the reference variable set at 0° . The locations of the other affect items were estimated relative to this reference variable. The circumplex model is presented in Figure 3:

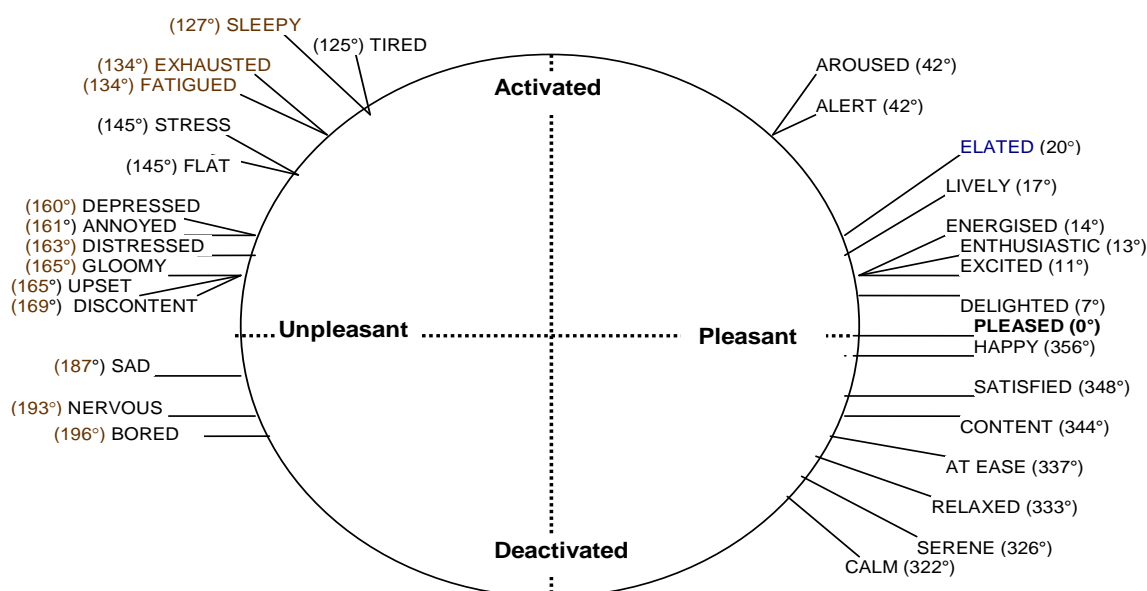


Figure 3. A Circumplex Representation of 31 Affective Descriptors (Davern & Cummins, 2006)

In Study 1, among the thirty-one affect items selected to represent the circumplex, it was found that six adjectives i.e. content, happy, energized, satisfied, stressed and pleased, explained 64% of the variance in the satisfaction with life as a whole. These results implied that SWB was primarily an affective construct rather than an equal balance of affect and cognition. In Study 2, they used structural modeling to test the homeostatic model, and included just three affects as content, happy and excited as their measure of core affect. They found that core affect was again the strongest predictor of SWB as well as a powerful predictor of all the personality factors. In fact, among the five personality factors, only extraversion and agreeableness contributed to the explanation of SWB when core affect was included in the model. Indeed, core affect had three times the explanatory power of these combined personality factors in explaining SWB. They concluded that core affect influenced the level of both personality and SWB, and the individual differences in set-point for core affect caused personality and SWB to correlate using data from multiple individuals.

2.3.2 Revised Homeostatic Model of Subjective Well-Being

Based on the above finding, Lai (2006) adopted the three core affect predictors i.e. content, happy and excited, as the first order determinants of the homeostatic system in replacement of the personality factor, and termed it as the revised homeostatic model of SWB (see Figure 4). Meanwhile, by embedding the relationship between job satisfaction and partner satisfaction with SWB within the revised homeostatic model, it allowed an empirical test of the new model (Lai, 2006). In this study, the results showed that core affect correlated positively and significantly with SWB as well as all the other general factors, including self-esteem, optimism, perceived control and life events in the model. Moreover, the three affective predictors, viz. content, happy and excited, demonstrated strong positive correlations with one another. All these findings provided empirical support to the workability of the new model.

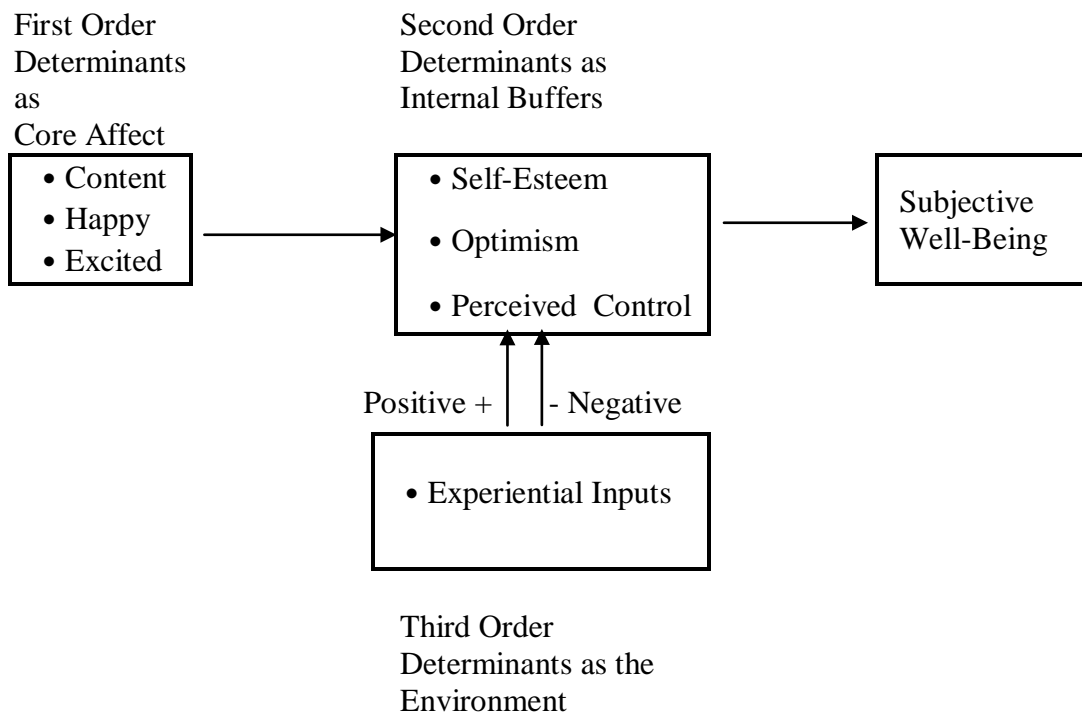


Figure 4. The Revised Homeostatic Model of SWB

2.3.3 Homeostatically Protected Mood (HPMood) in Replacement of Core Affect for the Revised Homeostatic Model

Further to Russell's conceptualization of core affect in terms of biologically influenced mood (see section 2.3.1), his recent account made clear that this construct may be involved in either primitive free-floating mood or object-directed emotion (Russell, 2009). Such new understanding is then incompatible with the conception of genetically hard-wired core affect, in conjunction with SWB homeostasis. This therefore led to the replacement of core affect with the term of HPMood, coined by Cummins (2010). In this paper, Cummins delineates HPMood as a biologically determined positive mood dominated by the affects of content, happy and excited. It is not only the dominant affective constituent of SWB, but also the basic steady-state set-point ($75 \pm 2.5\% \text{ SM}$) that homeostasis strives to defend. In addition, it perfuses all cognitive processes, thus explaining the positive self-perceptions that approximate the set-point HPMood.

In this connection, the first order determinants of the revised homeostatic model; namely, core affect, will be changed to HPMood, which is represented by the combined affects of content, happy and excited (see Figure 5).

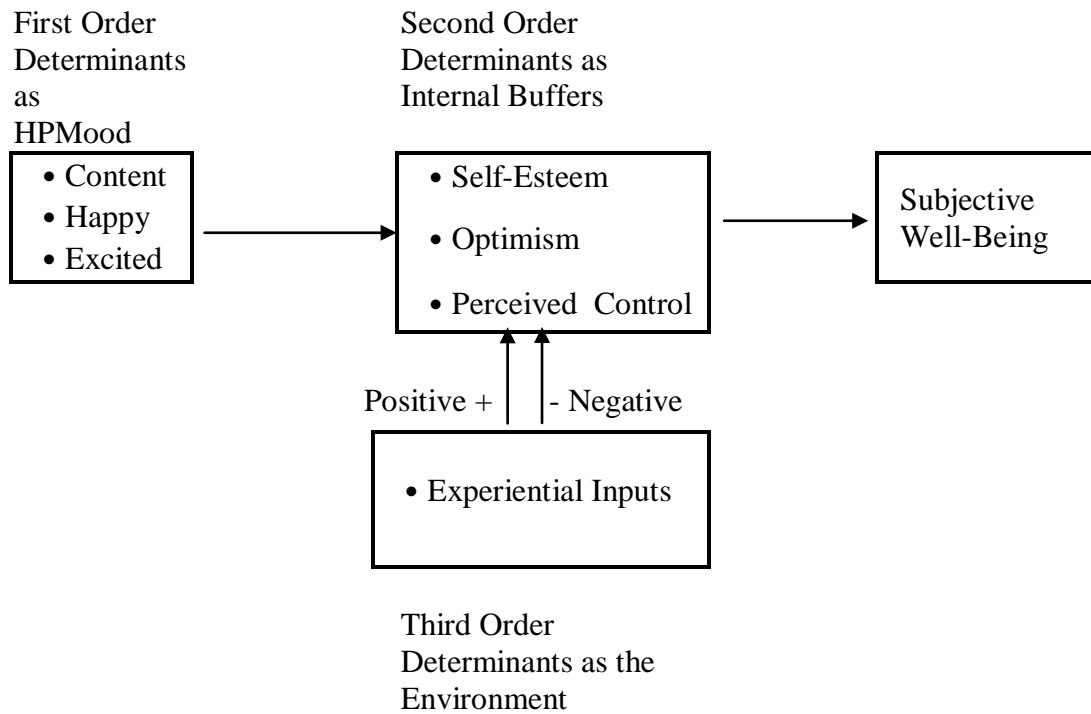


Figure 5. The Revised Homeostatic Model of SWB (After Replacing Core Affect with HPMood)

The above model is adopted as the basic theoretical framework for this study. In this respect, detailed account is given in section 2.9.

2.3.4 Cognitive Buffer Factors

In addition to the influence of HPMood as discussed in the previous section, perceived life satisfaction is also affected by cognitive factors. For example, life satisfaction has been proposed as the product of a cognitive and judgmental process that reflects the degree to which needs are met (Parmenter, 1988), gratification of major desires (Stones & Kozma, 1980), the congruence between desired and achieved goals (Neugarten et al., 1961), how well life's expectations have been met (Edgerton, 1990), and a comparison of aspirations with achievements (George, 1979). More recently, DeNeve (1999) has pointed out that the way people think about and explain what happens in their lives is intimately tied to their level of SWB. In this vein, converging evidence suggested that self-esteem, optimism and perceived control are the key cognitive factors in affecting SWB (Cummins & Nistico, 2002; Cummins et al., 2002; Mäkikangas et al., 2004; Taylor & Brown, 1988, 1994). As such, the second order determinants of the homeostatic model are the cognitive buffers of self-esteem, optimism and perceived control. These are important factors in determining how an individual responds to life experiences..

2.3.4.1 Self-Esteem

Self-esteem is one of the most researched areas of psychology. It was first studied by Rosenberg and refers to the degree to which an individual experiences oneself as worthy and capable (Rosenberg, 1979). As self-esteem relates to the evaluation of self, perhaps by comparing the perceived self against ideal self (Endo, 1992), it is generally agreed that self-esteem inevitably involves cognition (Chrzanowski, 1981; Coopersmith, 1981; Fleming & Courtney, 1984; Gaulin & McBurney, 2001).

Pertaining to the relationship between self-esteem and SWB, voluminous evidence has shown that there is a positive correlation between them (Boschen, 1996; Coyle et al., 1994; Hills & Argyle, 2001a, 2001b; Matikka, 1996; Piccolo et al., 2005; Ralph et al., 1995; Tong & Song, 2004). This relationship can be understood in connection with SWB resilience when facing life adversity (Cummins & Nistico, 2002; Cummins et al., 2002; DuBois et al., 1998; Long & Spears, 1998). As such, people with high self-esteem are more likely to be buffered against the challenges of life and sustain their well-being, whereas those with low self-esteem would be more susceptible to homeostatic defeat by negative life events. That is, individuals who hold positive view of themselves tend to give a good account of their ability to survive adversity and therefore show higher SWB resilience than those hold negative self-view.

There is also much evidence that neuroticism and extraversion are closely tied with self-esteem by showing, respectively, a negative and positive correlation (Block & Robins, 1993; Cummins et al., 2002; Judge et al., 2002; Piccolo et al., 2005). Since core affect (HPMood) is a powerful predictor of personality (Davern & Cummins, 2006) which has been discussed in section 2.3.1, it is likely that self-esteem will also be strongly influenced by core affect (HPMood). In this relation, Lai (2006) has demonstrated that the core affect (HPMood) predictors of content, happy and excited correlate positively and significantly with self-esteem within the theoretical framework of the revised homeostatic model (see section 2.3.2 figure 4).

2.3.4.2 Optimism

Optimism can be defined as a generalized expectation of positive experiences and outcomes throughout one's life (Scheier & Carver, 1985). As such, optimists tend to perceive the future to their advantage or for their pleasure (Peterson, 2000); and with the past remembered as less good than the present, and the future anticipated as being better still (Bortner & Hultsch, 1970; Gallup, 1998). From this, it is clear that optimism possesses cognitive characteristic, in that people may re-

frame or appraise a bad situation in a more positive light (Cummins & Nistico, 2002; Scheier et al., 1994).

As regards the relationship between optimism and psychological well-being, considerable data have shown that optimism is important to people's mental health (Carver & Gaines, 1987; Mäkikangas & Kinnunen, 2003; Ransom et al., 1992; Scheier & Carver, 1985, 1987, 1992) and life satisfaction (Chang et al., 2003; Dember & Brooks, 1989; Fitzgerald et al., 1993; Peterson, 2000; Taylor, 1983). As a cognitive buffer, optimism helps to defend SWB against the challenges of life by reducing the negative impact through the global expectation that difficulties that are being experienced will not last and things are going to get better with time (Cummins et al., 2002). Thus, people with higher optimism tend to show greater SWB resilience. For example, optimists were found to underestimate their susceptibility to health problems and report lower level of stress and physical symptoms (O'Brien et al., 1995), and optimistic students rated themselves as more likely to succeed academically compared to students in general (Alloy & Athrens, 1987). Thus, the optimism buffer is important for the maintenance of SWB.

Optimism also shows a strong link with the personality traits (Cummins et al., 2002; Peterson, 2000). As supported by the research finding that personality factors are strongly predicted by core affect (HPMood) (Davern & Cummins, 2006), it is predicted that optimism will be influenced by core affect (HPMood), and this was confirmed by Lai (2006).

2.3.4.3 Perceived Control

Perceived control is important in coping with situations, and is defined here as individual judgments of the extent that desired outcomes can be achieved, and potential misfortunes can be guarded against (Endler et al., 2000; Heckhausen, 1999; Thompson et al., 1998).

The highly regarded model of perceived control proposed by Rothbaum et al. (1982) divides perceived control into two processes of primary and secondary. Primary control involves actively changing the environment to fit the needs and desires of the self, and secondary control involves changing one's own thoughts and feelings to fit with the world. It is generally agreed that both primary and secondary control are equally important to maintain individual well-being as they involve taking positive action towards a situation (Klein & Helweg-Larson, 2002; Skinner, 1996). For instance, Thompson and Spacapan (1991) found that perceived control is a major contributor to psychological well-being across the lifespan, with higher level leading to greater happiness, reduced stress, more successful coping, better health and higher self-efficacy.

Perceived control is proposed to operate as a cognitive buffer in the following manner. Under normal conditions where people believe the environment is under their control, they will evidence primary control. In turn, their SWB is reinforced (Cummins et al., 2002). However, when the extrinsic environment cannot be perceived as under one's personal control, secondary control acts as the buffer. That is, if negative life events are perceived as representing a complete loss of control, this would be very damaging to SWB. If, on the other hand, people can alter their cognitions in a stressful situation so as to enhance their feelings of control, it helps to buffer against the potentially adverse psychological effects of threatening events.

According to Rothbaum et al. (1982), there are four manifestations of secondary control: (1) Predictive control. It is the attempt to accurately predict events and conditions so as to control their impact on self e.g. to avoid uncertainty, anxiety or future disappointment. (2) Vicarious control. It refers to the attempt to associate or closely align oneself with powerful others e.g. a group, an institution or a deity that enables the individual to join in their power. (3) Illusory control. It is the attempt to make attribution of the uncontrollable events to chance so that individual can enhance the comfort with and acceptance of one's fate. (4) Interpretive control. It is the attempt to understand or construe existing realities so as to derive a sense of meaning or purpose from them and thereby enhance one's satisfaction with them.

Such cognitive strategies help to redress the negative influences that life difficulties or adversities exert on people and assist them to maintain their psychological well-being. Furthermore, perceived control is directly influenced by personality factors (Cummins et al., 2002; Lefcourt, 1976). Since Davern and Cummins (2006) have demonstrated that core affect (HPMood) is the powerful predictor of personality, it is likely that this control buffer will be influenced by core affect (HPMood) as well. This has been confirmed by Lai (2006).

Given that the buffers of self-esteem, optimism and control are so highly correlated, it has been proposed that they constitute a single buffering system for the purpose of SWB defense (Cummins et al., 2002; Peterson, 2000). In order to serve the adaptive function of maintaining SWB within its homeostatic level, the cognitive buffers constitute a regulatory system by associating with HPMood to absorb the impact from life experiences. As a result, SWB is a product of both cognitive buffering system and HPMood.

2.3.5 Experiential Factor

The third order determinants of the homeostatic model are the experiential inputs. In fact, individuals' life experiences present the major challenge or impact on the homeostatic system. That is, in encountering a myriad of positive and negative life experiences, the component parts of the homeostatic system will experience change in an attempt to achieve equilibrium and, consequently, to maintain SWB at its homeostatic level (Cummins et al., 2002).

In this regard, Cummins et al. (2002) have postulated that while positive life experiences reinforce the buffering system, negative experiences activate and draw on the buffers in an effort to keep SWB at a constant level e.g. if the experiences are perceived as mildly negative, then the homeostatic system involves the processes of adaptation to them. Even for some sudden and marked positive experiences that exceed the upper group-mean score margin of 80%SM (Cummins, 1995), homeostasis will quite rapidly diminish the impact of these new experiences and, once again, return SWB to the homeostatic level (Groot & VandenBrink, 2000). However, if the experiences are perceived as strong and negative enough to exceed the adaptive capacity of the homeostatic system, they could result in below normal level of SWB. This is particularly important when such an experience persists. For example, periods of chronic stress, illness or unemployment may cause homeostasis to be under strong threat such that SWB may remain below the lower group-mean score margin of 70%SM (Cummins, 1995).

In view of the above, this study attempts to investigate how religious experience affects SWB. The revised homeostatic model of SWB (see Figure 5 in section 2.3.3) provides a theoretical framework for understanding the way religious experience, together with HPMood and cognitive buffers, act to assist in the regulation of SWB. Since religion is an important facet of life for the religious believers, it is possible that their religious experience is a salient experiential input that will significantly predict SWB beyond the variance already predicted by HPMood and cognitive buffers. For example, if such people have negative religious experience, it is predicted that their SWB will be threatened. If their religious experience is perceived to be substantially negative, to the point where it exceeds the adaptive capacity of the homeostatic system, SWB will fall. On the other hand, if their religious experience is positive, it is anticipated that their SWB will be reinforced or enhanced.

2.4 Social Identification

Everyone has a self-identity and this is usually derived from the social groups to which we belong. Hence, people adhering to a religion derive at least some of their identity from their religious groups. It therefore seems logical that self-esteem may be influenced by religious group membership since social group identity has been shown to be closely related to self-esteem (Brown, 2000; Gergen, 1971; Tajfel, 1982; Turner et al., 1984). This study will examine the relationship between such group identity and self-esteem. This examination will be informed by social identity theory (Tajfel, 1981) and self-categorization theory (Turner et al., 1987), since both approaches provide theoretical perspectives as to how social identification occurs in the group context, and how this affects group cohesion and, in turn, self-esteem.

This section outlines the constructs of social identity and self-categorization, and their application in explaining the emergence of religious group identity. Following this, there will be an account of how social identity affects self-esteem. Finally, the limitation of the theories in explaining the relationship between religious group identity and self-esteem will be discussed.

Social identification refers to the process of locating oneself, or another person, within a system of social categorization in order to define themselves and others (Tajfel, 1982). Such categorizations are conceptual divisions of the social world into distinct classes or categories (Mitchell, 2005). Thus, people use social categories such as race, ethnicity, nationality, class and religion for this purpose (Hogg & Tindale, 2001; Tajfel, 1981).

Social identity is defined as “that part of an individual’s self-concept which derives from his knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership” (Tajfel, 1981, p.255). Accordingly, social groups are the primary bases for the formation of social identity, and such groups can be conceptualized as a collection of individuals who see themselves as members of the same social categories (Turner et al., 1987).

Regarding the nature of social category, it is argued that it represents a kind of prototype that captures all of the features (i.e. attitudes, feelings and behaviours) that define category membership (Turner et al., 1987). Thus, when people identify with a group, they assimilate and conform to the relevant group prototype in terms of their own attitudes, feelings and actions (Hogg & Tindale, 2001). Therefore, self-conception, in terms of group prototype, is a representation and evaluation of self in collective terms i.e. a representation of self in terms of qualities shared with others in

the group (Hogg & Tindale, 2001). In this process, as Tajfel (1981) pointed out, because self-concept is tied to group membership, the self-esteem of individuals is also derived, in part, from group membership as a result of social identification (Turner, 1982).

Also, pertaining to the conceptualization of group, Tajfel (1982) postulated that for a collection of people to be a group, there must logically be other people who are not in the group e.g. religious vs. non-religious group. Hence, groups exist by virtue of there being outgroups (Hogg & Tindale, 2001). In this relation, social identification is also associated with another form of categorization as ingroup-outgroup. In this context, individual who attempts to match oneself to the defining attributes of the ingroup prototype, will maximize the distance between this and the outgroup prototype (Turner et al., 1987).

Through this process, self is partly defined through intergroup comparison on the valued dimensions (Turner, 1975). To this effect, favourable comparisons between the ingroup in respect of the outgroup provide ingroup members with positive social identity, whereas unfavourable comparisons provide negative social identity (Tajfel, 1982). Thus, the need for positive social identity motivates a search for, and the enhancement of, favourable evaluation of one's own group in comparison with other groups. It therefore implies that the imposition of social categorization upon people, even on an explicitly random basis, produces discriminatory intergroup behaviour as well as intragroup cohesion (Brewer & Hewstone, 2004; Brown, 2000; Hogg & Tindale, 2001; Turner et al., 1987).

As an extension of social identity theory, self-categorization theory (Turner et al., 1987) provides a social-cognitive elaboration of the nature of social identity through the process of depersonalization. In his discussion of the ingroup-outgroup categorization, Turner et al. (1987) argued that people tend to increase the perceived similarity, equivalence and interchangeability between self and ingroup members, as well as the perceived differences from outgroup members. This process leads to depersonalization of self-perception, in that one's unique characteristics tend to fade from awareness and one defines oneself in terms of stereotypical group characteristics (Turner et al., 1987). That is, self-categorization depersonalizes attitudes, feelings and behaviours in terms of the ingroup prototype.

This form of self-categorization causes people forming strongly-defined groups to appear attitudinally, affectively, and behaviorally relatively homogeneous (Hogg & Tindale, 2001). As Turner et al. (1987) posited, depersonalization of self-

perception is a 'shift towards the perception of self as an interchangeable exemplar of some social category and away from the perception of self as a unique person defined by individual differences from others' (Turner et al., 1987, p.50-51). In an extreme case, there is no longer any psychological separation between self and the group as a whole (Yuki, 2003). Thus, for the adherents of religions, the categorization of themselves as members of religious groups such as Christianity, Buddhism and Taoism will lead to the internalization of the respective religious beliefs, which in turn enables the emergence of their distinctive religious group identities. To the degree that this occurs, depersonalization results in that the adherents tend to define themselves in terms of the stereotypical characteristics of their respective religious groups, and in some cases, such as for fanatics, they may even view themselves as indistinguishable from these groups.

As a consequence of depersonalization, the resulting group cohesion, defined as the mutual attraction between ingroup members, enhances the self-esteem of group members (Turner et al., 1987). The way that depersonalization produces group cohesion is elaborated as follows: To the degree that the ingroup category is positively valued, depersonalization imbues ingroup members with attributes of the positive ingroup prototype, and thus renders them prototypically attractive (Hogg et al., 1995; Hogg & Tindale, 2001). Moreover, it accentuates prototype-based similarity between self and fellow members, and thus produces similarity-based liking (Cadinu & Rothbart, 1996; Hogg & Tindale, 2001; Simon, 1997; Simon & Hastedt, 1999; Smith & Henry, 1996). In this respect, studies have shown that the perceived similarity of others to self, in terms of attitudes, values, goals and shared group membership, is a powerful determinant of mutual attraction, in that positive sentiments are extended to other members of the ingroup (Byrne, 1971; Clore & Byrne, 1974; Lott & Lott, 1965). Due to this process, when a group is salient, ingroup members are liked more than outgroup members as they embody the ingroup prototype (Hogg & Tindale, 2001).

Furthermore, it has been empirically shown that for the cohesive groups, any prestige or value associated with groups will have a generalized enhancing effect on self-esteem, since people internalize their group membership as part of the self-concept (Hogg & Sunderland, 1991; Jenkins, 2004; Lee & Robbins, 1998; Turner et al., 1984).

All-in-all, social identity theory in conjunction with self-categorization theory offer a vision of the basic and generic group processes that lead to the formation of group identity. Moreover, they give an account on the transformation of self-concept

through prototype-based depersonalization of self, and this psychological process produces group cohesion that, in turn, leads to the enhancement of self-esteem. However, it seems that these theories fail to take into consideration the issue of group diversity. That is, they do not recognize the effects of group processes that may vary across different kinds of groups. As discussed in section 2.8 of this literature review, it is postulated that for the adherents of religious groups such as Christianity, Buddhism and Taoism, their sense of worthiness is derived from the values, virtues and morals of their religious beliefs. In this respect, selflessness is essential for the pursuit of happiness and self-esteem may hinder the realization of happiness. Hence, for the members of these religious groups, it follows that the internalization of the salient features of their group as part of their self-concept will have deprecating effect on their individual self-esteem. In fact, it has been shown that there is a negative relationship between self-esteem and religion (Hanawalt, 1963; Waters 1987). In this connection, it brings into question whether all groups are equivalent, psychologically speaking, in the manner that the social identity derived from group membership will exert positive influence on self-esteem.

In this study, it is predicted that the religious adherents will derive significant social identity from their respective religious groups. However, it would be interesting to find out the relationship between social identity and self-esteem in the context of religious groups, as religion may have diminution effect on self-esteem, which is supposed to operate in parallel but at odds with the positive influence that social group identity would exert on self-esteem through group cohesion. Hence, for the three religious groups, this study will examine the change and the direction of change in both self-esteem and SWB, as a function of social identification and religious beliefs. In particular, it will investigate whether social identification will still contribute unique variance to self-esteem and SWB, beyond religious beliefs. Also, it will study whether social identification will remain positively correlated with self-esteem after controlling the effect of religious beliefs.

2.5 Collective Self-Esteem

Among the cognitive factors of the homeostatic model, self-esteem has been suggested to be the most powerful predictor of life satisfaction (Diener, 1984) and this claim has been supported by empirical studies (Campbell, 1981; Campbell et al., 1976; Diener & Diener, 1995; Nehrke et al., 1980; Neto, 1993). Self-esteem refers to individual's feelings of self-worth and self-respect (Rosenberg, 1965, 1979). The focus of this construct is on the personal, individual self, since research and theory on self-esteem have overwhelmingly emphasized that feelings of self-worth and self-respect are derived from, or related to, an individual's personal attributes,

competencies and standing, relative to other individuals (Crocker et al., 1994). However, it is thought that the individualistic nature of self-esteem has offered only a partial view of individuals' self-concept (Luhtanen & Crocker, 1992).

In this context, Zhang (2005) has suggested that a person's feeling of worthiness might also be derived from other sources, such as from memberships of social groups (Zhang, 2005). This seems intuitive since human beings are social animal, and it is obvious that people obtain satisfaction from groups to which they belong. By identifying with different social groups such as work groups, nationality and race groups, the satisfaction people derived serves a function of building SWB (Zhang, 2005). In this respect, the social identity theory as developed by Tajfel and Turner sheds light on the importance of social group memberships to individual's self-concept (Tajfel, 1982; Tajfel & Turner, 1979, 1986; Turner, 1982).

This dual aspect of self-esteem has been formalized as social identity theory, based on the idea that the self-concept has two distinct aspects. One is personal identity, which includes specific attributes of the individual such as competence, talent and sociability (Tajfel & Turner, 1979). The other aspect is social identity, which derives from membership in a social group (or groups) and the emotional significance attached to that membership (Tajfel, 1981, p.255). Thus, people who feel they belong to a group automatically internalize as a self-evaluation, the attributes that describe the group (Turner, 1982). In this context, personal identity refers to how people view themselves as individuals, and social identity refers to how they view themselves as members of the social groups to which they belong (Luhtanen & Crocker, 1992).

Moreover, it is universally agreed that people have a basic motive to maintain positive self-regard (Turner, 1982). In this respect, Tajfel and Turner (1986) have postulated that individuals strive to maintain or enhance both a positive personal identity and a positive collective identity. Thus, to the extent that one's own social groups are valued favorably with other relevant comparison groups, social identity is positive. This social identity, which is a self-conception based on a view of oneself as part of a collective, in turn generates collective self-esteem (CSE) (Crocker & Major, 1989). In this regard, these authors defined CSE as the feelings and evaluations of self-worthiness based on the social groups, such as ethnic or work groups, of which one is a member. Hence, CSE is the value people place on themselves as members of their social groups (Kim & Omizo, 2005).

2.5.1 Relationship between Individualism/Collectivism and Self-Esteem /Collective Self-Esteem

From the above description, CSE can be contrasted with individual self-esteem in that the reference of evaluation for the respondent is the social group to which that person belongs, rather than the person separates from the group. The distinctiveness between these two concepts can be illustrated by their relative influence, as the dominant source of worthiness, in different cultures i.e. individualism and collectivism.

With respect to this dimension of cultural difference, research evidence shows that individualism is dominant in Western countries such as North America and Australia, while collectivism is prevalent in Eastern societies like Mainland China and Korea (Chen et al., 2002; Chen et al., 1998; Kashima & Hardie, 2000). Regarding the difference between individualism and collectivism, as long ago as in 1951, Parsons distinguished them in terms of self-orientation and collectivity-orientation respectively. In this regard, they affect how individuals define themselves and their relationships with others, in particular the group or collective to which they belong (Brewer & Chen, 2007).

In the individualist societies, people's identity is derived from individual attributes. This kind of personal identity makes individuals view themselves as separate and autonomous entities. People are therefore emotionally independent from groups and the guiding principle for conduct is their individual interest (Hui, 1988; Hui & Triandis, 1986). However, in the collectivist societies, individuals derive their identity from their social groups. Their social identity, so derived, lets them view themselves as interconnected and embedded in interdependent social relationships. Hence, people are emotionally dependent on collectivities and priority is given to the collective interest (Hui, 1988; Hui & Triandis, 1986).

In the light of the differential characteristics of individualist and collectivist societies, it seems that self-esteem should be the dominant source of felt worthiness for the individuals in individualist societies, as people emphasize individual self and the self-concept mainly relates to personal identity. Indeed, this claim has been empirically supported (Crocker et al., 1994; Diener & Diener, 1995; Markus & Kitayama, 1991). Contrarily, CSE should have much higher influence in collectivist societies than individualist societies as the source of worthiness, since these people are more concerned about the collective self and their self-concept is primarily in association with social identity. In support of this, it has been demonstrated that for those people who live within the collectivist cultures, they are more likely to derive their sense of worthiness from the collective nature of social identity (Zhang, 2005).

2.5.2 Collective Self-Esteem and Subjective Well-Being

Since CSE is an important source of worthiness, it seems likely that it will, in turn, affect the wellbeing of people in collectivist societies. Indeed, many studies have demonstrated such a positive relationship (Crocker et al., 1994; Mokgathe & Schoeman, 1998; Verkuyten & Lay, 1998; Zhang, 2005; Zhang & Leung, 1999, 2002). Furthermore, as the collective aspect of identity is important to self-concept, CSE should make a larger contribution to the well-being of people in collectivist, than in individualist societies. This has been supported. For example, Crocker et al. (1994) studied the relationship between CSE and psychological well-being measured by personal self-esteem, depression, life satisfaction and hopelessness. The participants were USA college students who were a mixture of White/Caucasian, Black/African American, and Asian/Oriental. Considering all students together, CSE was highly correlated with the psychological well-being measures. However, when personal self-esteem was controlled, the correlation was non-significant for Whites, small for Blacks and moderate to strong for Asians.

While this study is supportive of the general idea of individual self-esteem and CSE, it has obvious limitations in being restricted to students and undertaken within an individualist culture. A stronger demonstration has come from Zhang (2005), who conducted a study demonstrating the unique contribution of CSE for SWB in Mainland China, which is a typical collectivist cultural society. In this study, Zhang attempted to show that CSE has added value in predicting general life satisfaction and satisfaction with 13 life domains beyond individual self-esteem, demographic variables and personality traits (the Big Five personality traits).

The results indicated that CSE added a significant 1% explained variance to general life satisfaction and 3% explained variance to life domain satisfaction beyond all the other variables. Additionally, it was found that, among the four best predictors of general life satisfaction (individual self-esteem, CSE, extraversion and openness to experience), CSE was the second most powerful predictor, after individual self-esteem, in explaining 26% of the predicted variance. It also contributed 20% of the predicted variance to life domain satisfaction.

Taken together, these results indicate that CSE is positively related to people's psychological well-being, particularly for those in Asian culture. Hence, this study intends to examine the relative contributions of self-esteem and CSE to SWB, for the Chinese populations in both Hong Kong and Australia.

2.6 Relationship between Religion and Cognitive Buffers/Subjective Well-Being

Many studies have shown that religiosity is positively associated with SWB (Banthia et al., 2007; Barkan & Greenwood, 2003; Baroun, 2006; Johnson, 1995; Krause, 1997; Levin 1994; Litwinczuk, 2007; McFadden, 1995; Rule, 2007; Witter et al., 1985). This linkage may be through the cognitive buffers. In the following sections, some core teachings of the 3 religions in question – Buddhism, Taoism and Christianity will be presented. This is then followed by a discussion of how they relate to perceived control, optimism and self-esteem.

2.6.1 Buddhism

According to Buddhism, life is filled with sufferings and the ultimate goal of Buddhism is to teach individuals how to put an end to their sufferings, and the ways to pursue happiness (Brown, 2004; Flanagan, 2003; Gethin, 1998; Katz, 2000; Klostermaier, 1999; Lopez, 2001). In this relation, some basic teachings of Buddhism are examined:

Buddha means the ‘enlightened one’, in that one is completely free from faults and mental obstructions, and sees things as they really are (Gyatso, 1992). In fact, enlightenment is the only way that leads to liberation from sufferings and attainment of real and lasting happiness (Gyatso, 1992). Moreover, everyone has the potentiality to enter the path of enlightenment and becomes a Buddha (Gyatso, 1992). First of all, people should be enlightened to the three basic characteristics of all phenomena – impermanence, dissatisfactoriness and selflessness (Bonadonna, 2003; Gyatso, 1992; Keown, 1996).

2.6.1.1 Three Basic Characteristics

The first characteristic is that the constituents of all things are impermanent. It is assumed that “....everything is changing, that everything we thought was solid, unchanging, or permanent is in a state of flux. Every sensation, every thought, every feeling, every sound, every taste – everything inside and outside, is in a state of continual dissolution” (Goldstein & Kornfield, 1987). In this manner, all things are impermanent in two senses: (1) They comprise constituents that arise together and then, in time, fall apart as subject to decay; (2) and while existing, they are in a state of constant change (Mitchell, 2002).

This characterization of impermanence leads to the second characteristic of dissatisfactoriness. Since all things in life must pass away, given their impermanence, so must all the pleasures these things provide be fleeting (Bonadonna, 2003; Keown, 1996). This, in turn, makes people feel that life is dissatisfactory.

The third characteristic is ‘no self’, which relates to the characterization of impermanence, in that all phenomena lack any underlying and permanent substance (Gyatso, 1992; Keown, 1996). Buddhism teaches that the constituents of selfhood are the ‘Five Aggregates’ (Mitchell, 2002): The first aggregate is material form, or the body that is produced by impermanent atoms of different types. The second is sensation associated with body such as pleasant feeling, unpleasant feeling and neutral feeling. The third aggregate is perception which includes the cognition and recognition of physical objects and mental phenomena (ideas or thoughts). The fourth is mental formation which includes various mental states, attitudes and dispositions that form the character of one’s life. The fifth is consciousness, a kind of mental awareness which arises only when the six sense faculties (eye, ear, nose, tongue, body and mind) engage their respective objects (visible form, sound, odor, taste, tangible objects and mental phenomena).

With respect to these ‘Five Aggregates’, they are constantly changing mental and physical states, or processes (Gyatso, 1992; Keown, 1996; Mitchell, 2002). As such, there is no permanent hidden subject who is the owner of these various sensations, feelings and ideas, and that all that exist are the experiences themselves. As none of them can be considered as permanent substance, it implies the non-existence of permanent self (Mitchell, 2002).

2.6.1.2 Four Noble Truths of Life

Given that life is characterized by impermanence, dissatisfactoriness and selflessness, human suffering is inevitable. This will be elaborated with reference to the Four Noble Truths of Life, which are about the dissatisfying human condition, its causes, its possible end, and the path that leads to the release (Gyatso, 1992; Keown, 1996; Mitchell, 2002).

First Noble Truth: The Truth of Suffering

The first noble truth is the Truth of Suffering. Buddhism states that suffering is an intrinsic part of life. It can be in the physical form i.e. birth, sickness, old age and death; and psychological form i.e. the feelings of pain, grief, sorrow, lamentation and despair, resulting from association with what is unpleasant, dissociation from what is pleasant, and the failure to get what one desires (Keown, 1996; Mitchell, 2002). Further, Buddhism states that humans have to experience these sufferings again and again, in life after life without cessation, because of reincarnation (Gethin, 1998; Gyatso, 1992; Klostermaier, 1999; Lopez, 2001). Buddhism does not deny that there is any happiness in life; however, the good times do not last as soon or later they fade away, or people become bored with that once seemed novel and full of

promise. Also, people have countless desires that they cannot fulfill all; and when fulfill, do not bring the satisfaction for which they hope. Hence, even when life is not painful, it is unsatisfactory and unfilling (Keown, 1996; Mitchell, 2002).

Second Noble Truth: The Cause of Suffering

The second noble truth is the Cause of Suffering. People have cravings. These can be manifested in the desire to possess and control something e.g. fame, wealth, sensual pleasure, or attaching to certain ideas or actions (Gyatso, 1992). All these cravings are caused by the 'Three Root Evils', namely, greed, hatred and delusion, which are the fundamental motivations of the unwholesome actions (Ekman et al., 2005; Mitchell, 2002). Being motivated by greed, one's action is rooted in the longing for something or someone, or in the strong desires like avarice or lust (Mitchell, 2002). Being motivated by hatred involves irritation with something or someone, or strong feelings of aversion, anger or even wrath (Mitchell, 2002). Delusion as a motivation means pursuing actions that result from an active distortion of, or hiding from, the truth in certain matters one should make the effort to understand (Mitchell, 2002). Indeed, craving can be traced to the false belief in permanent essence or self (Gaskins, 1999).

Third Noble Truth: The Cessation of Suffering

The third noble truth is the Cessation of Suffering. When craving is removed, suffering ceases and nirvana is attained (Keown, 1996; Klostermaier, 1999; Mitchell, 2002). Nirvana is the full enlightenment involving a radically transformed state of consciousness which is free of the 'Three Root Evils' of greed, hatred and delusion, and the obsession with 'me and mine' (Keown, 1996; Klostermaier, 1999; Mitchell, 2002). Nirvana can occur during life or after death (Keown, 1996). For Nirvana-in-life, it is an enlightened state characterized by peace, deep spiritual joy, compassion, and a refined and subtle awareness. Negative mental states and emotions such as doubt, worry, anxiety and fear are absent from the enlightened mind (Keown, 1996; Klostermaier, 1999). For Nirvana at death, it means the cessation of reincarnation as well as the related sufferings, and the enjoyment of eternal peace (Keown, 1996; Klostermaier, 1999; Mitchell, 2002).

Fourth Noble Truth: The Path to Enlightenment

The fourth noble truth is the path that leads to the end of suffering and eventually Nirvana. In order to live a happy and fulfilling life, it is crucial to overcome the deluded view of self and world, and the unwholesome desires, which are the causes of human suffering. In this regard, the development of knowledge and moral virtue, that is set forth by the Eightfold Path, helps people to reach enlightenment (Gethin, 1998; Keown, 1996; Lopez, 2001).

The Eightfold Path consists of eight factors that are divided into the three categories of wisdom (proper view), morality (proper conduct) and meditation (proper practice). The Eightfold Path is depicted as follows: (1) Right Understanding means the acceptance of Buddhist teachings such as the conception of a permanent self binds one to dissatisfactory living. (2) Right Thought means making a serious commitment to develop right attitudes e.g. the development of freedom from unwholesome mind such as greed or ill will towards others. (3) Right Speech means the use of speech skillfully for the benefit of others and therefore refraining from the four types of wrong speech i.e. falsehood, slander, harsh words and idle gossip. (4) Right Action is expressed as the Five Precepts i.e. not to kill, not to steal, not to commit sexual misconduct, not to lie, and not to partake of intoxicating drinks or drugs. (5) Right Livelihood means not engaging in an occupation which causes harm to others. (6) Right Effort means gaining control of one's thoughts and cultivating positive states of mind. (7) Right Mindfulness means cultivating constant awareness with regard to one's body e.g. what is doing at a particular moment; one's sensations, feelings, thoughts and impulses at a particular time; one's idea or view; and the true nature of things e.g. their transience, non-substantiality and dissatisfactory nature. (8) Right Meditation means developing deep levels of mental calm which is useful for illuminating the true nature of all things, pacifying distracting thoughts, purifying unruly emotions and inordinate desires that create suffering (Keown, 1996; Mitchell, 2002).

In sum, by following the Eightfold Path, people can undergo self-transformation in the intellectual, emotional and moral aspects. They can rectify their deluded view of reality and can be released from the unwholesome factors of mind that produce suffering. This, in turn, can lead to the lasting happiness of Nirvana.

2.6.1.3 The Relationship between Buddhism and Cognitive Buffers/SWB

As regards how Buddhism affects SWB, this will be discussed with reference to the cognitive factors of perceived control, optimism and self-esteem as follows:

2.6.1.3.1 Perceived Control

As mentioned in section 2.3.4.3, perceived control refers to individual's perceived ability to change a situation and overcome challenges to achieve a desired outcome. In this relation, people can gain control by influencing existing physical, social or behavioral realities to fit their perceptions, goals or wishes (primary control) (Weisz et al., 1984), or by bringing themselves into line with the realities (secondary control) (Weisz et al., 1984).

In Buddhism, life is suffering; however, through its teachings e.g. the Three Basic Characteristics and the Four Noble Truths, people can gain a direct apprehension of the truth of reality. Moreover, by practicing the Eightfold Path, people can attain the development of virtue and wisdom that transits to Nirvana. Hence, the Buddhists should have high perceived control by exercising primary control; as practically speaking, they have the means to liberate themselves from sufferings and realize happiness, and these objectives can be achieved entirely out of their own will and effort.

Other than this, the belief that the Buddhists will have high perceived control will be further exemplified by Buddhism's Principle of Dependent Arising and the construct of karma. Simply speaking, the Dependent Arising Principle can be expressed as the claim that every effect has a cause (Mitchell, 2002). That is, everything which comes into being originates in dependence on something else, and nothing exists independently in and for itself (Keown, 1996). Karma is depicted as the result of willful intention (Mitchell, 2002). It is a manifestation of the Dependent Arising Principle in explaining the arising and cessation of the human suffering of reincarnation. In Buddhism, when people are dead, it only means one stage of being ends and another stage of being begins. In this respect, there are six realms in Buddhism's world system that people can take rebirth (Keown, 1996).

At the bottom of the realms is hell, where beings are subjected to various torments. Above hell is the second realm of animal. Animals are governed by brute instinct and hunted for food by human and other predators. Above the animals is the third realm of ghosts. These are unhappy spirits that hover around the fringes of the human world and are consumed by desires they can never satisfy. The fourth level is the Titans, a race of demonic warlike beings motivated by a lust for power. They constantly seek conquests in which they find fulfillment. The fifth level is the human world. Rebirth as a human being is regarded as both highly desirable and difficult to attain. The top realm is the idyllic paradise of god (Keown, 1996).

There are twenty-six levels of paradise. The top five heavens are known as the 'Pure Abodes' that are inhabited by those beings who gain full enlightenment and therefore will not be reborn as human beings. The gods below these levels are simply beings who, due to the performance of good deeds, enjoy harmonious and blissful states of existence. Nevertheless, they are subject to rebirth like everyone else (Keown, 1996). The Buddhists believe that the circumstances of future rebirths are determined by the moral deeds a person performs in this life (Mitchell, 2002).

In relating karma to rebirth, it is believed that actions that are motivated by the 'Three Root Evils' i.e. greed, hatred and delusion are non-virtuous, they will

generate bad karma which is in turn the main cause of rebirth to the lower realms. Contrarily, actions that are motivated by the opposites of the ‘Three Root Evils’ i.e. non-attachment, benevolence and understanding are virtuous, produce good karma which then result in rebirth in the higher realms of human and god (Gyatso, 1992; Keown, 1996; Mitchell, 2002). In addition, virtuous action or good karma is believed to be the main cause of happiness and good fortune in life (Gyatso, 1992). For example, if people have good health, comfortable living conditions, harmonious relationship and success in activities, these are the results of previous good karma (Gyatso, 1992). Conversely, all the sufferings people experience in life such as sickness, poverty, conflicts and accidents are the results of their past bad karma (Gyatso, 1992).

In short, it seems that the Buddhists are able to exert high level of control on the quality of their present life as well as their future being. That is, the teachings of Dependent Arising and karma advise them the ways of protecting themselves from the unhappy lower rebirth and the conditions necessary for a happy and satisfactory life. Other than this, if they want to be liberated from the suffering of reincarnation, they can accomplish full enlightenment and attain the lasting happiness of Nirvana by practicing the Eightfold Path. Hence, the Buddhists can take an active role in determining their fate. In this respect, the type of control they adopt is mainly primary, as they are able to shape or influence the realities through their own behaviours so as to fit their goals.

2.6.1.3.2 Optimism

Optimism refers to the perception that the future will be to the perceivers’ advantage or for their pleasure (section 2.3.4.2). Given that the Buddhists have the understanding and means to take action in guarding themselves against potential misfortune, as well as securing a blissful future, it is therefore likely that they are optimistic.

Overall, the Buddhists should have higher level of perceived control and optimism, which in turn, will positively influence their SWB. In confirmation, many studies have shown that there is a positive correlation between the religiosity of Buddhism and well-being (Bonadonna, 2003; Brown, 2004; Ekman et al., 2005; Emavardhana & Tori, 1997; Flanagan, 2003; Gaskins, 1999; Katz, 2000; Thurman, 2005).

2.6.1.3.3 Self-Esteem

Ordinarily, people regard their mental life as their true inner essence e.g. Descartes’ famous statement ‘I think therefore I am’. However, Buddhism espouses

the notion of selflessness and points out that the belief in a permanent self is the source of suffering (Gyatso, 1992; Keown, 1996; Mitchell, 2002). Thus, it is likely that, in contrary to the general agreement that self-esteem is a strong predictor of SWB, no close relationship is expected between them for the Buddhists, which is explained as follows:

Buddhism states that the belief in a permanent self will lead to the development of self-centeredness which in turn arouses craving. Craving, in Buddhism, is understood as the self-centered desire of an individual to be possessive and dominant (Gyatso, 1992). In one way, craving influences people to view themselves as the possessor and enjoyer of the things of life; thus leading them to an attachment to the material world, and to strive for prolonging their enjoyment of pleasurable feelings and getting rid of un-enjoyable feelings. As a result, people will be motivated to relate to others in a selfish and egoistic manner (Mitchell, 2002). In another way, craving can be manifested as an attachment to one's own ideas, views, theories or beliefs; and this state of mind becomes repulsive to the ideas of others (Mitchell, 2002). Both kinds of cravings are unwholesome, in that the dominance of egocentric mentality will destroy the harmonious social relationship, and provide the psychological basis for social conflict (Gyatso, 1992). Moreover, from the karmic point of view, these cravings result in bad karma, which in turn cause sufferings in life and unhappy rebirth (Mitchell, 2002).

In this regard, Buddhism's teachings on impermanence and 'no self', which constitute the Doctrine of Emptiness, and that help people to release from sufferings and enhance SWB, are relatively independent of self-esteem. In compliance with the characterization of impermanence (as discussed in section 2.6.1.1), the constituents of selfhood are the 'Five Aggregates' in that human can be analyzed into the five factors of individuality with nothing left over (as discussed in section 2.6.1.1). In a similar vein, all phenomena can be reduced to their constituent parts without finding any enduring nature of their own. A chair, for example, might be seen as consisting only of legs, a seat and a back; however, it lacks a self-nature which is independent of these parts (Keown, 1996). As everything is void of real existence and inherent reality, Buddhism teaches that all things are ultimately empty, which is termed as the Doctrine of Emptiness (Gyatso, 1992; Keown, 1996). In fact, the Doctrine of Emptiness is believed by the Buddhists as the ultimate nature or truth of all phenomena (Gyatso, 1992; Keown, 1996). This doctrine can enlighten people about the ultimate nature of themselves as well as the things that they strive for; which, in turn, helps people to eradicate the self-grasping ignorance and destroy the craving for possession and dominance (Gyatso, 1992; Keown, 1996).

Moreover, the realization of the ultimate truth of emptiness is a kind of wisdom, which can be attained through practicing the means that are laid down in the Eightfold Path. For example, the teachings of Right Understanding and Right Thought help people understand that the misconception of the existence of a substantial and permanent self not only fosters their self-centered disposition, attitudes and other mental formation, but also binds them to dissatisfying living. Hence, it is crucial to cultivate the thought of selflessness, which is virtually a free, pure and wholesome state of mind (Keown, 1996). Other than this, meditation is of high use in attaining this wisdom. That is, by contemplating that as none of the phenomena exists truly, there is, indeed, no real basis for people's attachment (Gyatso, 1992; Keown, 1996).

It is thought that the wisdom of emptiness is not easy to realize as humans are so accustomed to the egocentric mentality that has long been acquiring in their growth; however, by familiarizing themselves with the Doctrine of Emptiness through continual practice and effort, it is believed that people can eventually release their mind from the delusions of permanence and real self-existent, and thereby liberate from sufferings (Gyatso, 1992). The wisdom of emptiness, which relates to a direct realization of the ultimate truth of all phenomena, is different from the worldly intelligence, that is, it is possible for people to have great intelligence but little wisdom (Gyatso, 1992; Keown, 1996). For example, people may know a great many facts and understand complex technical subjects, but have no idea how to maintain a peaceful mind and lead a virtuous life by means of the development of the wisdom of emptiness. Such people are clever from a worldly point of view but have no wisdom in the Buddhists' eyes at all (Gyatso, 1992). In Buddhism, it is believed that only the wisdom of emptiness, instead of worldly intelligence, can genuinely lead people to well-being. Hence, it is thought that those believers with higher religiosity will have higher wisdom; and with the higher development of wisdom, people will become lower in the self-grasping or ego-centric mentality which is the source of sufferings.

In view of the above, it seems that, for the Buddhists, ego is the root cause of human sufferings and therefore people should develop self-renunciation in order to eradicate the self-grasping mentality. It is thought that the realization of the absence of a permanent self will lead to selfless loving kindness and compassion for others, which will then create an enduring state of well-being and a better society (Ekman et al., 2005; Keown, 1996; Mitchell, 2002). In line with the above reasoning, it seems that for the Buddhists with stronger religious belief, their happiness becomes less dependent on self-esteem.

All-in-all, this description suggests that Buddhism should be highly and positively related with the cognitive factors of primary control and optimism; however, no strong link will be observed between self-esteem and SWB.

2.6.2 Taoism

Taoism is a religion indigenous to China. The main tenet of Taoism is the belief in Tao. It is difficult to translate the exact meaning of Tao into English, but in the most general terms, it can be translated as the path or the way (Deng, 1996; Hartz, 1993; Lopez, 1996; Loy, 1997; Ni, 1995; Robinet, 1997).

2.6.2.1 Tao and Cosmology

In the Taoist vision of cosmogenesis, Tao is the origin of the universe and source of all things (Ni, 1995; Robinet, 1997; Shin, 2001). In this regard, it does not mean that Tao is a god or a supreme being, but is conceived as the void where cosmic energy is produced and out of which all reality emerges (Loy, 1997). In fact, Tao is depicted as the metaphysical ultimate which essentially has no sound, no smell, no shape or vestige (Shin, 2001). The Taoists think that before anything existed, there was Tao; and when nothing exists any longer, Tao will still be (Lopez, 1996). The founder of Taoism, Laozi, has described Tao as "...there was something undefined, formless and inaudible. Coming into existence before Heaven and Earth. Silent and boundless, standing also without change. Keeping on revolving ceaselessly. It is worthy to be the Mother of World. I do not know its name; but I called it TAO" (Tao Teh Ching, 2003, p.36).

Taoism teaches that Tao is associated with Nature, in that Tao models itself according to the Law of Nature and that Nature demonstrates Tao (Tao Teh Ching, 2003). Hence, although Tao is unknowable in its essence, it is observable in its manifestation i.e. it lies behind the functioning and changes of the natural world (Hartz, 1993; Loy, 1997). For example, the cycles of weather and seasons (Hartz, 1993). In this regard, Tao can be roughly stated to be the flow of the universe, or the force behind the natural order (Hartz, 1993). It is also believed to be the influence that keeps the universe balanced and ordered (Tao Teh Ching, 2003).

In explaining the creation of all things, Laozi stated that "...the TAO produces One, One produces Two, Two produces Three, Three produces all creatures and things" (Tao Teh Ching, 2003, p.64). One is understood as qi, a primal energy which cultivates all things (Loy, 1997), and the essential energy for the existence and action of everything (Tao Teh Ching, 2003). From this One comes the balance of Two opposing but inseparable forces in the universe, yin and yang (Loy, 1997). Yang

literally means ‘the sunny side’ of a hill (Hartz, 1993). It represents the male principle manifesting in hardness and strength (Keown, 1996). Yin refers to the female principle expressing in softness and passivity (Keown, 1996). Yin means ‘the shady side’ of the hill, is yang’s opposite, but it cannot be separated from yang. Just as there can be no shadow without sun, and therefore there can be no yin without yang (Hartz, 1993).

The Taoists believe that these two forces complement each other (Loy, 1997). Virtually, it is the constant interaction of yin and yang governing the order or behaviour of all things (Robinet, 1997; Tao Teh Ching, 2003). For example, the rhythmic cycles of nature: night and day, winter and summer, rain and sun, death and birth, are indeed the operation of these two opposing forces (Hartz, 1993). Hence, when yin and yang are equally present, the universe is balanced and ordered; when one is outweighed by the other, there is confusion and disarray (Ni, 1995; Tao Teh Ching, 2003).

Yin and yang are then expressed in the Three forces of the universe: heaven, earth and humanity (Hartz, 1993). From these three forces come everything else (Hartz, 1993). Thus, Tao is the ultimate force that flows through every living and sentient object, as well as through the entire universe (Ni, 1995). In this respect, the Taoists’ ultimate goal is to harmonize themselves with Tao so as to lead a happy life (Hartz, 1993; Loy, 1997).

2.6.2.2 Tao and Supernatural Forces

Taoism teaches the existence of supernatural being such as gods and demons. In fact, Taoism posits that every being in the universe, irrespective of human or spirit, is naturally an expression of Tao. That is, both human and spirit are made up of qi (Loy, 1997; Robinet, 1997). When qi is diluted, it is indefinite potential; when it is condensed, it becomes life (Loy, 1997). So, the formations of different beings are primarily the compositions of differential levels of the purity and weight of qi. (W.W. Leung, Priest, the Hong Kong Taoist College, personal communication, June 19, 2008). In this regard, it is believed that every different kind of being is only manifesting a different force of the Nature (Hartz, 1993).

In Taoism, everything in the universe, both seen and unseen, is controlled by a god. Indeed, there are more than three thousands gods in the world (Leung et al., 2007). For example, gods of heaven and earth; gods of mountain and river; gods of trees and flowers; gods of thunder and lightning, the gods of the regions of earth-North, South, East, West and Center; and even the gods for common and everyday

things such as walls and ditches (Hartz, 1993). Meanwhile, some of the gods were once human e.g. the ancestors and heroes (Leung et al., 2007). The Chinese like to revere their ancestors and those people who did great deeds as elevating them to the status of gods (Leung et al., 2007).

Furthermore, the Taoists believe that the gods are challenged by demons that plague the natural and human worlds (Hartz, 1993). These demons may be natural forces such as typhoons, epidemics, fires and droughts (Hartz, 1993). They may also be men or women who have died violently or meaninglessly (Hartz, 1993). Sometimes, they are 'orphan souls', people who have no families to remember them or who have been improperly buried and have no ancestor tablet to keep their memory alive (Hartz, 1993). These unhappy demons roam the world and cause sickness and other hardships. In order to be remembered, they use the forces of nature to draw human's attention (Hartz, 1993).

2.6.2.3 Tao and Human

Taoist ideas inspire a love of Nature (Loy, 1997). Therefore, as a way of life, Tao refers to the way of correspondence between man and the tendency or the course of the natural world (Hao, 2005). In fact, it is thought that human life can flourish only when it is in accord with the nature of Tao (Tao Teh Ching, 2003).

De

When applying Tao to human's life, it is associated with the proper attitude, morality and lifestyle that comprise the ideal society, which is called 'De' (Tao Teh Ching, 2003; Yip, 2006). De literally can be expressed as virtue (Tao Teh Ching, 2003). While Tao is considered as a 'way', De is the active living or cultivation of that 'way' (Tao Teh Ching, 2003). As the Taoists' goal is to become one with Tao (Hartz, 1993; Loy 1997; Yip, 2006), the virtuous persons should act in accord with the Nature (Loy, 1997; Yip, 2006). In this respect, people who have the highest virtue are like children because they are full of unspoiled vigor and vitality, appear simple, and act without ulterior motive (Tao Teh Ching, 2003).

In addition, Laozi stated that there are three basic virtues in Taoism which are named as the three treasures, viz. compassion, frugality and humility (Tao Teh Ching, 2003). Compassion parallels to familial and brotherly love. It is compared to loving others as people love themselves (Yip, 2006). Frugality literally means economy and restraint (Yip, 2006). People who prefer extravagance and extremity, and abandon frugality, will experience inefficiency because they have no resources to help others (Tao Teh Ching, 2003). Humility refers to the refusal to assert active authority (Yip,

2006). It bears the meaning of ‘not dare to be the first in the world’ (Yip, 2006). It is connected to a fear of death out of a love for life, as the Taoists think that people who want to be the first are more likely to expose themselves to the attack of the others (Yip, 2006).

Wu Wei

According to Laozi, human nature is born good and nothing is needed to keep it that way except to be left alone (Hartz, 1993). Moreover, the nature of Tao is non-active but all things will grow and transform naturally (Tao Teh Ching, 2003). To this effect, Taoism advises that a life of non-purposive action helps reunite with Nature and then attains harmony in life (Ma, 2001). That is, as Tao operates impartially in the universe, so should mankind disavow assertive and purposive action (Yip, 2006). It does not, however, mean a life of total inactivity (Yip, 2006). Stated positively, it is a life expressing the essence of spontaneity (Hartz, 1993; Xu, 2006).

Contrary to instrumentally rational action, in which thought precedes and orients action, spontaneous action is not led by pre-identified purposes nor bounded by pre-existing rules or judgmental thoughts (Xu, 2006). In this respect, ‘wu wei’, which is a central concept in Taoism, is especially relevant to spontaneity. Wu wei can be interpreted literally as “....the kind of unpremeditated, non-deliberate, non-calculating, non-purposive action” (Ma, 2001, p.436).

In alignment with Tao, wu wei refers to action through inaction (Hartz, 1993; Yip, 2006). It is depicted that, if people are in an active state of wu wei, they are perfecting the Tao nature and therefore free themselves from the confinements of body and mind (Loy, 1997). In this connection, people’s actions and emotions pour forth freely without the intervention of their own will and subjectivity, thus behaving in whatever natural way the circumstances oblige (Loy, 1997). Hence, in Taoism, happiness results from the effortless involvement that lays one’s trouble aside and let Nature take its course (Csikszentmihalyi, 1991). It is just like the practice of going against the stream not by struggling against it and thrashing about, but by floating and letting the stream do all the work (Lopez, 1996). In terms of leadership, wu wei suggests a ruler rules without ruling, which is similar to a laissez-faire government adopting the non-interference policy (Hartz, 1993).

2.6.2.4 Tao as a State of Mind

As Taoism locates life’s ultimate principle in Nature, it therefore embraces the philosophy that humans should keep their minds simple, pure, primitive and still,

which are seen as analogous with Nature (Hao, 2005; Hartz, 1993; Loy, 1997; Ma, 2001).

To follow Tao, people should purify their mind by tempering the will and detaching the emotions that are in association with the material world (Loy, 1997). This is because worldly desires drain people's energies and obstruct their minds in understanding. Thus, it is necessary for people to put aside concern with externals, such as monetary rewards, fame and praise so as to restore their inner quietude and calmness (Hartz, 1993; Loy, 1997). In achieving this end, people ought to lead a simple life by curbing their wanton and selfish desires (Deng, 1996; Hartz, 1993; Lopez, 1996; Loy, 1997; Ni, 1995).

In fact, the Taoists think that, as Tao is the origin of all things, all abundance is provided by Tao (Ma, 2001; Deng, 1996). If people appreciate this, they will see that they are surrounded by happiness (Deng, 1996). In order to attain this kind of happiness, it is imperative for people to know what is enough (Deng, 1996; Hartz, 1993; Loy, 1997; Tao Teh Ching, 2003). Pragmatically, it is taught, life can be subsisted with minimal support from outside e.g. a bit of food and some shelter, and this kind of simple life is readily available from Nature (Deng, 1996). Hence, the richer are not truly rich and happy if they feel they never have enough in life; however, people are truly rich and happy if they feel they do have enough in life (Deng, 1996; Hartz, 1993; Loy, 1997).

In order to bring inner peace, Taoism admonishes followers to be as yielding and passive as water, in facing the mundane world (Hartz, 1993; Loy, 1997; Park, 2005b). Just like water, "...it is soft and weak, but can move earth and carve stone; it benefits all things, and does not compete with them; it flows in places that others disdain" (Hartz, 1993, p. 63). In fact, to maintain yielding, passive and soft is an art of living attuning to the Nature; thus leading to happiness (Yip, 2006). Thus, Taoism counsels against being ambitious or competitive, since it is against Nature and disrupts harmony with Tao; and consequently, brings failure (Yip, 2006). As Laozi admonished "...fill your bowl to the brim and it will spill; keep sharpening your life and it will blunt; chase after money and security and your heart will never unclench; care about people's approval and you will be their prisoner...." (Hartz, 1993, p. 66). It is argued that the stepping back from the stress of life brings a peace of mind that is a way of coming into greater harmony with Tao (Ma, 2001; Park, 2005a).

In addition, the concept of yin and yang demonstrates the relative unimportance of all things in the world, which in turn helps people to restore the

purity and stillness of mind. Taoism posits that the forces of yin and yang symbolize the unity of Tao; yet, they are in dynamic equilibrium and not permanently fixed (Loy, 1997; Robinet, 1997). Following from this, the Taoists see the things as relative to one another. For example, a cloudy day is yin (dark) when compared to a sunny one; but it is yang (bright) when compared to night (Hartz, 1993). In facing the mundane world, the Taoists attempt to be like Nature itself; as in Nature, everything is constantly changing from yang to yin and back again (Loy, 1997). Hence, in life, there is no absolute good or bad, right or wrong, as everything is relative and may change in time (Hartz, 1993).

Indeed, no one can tell how things may turn out. That is, if one waits long enough, what appears to be good fortune may turn out to be a disaster, and what seems to be bad luck may become good luck (Yip, 2006). Success and failure, wealth and poverty, fame and obscurity all have equal drawbacks (Yip, 2006). Hence, it is beneficial for people to return to the original purity and simplicity of Tao and embrace Tao in their daily life (Yip, 2006). In this way, they can restore and maintain a mind of peace and stillness that affords them an unaffected pleasure beyond the material world, as well as helping balance the disaffections brought about through material desires (Loy, 1997).

2.6.2.5 Tao as Purpose of Life

Taoism teaches that as each human is part of the universe, the physical body is viewed as a microcosm i.e. a miniature model of the universe (Hartz, 1993; Robinet, 1997). This inspires people to adopt a lofty and affirmative view towards human life; and therefore a wish to live intently and happily as long as their life lasts (Hartz, 1993). In this regard, the first life purpose for the Taoists is the pursuit of good health and longevity (Hartz, 1993; Loy, 1997). In order to lead a long and healthy life, the Taoists practise various life-enhancing activities such as exercise, meditation, and healthful diet (Hartz, 1993). Also, they live according to the Taoist principles requiring self-discipline and self-control such as the reduction of excessive material desires that do harm to life (Hartz, 1993; Yip, 2006). It is thought that the longer people live, the greater their chance to achieve perfection in both their mind and body in accord with Tao. If this is achieved, the perfect people will become immortal (Deng, 1996; Hartz, 1993; Loy, 1997; Robinet, 1997).

In this respect, the second life purpose of the Taoists is to pursue immortality and become 'xian', a kind of supernatural existence (Loy, 1997). Taoism views human beings as part of the Nature. Therefore, those people who bring their lives into complete harmony with the natural laws and cycles of the universe should

continue to exist as long as the universe exists (Hartz, 1993). Xian, in Taoism, is an immortal who has achieved perfection in mind and body through devotion to Taoist practices and teachings (Loy, 1997). For example, by means of alchemy and cumulative merit (practical moral behaviour that works for the benefit of others) (Loy, 1997; Robinet, 1997). The attainment of xian can be in both human and heavenly dimensions (Hartz, 1993).

Through such means, the Taoists pursue immortality in the present life with the hope that by the time of death, they will have been physically transformed (Hartz, 1993). Ideally, their immortal bodies will already be present within the shell of the mortal bodies that are visible to others (Hartz, 1993). Another form of immortality is that, after death, people's spirit will depart from the physical bodies and then rise to the heaven (Hartz, 1993; Leung et al., 2007).

2.6.2.6 The Relationship between Taoism and Cognitive Buffers/SWB

The following section reviews the relationship between Taoism and the cognitive factors of perceived control, optimism and self-esteem:

2.6.2.6.1 Perceived Control

For the devout Taoists, it is likely that they will have high level of perceived control through the use of both primary and secondary control, with a view to enhancing the quality of life. Hence, the control techniques that the Taoists employ are likely to be as follows:

Morality, Attitude and Mind

Taoism teaches what morality, attitude and mind (as discussed in section 2.6.2.3 and 2.6.2.4) people should have in order to live in prosperity. In this respect, the proper way of living is achieved through primary control. That is, the Taoists can follow the Taoism teachings such as practising the moral behaviours of de, managing affairs in accord with wu wei, and exercising self-discipline and self-control to curb the desires and purify the mind. Through such means, they can exert control over their quality of life.

Health, Longevity and Immortality

Good health, longevity and immortality are the desirable life purposes that most people strive for. In this regard, Taoism has provided various pragmatic means and activities for people to follow; which are, indeed, primary control techniques pertaining to improve both the mind and body. Some of them are briefly depicted as follows:

Meditation

As each human is part of the Nature, people are born possessing the primal energy and it, in turn, gives rise to three basic elements of human body – vitality, energy (qi) and spirit. It is believed that people should preserve each of these in order to maintain good health (Hartz, 1993; Loy, 1997). Vitality is associated with creativity and basic body functions, including procreation (Hartz, 1993). Energy is the essence of life and is associated with movement and strength (Hartz, 1993). Spirit relates to the consciousness, intellect and spirituality (Hartz, 1993). These three elements must be kept in harmony and balance so as to maintain good health, longevity and immortality (Hartz, 1993; Loy, 1997). Among them, energy is especially important because of its influence on the other two, therefore, the Taoists have developed many activities aimed at controlling and preserving energy (Loy, 1997).

One of these practices is meditation. In the meditative practice, people empty their minds of all thoughts, desires and emotions. They then guide their inner energy smoothly throughout the entire bodies which serve the function of cleansing and replenishing the bodies (Hartz, 1993). In addition, the Taoists believe that meditation helps cultivate wisdom (Loy, 1997). When meditating, people have to purify their minds which enable them to reach a state of mind characterized as still and calm (Loy, 1997). In turn, the will of Nature will be freely observed by the practitioners without any distraction; thus facilitating the realization of the nature of Tao within their own self-nature (Hartz, 1993; Loy, 1997). Hence, the practice of meditation allows the Taoists to be entirely linked up with Tao (Loy, 1997; Robinet, 1997), as well as developing the perfect mind and body for achieving longevity and immortality.

Taiji

Another practice that can control energy is Taiji exercise (Hartz, 1993). It is a system of movement modeled on animals, which helps people control the flow of energy within their bodies. It can strengthen health, dispel physical tension and facilitate finding inner peace, and being in touch with Tao (Hartz, 1993).

Alchemy

Alchemy is an offshoot of the Taoist medical arts. There are both external and internal alchemy that lead to the path of immortality (Robinet, 1997). For external alchemy, the alchemists experiment with all kinds of magical spells and common materials – animal, vegetable and material – as they try to find a way to turn these common materials into gold. The goal of the external alchemists is to produce

a formula for a golden potion, the so-called ‘elixir of life’, that is able to transform human qualities to be transcendent (Hartz, 1993; Robinet, 1997). The Taoists believe that it is essential to achieve total physical and spiritual harmony through cleansing all diseases and impurities inside body, by means of meditation, diet, exercise, the use of herb and other special practices. Subsequently, the final step is to swallow the alchemical golden potion to achieve immortality (Hartz, 1993).

Internal alchemy is practiced in the form of meditation which concerns both mental and physical training (Loy, 1997; Robinet, 1997). Its focus is on energizing and vitalizing the three basic elements – vitality, energy and spirit inside the body, and converting the normal aging process (Robinet, 1997). Through this means, when reaching the highest level of training, the practitioners can achieve physical detachment of spirit from body, which is completely under the control of their mind (W.W. Leung, Priest, the Hong Kong Taoist College, personal communication, June 26, 2008). Internal alchemy is therefore a process of physical and spiritual development for reaching immortality (Hartz, 1993; Loy, 1997; Robinet, 1997).

To conclude, the above practices which are developed out of Tao, are believed by the Taoists to be able to increase their control over life quality through enhancing their health, extending their life and even to the point of immortality. These practices are perceived as a kind of primary control, since by following them, the Taoists are able to shape the realities in synchrony with their life purposes.

Interaction with Supernatural Beings

Tao is believed to be an expression of the continuous interaction of different beings from heaven (deities), earth (demons) and humanity (Leung et al., 2007). The Taoists believe that by means of rituals, they are able to establish relationship with the spirits, which then help to keep their world in order and harmony (Leung et al., 2007). This kind of control is perceived as the secondary vicarious control technique (Rothbaum et al., 1982). Rituals are the formal acts that make up religious observance that is important for the worship of Taoism deities (Hartz, 1993). There are various kinds of rituals; however, they share the common objectives of allowing the Taoists to communicate with the deities who have supernatural power, and petition them for aid in relation to worshippers’ needs, problems and wishes (Hartz, 1993; Leung et al., 2007). Hence, in facing life difficulties and adversities that are perceived as too hard to tackle, the Taoists are not powerless. Given that they can associate with the powerful forces (gods) through the rituals, they can then regain a sense of power. In this regard, some examples of the rituals are cited as follows:

The most important Taoist ritual is the Jiao (Leung et al., 2007). Jiao means

offering to the gods (Hartz, 1993). Jiao is the largest scale ritual that comprises a series of individual rites conducted for different purposes, lasting for at least three days (Hartz, 1993). During the performance, the highest gods of heaven, earth and humanity will be invited by the priests to be present at the ritual (Leung et al., 2007). Human requests are then raised out to them for their assistance, including the enhancement of the welfare of living people, the preservation of the community, the salvation of wandering souls, expelling disasters and misfortunes, and driving away evils (Leung et al., 2007).

Other than Jiao, it is common for the Taoists to hold the ancestor rites with a view to memorizing them, as well as asking for their blessing on health and prosperity (Hartz, 1993). There are also the rites that cover birth and death (Hartz, 1993). For example, a woman who is expecting a child can make offering to a specific deity and ensure a safe delivery and a healthy baby (Hartz, 1993). When a person is dead, the spirit of whom still survives, it then may have to face punishment from the gods for misdeeds on earth. The proper ritual can buy the dead person a reprieve from divine punishment (Hartz, 1993).

The Taoists do not worship demons. However, in order to avoid the bringing of bad luck and hardship, the Taoists try to bargain with them by asking a god to intercede (Hartz, 1993).

In sum, when the Taoists encounter problems that are out of their control; face situations where they can exert no influence; and have wishes that are unrealistic, they believe that there are still some supernatural powers that they can rely on, and appeal to, for assistance. In this connection, the rituals are the religious attempts that permit the Taoists to associate themselves with the powerful forces. In turn, the perception of enhanced control is the outcome of participating psychologically in the control that the deities exert (Rothbaum, 1982).

Overall, the Taoists are believed to have high perceived control which is a result of the combined use of both primary and secondary control. Referring to primary control, the Taoists are provided with a full repertoire of teachings pertaining to the practical ways of enhancing their well-being. In fact, these teachings seems to be all-encompassing to cover a code of behaviour for leading a Taoist life, the principles for developing a Taoist mind, and the means of serving the Taoist life purposes. By following them, the Taoists are able to shape their life and exert control over the quality of their life in line with their desires and goals. As regards secondary control, the devotional activities laid down in Taoism permit people to interact with the other supernatural forces in the universe. It is believed that through the rituals, people can psychologically experience an enhanced control on the environment which results from associating vicariously with the deities.

2.6.2.6.2 Optimism

As optimism has been defined in section 2.3.4.2 as the generalized expectation of positive experiences and outcomes throughout one's life, it is likely that the Taoists are optimistic. In Taoism, an array of resources, which cover the practices for enhancing the quality of mind and body, a wisdom of Nature in coping effectively with the world, the morality comprising the ideal world, and the ways of establishing harmonious relationship with the supernatural forces, are readily available that serve the function of improving human's living. Therefore, it is likely that the Taoists tend to perceive the future to their advantage and for their pleasure.

In conclusion, it is believed that the Taoists will have higher level of perceived control and optimism, which will therefore positively affect their SWB. In fact, the followers of Taoism have claimed that it is a religion that brings happiness to people (Hong Kong Taoist College, 2008).

2.6.2.6.3 Self-Esteem

In Taoism, human is viewed as part of the Nature, it is therefore necessary for the Taoists to make space at the core of their being for Tao to appear in order to be a true self (Loy, 1997). Thus, it seems likely that the Taoists' happiness is not dependent on self-esteem.

The Taoists claim that, in order for the authentic selfhood to be constituted in its correct relation to Tao, people should live in accord with the Nature (Tao Teh Ching, 2003). In this regard, the Taoist self is opposing to the egocentric mentality, and this can be manifested in the morality, attitude and mind of the Taoists. In order to reunite with Tao, people should lead a virtuous life by practising *de*. That is, they need to be compassionate towards the other people and love the others as they love themselves; they should practice frugality so that they have resources to help others; and they ought to be humble and remain behind other people (Yip, 2006). All these virtues require an individual to take others as the first consideration over oneself. Moreover, to follow the will of Tao, people should disavow their self-centered judgment and adopt *wu wei* by acting spontaneously to what the circumstances oblige. Besides, in order to maintain a primitive, pure and simple mind, people should curb their worldly and material desires and concentrate on cultivating emptiness inwardly. In following these arts of living, people can realize their true self and lead a harmony life.

In view of the above, it seems that a flourishing Taoist life necessitates a Taoist self which has no bearing on the ego. Extending this line of reasoning, the Taoists who have higher religiosity, their SWB is believed to be less dependent on self-esteem.

Overall, it is believed that for the Taoists, their SWB is intimately and positively related to perceived control and optimism; however, no close relationship is expected between self-esteem and SWB.

2.6.3 Christianity

In this section, the religious belief of Christianity will be examined, which is followed by the discussion of the relationship of such belief with SWB, through the mediation of the factors of perceived control, optimism and self-esteem.

2.6.3.1 Theology

In Christianity, the theology is in Trinitarian structure – Father, Son and the Holy Spirit (Cole, 1996; McGrath, 1994). That is, God is the Father, Jesus Christ is the Son and the Holy Spirit is the counselor for the believers (Matthew 3:17-17, 28:19; Luke 1:35; John 14:26, 15:26; 2Corinthians 13:14) (New International Version, 2006).

The Bible is the holy scripture of Christianity which is believed to contain the words from God (Collins, 1995; Webb, 2004). Moreover, the Bible is looked upon as the authoritative standard for leading the Christian life (Armstrong, 1993; Collins, 1995; Webb, 2004). The Bible states that “All scripture is God-breathed and is useful for teaching, rebuking, correcting and training in righteousness, so that the man of God may be thoroughly equipped for every good work” (2Timothy 3:16-17).

God is the creator and sustainer of all creatures and things (Cole, 1996; Genesis 1). Hence, He is the owner of everything and everyone on Earth, and has the authority over them (Psalms 24:1). As God is the creator of the world, He is also believed to be omnipotent, omnipresent and omniscient (LaMothe, 2005; 1Samuel 2:3; Psalms 65:6). Furthermore, God is characterized as eternal and immutable, in that He exists before all things (John 1:1), and is the same yesterday, today and forever (Hebrews 13:8). God is also holy as He is without sin, blemish or defect (2Corinthians 5:21; Hebrews 7:26); and is the truth (John 1:14, 14:6; Ephesians 4:21). In addition, God is both perfectly loving (Psalms 145:9; Jeremiah 31:1) and perfectly just (Romans 2:2).

In all the creations of God, only human beings are created in God’s image and likeness (Genesis 1:26-27). Because of this, it is reckoned that they share some common characteristics and therefore some attributes of God can be made known through those of humans (Warren, 2002). For example, both God and men are spiritual beings, and it is supposed that the human spirits are immortal and will

outlast their earthly bodies (Warren, 2002). Besides, God is like men in that He has emotion, too. It is said that God grieves; gets jealous and angry; feels compassion, pity, sorrow and sympathy; finds happiness, gladness, pleasure and rejoice; and even laughs (Warren, 2002). Moreover, God is intellectual; in the same token, humans can think, reason and solve problems (Warren, 2002). God is also relational, this characteristic is in turn reflected in the capacity of human to give and receive love from one another (Warren, 2002). In addition, God has moral consciousness; hence, humans are also able to discern right from wrong (Warren, 2002). In Christianity, all believers think that God is their father and they are His children (Cole 1996; John 1:12; Galatians 3:26, 4:7); other believers become their brothers and sisters (McGrath, 1994); and the church becomes the spiritual family (McGrath, 1994).

In the beginning, the relationship between God and men was good and men were made to live in God's continual presence. In Genesis (1:27-30, 2:7-24), it is mentioned that when God created the ancestors of men – Adam and Eve, He entrusted the care of His other creations to them, appointed them trustees of His property, and gave them blessings for living life to the full. As the Bible says “God blessed them and said to them, ‘Be fruitful and increase in number; fill the earth and subdue it. Rule over the fish of the sea and the birds of the air and over every living creature that moves on the ground’ ” (Genesis 1:28). However, the disobedience of Adam and Eve to God resulted in their ejection from the ideal life of Paradise to a rough existence of pain and toil (Genesis 3:1-19; Romans 5:12-14).

As God is holy, the fall of men therefore broke up the good relationship with God (Romans 3:23). Owing to the sin of human's ancestor, all men become the captive of sin; thus culminating in death. The Bible tells “For the wages of sin is death” (Romans 6:23), and “...just as sin entered the world through one man, and death through sin, and in this way death came to all men...” (Romans 5:12). In Christianity, it is therefore believed that all men are sinners (Romans 9:10) and facing the fatal destiny of death (Cole, 1996). However, thanks to God's loving kindness, He prepared for the salvation of men by sending His son Jesus into the world and dying on the cross, as the remedy for the defilement of sin (Romans 5:8; 1John 4:10). Through Jesus, the broken relationship between God and men was restored (Cole, 1996; John 14:6; 2Corinthians 5:18). Furthermore, the resurrection of Jesus from death symbolizes that human life is now resumed beyond death and is therefore able to enter eternity (John 3:16). According to the religious belief of Christianity, all people can receive this salvation simply by confessing and repenting their sins; believing that Jesus died for their sins; and receiving Him into their heart and life by faith. This decision will then transform their life and bring them into right relationship with God (Romans 10:9).

Upon the acceptance of salvation, the Holy Spirit will enter the believers' life as the inner presence of God i.e. the union of God and the believers (Cole 1996; John 14:16). The Holy Spirit will then work within the Christians and give them the power, love, faith and wisdom to lead the Christian life (Matthew 10:20; Warren, 2002).

2.6.3.2 The Christian Life

2.6.3.2.1 God as the Lord of Life

As men are created by God, He has a plan for each of them, in that every life event, experience and circumstance encountered is designed ahead by God even before they were born. With respect to the religious belief of Christianity, nothing in life is incidental or arbitrary (Warren, 2002). Even before people were born, they are in the care of God. As the Bible informs "This is what the LORD says – he who made you, who formed you in womb" (Isaiah 44:2). For example, God determines ahead the physical features such as colour of skin and hair; the talent and personality; the race and nationality; and the time and place of birth for everybody (Psalms 139:13-16; Acts 17:26). Furthermore, God plans everyday of people's life with precision. Just as the Bible states "All the days ordained for me were written in your book, before one of them came to be" (Psalms 139:16). In fact, even the traumas or sufferings people face are not accidental but planned ahead with the significance of spiritual growth (Streams in the Desert, 2000).

In addition, owing to God's omniscience, He knows about men very clearly including what they are thinking about. As it is stated in the Bible "O LORD, you have searched me and you know me. You know when I sit and when I rise; you perceive my thoughts from afar. You discern my going out and lying down; you are familiar with all my ways. Before a word is on my tongue you know it completely, O LORD" (Psalms 139:1-4); and "...I the LORD search the heart and examine the mind...." (Jeremiah 17:10).

Other than this, in Christianity, it is thought that all the possessions of men, irrespective of the tangible aspects such as wealth and property; or the intangible aspects such as intelligence and competence, are all given by God (Deuteronomy 8:17-18; Matthew 6:11; 2Corinthians 3:5). In this regard, people are only the stewards who are entrusted to take care of God's 'stuff' on earth (Warren, 2002). Hence, people should manage them in accordance with God's will i.e. for the good of other people rather than for their own enjoyment and benefit (1Peter 4:9-10). The Bible says "Now it is required that those who have been given a trust must prove faithful" (1Corinthians 4:2), and "So if you have not been trustworthy in handling worldly wealth, who will trust you with true riches of heaven?" (Luke 16:11).

The Christians believe that at the end of life on earth, people will have to stand before God and to be evaluated according to how well they handled what God entrusted to them (Streams in the Desert, 2000). It has been stated in the Bible that “....For we will all stand before God’s judgment seat....So then, each of us will give an account of himself to God” (Romans 14:10,12). In the judgment, God will reward people for whatever good they do (Ephesians 6:8); and repay those for their detestable practices (Ezekiel 7:3-4).

As God is the lord of life, people need to follow God’s will in order to live in prosperity. This is described by the metaphor of vine and branches as “I am the vine; you are the branches. If a man remains in Me and I in him, he will bear much fruit; apart from Me you can do nothing. If anyone does not remain in Me, he is like a branch that is thrown away and withers; such branches are picked up, thrown into the fire and burned” (John 15:5-6).

2.6.3.2.2 The Meaning of Life

In Christianity, it is believed that God creates men and is the lord of their life. In this regard, it is imperative to understand the meaning of life by making God the central point of reference.

Love

In Christianity, God is love (1John 4:8) and He creates men because of love (Streams in the Desert, 2000). In this relation, people should build their life on this belief by loving one another so as to glorify God. The Bible says “As I have loved you so you must love one another. By this all men will know that you are my disciples, if you love one another” (John 13:34-35). Thus, Christianity teaches that loving others as loving oneself is the standard of love towards the other people, since it has been promulgated in the Bible that “Love your neighbour as yourself” (Galatians 5:14).

As a reification of this teaching of love, the Christians espouse that the utmost manifestation of their belief is to lay down one’s life for the others, just as Jesus laid down His life for men (John 3:16). Moreover, this kind of sacrificial love can be expressed as serving other people (Ephesians 2:10). In fact, God’s purpose of creating people with different talents, skills and abilities is to command them to help and benefit one another. It is told in the Bible that “Each one should use whatever gift he has received to serve others, faithfully administering God’s grace in its various forms” (1 Peter 4:10). For example, if some people are gifted with the capacity of running business and producing wealth, they should realize that this

ability came from God and use it to serve the needs of the deprived unselfishly, rather than for their personal gain and enjoyment (Warren, 2002). Furthermore, it is expected that the love for others not only refers to those who like you, but also covers those who hate you. The Bible says “...Love your enemies and pray for those who persecute you....” (Matthew 5:44).

In short, the meaning of life in Christianity is to learn how to love and live a life of love.

Mission

Another meaning of life for Christians is to introduce people to God and share the religious faith with the unbelievers. It is pointed out in the Bible that “Therefore go and make disciples of all nations, baptizing them in the name of the Father and of the Son and of the Holy Spirit, and teaching them to obey everything I have commanded you” (Matthew 28:19-20). Indeed, the Christians think that this is an important life mission since the Bible states that God will hold them responsible for the unbelievers who live around them. “...I have made you a watchman....so hear the word I speak and give them warning from me. When I say to a wicked man, ‘you will surely die’, and you do not warn him or speak out to dissuade him from his evils ways in order to save his life, that wicked man will die for his sin, and I will hold you accountable for his blood” (Ezekiel 3:27). In this regard, the Christians bear the mission of helping the unbelievers to get the salvation and eternal life. Just as the Apostle John said “...I consider my life worth nothing to me, if only I may finish the race and complete the task the Lord Jesus has given me – the task of testifying to the gospel of God’s grace” (Acts 20:24). Therefore, the followers of God should re-schedule the agenda of their life and accord this missionary commission as the first priority in their life (Warren 2002; White, 1983).

Overall, as God is the creator and lord of life, the meaning of life should inevitably be found in God. Hence, for the Christians, leading a meaningful life is to disseminate the message of love and gospel to the unbelievers, with the view of making a difference in others’ life. In this way, they can magnify the glory of God (Streams in the Desert, 2000).

2.6.3.2.3 Shaping of Life by God

In order to live a life glorifying God, the believers should lead a new life in accord with God's will, it is therefore crucial to have a mind which is characterized by viewing things from God's vision (Ephesians 4:20-23). Thus, people should develop new ways of thinking as follows:

Eternal Thinking

It is known that the worldly definition of the goal of life is usually in terms of power, possession, prestige and position (Warren, 2002). However, the Bible states that all these things are transient and will pass away (1Corinthians 7:31). In fact, life on earth is only a temporary residence (Hebrews 13:14), people will have to enter eternity and face the judgment of God when their earthly life comes to the end (Romans 14:12).

Eternity offers just two choices: one is heaven and the other is hell, and it is the performances of people on earth that determine their eternity (McGrath 1994). That is, if people accept the love and salvation of God, as well as living for His glory, they can spend eternity with God in heaven; otherwise, they will have to endure eternity apart from God in hell (White, 1983). In this regard, it seems that everything people do in life will have eternal consequences. With a hope of entering the everlasting home in heaven, God admonishes people that they should not get too attached to the world due to its brief and temporary nature (Psalms 39:4), but spend the present life as a preparation for the eternity (Streams in the Desert, 2000). As the Bible says "So we fix our eyes not on what is seen, but on what is unseen. For what is seen is temporary, but what is unseen is eternal" (2Corinthians 4:18).

It is also recognized that, living in accord with the worldly standard will make people indulge in material enjoyment and prosperity; thereby turning away from God (Romans 8:7). The Bible informs "No one can serve two masters. Either he will hate the one and love the other, or he will devote to the one and despise the other. You cannot serve both God and Money" (Matthew 6:24). It is reasoned that if people love the world, God is no longer at the center of their life; which, in turn, hinders their living up to God's will. As the Bible points out "Do not love the world or anything in the world. If anyone loves the world, the love of the Father is not in him. For everything in the world – the cravings of sinful man, the lust of his eyes and the boasting of what he has and does – comes not from the Father but from the world. The world and its desires pass away, but the man who does the will of God lives forever" (1John 2:15-17).

Due to these forces, living a life to be shaped by God necessitates the unlearning of conventional values. It is said in the Bible that “Do not conform yourselves to the standards of this world, but let God transform you inwardly by a complete change of your mind. Then you will be able to know the will of God” (Romans 12:2). In achieving this, it is necessary for people to shift from the ‘here and now’ or short-sighted thinking to the eternal perspective so as to lead a life for the glorification of God (Warren, 2002).

Sacrificial Thinking

In Christianity, being the followers of God connotes being the servants of Him (Luke 1:38; 1Corinthians 3:5-9; Ephesians 6:6). In this respect, they should adjust the focus of life from the needs of themselves to those of the others. As the Bible says “...but made himself nothing, taking the very nature of a servant...” (Philippians 2:7), and “each of you should look not only to your own interests, but also to the interests of others” (Philippians 2:4). In this respect, serving others implies self-sacrifice for God, as it is told in the Bible that “...to offer your bodies as living sacrifices, holy and pleasing to God...” (Romans 12:1). In this way, people can live for the glory of God, just like the Bible says “...You are not your own....Therefore honor God with your body” (1Corinthians 6:19-20). In fact, such kind of sacrificial thinking can be expressed in various forms and is pervasive as a teaching in the Bible. Some of the examples are cited in the following as illustration:

Sacrifice means surrendering all one has for God. In Mark (12:42-44), it is mentioned that a poor widow, with no children to support her and no relative to depend on, put in two small copper coins for God, which were everything she had. Though two copper coins were very small, they were her living. In this way, she showed her perfect love to God and considered God was worthy of her sacrifice (Streams in the Desert, 2000). In fact, such kind of surrendering for God not only refers to material possession, but also includes familial or intimate relationship. In this light, the position of God should be prioritized over all the other personal relationships, even to the extent of standing against one’s family members, in an attempt to magnify the glory of God (Luke 14:26).

Other than this, sacrifice means suffering for God (Philippians 1:29). The followers of God are taught to tolerate pain, sickness, problem and difficult circumstances for the glory of God (Warren, 2002). Jesus has set a good example of enduring suffering for the will of God. That is, in facing the imminence of crucifixion for the accomplishment of human salvation, he prayed to God “Father....everything is possible for you. Take this cup from me. Yet not what I will,

but what you will” (Mark 14:36). Also, prophet Moses preferred to suffer physical mistreatment for God than enjoy the pleasure of sin. “....Moses, when he had grown up, refused to be known as the son of Pharaoh’s daughter. He chose to be mistreated along with the people of God rather than to enjoy the pleasures of sin for a short time. He regarded disgrace for the sake of Christ as of greater value than the treasures of Egypt....” (Hebrews 11:24-26).

Sacrifice in its highest form, is the surrender of life for God. For example, in the Bible, it is mentioned that John the Baptist (Matthew 14:10) and Apostle Paul (Acts 20:24) were both martyr for God. Thus, being a servant of God necessitates sacrificial thinking, which thereby requires a mental shift from self-centeredness to other-centeredness.

All-in-all, being the followers of Christianity-God means that people should have their life shaped by God and live their life for God. As a metaphor, it is like taking off the old self and putting on the new self (Colossians 3:9-10). In turn, such kind of renewal of self can be accomplished by developing a mind which is characterized by eternal and sacrificial thinking.

2.6.3.2.4 Building up a Personal Relationship with God

God is a living God (Daniel 6:20). Hence, the Christians think that it is possible to enter into a personal relationship with God (McGrath, 1994; White, 1983). Indeed, as God is the Father as well as the creator and lord of men, it is of fundamental importance for their well-being to establish an intimate relationship, such that their requests, grievances, thoughts and thanks can be communicable to God. In fact, it is believed that the establishment of a good relationship with God will allow one’s life to be filled with peace, prosperity and power (Streams in the Desert, 2000). In this regard, it is suggested that the communication with God can be achieved by means of prayer, reading the Bible, and meditating upon the words of God (Warren, 2000). Moreover, a good relationship should be characterized by the following features:

Faith

Faith is the most essential component for the belief in Christianity (Cole, 1996; McGrath, 1994). In fact, Christianity has been defined as a personal affirmation of faith in God (Kosmin & Lachman, 1993). Fundamentally, becoming a Christian necessitates a personal faith in the belief that Jesus was born for men personally and had accomplished for them the work of salvation. Consequently, this faith enables the believers to unite with God, and makes the benefits of forgiveness

of sin and hope for eternity in heaven available to all people (McGrath, 1994). Also, prayers to God will only be fully answered if they are made in faith (Matthew 21:21-22; Mark 11:24). To this effect, faith can be defined as being sure of what people hope for and certain of what they do not see (Hebrews 11:1). Indeed, it is reasoned that as God is the lord of men, He will have a plan of life designed ahead for every individuals, though this plan is unknown to them (Warren, 2002). Therefore, men should have faith in God, resting on the belief that God loves them and will do the best thing for them (Romans 8:28).

As faith is the cornerstone in the establishment of a relationship with God, He tests His followers' faith by allowing people to go through trials (Streams in the Desert, 2000; Warren, 2002). In this connection, people will be tested by major changes, delayed promises, impossible problems, unanswered prayers, undeserved criticism, and even senseless tragedies (Streams in the Desert, 2000; Warren, 2002; White 1983). The conduct of test of faith by God is intended as the training for spiritual growth, preparing people for the upcoming higher service and the nobler blessings (Isaiah 38:17; Hebrews 12:10). Other than this, there are several lessons that God wants people to learn in going through the trials:

First, people should believe in God's word and power more than they believe in their own feelings and experiences. In facing sufferings, people are in danger of becoming cast down and to lose faith in God. However, the Bible admonishes people that, in encountering adversities, it is important to live on the faith in God and believe that He is the strength and hope, instead of being overwhelmed by their own negative circumstances and emotions (Psalms 106:12-15; Streams in the Desert, 2000). Maintaining faith in God will have pacifying effect and therefore allow people to restore stillness and calm in mind (Warren, 2002). Hence, the faith that is dependent upon visible evidence and feelings is not the one that God wants people to have. In fact, it is stated that "if we remain grovelling on the low ground of feeling and emotion, we shall find ourselves entangled in a thousand meshes of doubt and despondency, temptation and unbelief" (Streams in the Desert, 2000, p.111). The world says 'seeing is believing' but God wants people to believe in order to see (Streams in the Desert, 2000).

Second, people should put the faith in God rather than in themselves. In Christianity, being the followers of God means becoming one with God and living by the faith of God (Galatians 3:20; Hebrews 10:38). This means people have to hand over the sovereignty of life to God and let Him steer their life. As the Bible tells "...that a man's life is not his own; it is not for man to direct his steps" (Jeremiah

10:23). In fact, if people try to intervene in God's plan for them with their own wit and will, it will only disturb the good plan intended by God. It is said in the Bible that "...lean not on your own understanding; in all your ways acknowledge Him,....do not be wise in your own eyes...." (Proverbs 3:5-7). Hence, Christianity espouses that in going through their trials, people should put their confidence in God rather than in themselves (Psalms 118:8). In facing trials, it is believed that only God can lead one in triumph (2Corinthians 2:14) and in a straight path (Psalms 27:110; Proverbs 3:6).

Third, the test of faith produces patience (James 1:3). Patience is important in leading a Christian life. With patience, people's faith in God will not be moved even when they are in the midst of trials; and thereby will not grumble or try to make a way for themselves (Hebrews 6:12; James 1:4). Moreover, it is believed that testing faith will result in strengthening the power of endurance (James 1:2). So, it is thought that faith and patience are just two sides of the same coin, as "faith without patience cannot be considered perfect and complete, patience without faith will be too painful" (Streams in the Desert, 2000, p.121). Besides, the Christians believe that keeping both faith and patience will then bring forth the blessings of God (Job 23:10).

Forth, for those with stronger faith in God, the test of faith will be more drastic (Streams in the Desert, 2000). For those who know God so intimately and put faith in God so utterly, God will arrange the harshest trials for them to get through, which are intended for their higher spiritual maturity, leading more holy life, and shouldering nobler service (Streams in the Desert, 2000; Warren, 2002). However, these devout believers are confided that the highest rewards will then be given to them in eternity (Streams in the Desert, 2000; Warren, 2002; White, 1983).

In short, it is thought that the best way of learning faith is in trial, and the only way of perfecting faith is through trial, too.

Trust

Faith concerns trust in the promises of God (McGrath, 1994). As McGrath (1994) argued, "Faith is not merely believing that something is true; it is being prepared to act upon that belief and relying upon it". Hence, faith includes entrusting ourselves to something. In this regard, it follows that the adherents of Christianity are asked to entrust in the promises of God (Isaiah 50:10). In fact, trust is not simply an occasional attitude towards God, but an undeviating trusting outlook upon life; and a constant stance of conviction of the trustworthiness of the promises of God (McGrath, 1994).

According to Christianity, life is a test of faith (Warren, 2002); however, God has made promises for triumph over tribulations. As the Bible says “In this world you have trouble. But take heart! I have overcome the world” (John 16:33). By such statements, people are reminded of keeping trust in the promises of God, which are hereby depicted as follows:

First is the offer of help. It is stated in the Bible that tribulation is unavoidable for people to enter the kingdom of God (Streams in the Desert, 2000); however, God has assured that He is always with you (Matthew 28:20) and will never leave or forsake you (Hebrews 13:5). In fact, God is ever-present and sufficiently prepared, with everything required for those who ask Him for help (Psalms 46:1, 50:15; Matthew 7:7-8; Hebrews 13:6; 2Corinthians 12:9). Other than this, as God is the truth and justice (John 1:14, 14:6; Romans 2:2, 5:6), people are assured that the help offered or the way led by God is always the most appropriate and morally justifiable. As the Bible states “....He guides me in paths of righteousness for His name’s sake. Even though I walk through the valley of the shadow of death, I fear no evil....” (Psalms 23:3-4). Moreover, God promises that for those righteous people, help will surely be given to them, just as the Bible informs “....no good thing does He withhold from those whose walk is blameless” (Psalms 84:11).

Second, God has a set time for the trial and help. God has a set time for the affliction of ordeal (Nahum 1:12). God likes to use life adversities to teach people precious lessons when He knows there is a need for them. In this regard, God will let the trials continue until He knows that people have learnt the intended lessons e.g. they have stopped being restless and fretful about the difficulties and become calm and quiet; and they have reached a deeper level of spiritual maturity. Once God is sure that His good work is done, the affliction will be taken away (2Samuel 24:16; 2Corinthians 4:17).

Meanwhile, when people ask for help, it is God rather than the petitioner who determines when to offer assistance (Streams in the Desert, 2000). However, delays are not refusals, since God has His own schedule of intervention. As regards the time of offering help, God has reminded people that He will not help in removing the obstacles out of people’s way before they reach them, as God has arranged the difficulties as a kind of spiritual education and therefore wants people to face and benefit from them before help is rendered. Yet when people are on the edge of God’s help, His hand is stretched (Streams in the Desert, 2000). In this regard, people should bear in mind the helping principle of God, in that He will not clear the way,

plain and open, miles and miles ahead of them; indeed, help is only offered step by step. To this effect, people are advised not to worry about difficulties which they foresee in the future (Streams in the Desert, 2000).

Third, no temptation will be beyond people's endurance. For all the temptations that people have to face, God has promised that He himself has already tried all of them before letting people pass through; and therefore He is sure that these temptations are not too difficult for them, and that they can be overcome. As the Bible assures "No temptation has seized you except what is common to man;He will not let you be tempted beyond what you can bear" (1Corinthians 10:13). Moreover, God gives assurance that a way out will be provided so that people can stand the temptation (1Corinthians 10:13).

Forth, there is blessing behind suffering. In the Bible, the lion is usually used as the metaphor for tribulation (1Samuel 17:34). However, God assures that the lion is God's blessing in disguise (Streams in the Desert, 2000). Blessed is the one who perseveres under trial, because when he has stood the test, he will receive the glorious recompense or reward that God has promised (James 1:12). Hence, if people understand the good will of God, and receive the trial in the right way (see the following section on 'Submission' and 'Obedience'), every difficulty can be regarded as an opportunity to receive God's blessing.

With respect to the promises of God, they are built upon four pillars: (1) God's justice and holiness, which will not suffer Him to deceive; (2) God's grace or goodness, which will not suffer Him to forget; (3) God's truth which will not suffer Him to change; (4) God's power which makes Him able to accomplish (Streams in the Desert, 2000). In this context, as people's trust in the promise of help is built on such reliable and powerful base, people can therefore maintain a calm and peaceful mind in facing all kinds of tribulations. As the Bible admonishes "We are hard pressed on every side, but not crushed; perplexed, but not in despair; persecuted, but not abandoned; struck down, but not destroyed" (2Corinthians 4:8-10). Further, the Bible promulgates that people can even consider the tribulations as joy and therefore hail with delight; for they present as the opportunities for bringing larger blessing from God (James 1:2). As a result, the experience of sufferings makes people even more conscious of their dependence upon God.

Submission

In encountering the troubles and problems of life, God always encourages people to submit them to Him by simply taking their hands off the task and leaving

God to work (Psalms 37:5). The Bible describes the way of committing to God is like the relationship between the shepherd and the sheep (Psalms 23:1). In shepherding, the shepherd walks ahead of the sheep, and the sheep only have to follow him and go where they are led (Streams in the Desert, 2000). In the similar vein, God is leading people's life; and for whatever circumstances or events people ought to get through, they only need to follow the lead of God step by step. Thus, people are advised that before they go about any purpose or business, pray to God and acquaint Him with it. Then after they have put the burden on God, step back, and watch the power of God at work in their life such that no more care from them is needed (Streams in the Desert, 2000).

In this way, people can simply go on with their duties diligently, calmly and happily, as God will take care of the rest and will be actively and fully responsible for the outcomes or results (Streams in the Desert, 2000). Furthermore, this committing of way to God must be a continuous act rather than a single one (Warren, 2002), it is only through casting all the cares on God that one can get quietness (Job 34:29). In fact, some Christians are often anxious and fearful about the outcomes of events or the future, and therefore they are unable to keep a peaceful mind. Evidently, it is because they have not left their way with God. They took the burdens to Him but brought them away with them again (Streams in the Desert, 2000).

Meanwhile, it is of particular importance to keep still and calm when facing troubles; otherwise, people cannot hear the answers of God in their prayers (Psalms 46:10). As it is informed "The heart got no response in the moment of its crying – in its thunder, its earthquake, and its fire. But when crying ceased, when the stillness fell....then appeared the long-delayed reply. You must rest, O soul, hide your tempest of individual trouble behind the altar of a common tribulation and, that same night, the Lord shall appear to you" (Streams in the Desert, 2000, p.22).

In sum, a blessed life can be garnered by committing their way to God. That is, they only need to follow quietly behind God, their shepherd, one step at a time. In this way, people are no longer anxious to see far in front, nor eager to choose the path, and not weighted with the heavy responsibilities of the future (Streams in the Desert, 2000).

Obedience

As God is the creator and lord of life, He always understands humans more than they understand themselves (Warren, 2002). Moreover, as God is love, He always acts in people's best interest; even when letting them go through temptations

and trials, for He knows they are best for their growth (Hebrews 5:8-9). Hence, people should always be obedient to whatever God plans and arranges for them, which will subsequently lead to a flourishing life (John 15:9-11).

The extent of obedience that God required of His followers is up to an utmost standard. That is, in facing the severest tribulation that ordinary people cannot stand, they still have to obey God and follow Him out of gratitude, instead of sighing, for what God has done for them. However, God assures His followers that even they do not realize now what He is doing, later they will understand that all are done for their good (John 13:7). As it is mentioned “....She is not dismayed nor discouraged by any circumstances through which I arrange that she shall pass....When sense and reason and every finer instinct of the natural heart would rebel; - because she knows that I am working in her for eternity,....and that what I do, though she knows not the explanation now, she will understand hereafter” (Streams in the Desert, 2000, p.64). In this relation, it is advised that people should not run hither and try to find some ways of escape out of the trials that God has put them; otherwise, God can no longer do anything for them and, instead, their escaping effort will be in vain if violating the divine providence (Streams in the Desert, 2000).

Love

God loves men (Psalms 145:8-9), even to the extent of sacrificing His son Jesus for their salvation (Romans 5:8); hence, human should love God in return (1John 8:7-8). In fact, this is expressed as the greatest commandment in Christianity. “Love the Lord your God with all your heart and with all your soul and with all your mind” (Matthew 22:37). In this regard, the kind of love God wants from human is a full devotion of their life to Him.

Awe

The Bible informs people that they should worship God with awe (Isaiah 51:10; Hebrews 12:28) because God has the authority to judge and repay all people according to their conduct (Ezekiel 7:4). Moreover, God will do good to those who fear Him. As the Bible says “....They will always fear Me for their own good and the good of their children after them. I will never stop doing good to them, and I will inspire them to fear Me, so that they will never turn away from Me” (Jeremiah 32:39-41). In expressing an awesome attitude towards God, people should not have any other gods (Exodus 20:3); shun the evil things (Proverbs 3:7); and be humble (Proverbs 3:5 & 7).

Praise and Thanks

In response to the love and goodness God does to men, people should reciprocate with praise (Psalms 103:2; Isaiah 43:21; Hebrews 13:15) and thanks (Psalms 116:12-13; Ephesians 5:20; Hebrews 12:28). In fact, praise and thanks should be given to God under all circumstances (1Thessalonians 5:18); that is, not only in good fortunes but also in adversities (Luke 6:23), because even for the misfortunes, they are out of God's good will and promised with reward (2Corinthians 12:22-24).

Pleasing God

As God is the creator and lord of men, pleasing God is the goal of human's life (2Corinthians 5:9; 1Thessalonians 2:4, 4:1). So, what is meant by pleasing God? In the Bible, it means that people should do the will of God from their heart and serve wholeheartedly (Ephesians 6:6-7). Meanwhile, in order to please God, it is also necessary to find out what things please God. In this regard, the Bible mentions that God will be pleased if people invest faith in God (Hebrews 11:6); trust His promises (Psalms 147:11); let Him in charge of their life (Psalms 37:23); obey His order and arrangement utterly without scrutiny (John 14:15); love Him supremely (Hosea 6:6); worship Him with fear (Psalms 147:11); and praise and thank God in return for His love (Psalms 69:30-31). Hence, in pleasing God, it is imperative to establish a relationship with God, the nature of which is in compliance with the relational characteristics as discussed so far in this section.

Overall, in leading a Christian life, it is necessary to place God in the center of life, which thereby carries the implications that one should frame the meaning of life from God's will; renew the mode of thinking in accord with God's vision; and build up a personal relationship with Him.

2.6.3.3 The Relationship between Christianity and Cognitive Buffers/SWB

Subsequent to the account given on the religious belief of Christianity, the way it relates to the cognitive factors of perceived control, optimism and self-esteem will now be described.

2.6.3.3.1 Perceived Control

As discussed in section 2.3.4.3, in accordance with the model of Rothbaum et al. (1982), there are four forms of secondary control – predictive, vicarious, illusory and interpretive control. In line with this model, the secondary control techniques that are mainly taught in Christianity are those of vicarious and interpretive control. These are examined as follows:

Vicarious control is the attempt to associate oneself with the powerful others, such as deities, so as to participate psychologically in the control they exert (Weisz et al., 1984). Hence, it seems that in Christianity, this technique may be in use when people feel powerless in facing the plight of sin, death and tribulation.

According to the view of Christianity, human life has two intrinsic predicaments, sin and death, that people are unable to change out of their own ability. Due to the sin of men's ancestors, all people become slaves of sin (Romans 5:12). The sinful nature of men makes them incapable of resisting the forceful influence of sin on them. The bible says "As it is, it is no longer I myself who do it, but it is sin living in me. I know that nothing good lives in me, that is, in my sinful nature" (Romans 7:17-18). Because of this intrinsic character, people cannot control themselves freely and do the good that they intend or desire; but act in the evil way (Romans 8:19-20). Hence, in the mind of humans, there seems to be a struggle that undergoes continuously between good and evil, and is uncontrollable by their own will or capacity (Romans 8:21-23). Given that the sin of men falls short of the glory of God and breaks their relationship with God (Romans 3:23); men are destined to death, and after body death, their souls will be separated eternally with God in heaven (Romans 7:13).

In light of the above, it seems that the Christians' vision of humans is pessimistic. However, as God loves men, He therefore wants to save them by preparing the salvation, through the sacrifice of His son's life – Jesus Christ for men (Romans 5:8). The death and the subsequent resurrection of Jesus symbolize defeating the evil and wickedness upon which the sin of men is forgiven and death is conquered (Cole, 1996). Indeed, the salvation accomplished by Jesus is the only one that God offers to save humans (Acts 4:12). By accepting the salvation and receiving Jesus into their life as lord, men can restore the relationship with God (John 14:6; 2Corinthians 5:19). In this way, the believers can enter the eternity and stay with God happily in heaven when their earthly life comes to the end (Jude 1:21).

Furthermore, by letting Jesus entering into their life, He will then ask the Father – God, to give each of the followers a counselor – the Spirit of Truth that lives inside them forever (John 14:15-17). It is posited that the holy nature of the Spirit of Truth is in conflict with the sinful nature of men (Galatians 5:17). So, when people live by the Spirit, they will no longer gratify the desires of their sinful nature (Galatians 5:16). Hence, with the Holy Spirit working on men, sin becomes powerless within them. In fact, the Bible informs that for those who belong to Jesus, their sinful nature will also be crucified along with Him (Galatians 5:24); as a result,

the fruit of the Spirit such as love, joy, peace, patience, kindness, goodness, faithfulness, gentleness and self-control will be borne within humans (Galatians 5:22). Thus, it seems that by becoming the followers of Jesus and with the guidance of the Holy Spirit, people can acquire the character strength which they are lacking.

In the framework of this understanding, it seems that in facing the fatal destiny of sin and death, there is still one way humans can escape eternal damnation for their sins. This is, by subordinating to and associating with God, people are able to escape from their powerlessness and derive a perception of vicarious control which permits them to regain a sense of control over their life and the future.

In addition, when Christians encounter life adversities that are out of their control or beyond their means to tackle, they can appeal to God; as He is the living God (Daniel 6:20), as well as a reliable, abundant and generous source of help that is readily available to humans (Psalms 84:11; Streams in the Desert, 2000). The followers can obtain vicarious control by subordinating themselves to God. All they need to do in garnering such assistance is simply to exercise their faith and trust in God's power and promise; and to be obedient and submissive to His plan and arrangements (Streams in the Desert, 2000). In this way, they can psychologically regain control of any adverse situations, as well as gaining the strength and confidence for living, that result from associating vicariously with the all-powerful God.

This belief that they are in control should promote the psychological well-being of the believers. That is, in facing unfavourable circumstances, they should be more restful (Mark 11:28-30); less fearful (1John 16:33); less anxious and worried (Proverbs 10:22; Matthew 6:25-33); more peaceful (John 16:33; Philippians 4:7); and more joyful (John 15:11; Philippians 4:4). As the Bible says "My heart is glad, and my soul rejoices; my body also dwells secure" (Psalms 16:9).

A second form of secondary control is accomplished by searching for the meaning of the events, which is termed interpretive control. It is postulated that human beings have the internal or dispositional tendency to make sense of all phenomena; otherwise, they feel unsatisfied and uncomfortable (Vaughan & Hogg, 2002). Thus, interpretive control is a cognitive attempt to modify people's views of the otherwise uncontrollable situations and thereby effect a better fit with the realities (Rothbaum et al., 1982; Weisz et al., 1984). Hence, Christianity provides the interpretative framework for understanding some fundamental questions of life for which people need answers:

First, there is the issue of the existence of humans. Christianity explains that humans are alive because God created them, and God has a plan of life for every person. Also, the earth is not the home of men; life on earth is just a preparation for the eternity, in that the deeds of this life are the destiny of the next.

Second, people need an answer regarding the meaning of life. As God is the creator and lord of life, humans should live for the glory of God. Thus, the meaning of life is to disseminate the message of love and gospel to other people. In achieving this, serving is the highest use of life and the missionary commission is the primary concern.

Third, people want to know the significance of suffering. As God has a plan for every person and the meaning of life is service and mission, all ordeals or tribulations are, indeed, planned by God as their spiritual education so as to equip people for their ministry to others. That is, the experiences that the believers resent or regret most in life are the experiences that God wants them to use to help others. Thus, it is the ministry to share the memory of painful experiences with others by telling how God's grace helped them in their weakness. In this way, the believers can console and encourage other people; help them know about God; and magnify the glory of God (2Corinthians 1:3-4; Streams in the Desert, 2000). However, God has assured the believers that their sufferings are little when compared with His reward promised in heaven (Romans 8:18-20; 2Corinthians 4:17).

Through such understanding and by deriving meaning for life and life events, believers are allowed some degree of secondary control, in the form of better accepting the situations and enhancing their satisfaction with them (Rothbaum et al., 1982).

Apart from the vicarious and interpretive control as discussed above, there are another two forms of secondary control techniques; namely, predictive and illusory control (Rothbaum et al., 1982). However, these are incompatible with the Christianity religious belief; thus calling into question their suitability to be used by followers.

Predictive control refers to the attempt to accurately predict events and conditions so as to control their impact on self e.g. to minimize uncertainty and discomfort (Weisz et al., 1984). However, in Christianity, only God is omniscient and knows everything (1Samuel 2:3). In fact, God has a plan for each person, in that every life event, experience and circumstance encountered is designed ahead with precision by Him (Warren, 2002). In this context, the use of predictive control

implies placing oneself in the position of God, which is a challenge to His supreme authority.

Illusory control, on the other hand, is the attempt to associate or get into synchrony with chance so as to enhance comfort with and acceptance of one's fate (Weisz et al., 1984). As Christianity believes that God is the lord of creatures and planner of human life (Warren, 2002), it therefore follows that fate and chance will be ruled out as the determinants of life.

To conclude, the Christians mainly enhance their perceived control by means of aligning themselves with God and cognitively re-evaluating their life situations, through secondary control involving vicarious and interpretive techniques. They are much less likely to use predictive and illusory control techniques, since these are against the supremacy of God's position and power over humankind. Thus, only some kinds of secondary control are predicted to be effective for the Christians.

2.6.3.3.2 Optimism

As discussed in section 2.3.4.2, optimism is defined as the perception that the future will be to the perceivers' advantage or for their pleasure. In this respect, it is likely that the Christians are more optimistic as the acceptance of God's salvation gives them the hope of overcoming sin in present life and entering eternal heaven in the future. With regard to what it is like in eternity with God, the Bible says "No eye has seen, no ear has heard, no mind has conceived what God has prepared for those who love him" (1Corinthians 2:9). Hence, though it is beyond the capacity of human brains to understand what heaven is like, it is assured that it is surely a place of wonder and greatness; and is therefore likely to enhance the optimism of the believers. Besides, the reliance on God will help to increase their strength and confidence in tackling adversities, which then facilitates the release of negative emotions such as fear, anxiety and worry, as well as promoting the feeling of hope. Based on their belief in God, they are able to transcend their present predicament and envision the blissful future (Luk, 2007). In short, for the Christians, it is believed that God gives them hope and therefore they should always look to the unknown future with full hope (Psalms 23:4; Matthew 28:20).

Another reason for the Christians to be more optimistic pertains to the explanations that Christianity offers for the meanings of life and life events. Christianity gives advice to its followers on the ways for leading a meaningful life. As every behaviour is motivated by a thought, it is therefore necessary to have a new mind in order to live for the glory of God. In this connection, the followers of God

are advised to abandon the contemporary ‘here and now’ and self-centered mentality, and shift to the new ways of thinking i.e. eternal and other-centered thinking.

In this light, it seems that Christianity teaches people the meanings of life, as well as how to live a meaningful life. Clearly, God is of utmost importance to them, in that they should live their life for God and put Him in the center of life. Hence, without God, their life has no meaning; and without meaning, life has no significance and hope.

In summary, it seems that in Christianity, God can be understood as the coping resources for promoting the level of optimism, which then enhance the believers’ resilience to the stresses of life; and subsequently lead to higher SWB.

Overall, it is likely that the Christians will have higher levels of perceived control and optimism, which, in turn, positively affect their SWB. Perhaps not surprisingly, it has been empirically demonstrated that the religiosity in Christianity is positively correlated with SWB (Barkan & Greenword, 2003; Daaleman, 1999; French & Joseph, 1999; Rule, 2007).

2.6.3.3.3 Self-Esteem

It is generally agreed that a prosperous and meaningful life is directed by an appropriate value system of life. In Christianity, as it is believed that God is the creator and lord of life, the values of life should therefore be derived from God. Hence, to be a Christian, it is imperative to replace the contemporary social values with those values laid down in the Bible. In this respect, it is believed that the SWB of Christians does not rely on self-esteem, which is elaborated as follows:

Becoming the followers of God implies the humble state of being the servant of God (Luke 1:48), and at the core of servanthood is the requirement of self-denial. As the Bible says “If anyone would come after Me, he must deny himself and take up his cross daily and follow Me” (Luke 9:23). To this effect, Christianity’s belief system is characterized as self-abnegation (Parker, 1994; Waters, 1987). In this respect, the Christians need to put down the conventional values of wealth affluence and material enjoyment. In turn, they have to put up the new values of loving others as oneself, and sacrificing oneself for helping and serving others. These latter values necessitate the shift of thinking from self-centeredness to other-centeredness, which thereby runs counter to the egocentric mentality.

Moreover, Christianity supposes that all men are sinners from which they had

been mercifully redeemed by Jesus; this concept of sin tends to lower the feeling of self-esteem of the believers (Steinfels, 1997).

Meanwhile, individuals seem to have pride in themselves. Pride is produced by the sense of self-worth and enables individuals to obtain pleasure or gratification from thinking highly of themselves (LaMothe, 2005). However, in Christianity, pride is condemned as a vice or sin by virtue of the fact that it is in a sense incompatible with its religious faith (LaMothe, 2005). According to the Christianity's belief, God is the owner of everything and everyone on earth (Psalms 24:1). Therefore, humans never really own anything during their brief stay on earth. God just loans the properties to people while they are here, God will loan it to someone else after they die. Hence, people just get to enjoy them for a while (Warren, 2002). In the similar vein, God has given every person some special abilities mainly for the aim of helping and benefiting one another, rather than for selfish purposes or boasting of oneself (1Peter 4:10). Hence, if people fail to recognize these conditions of human existence and do not accept their dependence on God, but think that what they possess is completely a product of their own ability, it is a sin i.e. a prideful rebellion against God (Baasten, 1986; Schweitzer, 2000). In fact, the esteem and satisfaction one might feel in a given accomplishment is misguided unless it is referred back to God (Important-For the right reasons, 1996).

In sum, Christians have to adopt a value system with God placing at the center of their life. Thus, the standard for judging self-worthiness tends to have no bearing on ego (Important-For the right reasons, 1996). The esteem of Christians is grounded not in what they do or who they are; but in God, and whether they have fulfilled what God wants them to do. Hence, for the Christians with stronger religious belief, self-esteem is less instrumental in realizing happiness.

2.6.4 Summary

With respect to the three religious beliefs – Buddhism, Taoism and Christianity, it is believed that all of them will be related to individuals' SWB, which is supposed to be mediated by the influence of perceived control, optimism and self-esteem. Pertaining to perceived control, it is likely that it will have a close and positive relationship with SWB for the three religions. As regards the types of control to be used by the religious adherents, the Buddhists are expected to adopt only the primary control; whereas the Christians are reckoned to use solely the secondary control of vicarious and interpretive techniques. For the Taoists, it is believed that both the primary and secondary vicarious control techniques will be employed. Concerning optimism and SWB, an intimate and positive relationship is

believed to exist between them for all of the three religions. However, regarding self-esteem, it is argued that the higher the religiosity of the adherents, the lower will be their reliance of SWB on self-esteem for the religions in question.

2.7 Empirical Studies Regarding the Positive Relationship between Buddhism, Taoism, Christianity and Individuals' Well-Being

In section 2.6, it was discussed how the three religions – Buddhism, Taoism and Christianity may affect cognitive factors, and in turn influence SWB. In support of a positive relationship between the three religions and humans' well-being, some empirical studies will be examined as follows:

Buddhism

The concepts of impermanence and selflessness are important Buddhism teachings. Human suffering arises when attempts are made to preserve and intensify self-satisfying experiences that are naturally transitory in nature. Hence, the recognition of 'no self' has the liberating effect because it frees people from the constant distress inherent in clinging to an egocentric identity construction (Harvey, 1990; Rahula, 1974). In this connection, it is found that the Buddhists have higher sense of liberation, increased personal control and equanimity (Goldstein, 1993; Kabat-Zinn et al., 1992; Kornfield, 1993), which is hypothesized to be the outcome of relinquishing the self-centered cravings.

Other than this, there is supportive evidence for the positive psychological effects of Buddhist meditation. Vipassana meditation is one of the oldest forms of Buddhist meditative practice which consists of the mindful observation of whatever arises in consciousness. It is believed that sustained awareness of cognitive and sensory phenomena will lead to the realization that unnecessary sufferings result when attempts are made to attach to anything within the impermanent flux of human experiences (Bucknell & Stuart-Fox, 1993; Janakabhivamsa, 1995; Nyanaponika, 1988). In this relation, empirical evidence has shown the positive effects of Vipassana meditation on self-concept and unconscious ego defense mechanisms. In a study conducted by Emavardhana and Tori (1997), about 200 Thai teenagers participated in a 7-day Vipassana meditation retreat and were engaged in the 'deconstruction of the self' by paying close attention to the transitory nature of their self-representations. When the results on self-concept and the use of defense mechanisms were compared with those of the non-treated control group, it is found that the meditation participants showed an increase in the feelings of worth, benevolence, and self-acceptance. At post-testing, the participants were less affected by external stimuli and sexual impulses than those in the control group. Moreover,

the unconscious coping mechanisms were altered i.e. the meditation group was less likely to use the defenses of displacement, projection and regression after the retreat. It is therefore argued that the transcendence of self-centeredness is important for the development of healthy self-concept and, in turn, beneficial to psychological well-being.

In Buddhism, real happiness is considered to be the attainment of Nirvana. Nirvana is an inner state of equanimity which is absent of negative affects and emotions (Thurman, 2005); and such kind of happiness is independent of the external circumstances and mainly attained by enlightenment (Bonadonna, 2003; Thurman, 2005). Thus, mindfulness meditation, which is the most common meditative-based technique practised by the Buddhists, can help people to attain this enduring state of well-being (Bonadonna, 2003; Emavardhana & Tori, 1997).

Mindfulness meditation concerns the detailed observation of inner experiences that consists of observing internal physical mechanisms (breathing, heartbeat and digestion), and the contents of one's mind (thoughts, sensations, imagery and emotions) (Bonadonna, 2003; Brown, 2004; Ekman et al., 2005), which thereby permit the Buddhists to identify how the afflictive mental states and negative emotions arise, how they influence themselves, as well as to monitor these negative influences so as to restore tranquility (Bonadonna, 2003). In fact, much clinical evidence has demonstrated the positive psychological effects of mindfulness meditation (Bonadonna, 2003; Brown, 2004; Ekman et al., 2005; Flanagan, 2003; Katz, 2000; Thurman, 2005). For example, there is evidence supporting mindfulness meditation as effective for anger control (Katz, 2000; Speca et al., 2000). Besides, Flanagan (2003) has provided neuroscience evidence to substantiate the well-being of the practitioners of the Buddhist mindfulness meditation.

In neuroscience, scanning techniques are used to study the brain in action. It is known that two main areas of brain are implicated in emotion, mood and temperament. The amygdala and its adjacent structures are the triggering machinery that deals with fear, anxiety, surprise and anger. Another area of interest is the prefrontal lobes, which not only play a major role in foresight, planning and self-control, but which are also implicated in emotion, mood and temperament. It is found that the activation of the left prefrontal lobes indicates positive emotion and good mood, whereas the activation of right prefrontal lobes denotes negative emotion (Flanagan, 2003; Goleman, 1996).

It has also been reported that the left prefrontal lobes of experienced Buddhist

practitioners are consistently active, rather than just during meditation (Flanagan, 2003; Goleman, 1996). The experienced Buddhist meditators are less flustered, shocked or surprised than the ordinary people when they are stimulated by unpredictable sounds, and that their amygdalas are more becalmed (Flanagan, 2003). Also, the Buddhists reported experiencing less anger than most people (Flanagan, 2003; Goleman, 1996). Hence, it seems that the Buddhist training can change the way the brain responds, most importantly with negative emotions, to certain environmental triggers; thus reducing the vulnerability to outer circumstances.

Furthermore, drawing on empirical studies, it is reported that the Buddhist mindfulness meditation has the positive psychological implications of decreasing stress (Kabat-Zinn, 1990; Kaplan et al., 1993; McCain et al., 1996; Specia et al., 2000; Tsai & Crockett, 1993); reducing anxiety (Eppley et al., 1989; Kabat-Zinn et al., 1992; Miller et al., 1995; Pearl & Carlozzi, 1994; Shapiro et al., 1998; Smith et al., 1995; Specia et al., 2000; Taylor, 1995); relieving depression (Miller et al., 1995; Randolph et al., 1986; Smith et al., 1995; Specia et al., 2000; Teasdale et al., 2000; Williams et al., 2001); alleviating distress (Shapiro et al., 1998); increasing level of empathy (Shapiro et al., 1998); and enhancing positive mood (Taylor, 1995). Further, Bonadonna (2003) has empirically demonstrated that stress, depression and anxiety occasioned by chronic illness (e.g. cancer) can be reduced through mindful-based meditative intervention.

Other than these favourable psychological effects, the Buddhist mindfulness meditation is coupled with health implications. It has been shown to be effective in relieving pain (Howell, 1994; Kabat-Zinn et al., 1985; Kabat-Zinn et al., 1986) and reducing the use of health care resources (Herron & Hills, 2000; Orme-Johnson, 1987; Roth & Stanley, 2002).

In view of the above, the positive physical and psychological implications of the Buddhist teachings are empirically corroborated.

Taoism

The Taoists claim that their religion brings happiness to humans (Hong Kong Taoist College, 2008; Liao, 1989). The ways that the teachings of Taoism enhance the well-being of individuals are depicted as follows:

The philosophical thinking of Taoism constitutes its distinct perception of health as well as the unique means of promoting health. The Taoists believe in the idea that 'Man models himself on earth, earth on heaven, heaven on the way, and the way on that which is naturally so' (Chen, 1996). Hence, human beings should be in

harmony with Nature in order to benefit their health. In this relation, Chen (2001) argued that it is good for people to walk and exercise out-of-doors because being with Nature gives them peace of mind and that breathing deeply of fresh air promotes health. Moreover, as Nature provides the elements necessary for one to live, it is therefore necessary for people to modify themselves and fit with the natural rhythms of the universe so as to achieve health (Chen, 2001).

In Taoism, the universe is viewed as the working of Yang and Yin (Chen, 2001; Shin, 2001; Tao Teh Ching, 2003). Given that human is part of the universe, human life is considered to be the circulation of Yang and Yin (Shin, 2001). In this respect, the notion of maintaining balance of these two forces is central to the health belief. The Taoists think that health is viewed as harmony between the forces of Yang and Yin within and between the body and its environment. Illness, in contrast, is an imbalance or disequilibrium of these powerful forces (Chen, 2001). For example, illness is caused by imbalance of qi (energy) inside the body and the forces that elicit the imbalance can be in the forms of climatic invasion (wind, cold, heat, dampness and dryness); poor diet and living habits; or internal excess or lack of the seven emotions (anger, joy, worry, pensiveness, sadness, fear and shock) (Chen, 2001; Shin, 2001). Thus, humans should spend a living conforming to the harmony or balance of life rhythms (Shin, 2001).

In Taoism, qi is both the source of life and the energy circulating in human body (Yang, 1994). Qi is highly related to health; hence, there are many activities and practices that aim at strengthening it. Acupuncture and massage are the qi-promoting techniques (Shin, 2001; Chen, 2001). For acupuncture, a fine needle is used to stimulate the movement of qi so as to restore a balance of yang and yin inside body (Hartz, 1993). It aids a person's curative power and relieves the stress and anxiety associated with pain, discomfort and nausea (Wang & Kain, 2001). Moreover, asthma and allergies, which are the prevalent health problems in Mainland China and Taiwan, are frequently treated with by acupuncture (Ziment & Tashkin, 2000).

In a similar manner, massage is used for maintaining good health and curing disease by helping the circulation of qi through the body's energy routes. For instance, rubbing the nose stimulates the gateway of breathing, and rubbing the forehead and eyes stimulates the brain (Shin, 2001). Furthermore, other methods that can preserve qi are: (1) Talking too much drives qi away, one should therefore lessen words to cultivate internal energy. (2) Controlling sexual desires can also serve the function of preserving and cultivating qi. (3) Avoiding taking food excessively can

cultivate the energy of the blood. (4) Swallowing the saliva is able to cultivate qi of the body. (5) Controlling the temper can cultivate qi of the liver. (6) Being cautious in choosing and eating food can cultivate qi of stomach. (7) Avoiding overstraining the nerves can cultivate qi of the mind (Shin, 2001). In short, the balance of qi is crucial for promoting health and preventing illness.

In view of the above, the Taoist belief concerns nourishing life, and thereby makes it possible for people to have a longer life (Lai, 2004; Liao, 1989). The Taoist thinking also helps relieve the stress of facing death. In a study conducted on a sample of elderly Taiwanese people, their view that life is a part of the Nature and therefore should follow the course of Nature, has been proposed as due to the influence of Taoism, which in turn enables them to be more easily accept their own death in the future (Hsin & Macer, 2006).

Furthermore, Taoism encourages people to keep a peaceful and pure mind, which is analogous with Nature (Hartz, 1993; Ma, 2001). In fact, embracing a mind of peace and purity is advantageous for improving psychological well-being. As Shin (2001) has found, caring too much scatters one's mind, worrying too much makes one's mind uncomfortable, and excessive greed throws the mind into confusion. Moreover, people should control their emotions, as getting angry frequently will weaken the mind and having excessive pleasure will cause disorder, too (Shin, 2001). Hence, people should endeavor to maintain a peaceful mind and avoid excessive mental activities and emotional reactions which are harmful to their well-being.

In sum, the Taoism thinking is contributory to the well-being of humans through improving health and longevity, reducing stress in facing death and keeping a mind of peace.

Christianity

A host of research studies provides support that Christianity exerts a positive influence on life satisfaction, physical and mental health. The empirical evidence concerned is as follows:

Religious involvement in Christianity is demonstrated to be associated with improved physical health (Hummer et al., 1999; Idler et al., 2003; Ironson et al., 2002; Kim & Seidlitz, 2002; Laubmeier et al., 2004; Powell et al., 2003). Prayer for health is common in Christianity (Masters, 2005; Masters & Spielmans, 2007). In fact, there is evidence indicating that prayer is a commonly adopted health

intervention or therapeutic practice in many countries (Edman & Koon, 2000; Samana et al., 2004; Tracy et al., 2005). Regarding its positive effect on health, the possible explanation is that, for both prayer for self or prayer for others recognized by patients, they serve the function of providing social support, increasing hope or decreasing anxiety. These, in turn, may influence the biological processes via recognized psychoneuroimmunological pathways, thereby exerting positive influence on health (Masters & Spielmans, 2007).

Other than the beneficial health outcome, praying to God is viewed as benign to the general well-being of Christians. For example, Neighbors et al. (1983) found that prayer is an effective coping device in dealing with serious personal problem. Moreover, Poloma and Pendleton (1991) showed that those individuals who, during prayer, reported experiencing an interaction with God or increased sense of peace had higher level of well-being. higher level of well-being (McCullough & Willoughby, 2009).

In addition to the positive health outcome occasioned by prayer as discussed above, research has demonstrated a significant positive relationship between spirituality and cardiovascular health as well as positive outcome of cancer treatment (Powell et al., 2003). It may be that spirituality mediates the perception of stress (Maynard et al., 2001), and the symptoms of depression (Ai et al., 1998; Idler & Kasl, 1992; McIntosh et al., 1993; Smith et al., 2003) and anxiety (Young et al., 2000); thus leading to the beneficial health outcome.

There is also much evidence for a positive link between the religious belief of Christianity and mental health. For example, a study conducted by Mann et al. (2008) on the relationship between religiosity/spirituality and reduced anxiety of the pregnant women in Southern U.S., six constructs of religiosity and spirituality were measured. After using social support as a covariate, self-rated religiosity, self-rated spirituality and participation in non-organizational religious activities were significantly associated with reduced anxiety. In a similar vein, Williams et al. (1991) reported that religious attendance appeared to reduce the impact of stressful life events on psychological distress. Also, women with breast cancer (Feher & Maly, 1999; Price et al., 2007) and women with high-risk pregnancies (Simon et al., 2007) have identified spirituality and/or religiosity as important aspects of their coping with these stressors.

In the light of the above correlational studies, the linkage between Christianity and positive psychological or mental consequences may lead to the interpretation that the Christianity-God can be understood as a coping resource for

individuals. That is, when the believers are in deprived or desperate situations, the belief in an all-powerful God can help to enhance their perceived abilities to wrestle with life adversities. Indeed, converging evidence has revealed that the belief in a powerful God which is able to exert ultimate control over life, can serve as a coping resource for human (Barbarin, 1993; Mann et al., 2008; Pargament, 1997; Park, 2005a). This, in turn, helps to mitigate negative emotional reactions such as anxiety, stress and distress occasioned by the negative life circumstances.

Furthermore, Christianity-God as a coping resource can be manifested in another way. That is, the belief in God as the creator and lord of life provides the believers an interpretive framework for understanding the meaning and purpose of life. In this regard, some findings indicate that the positive correlation between religiosity and life satisfaction is, indeed, influenced by some mediating factors. For example, Daaleman (1999) has found that the interpretative framework of the Christianity belief provides the adherents with a system of meaning and existential understanding that in turn accounts for the greater sense of SWB. Moreover, French and Joseph (1999) found that the positive association between religiosity and SWB is a function of purpose in life, in that the adherents have to live their life fully for God.

From all these, it is likely that the Christianity-God acts as a kind of coping device for the believers which can promote their perceived control and give them hope; it thereby enhances their resilience to the stresses of life and, subsequently, leads to higher SWB.

Apart from the function of coping device, McCullough and Willoughby (2009) recently has also offered an alternative explanation for the linkage between Christianity and well-being, in that the high moralistic standard required by the religious teachings can foster self-regulation and self-control, which in turn explain the followers' better health condition (e.g. longevity and less depressive symptoms), as well as social well-being (e.g. higher marital satisfaction and school achievement).

In summary, religious involvement, at least for the three religions of Buddhism, Taoism and Christianity, tends to exert positive influence on individuals' well-being, which is inclusive of both physical and psychological aspects, and with the support of corroborative studies.

2.8 Religious Self-Esteem

Religion is an important facet of human experience as it offers teachings

relating to the purposes and meanings of life and life events (Hadaway, 1978; Moberg, 1979). Being an adherent of a particular religion implies the incorporation of the religious teachings, which then leads to a particular structure for the value system of life. Hence, for those people with high religiosity, it is likely that their value systems would reflect their religions. As it is generally agreed that individuals' self-evaluation is affected by their own value systems, it is expected that the form of self-evaluation for the religious adherents should be influenced by their acquired religious values, such that their personal self-esteem to some extent reflects self-esteem derived from religions. In order to investigate this idea, a new construct of religious self-esteem (RSE) is proposed to account for this source of influence. Therefore, RSE refers to the sense of worthiness people derived from evaluating themselves against the values, virtues and morality of their religions. Thus, people with stronger religious beliefs will have higher RSE. In an attempt to measure RSE, a new religious self-esteem scale will be developed.

With respect to the relationship between RSE and self-esteem, it is proposed that RSE is developed at the expense of general self-esteem. This latter construct refers to Rosenberg (1979) and denotes the ordinary self-esteem of those people without religious belief (see section 2.3.4.1). Referring to the three religions – Buddhism, Taoism and Christianity, they espouse selflessness and other-centeredness, it is therefore argued that self-centeredness or egocentric mentality is an impediment for people's adhering to these religions (see section 2.6.1.3.3, 2.6.2.6.3 and 2.6.3.3.3); people must therefore put aside their self-oriented value system in an attempt to incorporate that of their religion. Thus, it is possible that for those believers with higher religiosity, larger part of their self-esteem will reside in RSE, representing the incorporation of religious values into their value systems.

In this context, it is predicted that the nature of individual self-esteem for the religious adherents is different from that of the non-religious individuals. In an effort to demarcate the difference, the individual self-esteem of those religious adherents will be conceptualized as an expression of 'religious self-esteem (RSE) + non-religious self-esteem (NRSE)', where NRSE connotes the self-esteem construct of Rosenberg (1979). As RSE is an alternative to NRSE, an inverse relationship is expected between them. Hence, it is predicted that, those believers with high religiosity will be relatively higher in RSE but lower in NRSE; whereas those with low religiosity will be comparatively lower in RSE but higher in NRSE. As it has been argued, general self-esteem relates to SWB (see section 2.3.4.1), it is proposed that RSE will also relate to SWB in much the same way.

In section 2.6.1.3.3, 2.6.2.6.3 and 2.6.3.3.3, it has been argued that the higher the religiosity of the believers, the less their SWB will be dependent on general self-esteem (NRSE). Nevertheless, it is believed that self-esteem will continue to exert high influence on their SWB in the form of RSE. Thus, based on the argument that religiosity is positively related with SWB (see section 2.7), and that high religiosity is associated with higher RSE, it is predicted that the devout religious adherents, who have high RSE but low NRSE, will still experience high SWB.

2.9 Theoretical Framework for Studying the Relationship between Religion and Subjective Well-Being

In this study, the revised homeostatic model of SWB (see section 2.3.3 Figure 5) will be used as the basic theoretical framework in studying how the three religions affect SWB.

With respect to this model, there are three determinants of SWB – HPMood, cognitive and experiential factors. In order to facilitate the measurement of the relationship between the individual self-esteem and SWB for the religious groups, the cognitive factor of self-esteem will be converted into 2 forms – NRSE and RSE (see section 2.8) and each will be examined to determine whether they contribute unique variance to SWB. Moreover, collective self-esteem (CSE) will be included among the internal buffers, joining NRSE, RSE, optimism and perceived control. As discussed in section 2.5, CSE has been shown to exert a higher influence in collectivist than in individualist societies, and is also positively related to psychological well-being. With the addition of RSE and CSE as cognitive buffers, this new model is termed the revised homeostatic model of SWB incorporating RSE and CSE (see Figure 6 below).

Regarding the experiential factors, general life experience and religious experience will be measured to see whether they contribute unique variance in predicting SWB. For the religious experiential input, the three religions – Buddhism, Taoism and Christianity will be separately studied in this context. As the religions in question are believed to be positively related to SWB (see section 2.7), it is expected that for all the religious groups, higher religiosity will predict more unique variance of SWB, through the mediation of cognitive buffers.

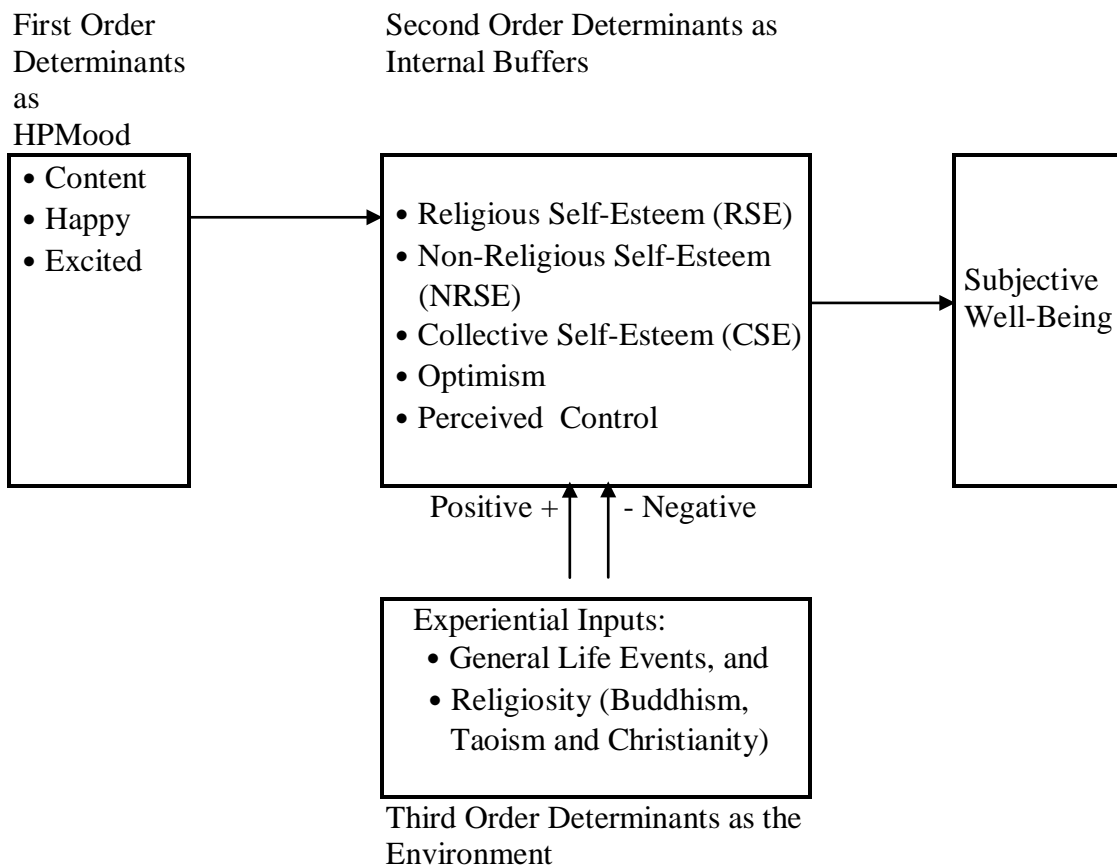


Figure 6. The Revised Homeostatic Model of SWB Incorporating RSE and NRSE

Referring to the above Figure, it is postulated that the cognitive buffers mediate the relationships between HPMood and SWB as well as experiential inputs and SWB. It is also posited that each of the cognitive buffers moderates the effects of HPMood and experiential inputs on SWB.

CHAPTER 3: HYPOTHESES FOR STUDY ONE

The derivative hypotheses for this study are as follows:

➤ *Hypothesis 1: That religiosity will be positively correlated with spirituality-religion satisfaction, and that both will be positively related to SWB.*

Since religion is a crucial aspect of life for those people with high religiosity, it is proposed that religiosity is positively related to spirituality-religion (S-R) satisfaction. Besides, in section 2.7, it is discussed that there is a positive link between religions and SWB. Hence, it is predicted that both religiosity and S-R satisfaction will be positively related to SWB.

➤ *Hypothesis 2a: That the religious group will have higher optimism and lower non-religious self-esteem than the non-religious group in both Australia and Hong Kong.*

➤ *Hypothesis 2b: That the Buddhists will have higher primary control, the Christians will have higher secondary control, and the Taoists will have higher primary and secondary control, than the non-religious group.*

In section 2.6.1.3, 2.6.2.6 and 2.6.3.3, it has been argued that all three religions affect adherents' level of optimism, non-religious self-esteem (NRSE) and perceived control. Regarding optimism, all the religious groups will experience higher optimism. However, as these three religions espouse other-centeredness over self-centeredness, the adherents may be lower in egocentric mentality and therefore have lower NRSE than the people without religious belief. In relation to perceived control, the Buddhists tend to be higher in the use of primary control, while the Christians are higher in using secondary control, and the Taoists are high in the adoption of both forms of control.

➤ *Hypothesis 3: That for adherents with high, but not low religiosity, religious self-esteem will correlate more strongly with SWB.*

As discussed in section 2.8, for those people with high religiosity, their sense of worthiness may be derived more from religious self-esteem (RSE) than NRSE. Moreover, since the three religions encourage their believers to adopt other-oriented rather than self-oriented mentality, it is believed that RSE will be inversely related to NRSE. As RSE will have the same link to SWB as NRSE, it therefore follows that higher religiosity implies a greater reliance of SWB on RSE.

➤ *Hypothesis 4: That collective self-esteem will contribute unique variance to the prediction of SWB above the variance accounted for by non-religious self-esteem, for the Chinese people in Hong Kong.*

Prior research has suggested that collective self-esteem (CSE), in addition to NRSE, exerts an influence on SWB within a collectivist culture (see section 2.5). It is therefore likely that CSE will explain unique variance of SWB beyond NRSE for this population.

➤ *Hypothesis 5: That within the religious group, social group identification will contribute unique variance to non-religious self-esteem (NRSE) and SWB beyond religious belief.*

Identification with a social group has been found to enhance NRSE (section 2.4). However, given the espousal of selflessness by the three religions of interest, it may have a diminished effect on NRSE due to the influence of religious group identity.

CHAPTER 4: STUDY ONE METHODOLOGY

4.1 Participants

4.1.1 The Chinese Population in Australia

There were three kinds of participants in Australia: (i) the Chinese immigrant Christians, (ii) the second generation Christians of the Chinese immigrants, and (iii) the Chinese immigrants without religious belief. The samples were mainly drawn in two ways, either by convenience sampling through social network, or by direct recruitment from religious organization. The religious organization from which the Chinese were recruited is the New Life Evangelical Church, which comprises one main church and two affiliated churches. Both the main church (Cantonese church) and one of the affiliated churches (Mandarin church) are situated in Blackburn South, Melbourne. Most of the attendants of these two churches are the Chinese immigrants from Mainland China and Hong Kong, and a few are overseas students. They have about 600 regular attendants. In addition, the New Life Evangelical Church has established another affiliated church in Box Hill South, Melbourne, which is mainly for the second generation of the Chinese immigrants. There are about 150 regular attendants. The sample for the Chinese immigrants without religious belief was not planned, with such respondents only incidentally included during the course of data collection by convenience sampling. As 29 respondents were identified, it was therefore decided to treat them as another group for study. The number and demographic information of these three samples are provided as follows:

	Chinese Immigrant Christians in Australia (OZCC)	Second Generation Christians of the Chinese Immigrants in Australia (OZ2GC)	Chinese Immigrants in Australia Without Religious Belief (OZNR)	Total
No. of Respondents (%)	175(51.78%)	134(39.64%)	29(8.58%)	338
Gender:				
Male (%)	57(40.71%)	70(50%)	13(9.29%)	140
Female (%)	111(59.04%)	61(32.45%)	16(8.51%)	188
Age:				
Age 17 or below	2(2.67%)	71(94.67%)	2(2.66%)	75
Age 18-25	25(26.88%)	56(60.22%)	12(12.90%)	93
Age 26-35	13(56.52%)	5(21.74%)	5(21.74%)	23
Age 36-45	40(90.91%)	0	4(9.09%)	44
Age 46-55	43(91.49%)	1(2.13%)	3(6.38%)	47
Age 56-64	16(88.89%)	0	2(11.11%)	18
Age 65-74	9(90%)	0	1(10%)	10
Age 75-84	20(100%)	0	0	20
Age 85 or above	4(100%)	0	0	4
No. of Years Stayed in Australia:	0.5 to 38	2 to 24	0.5 to 23	0.5 to 38
(Mean & SD)	(Mean:12.93,SD:8.26)	(Mean:13.64,SD:4.43)	(Mean:7.52,SD:6.86)	(Mean:12.75,SD:7.07)
Place of Birth:				
Australia	0	59(95.16%)	3(4.84%)	62
Hong Kong	112(63.64%)	56(31.82%)	8(4.54%)	176
Mainland China	38(64.41%)	5(8.47%)	16(27.12%)	59
Other	13(54.17%)	11(45.83%)	0	24
Languages Spoken at Home:				
Cantonese	143(60.09%)	80(33.61%)	15(6.30%)	238
Mandarin	14(46.66%)	8(26.67%)	8(26.67%)	30
English	1(3.57%)	24(85.71%)	3(10.72%)	28
Other	1(25%)	1(25%)	2(50%)	4
Cantonese & Mandarin	2(50%)	1(25%)	1(25%)	4
Cantonese & English	9(34.61%)	17(65.39%)	0	26
Cantonese & Mandarin & English	1(50%)	1(50%)	0	2
Cantonese & Mandarin & Other	1(100%)	0	0	1
Cantonese & Mandarin & English & Other	1(100%)	0	0	1

	Chinese Immigrant Christians in Australia (OZCC)	Second Generation Christians of the Chinese Immigrants in Australia (OZ2GC)	Chinese Immigrants in Australia Without Religious Belief (OZNR)	Total
Educational Level:				
No	7(100%)	0	0	7
Primary	16(76.19%)	3(14.29%)	2(9.52%)	21
Secondary	44(34.92%)	77(61.11%)	5(3.97%)	126
Post-Secondary	31(79.49%)	2(5.13%)	6(15.38%)	39
University or above	74(53.24%)	50(35.97%)	15(10.79%)	139
Other	1(50%)	0	1(50%)	2
Annual Household Income Before Tax (AUD):				
Low (30,999 or Less)	56(56.57%)	32(32.32%)	11(11.11%)	99
Middle (31,000-60,000)	54(58.70%)	29(31.52%)	9(9.78%)	92
High (60,001 & Above)	46(46%)	46(46%)	8(8%)	100

4.1.2 The Chinese Population in Hong Kong

Four types of participants were identified in Hong Kong as: the Buddhists, the Taoists, the Christians and those without religious belief. These four groups were primarily sought by two means. The first was by convenience sampling through social network. The respondents for Christianity and non-religious group, as well as part of the respondents for Buddhism and Taoism were found in this way. The second method was to recruit participants directly in some religious organizations. This method was used for the Buddhist and Taoist religious groups. For Buddhism, some of the respondents were the students who attended the courses in the Buddhist Youth Association Ltd. Regarding Taoism, some respondents were the members of the Hong Kong Taoist Association and a Taoist monastery (Fung Ying Seen Koon), and some were the students who attended the Taoist courses held by these two organizations. The number and demographic particulars of these four samples are as follows:

	Buddhism (HKB)	Taoism (HKT)	Christianity (HKC)	No Religion (HKNR)	Total
No. of Respondents (%)	153(21.37%)	145(20.25%)	178(24.86%)	240(33.52%)	716
Gender:					
Male (%)	41(14.8%)	66(23.83%)	66(23.83%)	104(37.54%)	277
Female (%)	106(25.85%)	67(16.34%)	107(26.10%)	130(31.71%)	410
Age:					
Age 17 or below	2(6.90%)	5(17.24%)	8(27.59%)	14(48.27%)	29
Age 18-25	4(8.33%)	2(4.17%)	11(22.92%)	31(64.58%)	48
Age 26-35	14(17.07%)	5(6.10%)	29(35.37%)	34(41.46%)	82
Age 36-45	39(19.31%)	20(9.90%)	74(36.63%)	69(34.16%)	202
Age 46-55	62(30.25%)	50(24.39%)	44(21.46%)	49(23.90%)	205
Age 56-64	18(22.22%)	30(37.04%)	6(7.41%)	27(33.33%)	81
Age 65-74	12(33.33%)	12(33.33%)	3(8.34%)	9(25%)	36
Age 75-84	1(5.26%)	13(68.42%)	1(5.26%)	4(21.06%)	19
Age 85 or above	0	2(100%)	0	0	2
No. of Years Stayed in HK:	15 to 75 (Mean:43.84, SD:13.49)	5 to 80 (Mean:48.16, SD:15.65)	10 to 71 (Mean:36.82, SD:11.87)	3 to 70 (Mean:37.23, SD:14.21)	3 to 80 (Mean:40.38, SD:14.42)
Place of Birth:					
Hong Kong	124(22.06%)	97(17.26%)	150(26.69%)	191(33.99%)	562
Mainland China	21(18.10%)	35(30.17%)	22(18.97%)	38(32.76%)	116
Other	5(35.71%)	3(21.43%)	2(14.29%)	4(28.57%)	14
Languages Spoken at Home:					
Cantonese	143(21.54%)	128(19.28%)	168(25.30%)	225(33.88%)	664
Mandarin	1(11.11%)	2(22.22%)	2(22.22%)	4(44.45%)	9
English	0	0	0	0	0
Other	0	0	1(100%)	0	1
Cantonese & Mandarin	1(20%)	3(60%)	1(20%)	0	5
Cantonese & English	3(50%)	3(50%)	0	0	6
Cantonese & Other	1(50%)	1(50%)	0	0	2
Mandarin & English	0	0	0	1(100%)	1
Cantonese & Mandarin & English	1(25%)	0	1(25%)	2(50%)	4

	Buddhism (HKB)	Taoism (HKT)	Christianity (HKC)	No Religion (HKNR)	Total
Educational Level:					
No	2(16.67%)	7(58.33%)	0	3(25%)	12
Primary	31(35.63%)	27(31.04%)	13(14.94%)	16(18.39%)	87
Secondary	83(24.13%)	70(20.35%)	70(20.35%)	121(35.17%)	344
Post-Secondary	18(14.75%)	17(13.93%)	38(31.15%)	49(40.17%)	122
University or above	17(12.59%)	17(12.59%)	54(40%)	47(34.82%)	135
Other	0	0	0	0	0
Monthly Household Income (HKD):					
Low(14,999 or Less)	47(24.61%)	50(26.18%)	32(16.75%)	62(32.46%)	191
Middle(15,000-20,000)	32(22.54%)	25(17.61%)	26(18.31%)	59(41.54%)	142
High (20,001 & Above)	61(18.60%)	54(16.46%)	114(34.76%)	99(30.18%)	328

4.2 Measures

The participants for the Chinese in both Australia and Hong Kong completed a questionnaire. The content of the questionnaire is similar for both groups, except for one item i.e. the affect of peace was added in the Hong Kong questionnaire. As a result, there were eighty-three items in the questionnaire for the use in Australia, and eighty-four items for the one in Hong Kong. The participants in Australia could choose to fill in either the Chinese or English version (Appendix A1 and A2). In Hong Kong, only the Chinese version was administered (Appendix A3); nevertheless, an English version is provided for reference at Appendix A4. The questionnaire comprised measures of life satisfaction, SWB, religiosity, social identification, predictors (HPMood, NRSE, optimism, perceived control, life events) from the revised homeostatic model, the newly added cognitive factors of CSE and RSE, the new affective predictors of alertness and peace, individualism-collectivism, cultural response bias and demographic questions. An 11-point end-defined scale was used for all items, for its advantages of response simplicity and scale sensitivity over 5 or 7-point Likert scales (Cummins, 2003).

Life Satisfaction

It was measured by a single-item rating satisfaction with their life as a whole (see Appendix A4, item 1).

Subjective Well-Being

SWB was measured by the Personal Wellbeing Index (PWI) (International Wellbeing Group, 2006). The scale consists of eight items measuring satisfaction with domains as: standard of living, health, achievement, relationships, safety, community-

connectedness, future security and spirituality-religion (see Appendix A4, items 2-9). In this study, the measure of the religious variable of spirituality-religion satisfaction (S-R satisfaction) is equivalent to that of the 8th life domain. The mean of the domain scores derived from PWI constitutes a measure of SWB. The scale has high internal consistency with Cronbach's alphas between .70 and .85 (International Wellbeing Group, 2006). Moreover, PWI has been demonstrated to be a valid cross-cultural instrument for measuring SWB in Hong Kong (Lau et al., 2005), and the Cronbach's alphas of .80 (Lau et al., 2005) and .89 (Lai, 2006) were reported. The reliability coefficient for the current study was .88.

Religious Belief

Participants were asked to indicate which religious belief category (Christianity, Buddhism, Taoism and Other) they belonged to (see Appendix A4, item 10).

Religiosity

It was measured by a single-item that asked participants to rate how important their religious belief was to them (see Appendix A4, item 11).

Social Identification

The four-item IDGroup subscale of Karasawa's (1991) identification scale was administered to measure how strongly participants identified with their religious groups (see Appendix A4, items 12-15). A Cronbach's alpha of .83 was reported for the scale (Yuki, 2003). The coefficient alpha was .85 in this study.

Revised Homeostatic Model Predictors

HPMood. The three affective predictors-content, happy and excited, were measured by asking participants to indicate how each of them described their feelings when they thought about their life in general (see Appendix A4, items 69-71). Davern and Cummins (2006) reported a coefficient alpha of .85 for the scale, and Lai (2006) obtained a Cronbach's alpha of .79. The coefficient alpha of .85 was obtained in this study. Moreover, two affective items were added for exploratory purposes: the affective predictor of alertness was added in both the questionnaires used in Australia and Hong Kong, and another predictor of peace was only included in the questionnaire administered in Hong Kong (see Appendix A4, items 72-73).

Non-Religious Self-Esteem (NRSE). The ten-item Rosenberg Self-Esteem Scale (Rosenberg, 1979) was used, with the five negatively worded items reverse-coded (see Appendix A4, items 32-41). Rosenberg (1979) reported a scale reliability coefficient of .72 and the coefficient alpha in this study was .78. The Chinese version of this scale belongs to Dr. LAI Chuk-ling, Julian, the Associate Head of the

Department of Applied Social Studies, the City University of Hong Kong; and was used in this study with his prior consent.

Religious Self-Esteem (RSE). A new scale, namely, religious self-esteem scale, was created to measure the new construct of RSE (see Appendix A4, items 16-25). This scale consists of ten items. A pilot study was conducted by adding and testing these ten items in one of the regular surveys for the Australian Unity Wellbeing Index in 2007. A Cronbach's alpha of .92 was obtained. In this study, the same coefficient alpha was found.

Collective Self-esteem (CSE). The sixteen-item CSE scale (Luhtanen & Crocker, 1992) was used (Appendix A4, items 45-60). It consists of four subscales, with two of the four items for each subscale worded in a negative direction and therefore reverse coded. Their respective coefficient alphas were: the Membership Esteem subscale (see Appendix A4, items 45-48) (alpha= .75), the Private CSE subscale (see Appendix A4, items 49-52) (alpha= .71), the Public CSE subscale (see Appendix A4, items 53-56) (alpha= .78), and the Importance to Identity subscale (see Appendix A4, items 57-60) (alpha= .86). The total scale alpha was .88 (Luhtanen & Crocker, 1992). In this study, the coefficient alphas for the subscales were: the Membership Esteem subscale (alpha= .66), the Private CSE subscale (alpha= .73), the Public CSE subscale (alpha= .72), and the Importance to Identity subscale (alpha= .60). The total scale alpha was .84.

Optimism. The Life Orientation Test – Revised (LOT-R) (Carver & Scheier, 2003) was used. LOT-R consists of six questions framed either in an optimistic or pessimistic fashion. This survey only used the three optimistically framed questions (see Appendix A4, items 42-44). The reliability coefficients reported for this three-item scale were .88 (Miller, 2005), .87 (Hateley, 2005), and .79 (Lai, 2006). In this study, a Cronbach's alpha of .79 was obtained. The Chinese version of this scale belongs to Dr. LAI Chuk-ling, Julian, the Associate Head of the Department of Applied Social Studies, the City University of Hong Kong; and was used in this study with his prior consent. A Cronbach's alpha of .79 was obtained for this Chinese version scale (Lai et al., 1998).

Perceived Control. A six-item scale was developed as a measure of primary (see Appendix A4, items 26-28) and secondary (see Appendix A4, items 29-31) control. This scale was extracted from that of Chambers et al. (2003) which originally consists of nine items including the measure of relinquished control. The coefficient alphas of .76 (Chambers et al., 2005) and .68 (Lai, 2006) were reported for the nine-item scale. In this study, an alpha of .83 was obtained.

Experiential Input. General life events were measured by asking participants whether anything had happened recently that caused them to feel happier or sadder than normal. Participants were asked to respond to three categories of response: ‘yes, happier’=3, ‘no’=2 and ‘yes, sadder’=1 (see Appendix A4, item 74).

Individualism-Collectivism

The eight-item Individualism-Collectivism Scale (Earley, 1993) was used (see Appendix A4, items 61-68). Four items were reverse-coded such that a high score indicates collectivistic belief and a low score reflects individualistic belief. The coefficient alpha reported for this scale was .91 (Earley, 1993). In this study, an alpha of .68 was obtained.

Cultural Response Bias

It was measured by three items. Two of the items asked how happy the participants would feel if they had twice or only half as much household income as they had now. Another item asked about what was the highest level of happiness they had ever experienced when thinking back on their life (see Appendix A4, items 75-77).

Demographic Information

Participants were asked to indicate their gender, age, number of years staying in Australia/Hong Kong, place of birth, languages speaking at home, educational level and household income (see Appendix A4, items 78-84 for Hong Kong questionnaire; and Appendix A2, items 77-83 for Australia questionnaire).

4.3 Procedure

Ethics approval was sought from the Deakin University Ethics Committee before the commencement of data collection. For the participants identified through convenience sampling, the questionnaire together with a plain language statement (Appendix A5: Chinese version used in Australia, Appendix A6: English version used in Australia, and Appendix A7: Chinese version used in Hong Kong) were delivered to them by e-mail, post or in person. The questionnaires were designed to take approximately 20 minutes to complete. The completed questionnaires were then returned by e-mail, post or collected in person. For the participants recruited from religious organizations, the questionnaires were disseminated to them by hand through the staff at the organizations. All completed questionnaires were then collected by these staff or returned by post. In order to enhance the response rate, an honorarium (HKD10 fast food service coupon) was given to all the participants in Hong Kong.

CHAPTER 5: STUDY ONE RESULTS

5.1 Data Screening and Preliminary Analyses

SPSS version 15.0 was used to screen and analyze data. In order to standardize the data onto a 0-100 scale, all results are presented according to Percentage Scale Maximum scores (%SM) (PWI; International Wellbeing Group, 2006), which is calculated through the following formula:

$$\frac{X - k_{\min}}{k_{\max} - k_{\min}} \times 100$$

X = the mean score to be converted

k_{\min} = the minimum score possible on the scale

k_{\max} = the maximum score possible on the scale

Using descriptive statistics, the plausibility of the means, standard deviations and range of values for all variables was examined so as to eliminate data entry errors and detect response sets. Data cleaning was performed by eliminating the data sets from the individual respondents showing consistently maximum or minimum scores on all the Personal Wellbeing Index items; as such data might indicate either acquiescence or a lack of understanding, which would distort the data analysis (PWI; International Wellbeing Group, 2006).

Outliers were found to exist in most of the variables – SWB, social identification, religious self-esteem, non-religious self-esteem, collective self-esteem, optimism, perceived control, HPMood and individualism-collectivism, by examining z-scores in the data file. However, the similarity of the means and 5% trimmed means indicated that none of the outliers influenced mean scores, so outliers were retained (Pallant, 2005).

Using the Kolmogorov-Smirnov statistic, normality was violated for most of the variables ($p < .05$). However, the level of skewness for the variables was only mild (significance value is 3 to 6) to moderate (significance value is 6 to 10): SWB = -7.06; social identification = -6.45; religious self-esteem = -3.49; perceived control = -5.20; non-religious self-esteem = -0.44; optimism = -3.94; collective self-esteem = 2.38; individualism-collectivism = 4.99; and HPMood = -4.46. Moreover, life satisfaction measures are naturally negatively skewed, irrespective of both the nature of the population sample and the measurement instrument employed (Cummins, 1995); hence, the data were not transformed.

Prior to testing the hypotheses, factor analyses were performed on all scales to check whether the items factor in the manner intended. These analyses used SPSS Principal Components Analysis.

PWI

The PWI comprises 8 items. The correlation matrix reveals that almost all coefficients > 0.3 . The Kaiser-Meyer-Olkin value is 0.91 and the Bartlett's Test of Sphericity is significant at $p < .001$, which support the factorability of the data (Pallant, 2005). From the scree plot, it is evident that there is only one component and this explains 53.81% of the variance. The result of factor analysis is attached at Appendix B(1).

HPMood

The construct of HPMood is composed of 3 indicators: content, happy and excited, and the result of factor analysis is attached at Appendix B(2). Inspection of the correlation matrix reveals the presence of all coefficients > 0.3 . The Kaiser-Meyer-Olkin value is 0.68 and the Bartlett's Test of Sphericity is significant at $p < .001$. From the scree plot, it is clear that only one component is obtained and this explains 77.86% of the variance.

Optimism

Optimism is measured by 3 items. The correlation matrix reveals the presence of all coefficients > 0.3 . The Kaiser-Meyer-Olkin value is 0.69 and the Bartlett's Test of Sphericity is significant at $p < .001$. The scree plot shows that only one component is retained, which explains 70.33% of the variance. The result of factor analysis is attached at Appendix B(3).

Perceived Control

The construct of perceived control is measured by primary (PC) and secondary (SC) control which consists of 6 items. The result of factor analysis is attached at Appendix B(4). Inspection of the correlation matrix reveals the presence of all coefficients > 0.3 . The Kaiser-Meyer-Olkin value is 0.80 and the Bartlett's Test of Sphericity is significant at $p < .001$. From the scree plot, it is shown that only one component is retained, and this explains 54.37% of the variance. However, since the scale of perceived control is intended to form 2 sub-scales i.e. primary control and secondary control, Varimax rotation was performed by calling for 2 factors. The result is appended below:

Table 1: Varimax Rotation of Two Factor Solution for Perceived Control Items

Items	Component	
	1	2
SC6: When something bad happens to me, I remind myself situation will improve if I am patient.	.84	
SC5: When something bad happens to me, I remind myself I am better off than others.	.84	
SC4: When something bad happens to me, I remind myself something good may come of it.	.81	
PC2: When something bad happens to me, I look for different ways to improve the situation.	.32	.83
PC1: When something bad happens to me, I ask others for help and advice.		.77
PC3: When something bad happens to me, I use my skills to overcome the problem.		.73

In the above analysis, a higher criterion score for factor loading (0.4), instead of 0.3, is used for cross-loading items. In this light, no item is complex and this pattern of loadings is consistent with the original design of this scale. As shown in Table 2, the variance explained by primary control and secondary control are respectively 33.17% and 37.30%, which totals to 70.46%.

Table 2: Total Variance Explained by the Two Factor Solution for Perceived Control Items

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	2.24	37.30	37.30
2	1.99	33.17	70.46

Non-Religious Self-Esteem

The factor analysis of the 10 items of the non-religious self-esteem (NRSE) is attached at Appendix B5(i). The correlation matrix reveals that many coefficients are > 0.3 . The Kaiser-Meyer-Olkin value is 0.82 and the Bartlett's Test of Sphericity is significant at $p < .001$. Inspection of scree plot and the Component Matrix indicates 3 components are extracted, which totally explain 67.40% of the variance. Varimax rotation was performed with the results provided in the following Table:

Table 3: Varimax Rotation of Three Factor Solution for NRSE Items

Items	Component		
	1	2	3
NRSE 3: I feel that I have a number of good qualities.	.82		
NRSE 4: I am able to do things as well as most other people.	.81		
NRSE 1: On the whole, I am satisfied with myself.	.73		
NRSE 7: I feel that I'm a person of worth, at least on an equal plane with others.	.72		
NRSE 10: I take a positive attitude toward myself.	.68	.41	
NRSE 2: At times I think I am no good at all.		.87	
NRSE 6: I certainly feel useless at times.		.85	
NRSE 9: All in all, I am inclined to feel that I am a failure.		.74	
NRSE 8: I wish I could have more respect for myself.			.82
NRSE 5: I feel I do not have much to be proud of.		.42	.65

In Table 3, it can be seen that, using a factor loading of 0.4, two of the items (no. 10 & 5) are complex. In this light, a second factor analysis was run by eliminating them. Nevertheless, 3 components are extracted (see Appendix B5(ii)). Hence, Varimax rotation was again performed and the result is provided as follows:

Table 4: Varimax Rotation of Three Factor Solution for NRSE Items

Items	Component		
	1	2	3
NRSE 3: I feel that I have a number of good qualities.	.85		
NRSE 4: I am able to do things as well as most other people.	.82		
NRSE 1: On the whole, I am satisfied with myself.	.71		
NRSE 7: I feel that I'm a person of worth, at least on an equal plane with others.	.70		
NRSE 2: At times I think I am no good at all.		.88	
NRSE 6: I certainly feel useless at times.		.87	
NRSE 9: All in all, I am inclined to feel that I am a failure.		.75	
NRSE 8: I wish I could have more respect for myself.			.97

In Table 4, it is apparent that only item no. 8 loads on component 3 and therefore another iteration was performed by omitting this item. The results can be seen at Appendix B5(iii). This time, 2 components are extracted and Varimax rotation was performed with the result appended as follows:

Table 5: Varimax Rotation of Two Factor Solution for NRSE Items

Items	Component	
	1	2
NRSE 3: I feel that I have a number of good qualities.	.83	
NRSE 4: I am able to do things as well as most other people.	.81	
NRSE 7: I feel that I'm a person of worth, at least on an equal plane with others.	.72	
NRSE 1: On the whole, I am satisfied with myself.	.72	
NRSE 2: At times I think I am no good at all.		.88
NRSE 6: I certainly feel useless at times.		.87
NRSE 9: All in all, I am inclined to feel that I am a failure.		.75

In the above Table, 2 clear factors emerged with 4 items measured NRSE in a positive manner while 3 items in a negative way. In Table 6, it is found that these 2 factors respectively explain 35.68% and 31.57% variance, with the cumulative variance being 67.24%.

Table 6: Total Variance Explained by the Two Factor Solution for NRSE Items

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	2.50	35.68	35.68
2	2.21	31.57	67.24

Religious Self-Esteem

The factor analysis of the 10 items of religious self-esteem (RSE) scale is attached at Appendix B6(i). Inspection of the correlation matrix reveals that all coefficients are > 0.3 . The Kaiser-Meyer-Olkin value is 0.91 and the Bartlett's Test of Sphericity is significant at $p < .001$. According to the scree plot and Component Matrix, two components are extracted which explains 71.85% of the total variance. Varimax rotation was performed with the results provided in the following Table:

Table 7: Varimax Rotation of Two Factor Solution for RSE Items

Items	Component	
	1	2
RSE 6: If I lose my Belief, I feel useless.	.88	
RSE 9: If I lose my Belief, I feel that I am a failure.	.87	
RSE 8: Without my Belief, I would have no respect for myself.	.87	
RSE 5: Without my Belief, I have nothing to be proud of.	.80	.36
RSE 2: If I lose my Belief, I am no good at all.	.76	
RSE 3: Because of my Belief, I have a number of good qualities.		.79
RSE 1: My Belief allows me to be satisfied with myself.		.79
RSE 4: My Belief allows me to do things as well as most other people.		.77
RSE 10: Because of my Belief, I take a positive attitude towards myself.		.76
RSE 7: My Belief makes me feel that I'm a person of worth, at least on an equal plane with others.	.42	.71

In Table 7, it can be seen that items 5 and 7 are complex; hence, a second factor analysis was run by omitting these 2 items. The result can be seen in Appendix B6(ii). As 2 components are extracted, Varimax rotation was again performed with the result appended as below:

Table 8: Varimax Rotation of Two Factor Solution for RSE Items

Items	Component	
	1	2
RSE 9: If I lose my Belief, I feel that I am a failure.	.89	
RSE 8: Without my Belief, I would have no respect for myself.	.88	
RSE 6: If I lose my Belief, I feel useless.	.88	
RSE 2: If I lose my Belief, I am no good at all.	.76	
RSE 3: Because of my Belief, I have a number of good qualities.		.81
RSE 1: My Belief allows me to be satisfied with myself.		.80
RSE 4: My Belief allows me to do things as well as most other people.		.79
RSE 10: Because of my Belief, I take a positive attitude towards myself.	.31	.74

In the above Table, though item no. 10 loads on 2 components, as the criterion score of 0.4 is used for cross loading, the factor loading of 0.31 on component 1 is therefore neglected. In this connection, 2 clear factors are extracted, with half of the 8 items measured RSE in either a positive or negative manner. These 2 factors respectively explain 39.50% and 33.79% variance, with the cumulative variance being 73.29%. The relevant Table is shown as below.

Table 9: Total Variance Explained by the Two Factor Solution for RSE Items

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	3.16	39.50	39.50
2	2.70	33.79	73.29

Collective Self-Esteem

The Collective Self-Esteem (CSE) scale consists of 4 subscales and each subscale has 4 items, totaling 16 items (Luhtanen & Crocker, 1992). These 16 items are analyzed by factor analysis and the result is attached at Appendix B7(i). The correlation matrix reveals that many coefficients are > 0.3 . The Kaiser-Meyer-Olkin value is 0.87 and the Bartlett's Test of Sphericity is significant at $p < .001$. Inspection of scree plot and Component Matrix indicates 4 components are extracted, which totally explain 64.11% of the variance. Varimax rotation was performed with the results provided in the following Table:

Table 10: Varimax Rotation of Four Factor Solution for CSE Items

Items	Component			
	1	2	3	4
CSE 8: I feel good about the social groups I belong to.	.80			
CSE 6: In general, I'm glad to be a member of the social groups I belong to.	.78			
CSE 9: Overall, my social groups are considered good by others.	.77			
CSE 11: In general, others respect the social groups that I am a member of.	.76			
CSE 3: I am a cooperative participant in the social groups I belong to.	.65			
CSE 16: In general, belonging to social groups is an important part of my self-image.	.60		.32	
CSE 14: The social groups I belong to are an important reflection of who I am.	.55		.54	
CSE 7: Overall, I often feel that the social groups of which I am a member are not worthwhile.		.79		
CSE 12: In general, others think that the social groups I am a member of are unworthy.		.78		
CSE 5: I often regret that I belong to some of the social groups I do.		.78		
CSE 10: Most people consider my social groups, on the average, to be more ineffective than other social groups.		.70		
CSE 15: The social groups I belong to are unimportant to my sense of what kind of a person I am.			.79	
CSE 13: Overall, my group memberships have very little to do with how I feel about myself.			.75	
CSE 2: I feel I don't have much to offer to the social groups I belong to.				.80
CSE 4: I often feel I'm a useless member of my social groups.		.52		.67
CSE 1: I am a worthy member of the social groups I belong to.	.57			.59

In Table 10, it can be seen that items 16, 14, 4 and 1 are complex; hence, a second factor analysis was run by omitting these 4 items. The result can be seen in Appendix B7(ii). As 3 components are extracted, Varimax rotation was again performed with the result appended as below:

Table 11: Varimax Rotation of Three Factor Solution for CSE Items

Items	Component		
	1	2	3
CSE 8: I feel good about the social groups I belong to.	.85		
CSE 6: In general, I'm glad to be a member of the social groups I belong to.	.81		
CSE 9: Overall, my social groups are considered good by others.	.81		
CSE 11: In general, others respect the social groups that I am a member of.	.78		
CSE 3: I am a cooperative participant in the social groups I belong to.	.67		
CSE 7: Overall, I often feel that the social groups of which I am a member are not worthwhile.		.82	
CSE 12: In general, others think that the social groups I am a member of are unworthy.		.79	
CSE 5: I often regret that I belong to some of the social groups I do.		.77	
CSE 10: Most people consider my social groups, on the average, to be more ineffective than other social groups.		.72	
CSE 2: I feel I don't have much to offer to the social groups I belong to.		.42	.39
CSE 13: Overall, my group memberships have very little to do with how I feel about myself.			.84
CSE 15: The social groups I belong to are unimportant to my sense of what kind of a person I am.			.76

In the above Table, item no. 2 loads on 2 components; however, as the criterion score of 0.4 is used for cross loading, the factor loading of 0.39 on component 3 is ignored. As a result, there are only 2 items on component 3, which are not enough for a factor. Hence, another factor analysis was run by omitting items 13 and 15, and the result is shown in Appendix B7(iii). As 2 factors are extracted, Varimax rotation was done with the result shown in the following Table:

Table 12: Varimax Rotation of Two Factor Solution for CSE Items

Items	Component	
	1	2
CSE 8: I feel good about the social groups I belong to.	.85	
CSE 9: Overall, my social groups are considered good by others.	.81	
CSE 6: In general, I'm glad to be a member of the social groups I belong to.	.81	
CSE 11: In general, others respect the social groups that I am a member of.	.78	
CSE 3: I am a cooperative participant in the social groups I belong to.	.67	
CSE 7: Overall, I often feel that the social groups of which I am a member are not Worthwhile		.84
CSE 5: I often regret that I belong to some of the social groups I do.		.77
CSE 12: In general, others think that the social groups I am a member of are unworthy.		.77
CSE 10: Most people consider my social groups, on the average, to be more ineffective than other social groups.		.72
CSE 2: I feel I don't have much to offer to the social groups I belong to.		.51

It is found that 2 clear factors are extracted. Items 8, 9, 6, 11 and 3 load on Factor 1, with the loadings range from 0.67 to 0.85. Items 7, 5, 12, 10 and 2 load on Factor 2 and the range of loading is from 0.51 to 0.84.

According to the factor analysis results of Luhtanen and Crocker (1992), items 1-4 loaded on Membership Self-Esteem subscale, items 5-8 loaded on Private Collective Self-Esteem subscale, items 9-12 loaded on Public Collective Self-Esteem subscale, and items 13-16 loaded on Importance to Identity subscale. In this connection, it seems that the pattern of loadings of the above factorial solution is quite different from that of the scale author. In fact, inspection of the content of items for the 2 extracted factors indicates that Factor 1 seems to measure the positive feelings people have towards their social groups, while Factor 2 tends to measure that of the negative feelings. These 2 factors respectively explain 32.17% and 28.14% variance, with the cumulative variance being 60.31%. The Table concerned is shown as follows:

Table 13: Total Variance Explained by the Two Factor Solution for CSE Items

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	3.22	32.17	32.17
2	2.81	28.14	60.31

Social Identification

Social identification is measured by 4 items. The result of factor analysis is attached at Appendix B(8). The correlation matrix reveals the presence of all coefficients as > 0.3 . The Kaiser-Meyer-Olkin value is 0.79 and the Bartlett's Test of Sphericity is significant at $p < .001$. The scree plot shows that only one component is obtained and this explains 69.74% of the variance.

Individualism-Collectivism

Individualism-Collectivism (I-C) is measured by 8 items. The result of factor analysis is attached at Appendix B(9). The correlation matrix reveals the presence of some coefficients as > 0.3 . The Kaiser-Meyer-Olkin value is 0.74 and the Bartlett's Test of Sphericity is significant at $p < .001$. Inspection of scree plot and Component Matrix indicates 2 components are extracted, which total explain 53.41% of the variance. Varimax rotation was performed with the results provided in the following Table:

Table 14: Varimax Rotation of Two Factor Solution for I-C Items

Items	Component	
	1	2
I-C 3: To be superior, a person must stand alone.	.83	
I-C 4: One does better work working alone than in group.	.79	
I-C 2: If the group is slowing me down, it is better to leave it and work alone.	.74	
I-C 5: I would rather struggle through a personal problem by myself than discuss it with my friends.	.64	
I-C 7: Problem solving by groups gives better results than problem solving by individuals.		.76
I-C 8: The needs of people close to me should take priority over my personal needs.		.71
I-C 6: Employees should accept the groups' decision even when personally they have different opinion.		.69
I-C 1: Employees like to work in a group rather than by themselves.		.61

In Table 14, it can be seen that two clear factors emerged. According to the factor analysis result of Earley (1993), a two-factor solution was resulted with the first factor interpreted as group-based actions that are more desirable and effective than individual ones, whereas the second factor appeared to capture the competitive aspects of group-based activities. Thus, in this study, the individualism-collectivism scale factored in the same manner as that intended by the scale author.

In sum, the above results show that the scales of PWI, HPMood, optimism, perceived control, social identification and individualism-collectivism factor as expected. However, the scales of non-religious self-esteem, religious self-esteem and collective self-esteem fail to factor as intended, given that 2 factors which tend to measure the construct in positive and negative manner are extracted for each. This indicates the presence of methods factors, in that the positive and negative forms of items in each scale are not equivalent. But since the 2 methods factors combine into a super-ordinate factor that shows the intended construct; in the subsequent analyses pertaining to the 3 scales in question, the super-ordinate factor will remain to be used since the purpose of this study does not include the investigation of methods factors.

5.2 Data Analyses

The 5 hypotheses in this study are tested as follows:

5.2.1 Hypothesis 1: That religiosity will be positively correlated with spirituality-religion (S-R) satisfaction, and that both will be positively related to SWB.

The correlations to test this hypothesis are shown in Table 15.

Table 15: Correlations between Religiosity, S-R Satisfaction and SWB

Variables Groups	Religiosity & S-R Satisfaction I	Religiosity & SWB# I	S-R Satisfaction & SWB# I
Australia			
-Chinese Immigrant Christians(OZCC)	0.60** (N=162)	0.40** (N=158)	0.68** (N=165)
-2 nd Generation Chinese Christians (OZ2GC)	0.59** (N=133)	0.28** (N=133)	0.52** (N=134)
Combined OZCC & OZ2GC (OZR)	0.60** (N=295)	0.36** (N=291)	0.62** (N=299)
Hong Kong			
-Christians (HKC)	0.70** (N=158)	0.34** (N=160)	0.52** (N=154)
-Buddhists (HKB)	0.80** (N=125)	0.15 (N=139)	0.28** (N=120)
-Taoists (HKT)	0.71** (N=104)	0.51** (N=118)	0.50** (N=103)
Combined HKC, HKB & HKT (HKR)	0.69** (N=387)	0.32** (N=417)	0.41** (N=377)
Combined OZCC, OZ2GC, HKC, HKB & HKT (OZHKR):	0.66** (N=682)	0.38** (N=708)	0.51** (N=676)

** $p < .01$. (two-tailed)

SWB#: SWB was computed by aggregating and averaging the 7 domain scores

The hypothesis is generally supported. Interestingly, however, religiosity and SWB are not correlated for Buddhism.

To assess differences in the strength of these variables between these 5 religious groups, one-way ANOVAs were performed and the results are shown below.

Table 16: Religious Groups in Australia and Hong Kong x Religiosity/S-R Satisfaction/SWB

Groups	RELIGIOSITY			S-R SATISFACTION			SWB#		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
OZCC	166	87.47	16.79	169	75.74	17.82	165	71.49	11.51
OZ2GC	133	90.45	15.12	134	81.72	17.92	134	76.45	11.81
HKC	171	82.69	18.94	163	69.20	19.18	167	66.09	13.33
HKB	149	78.26	19.89	128	78.20	20.41	143	63.95	12.80
HKT	129	74.57	19.53	110	75.00	18.95	131	66.52	13.10
Total	748	82.85	18.95	704	75.70	19.24	740	68.83	13.25
p	F(4,743)=17.60, p=.000			F(4,699)=8.88, p=.000			F(4,735)=22.79, p=.000		
Post-hocs Tukey	-OZCC>HKB, p=.000 -OZCC>HKT, p=.000 -OZ2GC>HKC, p=.002 -OZ2GC>HKB, p=.000 -OZ2GC>HKT, p=.000 -HKC>HKT, p=.001			-OZCC>HKC, p=.014 -OZ2GC>OZCC, p=.049 -OZ2GC>HKC, p=.000 -OZ2GC>HKT, p=.045 -HKB>HKC, p=.001			-OZCC>HKC, p=.001 -OZCC>HKB, p=.000 -OZCC>HKT, p=.007 -OZ2GC>OZCC, p=.006 -OZ2GC>HKC, p=.000 -OZ2GC>HKB, p=.000 -OZ2GC>HKT, p=.000		

SWB#: SWB was computed by aggregating and averaging the 7 domain scores

There are significant differences between groups on religiosity, S-R satisfaction and SWB. Post-hoc comparisons using the Tukey HSD reveal that the Australian Christianity groups (OZCC & OZ2GC) generally score higher than the Hong Kong religious groups (HKC, HKB & HKT) on all 3 variables. Moreover, the lower means and larger SDs of the 3 Hong Kong groups on the variable of SWB in comparison with the 2 Australian groups (OZCC & OZ2GC) reveal that the respondents in Hong Kong are prone to more homeostatic challenge.

5.2.1.1 Exploratory Studies

5.2.1.1.1 Exploratory Study 1: Unique Contribution to SWB by S-R satisfaction and Religiosity

As religion is an important facet of life for religious adherents, and S-R satisfaction and religiosity are significantly correlated with SWB (Table 15), it is therefore predicted that for the religious believers, S-R satisfaction and religiosity are the salient experiential inputs that will add to the variance accounted for by the homeostatic model predictors of SWB.

Hierarchical multiple regressions were performed to test these predictions. Prior to running the main analysis, several multiple regression assumptions were tested. The ratio of cases to independent variables (IV) was assessed basing on the rule of thumb: $N \geq 50 + 8M$ (Tabachnick & Fidell, 2001). The number of cases required was 98, which was within the confines of this study for all 5 religious groups: OZCC (N=175), OZ2GC (N=134), HKC (N=178), HKB (N= 153) and HKT (N=145). The values for tolerance and variance inflation were respectively well above 0.10 and below 10, and the bivariate correlations between all Ivs were below

0.70; hence, the assumption of multicollinearity was not violated (Pallant, 2005). Furthermore, the assumptions of normality, linearity and homoscedacity of residuals were upheld by inspecting the residuals scatterplot and normal probability plot.

An initial hierarchical regression was performed combining all religious groups in both Australia and Hong Kong (OZHKR). SWB (the mean of 7 domains) is the DV and the homeostatic model factors of life events, HPMood, NRSE, optimism and perceived control were entered as Step 1, and S-R satisfaction/religiosity in Step 2. The result regarding S-R satisfaction is provided as follows:

Table 17: Regression Analyses for Homeostatic Model Factors and S-R Satisfaction on SWB for OZHKR

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Life Events					0.05		0.48***	
-HPMood					0.41***	0.10		
-Non-Religious Self-Esteem					0.23***	0.04		
-Optimism					0.11**	0.01		
-Perceived Control					0.11**	0.01		
<u>Model 2</u>								
-Life Events	1.97	0.83	707	-0.03	0.05		0.51***	0.03***
-HPMood	66.87	17.17	744	0.63***	0.36***	0.07		
-Non-Religious Self-Esteem	62.45	13.41	736	0.52***	0.21***	0.03		
-Optimism	69.91	16.20	738	0.48***	0.09*	0.004		
-Perceived Control	73.90	13.90	755	0.44***	0.06			
-Spirituality- Religion Satisfaction	75.70	19.24	704	0.51***	0.22***	0.03		
-(SWB: DV)	68.83	13.25	740					

*** $p < .001$. ** $p < .01$. * $p < .05$.

The homeostatic model factors in Step 1 account for a significant 48% of the variance, with HPMood (10%), NRSE (4%), optimism (1%) and perceived control (1%) accounting for unique variance. In Step 2, with the addition of S-R satisfaction, an additional 3% of variance is accounted for. However, for the homeostatic model factors, there is a total 5.6% decrease in the unique contribution, which then becomes the shared variance with other variables. That is, perceived control loses its 1% unique contribution that it made in Step 1; and for the variables of HPMood (7%), NRSE (3%) and optimism (0.4%), their unique contributions have been respectively reduced by 3%, 1% and 0.6%. The reason perceived control no longer explains variance may be that, the control over life circumstances, for the religious believers, is attributed to the influence of religious beliefs, such that the significant variance contributed previously is now subsumed under S-R satisfaction. In sum, despite the fact that S-R satisfaction has captured some explanatory variance from the homeostatic factors, it adds 3% significant variance in explaining SWB. However, it should be noted that since both S-R and SWB (the mean of 7 life domains) measure satisfaction with different life aspects, there is shared methods variance between them. Hence, the 3% unique contribution made by S-R satisfaction may be methods variance rather than any higher-order variance attributable to the S-R construct per se.

Following this, the result pertaining to the unique contribution of religiosity to SWB for the combined religious group is provided below:

Table 18: Regression Analyses for Homeostatic Model Factors and Religiosity on SWB for OZHKR

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Life Events					0.05		0.48***	
-HPMood					0.41***	0.10		
-Non-Religious Self-Esteem					0.23***	0.04		
-Optimism					0.11**	0.01		
-Perceived Control					0.11**	0.01		
<u>Model 2</u>								
-Life Events	1.97	0.83	707	-0.03	0.05		0.50***	0.02***
-HPMood	66.87	17.17	744	0.63***	0.39***	0.09		
-Non-Religious Self-Esteem	62.45	13.41	736	0.52***	0.22***	0.03		
-Optimism	69.91	16.20	738	0.48***	0.10**	0.01		
-Perceived Control	73.90	13.90	755	0.44***	0.08*	0.004		
-Religiosity	82.85	18.95	748	0.38***	0.14***	0.02		
-(SWB: DV)	68.83	13.25	740					

*** $p < .001$. ** $p < .01$. * $p < .05$.

In Step 1, the homeostatic model factors explain a significant 48% of the variance, with HPMood (10%), NRSE (4%), optimism (1%) and perceived control (1%) contributing unique variance. Adding religiosity in Step 2 makes an additional 2% of variance. Of the homeostatic model factors, optimism continues to provide the same variance; but for the variables of HPMood (9%) and NRSE (3%), they both experience 1% reduction. Regarding perceived control (0.4%), the amount of unique variance contributed has been cut by 0.6%. Thus, in total, the homeostatic factors lose 2.6% in their unique contributions, the amount of which is supposed to become the shared variance with the other variables. Nevertheless, apart from sharing variance with the homeostatic factors, religiosity still has 2% significant contribution in the prediction of SWB.

Separate analyses with similar procedures were also conducted for each religious group. The results relating to S-R satisfaction are attached in Appendix C(1) to C(5), and those on religiosity are from Appendix C(6) to C(10). As a summary, the results are respectively shown in Table 19 and Table 20 as follows:

Table 19: A Summary of the Hierarchical Regression Analyses for Homeostatic Factors and S-R Satisfaction of Different Religious Groups to SWB

	OZCC			OZ2GC			HKC			HKB			HKT		
	sr^2	R^2	ΔR^2	sr^2	R^2	ΔR^2	sr^2	R^2	ΔR^2	sr^2	R^2	ΔR^2	sr^2	R^2	ΔR^2
Model 1		0.45***			0.48***			0.51***			0.52***			0.54***	
-Life Events	-			-			-			-			-		
-HPMood	0.05**			0.03*			0.06***			0.04**			0.13***		
-NRSE	0.03**			0.07***			0.03**			0.06***			0.04*		
-Optimism	-			-			0.04**			-			-		
-Perceived Control	0.02*			-			-			0.08***			-		
Model 2		0.57***	0.12***		0.53***	0.05***		0.53***	0.02***		0.52***	0.00		0.57***	0.03***
-Life Events	-			-			-			-			-		
-HPMood	0.02*			0.02*			0.04**			0.04**			0.09***		
-NRSE	0.02*			0.04**			0.02*			0.06***			0.04**		
-Optimism	-			-			0.04**			-			-		
-Perceived Control	-			-			-			0.08***			-		
-S-R Satisfaction	0.12***			0.05***			0.02**			-			0.03*		
-(SWB : DV)															

*** $p < .001$. ** $p < .01$. * $p < .05$.

In short, other than sharing variance with the homeostatic factors, the addition of S-R satisfaction in Step 2 explains variance of SWB, with the exception of HKB. Further regressions were then performed for HKB, restricted to higher level of S-R satisfaction i.e. ≥ 70 , ≥ 80 and so on, in order to find out whether stronger S-R satisfaction will have larger effect on SWB. However, none of these found a unique contribution by S-R. For OZCC and OZ2GC, S-R satisfaction is the largest contributor of unique variance among the variables, though the proportion made by OZCC (12%) is much higher than that of OZ2GC (5%). However, as noted in the preceding paragraph, the unique variance contributed may only be shared methods variance instead of higher-order variance that is genuinely provided by S-R satisfaction in explaining SWB.

The following Table shows a summary of the results pertaining to the unique contributions of religiosity in predicting SWB for different religious groups:

Table 20: A Summary of the Hierarchical Regression Analyses for Homeostatic Factors and Religiosity of Different Religious Groups to SWB

	OZCC			OZ2GC			HKC			HKB			HKT		
	<i>sr</i> ²	<i>R</i> ²	ΔR^2	<i>sr</i> ²	<i>R</i> ²	ΔR^2	<i>sr</i> ²	<i>R</i> ²	ΔR^2	<i>sr</i> ²	<i>R</i> ²	ΔR^2	<i>sr</i> ²	<i>R</i> ²	ΔR^2
Model 1		0.45***			0.48***			0.51***			0.52***			0.54***	
-Life Events	-														
-HPMood	0.04**			0.02*			0.07***			0.04**			0.13***		
-NRSE	0.04**			0.07***			0.02**			0.06***			0.04**		
-Optimism	-			-			0.04***								
-Perceived Control	-			-			-			0.08***					
Model 2		0.48***	0.03***		0.48***	0.00		0.51***	0.00		0.52***	0.00		0.60***	0.06***
-Life Events	-			-			-								
-HPMood	0.03**			0.03*			0.07**			0.04**			0.11***		
-NRSE	0.04**			0.06***			0.02**			0.06***			0.04**		
-Optimism	-			-			0.04***								
-Perceived Control	-			-			-			0.08***			-		
-Religiosity -(SWB: DV)	0.03**			-			-			-			0.06***		

*** $p < .001$. ** $p < .01$. * $p < .05$.

In summary, after adding religiosity in Step 2, it contributes unique variance for OZCC and HKT only. Regarding OZ2GC, HKC and HKB, further regressions were performed, restricted to higher level of religiosity i.e. ≥ 70 , ≥ 80 and so on, in a bid to investigate whether higher religiosity will have larger effect on SWB. However, none of these found a unique contribution by religiosity.

Overall speaking, S-R satisfaction and religiosity both explain additional variance of SWB beyond the homeostatic factors for the combined religious group. When the analyses are in terms of individual religious groups, S-R satisfaction fails to make unique variance for HKB, and religiosity fails to do so for OZ2GC, HKC and HKB. However, for the unique contribution of S-R satisfaction, the caveat pertaining to shared methods variance is a consideration.

5.2.1.1.2 Exploratory Study 2: S-R as a Domain of PWI

In the preceding exploratory study, S-R satisfaction is demonstrated to provide unique variance in explaining SWB of the religious respondents. This further analysis examines whether S-R can be established as a life domain of the Personal Wellbeing Index (PWI) for the religious Chinese populations in Australia and/or Hong Kong, as well as the individual religious groups. The criterion for verification as a life domain is that, each domain must contribute unique variance when the domains are collectively regressed against Life Satisfaction as a Whole (LAAW) (PWI; International Wellbeing Group, 2006). In this study, hierarchical regressions were performed with the assumptions for analysis met. LAAW is the DV and the 7 domains (standard of living, health, achievement, relationships, safety, community-connectedness and future security) were entered as Step 1, and S-R satisfaction in Step 2. The purpose is to find out whether S-R, as a domain, will add to any variance to LAAW beyond the existing 7 domains. The result for all Chinese religious respondents from both Australia and Hong Kong (OZHKR) is presented below:

Table 21 : Regression Analyses for 7 Life Domains and S-R on LAAW for OZHKR

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Standard of Living					0.38***	0.08	0.55***	
-Health					0.09***	0.01		
-Achieving in Life					0.13***	0.01		
-Relationships					0.21***	0.03		
-Safety					-0.04			
-Community-Connectedness					-0.003			
-Future Security					0.16***	0.01		
<u>Model 2</u>								
-Standard of Living	71.31	16.82	771	0.66***	0.38***	0.07	0.56***	0.01***
-Health	69.13	18.11	770	0.50***	0.10**	0.01		
-Achieving in Life	63.27	17.57	771	0.57***	0.12***	0.01		
-Relationships	70.88	15.68	772	0.51***	0.19***	0.02		
-Safety	73.04	17.14	770	0.50***	-0.06			
-Community-Connectedness	65.62	17.69	769	0.45***	-0.02			
-Future Security	67.93	18.68	758	0.56***	0.15***	0.01		
-Spirituality-Religion	75.70	19.24	704	0.44***	0.13***	0.01		
-(LAAW: DV)	71.18	16.06	772					

****p*<.001. ***p*<.01. **p*<.05.

In Step 1, the 7 domains account for a significant 55% of the variance, with standard of living (8%), health (1%), achieving in life (1%), relationships (3%) and future security (1%) accounting for unique variance. The domains of safety and community-connectedness share 41% of the variance with the above domains, but no significant unique variance is contributed. In Step 2, with the addition of S-R satisfaction, an additional 1% of variance is accounted for. The domains of health, achieving in life and future security continue to provide 1% unique variance. However, it is noted that there is respectively 1% decrease in the explained variance provided by the domains of standard of living (7%) and relationships (2%). This total 2% reduction of unique variance becomes the shared variance with the other domains. Hence, while S-R shares variance with the other domains, it has 1% unique contribution to LAAW.

Subsequently, separate analyses with similar procedures were performed for the combined Chinese religious groups respectively in Australia (OZR) and Hong Kong (HKR), as well as for the 5 individual Chinese religious groups – OZCC, OZ2GC, HKC, HKB and HKT. The results are attached in Appendix C(11) to C(17). A summary of the results is presented below:

Table 22: A Summary of the Hierarchical Regression Analyses for 7 Life Domains and S-R on LAAW for Different Religious Groups

	OZR			HKR			OZCC			OZ2GC		
	sr^2	R^2	ΔR^2	sr^2	R^2	ΔR^2	sr^2	R^2	ΔR^2	sr^2	R^2	ΔR^2
<u>Model 1</u>		0.47***			0.58***			0.48***			0.51***	
-Standard of Living	0.09***			0.08***			0.07***			0.10***		
-Health	0.01*			-			-			0.02*		
-Achieving in Life	-			0.01***			0.03**			-		
-Relationships	0.03***			0.02***			0.02*			0.05***		
-Safety	-			-			-			-		
-Community-Connectedness	-			-			-			-		
-Future Security	0.03***			0.01*			0.02*			0.04**		
<u>Model 2</u>		0.48***	0.01*		0.59***	0.01***		0.51***	0.03**		0.51***	0.00
-Standard of Living	0.09***			0.07***			0.08***			0.10***		
-Health	0.01*			0.004*			-			0.02*		
-Achieving in Life	-			0.01***			0.02*					
-Relationships	0.02***			0.02***			-			0.04***		
-Safety	0.01*			-			0.01*			-		
-Community-Connectedness	-			-			-			-		
-Future Security	0.03***			0.005*			-			0.03**		
-Spirituality-Religion	0.01*			0.01***			0.03**			-		
-(LAAW : DV)												

*** $p < .001$. ** $p < .01$. * $p < .05$.

	HKC			HKB			HKT		
	sr^2	R^2	ΔR^2	sr^2	R^2	ΔR^2	sr^2	R^2	ΔR^2
<u>Model 1</u>		0.61***			0.53***			0.65***	
-Standard of Living	0.04***			0.05***			0.14***		
-Health	-			-			-		
-Achieving in Life	0.03**			-			-		
-Relationships	0.04***			0.02*			-		
-Safety	-			-			-		
-Community-Connectedness	-			-			-		
-Future Security	-			-			0.03**		
<u>Model 2</u>		0.63***	0.02**		0.53***	0.00		0.66***	0.01*
-Standard of Living	0.03***			0.04**			0.12***		
-Health	-			-			-		
-Achieving in Life	0.02**			-			-		
-Relationships	0.03***			0.02*			-		
-Safety	-			-			-		
-Community-Connectedness	-			-			-		
-Future Security	-			-			0.03**		
-Spirituality-Religion	0.02**			-			0.01*		
-(LAAW : DV)									

*** $p < .001$. ** $p < .01$. * $p < .05$.

In short, after adding S-R in Step 2, it contributes unique variance for the combined groups of OZR and HKR, as well as for the individual groups of OZCC, HKC and HKT. As S-R fails to make significant variance for OZ2GC and HKB, further regressions were then performed, restricted to higher level of S-R i.e. ≥ 70 , ≥ 80 and so on. However, it is found that none of them provides unique variance.

In summary, S-R satisfaction contributes unique variance in predicting LAAW beyond the 7 domains for all the combined Chinese religious groups – OZHKR, OZR and HKR. Moreover, this result extends to all individual groups, except for OZ2GC and HKB.

5.2.1.1.3 Exploratory Study 3: Comparison of LAAW, SWB and 7 Life Domains between Non-Religious and Religious Respondents in Australia and Hong Kong

As S-R satisfaction is shown to be positively related to SWB in Table 15, further analysis will determine whether there are differences between the well-being of the non-religious and religious group. In order to do this, a general comparison using t-test was made between them, combining respondents from both Australia and Hong Kong, on LAAW, SWB (the mean of 7 domains) and the 7 life domains (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security). The results are provided in Table 23 and 24.

Table 23: Non-Religious/Religious Respondents from Both Australia and Hong Kong x LAAW/SWB

Groups	LAAW			SWB		
	N	Mean	SD	N	Mean	SD
Non-Religious	263	68.56	15.97	252	65.74	12.44
Religious	772	71.18	16.06	740	68.83	13.25
t-test each column	t(1033)=-2.29, p=.022			t(990)=-3.25, p=.001		

Significant differences are identified between the 2 groups on both variables.

The following Table shows a comparison on the 7 domains between all the non-religious and religious respondents:

Table 24: Non-Religious/Religious Respondents from Both Australia and Hong Kong x 7 Life Domains

	Standard of Living			Health			Achieving in Life			Personal Relationships			Safety			Community-Connectedness			Future Security		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Non-Religious Respondents	264	66.89	16.48	264	67.58	15.51	260	59.69	17.75	262	71.30	15.13	261	68.66	16.67	260	63.58	17.22	258	61.28	19.69
Religious Respondents	771	71.31	16.82	770	69.13	18.11	771	63.27	17.57	772	70.88	15.68	770	73.04	17.14	769	65.92	17.69	758	67.93	18.68
T-test each column	t(1033)=-3.70, p=.000			t(1032)=-1.25, p=.021			t(1029)=-2.83, p=.005			t(1032)=0.38, p=.708			t(1029)=-3.59, p=.000			t(1027)=-1.62, p=.106			t(1014)=-4.87, p=.000		

Only the domains of relationships and community-connectedness fail to show significant difference between groups.

In sum, LAAW, SWB and five domains are higher for the religious respondents.

Subsequent to the above general comparisons between religious and non-religious respondents, one-way ANOVAs were also performed to see whether there are any significant differences between different religious and non-religious groups on the variables of LAAW, SWB and the 7 life domains. The results are presented in the following Table:

	Non-Religious Chinese in Australia (OZNR)			Chinese Christians in Australia (OZCC)			2 nd Generation Chinese Christians in Australia (OZ2GC)			Non-Religious Chinese in Hong Kong (HKNR)			Chinese Christians in Hong Kong (HKC)			Chinese Buddhists in Hong Kong (HKB)			Chinese Taoists in Hong Kong (HKT)			Total			<i>p</i>
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	
Future security	27	62.96	17.50	167	72.64	16.51	134	73.51	16.56	231	61.08	19.96	171	65.03	20.73	150	62.60	18.19	136	66.18	18.50	1016	66.24	19.16	.000

The above Table reveals that there are no significant differences between the religious (HKC, HKB & HKT) and non-religious (HKNR) groups in Hong Kong on all variables. Also, no significant difference is identified between OZCC and OZNR; however, OZ2GC is significantly higher than OZNR on SWB and the life domains of standard of living, health, achievement and safety. Furthermore, the religious groups in Australia (OZCC and/or OZ2GC) are found to rate significantly higher than the non-religious group (HKNR) and religious groups (HKC, HKB and/or HKT) in Hong Kong on all variables, except for the domain of personal relationships.

Based on the results in Table 25, the rankings of the 7 groups on LAAW, SWB and the 7 domains are summarized in Table 26 as follows:

Table 26: The Rankings of All Religious and Non-Religious Groups in Australia and Hong Kong on LAAW, SWB and 7 Life Domains

Ranking	LAAW	SWB	Standard of Living	Health	Achievement	Personal Relationships	Safety	Community-Connectedness	Future Security
1	OZ2GC	OZ2GC	OZ2GC	OZ2GC	OZ2GC	OZCC	OZ2GC	OZ2GC	OZ2GC
2	OZCC	OZCC	OZCC	OZCC	OZCC	OZNR	OZCC	OZCC	OZCC
3	HKT	OZNR	OZNR	HKNR	HKC	HKNR	OZNR	HKT	HKT
4	OZNR	HKT	HKC	OZNR	HKT	HKT	HKC	OZNR	HKC
5	HKC	HKC	HKT	HKC	HKNR	OZ2GC	HKT	HKC	OZNR
6	HKNR	HKB	HKNR	HKT	HKB	HKC	HKB	HKNR	HKB
7	HKB	HKNR	HKB	HKB	OZNR	HKB	HKNR	HKB	HKNR

The Australian religious groups – OZ2GC and OZCC seem to get the highest scores on almost all the variables. OZ2GC gets the highest ranking on all variables, with the exception of the domain of personal relationships (occupies the 5th position). OZCC ranks the second highest on all variables, except for personal relationships (occupies the 1st position).

5.2.1.1.4 Exploratory Study 4: A Study on the Affects of Alert and Peaceful

Two affective items – alert and peaceful are examined in this study, and it is predicted that the religious adherents will have higher level of alertness and peace than those without religious belief. As discussed in section 2.8, it is postulated that for the Buddhists, Taoists and Christians, they must put aside their self-oriented value system in an attempt to incorporate the values of their religions. Therefore, it is argued that they may be more alert towards their life circumstances so as to differentiate the mundane values from those of their religions, and therefore better persevere with their religious values.

It has also been proposed that the three religions can pacify people's mind and bring a sense of peace (Buddhism: 'Third Noble Truth' in section 2.6.1.2; Taoism: section 2.6.2.4; Christianity: last paragraph under 'Trust' in section 2.6.3.2.4 & 'Submission' in section 2.6.3.2.4); hence, it is believed that for these followers, they will be more peaceful than the non-religious individuals. To test these ideas, t-tests were performed and the results are shown in Table 27. For the item of alertness, the non-religious and religious group include the respondents from both Australia and Hong Kong. But for the item of peace, only those in Hong Kong are used, as this predictor has only been measured in the survey of Hong Kong.

Table 27: Religious and Non-Religious Group x Alert/Peaceful

Groups	Alert			Peaceful		
	N	Mean	SD	N	Mean	SD
Non-Religious Group	254	60.51	19.71	228	62.19	18.55
Religious Group	749	63.59	18.83	448	66.03	19.76
Total	1003	62.05	19.27	676	64.11	19.16
T-test each column	t(1001)=-2.23, p=.026			t(674)=-2.43, p=.015		

As shown in Table 27, the prediction that people with religious belief will have higher levels of alertness and peace than those without religious belief is supported.

A further analysis was conducted to examine the relative contributions of the 5 affective predictors – excited, happy, content, alert and peaceful in predicting SWB for the non-religious (the means of 7 domains) and religious respondents (the means of 8 domains). On par with the preceding prediction and results of analyses, it is predicted that the items of alertness and peace will contribute more variance for the religious group than the non-religious group. Standard regressions were conducted with the assumptions for analysis met. The results are provided below:

Table 28: Regression Analyses for 5 Affective Predictors on SWB for All Religious Respondents

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²
Excited	60.27	20.89	746	0.50***	0.16**	0.01	0.47***
Happy	69.55	18.96	752	0.60***	0.13		
Content	70.65	19.04	750	0.63***	0.36***	0.05	
Alert	63.59	18.83	749	0.23***	0.05		
Peaceful	66.02	19.76	448	0.46***	0.17***	0.02	
(SWB:DV)	70.13	12.88	676				

Model: Unique variability = 0.08; shared variability = 0.39; *** p<.001. ** p<.01. *p<.05

The predictors of excited (1%), content (5%) and peaceful (2%) together provide 8% unique variance in explaining SWB for the religious respondents.

Table 29: Regression Analyses for 5 Affective Predictors on SWB for All Non-Religious Respondents

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²
Excited	59.41	19.80	252	0.40***	0.02		0.43***
Happy	69.10	18.07	255	0.59***	0.20*	0.01	
Content	67.71	17.92	258	0.64***	0.45***	0.06	
Alert	60.51	19.71	254	0.05	-0.07		
Peaceful	62.19	18.55	228	0.27***	0.08		
(SWB:DV)	65.74	12.44	252				

Model: Unique variability = 0.07; shared variability = 0.36; *** $p < .001$. ** $p < .01$. * $p < .05$

For the non-religious respondents, only the affects of happy (1%) and content (6%) contribute unique variance, which in total explain 7% unique variance of SWB.

In view of the above, peaceful only contributes unique variance for the religious group; however, alert fails to explain variance for both groups. Hence, the prediction is partially supported.

Separate analyses with the same procedure as described above were done for individual religious groups, in a bid to examine the relative contributions of affective predictors in predicting SWB. As the affect of peace has only been measured in the samples of Hong Kong, the regression analyses for Australian samples were performed with only 4 affective predictors. The results are attached in Appendix C(18) to C(22). A summary of the results is presented below:

Table 30: A Summary of Unique Variance Contributed by Affective Predictors to SWB of Different Religious Groups

Variables	OZCC		OZ2GC		HKC		HKB		HKT	
	sr^2	R^2	sr^2	R^2	sr^2	R^2	sr^2	R^2	sr^2	R^2
<u>Model</u>		0.41 ^{***}		0.36 ^{***}		0.57 ^{***}		0.39 ^{***}		0.58 ^{***}
-Excited	-		-		-		-		-	
-Happy	-		0.03 [*]		-		-		0.02 [*]	
-Content	0.10 ^{***}		0.04 ^{**}		0.12 ^{***}		0.03 [*]		0.09 ^{***}	
-Alert	0.02 [*]		-		-		-		0.02 [*]	
-Peaceful	N/A		N/A		-		0.07 ^{***}		-	
(SWB: DV)										
<u>Model:</u>	unique variability = 0.12 shared variability = 0.29		unique variability = 0.07 shared variability = 0.29		unique variability = 0.12 shared variability = 0.45		unique variability = 0.10 shared variability = 0.29		unique variability = 0.13 shared variability = 0.45	

:
*** $p < .001$. ** $p < .01$. * $p < .05$.

In short, only the affect of content contributes unique variance for all 5 religious groups. In fact, it is the largest contributor of variance for all of them, except for HKB. However, the predictor of excited fails to explain variance for any group. The item of happy can only provide variance for OZ2GC and HKT. For the predictor of alert, it makes significant variance merely for OZCC and HKT. Among the 3 religious groups in Hong Kong, peaceful just explains variance for HKB.

In summary, a significant positive correlation generally exists between religiosity, S-R satisfaction and SWB for the religious believers. Moreover, the means of the Australian religious groups on the 3 variables are, in general, higher than the Hong Kong religious groups. Besides, results of regression analyses show that both S-R satisfaction and religiosity account for significant variance of SWB for the combined religious groups. But in terms of individual religious groups, S-R satisfaction cannot explain variance for HKB, whereas religiosity fails to do so for OZ2GC, HKC and HKB. As per the analyses regarding whether S-R can be established as a life domain of PWI for the religious Chinese and individual religious groups, the results show that S-R satisfaction contributes unique variance beyond the 7 life domains in predicting LAAW for the combined religious groups in both Australia and Hong Kong, as well as the individual religious groups of OZCC, HKC and HKT. Pertaining to the comparison of well-being between the religious and non-religious group, results show that the former group scores significantly higher than the latter on LAAW, SWB and 5 life domains. Meanwhile, it is found that the Australian religious groups get the highest scores on all the variables when comparing with the Hong Kong religious groups. Finally, it is shown that the religious believers are significantly higher than the non-believers on both the affects of alertness and peace. In explaining SWB, results of regression analyses reveal that peace provides unique variance for the religious group, while alertness fails to do so for both the religious and non-religious group.

5.2.2 Hypothesis 2

5.2.2.1 Hypothesis 2a: That the religious group will have higher optimism and lower non-religious self-esteem (NRSE) than the non-religious group in both Australia and Hong Kong.

In testing the hypothesis, t-tests were performed between the non-religious and religious respondents in both Australia and Hong Kong on the variables of optimism and NRSE. The results are shown below:

Table 31: Non-Religious/Religious Respondents in Both Australia and Hong Kong x Optimism/NRSE

Groups	OPTIMISM			NRSE		
	N	Mean	SD	N	Mean	SD
Non-Religious	259	67.08	16.87	255	61.76	12.28
Religious	738	69.91	16.20	736	62.45	13.41
p	t(995)=-2.39, p=.017			t(989)=-0.73, p=.468		

Hypothesis 2a is partially supported. The optimism of the religious respondents is significantly higher. However, the two groups do not differ on NRSE.

To examine whether this higher optimism is a feature for the religious groups in each of the two countries, two-way ANOVA was performed and the result is shown below:

Table 32: Non-Religious/Religious Respondents in Australia/Hong Kong x Optimism

Respondents Places	Non-Religious			Religious			Total		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Australia	28	68.45	17.60	289	70.04	17.24	317	69.90	17.25
Hong Kong	231	66.91	16.81	449	69.82	15.52	680	68.83	16.01
Total	259	67.08	16.87	738	69.91	16.20	997	69.17	16.42
p	Main Effect: Places: $F(1,993)=0.25$, $p=0.617$ Main Effect: Religion: $F(1,993)=1.64$, $p=0.200$ Interaction Effect: $F(1,993)=0.14$, $p=0.705$								

No significant difference on optimism is found between the religious and non-religious respondents from both Australia and Hong Kong.

5.2.2.2 Hypothesis 2b: That the Buddhists will have higher primary control, the Christians will have higher secondary control, and the Taoists will have higher primary and secondary control, than the non-religious group.

This hypothesis is tested by one-way ANOVAs. The results pertaining to Hong Kong are depicted in Table 33.

Table 33: Different Religious/Non-Religious Respondents in Hong Kong x Primary Control/ Secondary Control

Groups	Primary Control			Secondary Control		
	N	Mean	SD	N	Mean	SD
HKNR	237	74.29	13.21	239	71.45	16.38
HKB	147	71.63	15.53	150	74.42	16.92
HKC	177	73.69	14.53	176	71.86	19.36
HKT	132	73.54	14.79	133	73.81	15.03
Total	693	73.43	14.37	698	72.64	17.07
p	F(3,689)=1.07, p=0.360			F(3,694)=1.27, p=0.285		

The above Table shows that these differences fail to reach significance.

One-way ANOVAs were also performed for the Australia respondents alone to see whether there is any significant difference between the non-religious and Christianity groups on primary and secondary control. The results are provided below:

Table 34: Different Religious/Non-Religious Respondents in Australia x Primary Control/ Secondary Control

Groups	Primary Control			Secondary Control		
	N	Mean	SD	N	Mean	SD
OZNR	29	72.99	13.01	28	66.31	17.08
OZCC	171	76.57	14.52	172	76.76	16.34
OZ2GC	134	76.05	13.18	134	70.32	16.58
Total	334	76.05	13.86	334	73.30	16.87
p	F(2,331)=0.83, p=0.439			F(2,331)=8.48, p=0.006		
Post-hocs Tukey	No post-hocs difference			OZCC>OZNR, p=.006 OZCC>OZ2GC, p=.002		

While there are no differences in primary control, in secondary control OZCC is significantly higher than both other groups. But it should be noted that the low number of respondents in OZNR implies that the significant result obtained is relatively less reliable.

In view of the above findings, hypothesis 2b is not supported.

5.2.2.3 Exploratory Studies

5.2.2.3.1 Exploratory Study 1: Cultural Differences in Control

Studies have revealed that the emphasis on primary and secondary control is a function of cultural differences, in that people who are under the influence of Eastern, collectivist culture assume that secondary control has a more central role in their everyday life than primary control, but vice versa for those in the Western, individualist society (Sastry & Ross, 1998; Weisz et al., 1984). It is thus predicted that in this study, the Australian Chinese will have higher level of primary control but lower level of secondary control than the Hong Kong Chinese. The t-tests were performed with the results provided below:

Table 35: Chinese Respondents in Australia/Hong Kong x Primary Control/ Secondary Control

Groups	Primary Control			Secondary Control		
	N	Mean	SD	N	Mean	SD
Australia	334	76.05	13.86	334	73.30	16.87
Hong Kong	693	73.43	14.37	698	72.64	17.07
p	t(1025)=-2.77, p=.006			t(1030)=-0.59, p=.558		

The prediction is partially supported as the mean of primary control for the Australian Chinese is significantly higher than the Hong Kong Chinese. However, secondary control does not differ between them.

5.2.2.3.2 Exploratory Study 2: Unique Contribution to SWB by Optimism, NRSE, Primary/Secondary Control

In this study, the revised homeostatic model of SWB is used as the theoretical framework in studying how religion relates to SWB (see section 2.9). The variables of optimism, NRSE and perceived control (primary/secondary control) are the cognitive buffers that constitute the second order determinants of the model, and are supposed to mediate the relationship between HPMood and SWB. In this relation, each of the buffers is predicted to have moderating effect on HPMood. Hence, hierarchical regression analyses were conducted with the view of finding out whether these three buffers add unique variance to the prediction of SWB (the mean of 7 domains), as well as moderate the effect of HPMood on SWB, for the religious and non-religious respondents. The analyses were performed with the homeostatic variables entering in Step 1; and the buffers in question, respectively, in Step 2. The assumptions for regression analyses were met. The results of analyses are attached in Appendix D (1) to (8). A summary of the results for each of the buffers are provided below:

Table 36: A Summary of the Hierarchical Regression Analyses for Homeostatic Factors and Optimism on SWB for the Combined Religious and Non-Religious Group

	Combined Religious Group			Combined Non-Religious Group		
	<i>sr</i> ²	<i>R</i> ²	ΔR^2	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>		0.47***			0.47***	
-HPMood	0.13***			0.08***		
-NRSE	0.04***			0.05***		
-Perceived Control	0.02***			0.03***		
<u>Model 2</u>		0.48***	0.01**		0.48***	0.01**
-HPMood	0.10***			0.05***		
-NRSE	0.03***			0.04***		
-Perceived Control	0.01**			0.01*		
-Optimism	0.01**			0.01**		
-(SWB : DV)						

*** $p < .001$. ** $p < .01$. * $p < .05$.

In short, the buffer of optimism makes 1% unique contribution in the prediction of SWB for both the religious and non-religious group. In addition, it moderates the effect of HPMood on SWB, as the unique contribution provided by HPMood is reduced by 3% for both groups.

Following this, a summarized result pertaining to the buffer of NRSE is provided below:

Table 37: A Summary of the Hierarchical Regression Analyses for Homeostatic Factors and NRSE on SWB for the Combined Religious and Non-Religious Group

	Combined Religious Group			Combined Non-Religious Group		
	<i>sr</i> ²	<i>R</i> ²	ΔR^2	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>		0.44***			0.45***	
-HPMood	0.16***			0.08***		
-Optimism	0.02***			0.02**		
-Perceived Control	0.01***			0.03***		
<u>Model 2</u>		0.47***	0.03***		0.49***	0.04***
-HPMood	0.10***			0.05***		
-Optimism	0.01**			0.01*		
-Perceived Control	0.01**			0.01*		
-NRSE	0.03***			0.04***		
-(SWB : DV)						

*** $p < .001$. ** $p < .01$. * $p < .05$.

It can be seen that, in the prediction of SWB, NRSE provides 3% significant variance for the combined religious group and that of 4% for the combined non-religious group. Its inclusion also reduces the contribution of HPMood by 6% and 3% respectively.

Regarding the buffers of primary/secondary control, disparate religious affiliations are related to different use of control. It is proposed that the Buddhists use predominantly primary control, the Christians primarily secondary control and the Taoists do not favor either form of control. In this light, the analyses were performed in terms of three different kinds of religious groups (combined Christianity group, HKB and HKT), as well as the combined non-religious group. Each of these groups satisfied the sample size requirement for regression analysis and the results are summarized as follows:

Table 38: A Summary of the Hierarchical Regression Analyses for Homeostatic Factors and Primary/Secondary Control on SWB for Different Religious and Non-Religious Group

	Combined Christianity Group (OZCC+OZ2GC+HKC)			HKB			HKT			Combined Non-Religious Group		
	sr^2	R^2	ΔR^2	sr^2	R^2	ΔR^2	sr^2	R^2	ΔR^2	sr^2	R^2	ΔR^2
<u>Model 1</u>		0.46***			0.44***			0.53***			0.48***	
-HPMood	0.09***			0.06***			0.15***			0.08***		
-NRSE	0.04***			0.08***			0.04**			0.06***		
-Optimism	0.02***			0.02*			0.03*			0.03***		
<u>Model 2</u>		0.46***	0.00		0.51***	0.07***		0.57***	0.04**		0.51***	0.03**
-HPMood	0.08***			0.04**			0.15***			0.05***		
-NRSE	0.04***			0.07***			0.03*			0.04***		
-Optimism	0.01**			-			0.02*			0.02**		
-Primary Control	-			0.02*			0.04**			0.02**		
-Secondary Control	-			0.03*			-					
-(SWB :DV)												

*** $p < .001$. ** $p < .01$. * $p < .05$.

Primary and secondary control explain respectively 2% and 3% significant variance for Buddhism but none for the combined Christianity group. Regarding HKT and the combined non-religious group, 4% and 2% unique variance are made by primary control respectively. Additionally, a reduction in the unique contribution of HPMood is experienced by the combined Christianity group (1%), HKB (2%) and non-religious group (3%), but none for HKT. In short, all three buffers, in general, contribute significant variance in explaining SWB, as well as moderate the effect of HPMood on SWB.

In summary, the religious people rate significantly higher than non-religious people on optimism but no significant difference is found on NRSE. Also, there are generally no significant differences in either primary or secondary control between any of the groups. Moreover, although the Australian Chinese score higher on primary control than the Hong Kong Chinese, they do not differ on secondary control. Also, the cognitive buffers of optimism, NRSE and perceived control are generally able to predict significant SWB variance and moderate the effect of HPMood on SWB.

5.2.3 Hypothesis 3: That for adherents with high, but not low religiosity, religious self-esteem (RSE) will correlate more strongly with SWB.

As discussed in section 2.8, it is argued that for the religious believers, their sense of worthiness is partly derived from RSE and it will be strongly connected with SWB (the mean of 8 domains). Moreover, it is argued that people with high religiosity will have a stronger connection between RSE and SWB than those with low religiosity.

As the testing of this hypothesis involves the division of high and low religiosity group, 3 criterion scores, as 60, 70 and 80 have been attempted. Since comparison of correlation coefficients between high and low religiosity group will be performed, it is important that the range of values above and below each cut-off value is comparable. This has been achieved by restricting the range of the values below each cut-off score, and the results are presented below:

Table 39: Correlations Between RSE and SWB for Low/High level of Religiosity
(Using Cut-Off Values: 60, 70 and 80)

Variables Groups	Correlation Between RSE & SWB					
	Low Religiosity (20-59)	High Religiosity (60-100)	Low Religiosity (40-69)	High Religiosity (70-100)	Low Religiosity (60-79)	High Religiosity (80-100)
Australia OZCC	0.34 (N=11)	0.32** (N=142)	0.15 (N=14)	0.32** (N=138)	0.42 (N=15)	0.27** (N=127)
OZ2GC	-0.04 (N=6)	0.28** (N=124)	0.42 (N=8)	0.23* (N=121)	0.61 (N=9)	0.22* (N=115)
OZR (Combined OZCC & OZ2GC)	0.16 (N=17)	0.29** (N=266)	0.15 (N=21)	0.27** (N=259)	0.47* (N=24)	0.24** (N=242)
Hong Kong HKC	-0.14 (N=16)	0.22* (N=126)	-0.07 (N=19)	0.21* (N=122)	0.30 (N=21)	0.15 (N=105)
HKB	-0.32 (N=20)	-0.08 (N=93)	-0.21 (N=21)	-0.07 (N=89)	-0.17 (N=17)	-0.08 (N=76)
HKT	0.03 (N=15)	0.15 (N=77)	0.11 (N=25)	0.10 (N=64)	0.19 (N=26)	0.02 (N=51)
HKR (Combined HKC, HKB & HKT)	-0.14 (N=51)	0.07 (N=296)	-0.08 (N=65)	0.06 (N=275)	0.02 (N=64)	0.03 (N=232)
OZHKC (Combined OZCC, OZ2GC & HKC)	0.11 (N=33)	0.30** (N=392)	0.14 (N=40)	0.28** (N=381)	0.34* (N=45)	0.24** (N=347)
OZHKR (Combined OZCC, OZ2GC, HKC, HKB & HKT)	0.03 (N=68)	0.23** (N=562)	0.05 (N=86)	0.22** (N=534)	0.17 (N=88)	0.18** (N=474)

** $p < .01$. * $p < .05$. (two-tailed)

The problem with adopting 60 as the cut-off criterion is that the number of respondents for low religiosity groups, especially for OZCC and OZ2GC, is too few to produce a reliable analysis. Despite this, it has the strength of showing a clear distinction between the correlation coefficients of low and high religiosity groups, as most of the coefficients for high religiosity reach significance but none for the low groups. Moreover, the analysis of combined groups has an acceptable cell size and confirms the result.

With the adoption of criterion score of 70, the number of cases for low religiosity group increases while the distinct pattern between high/low religiosity groups remains detectable. When using the cut-off value of 80, although it is advantageous at further enhancing the number of cases for low religiosity groups, it suffers from losing the obvious distinction between the 2 groups e.g. for OZR and OZHKC, both the high and low religiosity coefficients become significant; and for HKC, the coefficient of high religiosity loses its significance whereas that of low one has been changed from negative to positive sign. In order to perform further testing,

the cut-off value of 70 is chosen as a compromise between the strengths and shortcomings of the lower and higher cut-off values.

Using the cut-off criterion of 70, RSE is only significantly correlated with SWB for the 3 Christianity groups (OZCC, OZ2GC and HKC) and none is shown for the other 2 Hong Kong religious groups (HKB and HKT). No significant correlation is found between RSE and SWB for the low religiosity groups; nevertheless, it should be noted that these insignificant results may be attributed to the low number of respondents. However, the combined data (OZHKR), with N=86 for the low group, shows the predicted result.

Further analysis determines whether the magnitude of these correlations differs. The procedure is to convert the r values into z scores and then use the following equation to calculate the observed value of z (Z_{obs}) (Pallant, 2005):

$$Z_{\text{obs}} = \frac{Z_1 - Z_2}{\sqrt{\frac{1}{N_1 - 3} + \frac{1}{N_2 - 3}}}$$

The decision rule for determining if the Z_{obs} value is statistically significant is as follows:

If $-1.96 < Z_{\text{obs}} < 1.96$, correlation coefficients are not statistically significantly different.

If $Z_{\text{obs}} \leq -1.96$ or $Z_{\text{obs}} \geq 1.96$, correlation coefficients are statistically significantly different.

It is found that all Z_{obs} , for the individual Christian groups (OZCC , OZ2GC & HKC), combined Christianity group (OZHKC) and combined religious group (OZHKR), are between -1.96 and +1.96; and therefore there are no significant differences in the strength of the correlations between RSE and SWB for the high and low religiosity groups. Nevertheless, it is possible that the insignificant results for the individual groups may be due to the small number of cases in the low religiosity groups.

In short, despite the fact that RSE is positively and significantly correlated with SWB for some of the high religiosity groups, which are mainly the Christianity groups; no significant differences in the strength of the correlations between high and low religiosity groups are found. Hence, the hypothesis is weakly supported.

5.2.3.1 Exploratory Studies

5.2.3.1.1 Exploratory Study 1: The Relationship between RSE and NRSE

As discussed in section 2.8, the sense of worthiness of the religious adherents is partly derived from RSE. Since all 3 religions espouse selflessness, RSE is postulated to be developed at the expense of NRSE, and therefore an inverse relationship is expected between them. As this conceptualization is developed on the proposition that people from all religions tend to have the same fundamental level of NRSE, it is therefore of vital importance to demonstrate the equivalence of NRSE for the 5 religious groups, which is tested through one-way ANOVA as follows:

Table 40: NRSE x Different Religious Groups in Australia and Hong Kong

Groups	NRSE		
	N	Mean	SD
OZCC	166	60.57	13.28
OZ2GC	129	64.85	16.94
HKC	174	62.79	11.42
HKB	138	61.42	13.25
HKT	129	63.14	11.94
Total	736	62.45	13.41
p	F(4,731)=2.17, p=.071		
Post-hocs Tukey	No post-hoc difference between groups is found		

The means of the 5 groups range from 60.57 to 64.85, with no significant difference between them. Hence, the equivalence of the fundamental level of NRSE between groups is supported.

It is also proposed that the strength of the negative relationship between RSE and NRSE is higher for the high religiosity group than the low group. That is, those highly religious individuals are more committed to their religious values, thus resulting in larger part of their self-esteem resides in RSE, and relatively smaller part in NRSE.

This prediction is tested through the correlation between RSE and NRSE at high and low level of religiosity. The results are presented below:

Table 41: Correlations between RSE and NRSE for High/Low level of Religiosity

Groups \ Variables	Correlation Between RSE & NRSE	
	Low Religiosity (Religiosity: 40-69)	High Religiosity (Religiosity: 70-100)
Australia		
OZCC	-0.32 (N=14)	0.05 (N=139)
OZ2GC	0.24 (N=8)	0.13 (N=117)
OZR (Combined OZCC & OZ2GC)	-0.09 (N=22)	0.09 (N=256)
Hong Kong		
HKC	-0.08 (N=24)	0.001 (N=136)
HKB	-0.23 (N=24)	-0.34** (N=101)
HKT	-0.30 (N=33)	-0.22* (N=81)
HKR (Combined HKC, HKB & HKT)	-0.24* (N=81)	-0.18** (N=318)
OZHKR :	-0.21* (N=103)	-0.06 (N=574)

** $p < .01$. * $p < .05$. (two-tailed)

Few of the correlations are significant. Again, for low religiosity group, the small cell sizes mitigate against significance. However, it is notable that all five significant correlations are negative, supporting the proposed inverse relationship between RSE and NRSE. The prediction that these correlations would favor the high religiosity groups is not supported.

5.2.3.1.2 Exploratory Study 2: Different Level of RSE and NRSE for Adherents of High/Low Religiosity

It is theorized in section 2.8 that the religious adherents obtain their sense of worthiness from two sources as RSE and NRSE. However, it is also assumed that highly religious believers will have higher commitment to their religious values and therefore are more likely to derive their felt worthiness from RSE than NRSE. Therefore, it is predicted that believers with high religiosity will be relatively higher in RSE; whereas those with low religiosity will be comparatively higher in NRSE.

As the testing of this prediction involves comparing 2 variables i.e. RSE and NRSE, the method of Hotelling's T² was considered (Tabachnick & Fidell, 2001). However, given that the comparison is made within groups rather than between groups, t-test therefore seems more appropriate based on the following grounds: (i) The data of both are standardized onto a 0-100 scale according to Percentage Scale Maximum scores (%SM) (see section 5.1), (ii) the distributions of these 2 variables are similar in that both are only mildly and negatively skewed (see section 5.1), and (iii) RSE and NRSE are related in some way as both are derived from the same source of variance i.e. the same respondents (M. Stokes, Associate Professor, Deakin University, personal communication, June 17, 2009). Hence, this prediction is tested through t-tests and the results are shown below:

Table 42: High/Low Religiosity x RSE/NRSE

Groups	RSE			NRSE			p
	N	Mean	SD	N	Mean	SD	
High Religiosity	559	65.56	19.15	588	64.07	13.13	t(1181)=1.56, p=.120
Low Religiosity	106	45.16	18.70	108	54.99	11.61	t(212)=-4.63, p=.000
p	t(699)=-10.14, p=.000			t(694)=-6.72, p=.000			

The prediction is partially supported in that the low religiosity group has significantly lower RSE than NRSE. However, there is no significant difference for the high religiosity group. Also, it is noted that both the means of RSE and NRSE for high religiosity group are significantly higher than those of the low religiosity group.

The above result gives rise to the possibility that RSE and NRSE are behaving in very similar way for the high religiosity group, and that perhaps they cannot be distinguished from one another in terms of their contributions of variance to SWB. In order to test this, hierarchical regression was performed and the result is shown below:

Table 43: Regression Analyses for NRSE and RSE on SWB for High Religiosity Group

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-NRSE					0.49***	0.24	0.24***	
<u>Model 2</u>								
-NRSE	64.07	13.13	588	0.49***	0.51***	0.26	0.30***	0.06***
-RSE	65.56	19.15	595	0.22***	0.25***	0.06		
-(SWB: DV)	72.26	11.56	552					

*** $p < .001$. ** $p < .01$. * $p < .05$.

In Step 1, NRSE as the only variable accounts for 24% unique variance. When RSE is added in Step 2, the variance explained by NRSE is increased by 2% which clearly indicates that it shares variance with NRSE. However, RSE still contributes variance (6%) of its own. Thus, even within the high religiosity group, RSE and NRSE are clearly distinguishable in terms of their contributions to SWB.

5.2.3.1.3 Exploratory Study 3: Comparison of SWB between High and Low Religiosity

Further to the proposition in section 2.8 that the religious adherents derive their sense of worthiness from both RSE and NRSE, it is proposed that RSE is linked positively with SWB in the same manner as NRSE. Based on the results in Table 42 that both RSE and NRSE of the high religiosity group are significantly higher than the low religiosity group, it therefore seems likely that SWB of the former will also be higher than the latter group. This prediction was tested through t-test and the result is provided as follows:

Table 44: High/Low Religiosity x SWB

Groups	SWB		
	N	Mean	SD
High Religiosity	552	72.26	11.56
Low Religiosity	91	59.73	12.66
p	t(641)=-9.45, p=.000		

The prediction is supported as SWB of the high religiosity group is significantly higher than the low one.

5.2.3.1.4 Exploratory Study 4: Unique Contribution of RSE to SWB

In this study, the revised homeostatic model is used as the basic theoretical framework to study how religion affects SWB (see section 2.9). The variables of NRSE, optimism and perceived control are the cognitive buffers that constitute the second order determinants of the model, and are supposed to mediate the relationship between HPMood and SWB. Given that RSE is added as a potential new buffer, hierarchical regression analyses were conducted with a view to finding out whether it adds unique variance to the prediction of SWB (the mean of 8 domains) and moderates the effect of HPMood on SWB, for the combined and individual religious groups. The analyses were performed with the homeostatic variables entering in Step 1 and RSE in Step 2. The assumptions for regression analyses were met. The result for the combined religious group is shown below:

Table 45: Regression Analyses for Homeostatic Model Factors and RSE on SWB for Combined Religious Group

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-HPMood					0.41***	0.10	0.52***	
-Non-Religious Self-Esteem					0.22***	0.03		
-Optimism					0.11**	0.01		
-Perceived Control					0.16***	0.02		
<u>Model 2</u>								
-HPMood	66.87	17.17	744	0.65***	0.36***	0.07	0.53***	0.01***
-Non-Religious Self-Esteem	62.45	13.41	736	0.54***	0.26***	0.04		
-Optimism	69.91	16.20	738	0.51***	0.10**	0.01		
-Perceived Control	73.90	13.90	755	0.49***	0.13***	0.01		
-Religious Self-Esteem	61.80	21.15	744	0.33***	0.13***	0.01		
-(SWB: DV)	70.13	12.89	676					

*** $p < .001$. ** $p < .01$. * $p < .05$.

The homeostatic model factors in Step 1 account for a significant 52% of the variance, with HPMood (10%), NRSE (3%), optimism (1%) and perceived control (2%) providing unique variance. In Step 2, with the addition of RSE, an additional 1% of variance is explained. With this addition, the contribution from optimism remains stable while HPMood and perceived control lose respectively 3% and 1% significant variance. This total 4% loss of variance becomes the shared variance with RSE. It is notable that NRSE, which explains 4% variance, contributing an over-all 1% more explained variance. This additional variance is supposed to be derived from the variance of RSE as these two variables share the same source of variance. In short, RSE as a new buffer makes 1% additional contribution in predicting SWB. Also, it moderates the effect of HPMood on SWB as the unique contribution made by HPMood is reduced from 10% to 7%.

Regression analyses with the same procedure as described above were conducted with different religious groups (see Appendix E1 to E5). Each of these groups satisfied the sample size requirement for regression analysis and the results are summarized as follows:

Table 46: A Summary of Regression Analyses for Homeostatic Model Factors and RSE on SWB for Different Religious Groups

	OZCC			OZ2GC			HKC			HKB			HKT		
	<i>sr</i> ²	<i>R</i> ²	ΔR^2	<i>sr</i> ²	<i>R</i> ²	ΔR^2	<i>sr</i> ²	<i>R</i> ²	ΔR^2	<i>sr</i> ²	<i>R</i> ²	ΔR^2	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>		0.47***			0.48***			0.61***			0.55***			0.62***	
-Life Events	-	-		-	-		-	-		-	-		0.02*	-	
-HPMood	0.05***	-		0.03*	-		0.07***	-		0.03*	-		0.13***	-	
-NRSE	0.03**	-		0.07***	-		0.03***	-		0.08***	-		-	-	
-Optimism		-		-	-		0.03***	-		-	-		0.02*	-	
-Perceived Control	0.02*	-		-	-		-	-		0.10***	-		0.05**	-	
<u>Model 2</u>		0.49***	0.02*	-	0.50***	0.02*	-	0.61***	0.00	-	0.55***	0.00	-	0.62***	0.00
-Life Events	-	-		-	-		-	-		-	-		0.02*	-	
-HPMood	0.04**	-		0.02*	-		0.06***	-		0.03*	-		0.11***	-	
-NRSE	0.04***	-		0.07***	-		0.03***	-		0.06***	-		-	-	
-Optimism	-	-		-	-		0.03**	-		-	-		0.02*	-	
-Perceived Control	-	-		-	-		-	-		0.10***	-		0.04**	-	
-RSE	0.02*			0.02*	-		-	-		-	-		-	-	
-(SWB : DV)															

*** $p < .001$. ** $p < .01$. * $p < .05$.

It is notable that RSE only makes unique contribution (2%) for the Christianity groups of OZCC and OZ2GC. However, with the exception of HKB, RSE moderates the effect of HPMood on SWB for all religious groups, as there is a reduction in the amount of unique variance made by the latter variable in Step 2.

In summary, RSE is only shown to have a significant positive correlation with SWB for the highly religious Christians. Moreover, there is generally a negative correlation between RSE and NRSE even though this inverse relationship does not favour the high religiosity group. It has also been found that RSE of the low religiosity group is significantly lower than NRSE, but no significant difference is found for high religiosity group. Nevertheless, SWB of the high religiosity is significantly higher than the low religiosity group. Finally, RSE explains 1% variance of SWB for all religious believers. However, when analyzing in terms of individual groups, it only contributes significant variance for the Christianity groups in Australia. The moderating effect of RSE on HPMood is exemplified by all religious groups, except for HKB.

5.2.4 Hypothesis 4: That collective self-esteem (CSE) will contribute unique variance to the prediction of SWB above the variance accounted for by non-religious self-esteem (NRSE), for the Chinese in Hong Kong.

Hierarchical multiple regression was performed to test this hypothesis. The variable of NRSE was entered in Step 1, and CSE in Step 2. SWB (the mean of 7 domains) is the DV. The result is shown as follows:

Table 47: Regression Analyses for NRSE and CSE on SWB for the Chinese in Hong Kong

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Non-Religious Self-Esteem					0.55***	0.30	0.30***	
<u>Model 2</u>								
-Non-Religious Self-Esteem	62.28	12.24	669	0.55***	0.45***	0.13	0.32***	0.02***
-Collective Self-Esteem	64.65	11.52	635	0.44***	0.18***	0.02		
-(SWB#: DV)	65.55	12.90	667					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores.

In Step 1, NRSE as the only variable accounts for 30% unique variance. But after the addition of CSE in Step 2, the variance uniquely explained by NRSE is reduced to 13%. This shows that there is much in common between the two self-esteem variables, as expected, but also that NRSE dominates the unique explained variance by a considerable margin of 13% to 2%.

In view of the above findings, the hypothesis is supported, but the dominance of NRSE is also noted.

5.2.4.1 Exploratory Studies

5.2.4.1.1 Exploratory Study 1: Relative Contributions of CSE and NRSE to SWB for the Australian Chinese

As demonstrated above, CSE is able to account for unique variance of SWB for the Hong Kong Chinese beyond NRSE. Hence, further analysis examines whether this is also a feature for the Chinese in Australia. As discussed in section 2.5.1, people who live in Eastern culture are more likely to derive their sense of worthiness from CSE than those in Western society; hence, it is predicted that the proportion of unique variance contributed by CSE will be comparatively less for the Australian Chinese. To test this, hierarchical multiple regression was performed as before:

Table 48: Regression Analyses for NRSE and CSE on SWB for the Chinese in Australia

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Non-Religious Self-Esteem					0.54***	0.30	0.29***	
<u>Model 2</u>								
-Non-Religious Self-Esteem	62.27	14.82	322	0.54***	0.38***	0.10	0.35***	0.06***
-Collective Self-Esteem	69.98	13.01	305	0.51***	0.30***	0.06		
-(SWB#: DV)	73.17	12.02	325					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security)

It is notable that the variance explained by NRSE is comparable to the Hong Kong sample in both steps. However, contrary to prediction, CSE adds 6%

explained variance to SWB beyond NRSE for the Australian Chinese, which is much larger than that of the Hong Kong Chinese (2%), and this has been added to the shared variance to take the total explained variance higher by 3%. So this warrants further enquiry.

As the Chinese respondents in Australia comprise 2 groups i.e. the Chinese immigrants and their second generation, it is predicted that CSE will contribute less unique variance in predicting SWB for the second generation, as this group is assumed to be exposed to higher influence of the Western culture during their growth in Australia. Hence, hierarchical regressions were performed for these 2 groups with the similar procedure as described above, with the results providing at Appendix F(1) and F(2). Again, contrary to prediction, the unique variance contributed by the second generation (7%) is slightly higher than the Chinese immigrants (6%).

In summary, the explained variance made by CSE to SWB by the Australian Chinese is 6%, which is 4% higher than the Hong Kong Chinese. Separate analyses for the Chinese immigrants and their second generation in Australia reveal that the significant variance made by the latter group is even 1% higher than the former one.

5.2.4.1.2 Exploratory Study 2: Comparing Level of Collectivism between Australian and Hong Kong Chinese

As discussed in section 2.5.1, CSE should have higher influence in the Eastern, collectivist societies than the Western, individualist ones as a source of worthiness. However, the results of the above analyses show that the opposite is true. The implication is that the Australian Chinese may have higher level of collectivism than the Hong Kong Chinese. To test this, one-way ANOVA was performed to investigate the strength of individualism-collectivism between them. A high score indicates higher collectivism. The result is shown below:

Table 49: Chinese Groups in Australia and Hong Kong x Individualism-Collectivism

Groups	Collectivism		
	N	Mean	SD
Chinese Immigrants in Australia	182	66.46	12.90
2 nd Generation of Chinese Immigrants in Australia	130	66.01	11.10
Chinese in Hong Kong	660	63.62	13.23
Total	972	64.47	12.95
ANOVA each column	F(2,969)=4.51, p=.011		
Post-hocs Tukey	Chinese Immigrants in Australia>Chinese in Hong Kong, p=.024		

This analysis supports the prediction, in that the Hong Kong Chinese have lower level of collectivism in comparison with the other 2 Australian Chinese groups. Post-hocs analysis indicates the there is significant difference between the Australian Chinese Immigrants and Hong Kong Chinese.

5.2.4.1.3 Exploratory Study 3: Unique Contribution to SWB by CSE within the Homeostatic Model

In this study, the revised homeostatic model of SWB is the basic framework for studying how CSE affects SWB (see section 2.9). The variables of optimism, NRSE and perceived control are the cognitive buffers that constitute the second order determinants of the model, and are supposed to mediate the relationship between HPMood and SWB. Given that CSE is added as a new buffer, hierarchical regressions were performed for all Chinese respondents and those respectively in Hong Kong and Australia, in a bid to examine whether CSE adds to the variance in the prediction of SWB (the mean of 7 domains), as well as moderates the effect of HPMood on SWB. To test this, the homeostatic model factors of HPMood, NRSE, optimism and perceived control were entered in Step 1, and CSE was added in Step 2. The assumptions for regression analyses were met. The results for all Chinese respondents are provided below:

Table 50: Regression Analyses for Homeostatic Model Factors and CSE on SWB for All Chinese Respondents

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-HPMood					0.39***	0.09	0.48***	
-Non-Religious Self-Esteem					0.23***	0.04		
-Optimism					0.13***	0.01		
-Perceived Control					0.11***	0.01		
<u>Model 2</u>								
-HPMood	66.54	16.97	996	0.62***	0.37***	0.08	0.50***	0.02***
-Non-Religious Self-Esteem	62.28	13.13	991	0.52***	0.17***	0.02		
-Optimism	69.17	16.42	997	0.49***	0.12***	0.01		
-Perceived Control	73.55	13.67	1019	0.47***	0.09**	0.01		
-Collective Self-Esteem	66.38	12.27	940	0.49***	0.16***	0.02		
-(SWB: DV)	68.05	13.11	992					

*** $p < .001$. ** $p < .01$. * $p < .05$.

The homeostatic model factors in Step 1 account for a significant 48% of the variance, with HPMood (9%), NRSE (4%), optimism (1%) and perceived control (1%) providing unique variance. In Step 2, with the addition of CSE, an additional 2% of variance is accounted for. However, while the contributions from optimism and perceived control remain stable, both HPMood and NRSE lose respectively 1% and 2% unique variance. This total 3% loss of variance becomes the shared variance with CSE. After this, NRSE contributes similar amount of variance (2%) to CSE in explaining SWB. In short, while CSE contributes 2% significant SWB variance, it also moderates the effect of HPMood on SWB, as the unique contribution made by the latter variable is reduced from 9% to 8%.

Similar regression analysis as the above was conducted separately for the Hong Kong Chinese and Australian Chinese. The results of analyses are provided in Appendix F(3) and (4). A summary of the results is shown below:

Table 51: A Summary of the Hierarchical Regression Analyses for Homeostatic Factors and CSE on SWB for the Chinese in Hong Kong and Australia

	Hong Kong Chinese			Australian Chinese		
	sr^2	R^2	ΔR^2	sr^2	R^2	ΔR^2
<u>Model 1</u>		0.50***			0.45***	
-HPMood	0.08***			0.05***		
-NRSE	0.05***			0.05***		
-Optimism	0.01***			0.02**		
-Perceived Control	0.01***			0.01*		
<u>Model 2</u>		0.50***	0.00		0.48***	0.03***
-HPMood	0.07***			0.04***		
-NRSE	0.03***			0.02***		
-Optimism	0.01***			0.02**		
-Perceived Control	0.01**			-		
-CSE	-			0.03***		
-(SWB : DV)						

*** $p < .001$. ** $p < .01$. * $p < .05$.

In the above Table, it is found that CSE does not contribute SWB unique variance for the Hong Kong Chinese. However, there is 3% significant variance made for the Australian Chinese; and such amount is even 1% higher than NRSE (2%). In addition, the inclusion of CSE leads to 1% reduction in the significant contribution made by HPMood for both groups.

In short, CSE moderates the effect of HPMood on SWB for all Chinese respondents as well as those respectively in Hong Kong and Australia. Furthermore, it contributes unique variance in explaining SWB for the groups of combined Chinese and Australian Chinese, but none for the Hong Kong Chinese.

Further to the above analysis, in order to determine which of the Step 1 variables were preventing the unique contribution of CSE for the Hong Kong Chinese, a set of hierarchical regression analyses were run, by omitting the individual and combined homeostatic factors (HPMood, NRSE, optimism and perceived control) as IV(s) by turns. It is found that CSE continues to account for a significant 1% of the variance with the single omission of (1) NRSE, and the combined omission of (2) HPMood and optimism (3) HPMood and perceived control (4) optimism and perceived control. The results are shown in Appendix F(5) to F(8).

In view of these findings, it seems that there is much in common between CSE and the existing homeostatic factors. In this regard, NRSE seems to share the most variance with CSE as with its single omission CSE makes a 1% unique variance contribution.

In overall, as a source of self-worthiness, CSE contributes more unique variance in predicting SWB, for the Australian Chinese than Hong Kong Chinese. Indeed, when analyzing the Australian Chinese in terms of Chinese immigrants and their second generation, the significant contribution made by the latter group is even higher than the former one. It is therefore predicted that the level of collectivism is higher for the Australian Chinese than Hong Kong Chinese, which is supported by the pertinent result of analysis. Moreover, when embedding the analyses within the homeostatic model, it is found that the amount of variance made by CSE is even higher than NRSE for the Australian Chinese. Meanwhile, CSE is shown to moderate the effect of HPMood on SWB.

5.2.5 Hypothesis 5: That within the religious group, social group identification will contribute unique variance to non-religious self-esteem (NRSE) and SWB beyond religious belief.

This hypothesis was tested through separate hierarchical multiple regressions.

In examining whether social identification contributes unique variance to NRSE beyond religious belief, religiosity was entered in Step 1, and social identification in Step 2, with NRSE as the DV.

Table 52: Regression Analyses for Religiosity and Social Identification on NRSE for All Religious Respondents

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Religiosity					0.24***	0.06	0.06***	
<u>Model 2</u>								
-Religiosity	82.85	18.95	748	0.24***	0.15***	0.01	0.08***	0.02***
-Social Identification	71.93	19.34	760	0.25***	0.15***	0.02		
-(NRSE: DV)	62.45	13.41	736					

*** $p < .001$. ** $p < .01$. * $p < .05$.

In Step 1, religiosity as the only variable accounts for 6% unique variance of NRSE. In Step 2, with the addition of social identification, the variance uniquely explained by religiosity is reduced to 1%, and that provided by social identification is 2%.

In investigating whether social identification contributes unique variance to SWB (the mean of 8 domains) beyond religious belief, the above regression procedure was repeated but with SWB as the DV. The result pertaining to all religious respondents is provided as follows:

Table 53: Regression Analyses for Religiosity and Social Identification on SWB for All Religious Respondents

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Religiosity					0.47***	0.22	0.22***	
<u>Model 2</u>								
-Religiosity	82.85	18.95	748	0.47***	0.32***	0.06	0.26***	0.04***
-Social Identification	71.93	19.34	760	0.45***	0.25***	0.04		
-(SWB: DV)	70.13	12.89	676					

*** $p < .001$. ** $p < .01$. * $p < .05$.

Religiosity, as the only variable in Step 1, accounts for 22% unique variance of SWB. After adding social identification in Step 2, the significant variance contributed by religiosity is reduced to 6%, and the unique variance added by social identification is 4%.

In view of the above findings, the hypothesis that social identification will add significant variance to NRSE and SWB beyond religious belief is supported.

5.2.5.1 Exploratory Study: Relationship between Social Identification and NRSE after Controlling for Religious Belief

As mentioned in section 2.4, identification with social groups exerts a positive influence on NRSE; however, it has been argued that this may not occur for the religious groups of Christianity, Buddhism and Taoism, as the selflessness espoused by them will have a diminution effect on NRSE. This study therefore intends to find out whether social identification will remain positively correlated with self-esteem after controlling the effect of religious belief. In testing this, hierarchical regression was performed to see whether social identification still contributes unique variance in explaining NRSE after the addition of religiosity. Hence, social identification was entered in Step 1 and religiosity in Step 2, with NRSE as the DV.

Table 54: Regression Analyses for Social Identification and Religiosity on NRSE for All Religious Respondents

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Social Identification					0.25***	0.06	0.06***	
<u>Model 2</u>								
-Social Identification	71.93	19.34	760	0.25***	0.15***	0.02	0.07***	0.01***
-Religiosity	82.85	18.95	748	0.24***	0.15***	0.01		
-(NRSE: DV)	62.45	13.41	736					

*** $p < .001$. ** $p < .01$. * $p < .05$.

Social identification, as the only variable in Step 1, accounts for 6% unique variance of NRSE. In Step 2, the addition of religiosity accounts for 1% significant variance. Though the variance explained by social identification is reduced by 4%, some of which becomes shared variance with religiosity, it still has 2% unique contribution. Thus, it implies that social identification continues to have a significant positive correlation with NRSE, even after the influence of religiosity has been accounted for.

In summary, social identification is able to make independent contribution beyond religiosity in explaining NRSE and SWB. Also, social identification is significantly and positively related to NRSE after controlling for religiosity.

CHAPTER 6: STUDY ONE DISCUSSION

6.1 Hypothesis 1: That religiosity will be positively correlated with spirituality-religion (S-R) satisfaction, and that both will be positively related to SWB.

The results (Table 15) show that generally there are positive relationships between religiosity and S-R satisfaction, as well as between religiosity/S-R satisfaction and SWB. Given that convergent evidence indicates a positive relationship between religious belief and the well-being of individuals (Goldstein, 1993; Liao, 1989, Mann et al., 2008), the positive ties between religiosity and S-R satisfaction, as well as S-R satisfaction and SWB, are interpretable.

It appears to be evident that the more important religion is to an individual, the higher will be their S-R satisfaction. Moreover, as S-R satisfaction is one of the life domains contributing to SWB (PWI; International Wellbeing Group, 2006), it is understandable that S-R satisfaction is positively associated SWB. However, the positive relationship between religiosity and SWB is suspected of being influenced by S-R satisfaction, given that religiosity is demonstrated to be positively correlated with S-R satisfaction. To test for this, a partial correlation was performed by controlling the effect of S-R satisfaction. The results (Appendix C23) reveal that the significant positive correlations between religiosity and SWB become insignificant for all combined and individual religious groups, except for HKT. Even for this exceptional group, the correlation coefficient is highly reduced such that the strength of relationship is reduced from large to small.

These results suggest that the observed relationship between religiosity and SWB is generally due to the influence of S-R satisfaction. In fact, in terms of being a predictor of SWB, S-R satisfaction (Table 17) is stronger than religiosity (Table 18), in that the unique variance explained by the former is higher than the latter variable for the combined religious groups. In the similar analyses for the individual religious groups, S-R satisfaction is able to explain variance for all of them, with the exception of HKB (Table 19). Indeed, it is the largest source of unique variance for the groups of OZCC and OZ2GC, in comparison with the other homeostatic factors. However, religiosity only accounts for significant variance for OZCC and HKT (Table 20). Taken together, S-R satisfaction seems to be a stronger predictor of SWB than religiosity for the religious adherents.

6.1.1 Exploratory Study 2: S-R as a Domain of PWI

The result from Table 21 shows that S-R satisfaction contributes significant variance beyond the seven life domains in predicting LAAW for the combined religious group of both Australia and Hong Kong (OZHKR). This also applies to the combined religious group in Australia (OZR) and Hong Kong (HKR), and the individual religious groups of OZCC, HKC and HKT (see Table 22). Overall, these findings lead to the conclusion that S-R can be established as a life domain of PWI for the religious Chinese populations in Australia and/or Hong Kong, as well as for the religious groups of Christianity and Taoism.

The failure of OZ2GC to make unique contribution may be related to the fact that it is a happy group and therefore S-R satisfaction may not bring additional happiness beyond the other seven domains. This can be reflected by the highest ranking it occupies on the variables of LAAW, SWB and all of the life domains except for personal relationships (Table 26). Conversely, the reason for HKB's failure to provide significant variance through S-R satisfaction is that it is an unhappy group, which is indicated by the obtainment of either the lowest or the second lowest scores on all the variables of LAAW, SWB and the seven domains (Table 26). Perhaps, the central belief of Buddhism that life is filled with suffering and real happiness can only be found in Nirvana (Brown, 2004; Flanagan, 2003; Lu, 2001) may constitute a gloomy preconception for the followers in viewing life, which therefore explains the lack of a significant relationship between Buddhism and SWB.

6.1.2 Exploratory Study 3: Comparison of LAAW, SWB and 7 Life Domains between Religious and Non-Religious Respondents in Australia and Hong Kong

Generally speaking, the religious believers are happier than those without religious belief (Table 23 and 24). These findings lend credence to the extant literature that religion is positively correlated with the well-being of individuals (Goldstein, 1993; Ironson et al., 2002; Kornfield, 1993; Lai, 2004; Liao, 1989; Mann et al., 2008).

However, when analyzing in terms of individual groups, the difference between religious and non-religious individuals seems to be at least partly a function of culture. Referring to Table 25, though OZ2GC has significantly higher SWB than the non-religious group in Australia (OZNR), no significant difference is found between the three religious groups (HKC, HKB and HKT) and those without religious belief (HKNR) in Hong Kong on any of the variables. In fact, on all domains other than personal relationships, the Australian religious groups (OZCC

and/or OZ2GC) are significantly higher than all the religious and non-religious groups in Hong Kong.

These findings are proposed as the interplay between religion and culture. In support of this proposition, there is a significant interaction effect between religion and culture on SWB (see Appendix C24). This interaction effect may be explained in terms of the disparate life condition between the two places, and is elaborated as follows:

When comparing the people's lifestyle in these two places, the pace of life in Hong Kong is portrayed as fast and tense whereas that in Australia is characterized as more peaceful and relaxed (Compare and contrast life in Hong Kong with life in Australia, n.d.). Thus, the different environmental conditions are proposed as the possible influencing agent. Geographically, Australia is 7,617,930 square kilometers in comparison with 1,095 square kilometers of Hong Kong; yet, there are 7.5 million people living in Hong Kong as opposed to the 21 million populations in Australia. Moreover, Australia is notable of its wonderful natural surroundings, wide open spaces and large gardens in both town and country areas. Conversely, due to the limited land supply and large population, Hong Kong is highly densely populated. High rise buildings, small living space and lack of access to open and natural view are the unique characteristics of the residential condition in Hong Kong (Compare and contrast life in Hong Kong with life in Australia, n.d.).

In addition, Hong Kong is renowned as an international city and a world financial centre. The hustle and bustle of this city therefore explains the high living pressure for the people of Hong Kong (Compare and contrast life in Hong Kong with life in Australia, n.d.). In this regard, it has been empirically demonstrated that the high living density associated with the rapidity and intensity of urbanization in Hong Kong constitute a stressful living environment, which in turn generate high level of emotional strain and psychological ill-health (Lau & Mak, 1992; Lo, 1976; Tsang et al., 2003). In fact, psychiatric symptoms are quite common in the general population (Lau & Mak, 1992; Tsang et al., 2003) and neuroses are on the rise, which create increasing demand for psychiatric care (Lo, 1976). Based on this evidence, it is possible that the relatively unfavourable living condition in Hong Kong leads to generally lower level of well-being, for both religious believers and non-believers, in comparison with Australia. As such, even though it is widely believed that religion tends to have positive effect on SWB (Bonadonna, 2003; Emavardhana & Tori, 1997; Hartz, 1993; Hsin & Macer, 2006; Hummer et al., 1999; Mann et al., 2008), this may be counteracted by the poor conditions of life quality.

In short, it seems that the relatively advantageous living conditions in Australia intimately tie to the higher level of SWB for the general population, whereas the less favourable conditions in Hong Kong are closely related to the generally lower SWB. Indeed, the disparate life quality between the two places is the plausible explanation of the comparatively higher level of SWB for the Australian religious group. Meanwhile, it also explains the non-significant difference on SWB between the religious and non-religious people in Hong Kong, given that the living condition variance has swamped the variance attributed to religion.

6.1.3 Exploratory Study 4: A Study on the Affects of Alert and Peaceful

The results (Table 27) reveal that, when taking all respondents together, the religious adherents are higher in alertness and peace than the non-religious people. This may be explained as follows:

Alert

The finding that religious believers are more alert than the non-believers can be addressed in two ways. First, higher level of alertness is functional for religious pursuance. According to the three religions in question, their espoused values tend to be different from those of the non-religious world, for instance, the shifting of mentality from self-centeredness to other-centeredness, and from material concern to spiritual edification. These, in turn, necessitate adherents developing high alertness so as to make a clear differentiation between values, thus enabling them to better persevere with their religious values, as well as avoid from being influenced by the worldly values.

Second, higher alertness may be the outcome of overall enhancement of HPMood in association with religious involvement. As discussed in section 2.3.1, core affect (latter termed as HPMood) is the key component of SWB and many studies have demonstrated that SWB is positively related to religion (Bonadonna, 2003; Edman & Koon, 2000; Emavardhana & Tori, 1997; Hsin & Macer, 2006; Samana et al., 2004; Shin, 2001). Following this, the experience of HPMood will change commensurate with the increase in SWB relating to religious involvement. As alertness is one of the affective predictors (see Figure 3 of section 2.3.1), it is evident that the higher level of alertness reported by religious believers may be attributed to the overall elevation of the predictors of HPMood rather than a specific boosting on this item due to its functional utility as abovementioned.

In an attempt to clarify this link, a comparison was made between religious and non-religious individuals on the other three affects –content, happy and excited, purporting to examine whether religious involvement leads to a general enhancement of affective items. The results reveal that though the religious group is significantly higher on the affect of content, there are no significant differences on the predictors of excited and happy (see Appendix C25). Hence, rather than initiating an overall elevation, religion is only positively associated with selected affective indicators.

Taken together, the functional purpose that higher level of alertness served for the religious adherents seems to be a more plausible explanation for the finding.

Peaceful

A peaceful mind is an ideal mental state favoured by the three religions of interest. In Buddhism, mental calm is useful for illuminating the true nature of all things, pacifying distracting thoughts, purifying unruly emotions and inordinate desires that create suffering (Keown, 1996; Mitchell, 2002). Taoism locates life's principle in Nature and therefore embraces the idea that humans should keep their minds quiet and calm, which is analogous with a romanticized view of Nature (Hartz, 1993; Loy, 1997). In Christianity, it is stated that a mind of peace is the source of strength for dealing with life difficulties (Streams in the Desert, 2000). In fact, it is of particular importance to keep still and calm when facing troubles; otherwise, people cannot hear the answers of God in their prayers (Psalms 46:10).

It is also notable that each religion has their unique means of restoring a peaceful mind. For example, the Buddhists rely on meditation to help them develop deep levels of mental calm (Keown, 1996; Mitchell, 2002). To pacify the mind, Taoism teaches that followers should lead a simple life by curbing their wanton and selfish desires, as well as putting aside concern with externals such as monetary rewards and fame (Hartz, 1993; Loy, 1997). In Christianity, praying to God, meditating His word and maintaining faith in Him will have a pacifying effect and therefore allow people to restore stillness in mind (Warren, 2002). Hence, the higher level of peace reported by the religious believers tends to support the idea that there is a close tie between the involvement in religious practice and restoration of inner quietude.

Given that the religious believers are more alert and peaceful than the non-believers, it is possible that these two affects are also crucial predictors of SWB in addition to the three indicators of HPMood (content, happy and excited). Regression analyses (Table 28 to Table 30) showed that the relative contributions of these five

affects in explaining SWB are quite different for these two groups. For those without religious belief, only the affects of happy and content make unique variance. But for the religious believers, although content remains a significant contributor to SWB for all the combined and individual groups, the predictor of peace accounts for unique variance for the combined religious group and HKB; and alertness explains variance for OZCC and HKT. As such, despite the fact that HPMood is believed as a constant for all people (section 2.3.1), the above findings lead to the speculation that religious learning and experience is intimately related to the alteration of the experience of affective composition for the religious adherents.

In summary, one of the primary objectives of this study is to investigate the relationship between religion and the well-being of individuals. In this regard, religion seems to exert positive influence, as S-R satisfaction and religiosity contribute unique variance to SWB. This is further reinforced by the findings that S-R meets the criterion for a life domain of PWI for the religious Chinese populations in Australia and/or Hong Kong, as well as the religious groups of Christianity and Taoism. However, it should be noted that while religious believers are generally happier than those without religion, the disadvantageous living condition may counteract its positive effect and lead to the lower level of well-being for both the religious and non-religious people in Hong Kong. It is also possible that religion may alter the experience of HPMood and relate to higher level of peace and alertness for the religious believers.

6.2 Hypothesis 2

6.2.1 Hypothesis 2a: That the religious group will have higher optimism and lower NRSE than the non-religious group in both Australia and Hong Kong. Optimism

The result (Table 31) shows that the level of optimism of the religious group is significantly higher than it is for the non-religious group. This supports other evidence that, in general, religious people are more optimistic than non-religious people (Cotton et al., 2006; Plante et al., 2000; Watts et al., 2006). The reason for this may be that the teachings of the three religions of interest can be understood as coping resources for their followers, in terms of a perspective for understanding life and the means for dealing with life's adversities (Banthia et al., 2007; Barbarin, 1993; Masters & Spielmanns, 2007). Such understanding may help to promote followers' optimism (Masters & Spielmanns, 2007). Some examples for each religion are as follows:

In Buddhism, given the teachings of Three Basic Characteristics i.e. all things are impermanent, life is dissatisfactory, and permanent self does not exist; suffering is inevitable. In enabling people to know about human suffering and the means that leads to its removal, Buddhism teaches people the Four Noble Truths of Life: the first gives an account of the intrinsic dissatisfying human conditions; the second informs that craving is the cause of suffering; the third states that suffering comes to an end with the attainment of Nirvana; and the fourth teaches that the practice of Eightfold Path leads to Nirvana (Keown, 1996; Klostermaier, 1999; Mitchell, 2002) (also see section 2.6.1.2). By helping people to apprehend this version of reality and the means of liberation, followers may experience an increased sense of confidence in their abilities to guard against potential misfortunes and garnering a blissful future, which then promote their level of optimism.

Taoism states that humankind is part of Nature and therefore a flourishing life can only be achieved when people live in harmony with Nature (Hao, 2005; Hartz, 1993). The Taoists believe that the Nature can be expressed as the continuous interaction of three different forces: heaven (deities), earth (demons) and humanity (Hartz, 1993); hence, it is necessary to establish harmonious relationships with the spirits, by means of ritual, in order to keep their world in order (Leung et al., 2007). As such, when the Taoists encounter life difficulties that they cannot tackle, they communicate through rituals with the deities, whom they believe have supernatural power and petition for help (Leung et al., 2007). They also believe that demons bring them misfortunes and hardships. In order to avoid these, they ask the deities to intercede and bargain with the demons (Hartz, 1993) (also see 'Interaction with Supernatural Beings' in section 2.6.2.6.1). Thus, the Taoists tend to view their life in positive light as they are taught the nature of life, how to create a harmonious life, and the ways of dealing with life adversities. These, in turn, promote their sense of optimism.

In the vision of Christianity, sin and death are viewed as two intrinsic predicaments that humans cannot change (Romans 5:12; 7:13) (also see section 2.6.3.1); however, people are informed that they still have one chance of escaping from the fatal destiny, by means of becoming the followers of the Christianity-God. It is stated in the Bible that the Christianity-God has given people the salvation, through the sacrifice of Jesus, in that the hope of overcoming sin and entering into eternal heaven after body death can be realized by accepting the salvation (Romans 5:8; John 4:10). In a bid to receive this salvation, people simply need to confess and repent their sins; believe that Jesus died for their sins; and then receive Him into their heart and life by faith (Romans 10:9). Thus, it is possible that the Christians may

have a renewed sense of hope in facing the predicaments of life; thus resulting in the enhancement of optimism.

In summary, despite the fact that each of the three religions has its own vision of life, as well as its unique means of tackling life difficulties and promoting well-being; all these are, indeed, coping resources which can promote followers' feeling of hope. As such, it is understandable that the level of optimism for the religious believers is higher than the non-believers.

Non-Religious Self-Esteem

The result of the analysis (Table 31) on NRSE shows that the mean of religious group is not significantly lower than the non-religious group. The hypothesis that NRSE of the religious adherents will be lower than non-religious individuals was based on the argument that, for these three religions, the standard for judging self-worthiness has no bearing on ego; instead, self-centeredness or egocentric mentality is an impediment to true beliefs. In fact, these three religions admonish their followers to eliminate self-centeredness thinking and develop other-centeredness mentality (see section 2.6.1.3.3, 2.6.2.6.3 and 2.6.3.3.3). Now that an insignificant result is obtained, it means that the level of NRSE is similar for these two groups. The reason for this may be that, the act of putting aside the self-oriented value and becoming other-oriented is not easy to attain, since individuals are so used to their egocentric mentality. Indeed, this mentality seems to be a consensually-agreed standard of which people learn and acquire during their development. In order to attain such a radical change of the value system, it necessitates high level of religious edification which, in turn, requires intensive and lengthy religious practice.

6.2.2 Hypothesis 2b: That the Buddhists will have higher primary control, the Christians will have higher secondary control, and the Taoists will have higher primary and secondary control, than the non-religious group.

The results show that there is generally no significant difference in either form of control for any of the groups (Table 33 and 34). Possible explanations are as follows:

Regarding primary control, it has been discussed that (see section 2.6.1.3.1 and 2.6.2.6.1), among the three religions, only the Buddhists and Taoists adopt this control technique with a view to shaping or influencing the realities through their own behaviors. In Buddhism, a flourishing life can only be secured out of one's effort. This is exemplified by the belief of karma. Karma is the result of willful intention (Mitchell, 2002). For example, the procurement of happy rebirth in the higher realms of human and god, as well as good fortune in life, are the outcomes of

good karma through the accumulation of merit by engaging in virtuous behavior (Gyatso, 1992). Contrarily, unhappy lower rebirth in the realms of hell, animal and Titans; and all sufferings people experience in life are the results of past bad karma, which are caused by the immoral deeds they performed. In Taoism, the purpose of life is the pursuit of good health, longevity and immortality. In pursuing these, followers should practice various life-enhancing activities such as the physical exercise of Taiji, meditation, healthful diet and the medical arts of alchemy. Moreover, they ought to exercise self-discipline and self-control so as to reduce excessive material desires that are harmful to life (Hartz, 1993; Yip, 2006). Hence, the quality of life can only be enhanced out of people's own effort. In short, it seems that both the Buddhists and Taoists can take an active role in determining their life quality.

There are two possible explanations for the lack of difference in primary control. First, that the teachings of Buddhism and Taoism do not really benefit their followers in terms of enhancing their control over life. Second, that the respondents have not fully benefited themselves from these teachings. The later explanation seems easier to explain.

Each religion is like a discipline having its own voluminous texts and treatises, as well as an organization having its specific code of conduct and creed. Hence, the devotion to religion may, therefore, be understood as a long-term religious growth and development that necessitates constant effort in the continual pursuit of religious knowledge, and its practical application in regulating one's thought and behaviour. The eradication of egocentric mentality can be illustrated as an example. As mentioned (see section 2.6.1.3.3, 2.6.2.6.3 and 2.8), self-centeredness is an obstacle for people to commit to religion. In fact, according to the religious beliefs of Buddhism and Taoism, it is only through removing such mentality, by following their respective unique religious practice, that people can enhance their quality of life. For instance, the practice of Eightfold Path in Buddhism and the adoption of wu wei as life attitude in Taoism, are supposed to be the means that can promote well-being which, in turn, necessitate eliminating self-centeredness thinking and developing other-centeredness mentality. However, putting aside the self-oriented value and becoming other-oriented is difficult to achieve, as humans are so accustomed to the egocentric mentality, which is a worldly standard that they have long been developing during their growth. Hence, it will take tremendous effort and lengthy practice before the religious believers can attain high level of religious maturity, and therefore achieve a radical change in their value system, such that they can exercise effective control over their life circumstances.

The lack of difference in secondary control is more surprising. It is a widespread belief that vicarious association with the powerful others (deities) enables the religious adherents to experience an enhanced sense of strength and power (Johnson & Downing, 1979; Rothbaum et al., 1982; Weisz et al., 1984). However, in this study, the level of secondary control for the adherents of Christianity and Taoism, who believe in the existence of god, is not significantly higher than the non-religious people. One explanation may be that the secondary control scale used in this study, which comprises only 3 items (when something bad happens to me, I remind myself something good may come of it; I remind myself I am better off than others; and I remind myself situation will improve if I am patient), are not relevant or specific enough to probe the vicarious and/or interpretive techniques that are mainly taught to these religious believers. It may therefore be useful for a more specifically designed control scale to be developed, to measure secondary control in religious people.

6.2.3 Cultural Differences in Control

With respect to the use of primary and secondary control, studies have shown that in the individualistic Western cultures, where autonomy and individualism are emphasized, people tend to center on the use of primary control so as to change the environment in line with their wishes (Sastry & Ross, 1998; Weisz et al., 1984). However, in the Asian collectivist cultures that stress selfless subordination to family and community, people tend to devalue attempts that shape life circumstances in fitting their wishes and are more apt to adopt secondary control (Sastry & Ross, 1998; Weisz et al., 1984). It was therefore hypothesized that, in this study, the Australian Chinese would have higher level of primary control, but lower level of secondary control, than the Hong Kong Chinese. However, the results of analyses (Table 35) reveal that the Australian Chinese are higher in the use of primary control than the Hong Kong Chinese, with no difference in secondary control between them.

This may be explained in terms of the integration process that takes place under intercultural contact (Vaughan & Hogg, 2002). When people migrate, such as the Australian Chinese, it is inevitable that they come into close contact with people of the host culture. In facing the cultural difference between their home country and the host country, an integration process will take place, in that the individuals will embrace the host culture; while also maintain their own cultural values (Vaughan & Hogg, 2002). Hence, the enhanced primary control is probably the result of cultural learning which, in turn, increases their orientation to self.

In summary, religious beliefs serve as coping resources that offer a vision for followers to understand life and the means of tackling life difficulties, which in turn enhance their level of optimism. However, the same level of NRSE for both the religious and non-religious respondents implies that it is difficult for the believers to change their value system from self-centeredness to other-centeredness, as required by their religions, for the attainment of which necessitates high level of religious maturity. In fact, the difficulty of eliminating egocentric mentality also presents as an obstacle to the Buddhists/Taoists that prevents them from genuinely benefiting from the religious teachings and therefore shaping their life circumstances. This may explain the lack of difference in primary control between the religious believers and non-believers. Regarding the non-significant result on secondary control between the religious and non-religious group, it may be attributed to the irrelevance or non-specificity of the scale used in this study. Finally, the occurrence of integration process in the context of intercultural contact may explain the enhanced use of primary control by the Australian Chinese in comparison with the Hong Kong Chinese, as well as the same level of secondary control between them.

6.3 Hypothesis 3: That for adherents with high, but not low religiosity, religious self-esteem (RSE) will correlate more strongly with SWB.

As postulated in section 2.8, part of the felt worthiness of religious believers is derived from RSE and such kind of esteem is intimately associated with SWB; hence, it is argued that those with high religiosity will have a stronger relationship between RSE and SWB than those with low religiosity. In this effect, the results (Table 39) demonstrate that the only significant positive relationship between RSE and SWB is for the highly religious Christianity groups (religiosity \geq 70). Neither significant relationships are found for the Christianity groups with low religiosity (religiosity \leq 69), nor any significant relationships within Buddhism or Taoism. The disparate results between Christians with high and low religiosity, as well as Christianity and Buddhism/Taoism, will be discussed in turn as follows:

High Religiosity vs. Low Religiosity Christians

As discussed in section 2.8, RSE refers to the sense of worthiness people derived from evaluating themselves against the values of their religions. As Christianity is the religion that places supremacy on the position of God, He is supposed to be the central point of reference for the adherents to make self-evaluation.

According to the belief of Christianity, God is viewed as the creator and planner of life; and humans, in relation to God, are powerless and subordinate (Cole, 1996). In order to live in prosperity, people should derive the values of life from

God. That is, they should place God in the center of life, live their life for God, and allow their life to be shaped by God (Warren, 2002). These, in turn, necessitate a radical change of their natural value systems because they require self-abnegation (Parker, 1994; Waters, 1987). Some examples are illustrative.

For Christians, being the followers of God means becoming one with God and living by the faith of God, which symbolizes that they have to hand over the sovereignty of life and allow Him to steer their life (Galatians 3:20; Hebrews 10:38). Hence, in facing life difficulty, which is supposed to be the loving plan of God and serve people's best interest, they are admonished to submit themselves to God by simply taking their hands off the task and leaving Him to work. If people try to intervene in God's plan for them with their own wit and will, it will only disturb the good plan intended by God (Streams in the Desert, 2000). Thus, people should put their confidence in God rather than in themselves (Psalms 118:8), as He understands humans more than they understand themselves (Warren, 2002). As such, people should always be obedient to whatever God plans and arranges for them, since it is only God can lead them in triumph (2Corinthians 2:14). Also, by committing their way to God in facing life difficulty, it is believed that the psychological well-being of followers will be promoted, as they will be more restful (Mark 11:28-30); no longer fear for the difficulty (1John 16:33); be less anxious and worried (Proverbs 10:22; Matthew 6:25-33); more peaceful (John 16:33; Philippians 4:7); and more joyful (John 15:11; Philippians 4:4). It is stipulated in the Bible "My heart is glad, and my soul rejoices; my body also dwells secure" (Psalms 16:9).

In view of the above, for the Christians, a blessed life can only be garnered by developing a value system that places God as the central point of reference, which is characterized by handing over the sovereignty of life and letting Him be the lord. It therefore follows that the more radical change of one's value system in compliance with these values, the more flourishing life one will lead. In this light, it is understandable why significant positive relationship between RSE and SWB is only found for the highly religious Christians. That is, the followers with high religiosity will have higher incorporation of the religious values into their value systems, which in turn enhance the tendency to evaluate their worthiness against these values. Extending this line of reasoning, it therefore follows that adherents with higher RSE, in comparison with those with lower RSE, will lead a more blessed life. In short, people with high religiosity will have a more God-oriented value system and therefore higher RSE, which then lead to higher SWB. In this regard, result (see Appendix E6) shows that SWB of the high RSE Christianity group ($RSE \geq 70$) ($M: 74.51$) is significantly higher than the low one ($RSE \leq 69$) ($M: 67.48$).

Christianity vs. Buddhism/Taoism

The disparity between the results of Christianity (high religiosity) and Buddhism/Taoism (both low and high religiosity) can be explained in the light of their different means of garnering well-being i.e. self-directed vs. other- method.

Christianity is monotheism. It embraces a God-oriented value system and self-abnegation, which have been discussed in the preceding section. The well-being of humans is, therefore, a positive function of how much they submit to the Christianity-God i.e. the higher their submissiveness, more blessing the life they will receive. It therefore carries the implication that a flourishing life cannot be procured through the effort of human but is the giving of God. On the other hand, Buddhism and Taoism do not have a supreme and all-powerful figure for which people should live their life. Rather, how much happiness one gets is highly dependent on how much effort one puts in this regard. That is, self rather than deity, is the determinative factor of the well-being of human.

Buddhism underscores that a flourishing life can only be garnered by human effort. For example, people who have good health, comfortable living conditions, harmonious relationship and success in activities are the results of good karma or virtuous action. Contrarily, the sufferings such as sickness, poverty, conflicts and accidents are the outcomes of bad karma or non-virtuous behaviour (Gyatso, 1992). For the Taoists, although they believe in the existence of deities that have supernatural power and to which they can petition, they still think that a blissful life intimately ties to the effort put by people themselves. Some examples are cited. In order to restore a peaceful mind, people should regulate their thought and behaviour by exercising self-discipline and self-control to curb the material desires. To live in prosperity, people need to practice the moral behavior of 'de' and manage affairs in accord with 'wu wei'. To strive for good health, longevity and immortality, people ought to improve both their mind and body through the practice of meditation, the physical activity of Taiji and the medical arts of alchemy.

Since Buddhism and Taoism focus on the self-directed means of obtaining happiness, the followers' source of felt worthiness, in comparison with the God-directed mentality of Christians, is less dependent on RSE. This, therefore, may help to explain why there is no significant relationship between RSE and SWB for the Buddhists and Taoists, regardless of their level of religiosity.

6.3.1 Exploratory Study 1: The Relationship between RSE and NRSE

As mentioned in the preceding section, RSE is a source of felt worthiness for the religious adherents. This source of worthiness, referring to section 2.8, is developed at the expense of NRSE, which refers to the ordinary self-esteem of Rosenberg (1979). As such, RSE is predicted to be inversely related to NRSE. Moreover, since adherents with higher religiosity are more committed to their religions, it is therefore possible that larger proportion of their self-esteem is derived from RSE. Thus, it is predicted that the magnitude of negative relationship between RSE and NRSE is stronger for the high religiosity than low religiosity group. In support of this proposition, the analyses results in Table 41 show that, in general, there is a negative relationship between RSE and NRSE; however, the prediction that the strength of the negative relationship is stronger for high religiosity group is not supported. To elaborate on these findings, the results of Exploratory Study 2 (Different Level of RSE and NRSE for Adherents of High/Low Religiosity) are pertinent.

In Table 42 of Exploratory Study 2, it is shown that for the low religiosity group, NRSE is significantly higher than RSE. This tends to support the hypothesis that these two constructs are in inverse relationship, as the result implies that the lower level of adherence to religions, lesser part of believers' self-esteem resides in RSE while larger proportion is derived from NRSE. However, for the high religiosity group, though both RSE and NRSE are significantly higher than low religiosity group, no significant difference is found between them within group. Intuitively, this result fails to lend credence to the proposition that RSE and NRSE are negatively related; however, this claim remains tenable when considering the following explanation:

With respect to the postulation of a negative relationship between RSE and NRSE, the centrality of selflessness is assumed for the three religions in question, such that higher commitment to religions, the higher the selflessness of believers becomes; thus leading to their lower NRSE. In this situation, the relatively higher level of RSE for the high religiosity group reflects that they have higher incorporation of the religious teachings in comparison with low religiosity group. However, their similarly high level of NRSE may be interpreted in the way that, though religions exert stronger influence on them as a result of comparatively higher internalization of the religious values; they are not successful in the attainment of selflessness and therefore their NRSE is of equal importance to them as a source of worthiness. In fact, the eradication of egocentric mentality is a difficult task for those who inhabit in the mundane world and are taught of self-oriented value (see

pertinent discussions in ‘Non-Religious Self-Esteem’ under section 6.2.1; and the 4th paragraph of section 6.2.2). By this view, the proposition that RSE is inversely associated with NRSE remains tenable, since it may be that if the religious adherents were to be successful in the removal of egocentric mentality, their source of worthiness will then be mainly dependent on RSE.

6.3.2 SWB of High/Low Religiosity Group

There are two features pertaining to the results of SWB on religious groups that warrant further comment. First, it is found that the level of SWB for the high religiosity group is significantly higher than the low religiosity group (refer to Table 44 of Exploratory Study 3). As discussed in section 2.8, it is postulated that RSE is linked to SWB in the same way as NRSE. Since both RSE and NRSE of the high religiosity group are moderately higher than those of low religiosity group (see Table 42 of Exploratory 2), it seems reasonable that SWB of the former group is higher, too. Hence, this result lends credence to the proposition that RSE is a predictor of SWB for the religious adherents and ties positively with SWB in the same manner of NRSE.

Second, convergent findings indicate that there is a positive relationship between religion and SWB (Emavardhana & Tori, 1997; Flanagan, 2003; Lai, 2004; Liao, 1989; Neighbors et al., 1983; Poloma & Pendleton, 1991). Hence, it is intriguing to find that the mean of SWB for the low religiosity group is at the low level of 59.73 (see Table 44), which is far below the mean of 70 and even falls below the normative range of SWB (65-75%SM) for the Asian populations (Lau et al., 2005). In fact, when a comparison is made on SWB taken together with the high religiosity and non-religious group, it is discovered that the low religiosity group is even unhappier than the non-religious group (M: 65.74) and is the unhappiest among the three groups (see Appendix E7).

One explanation for the lowest score of low religiosity group on SWB is due to the fact that its NRSE (M: 54.99) is also the lowest when comparing with the high religiosity (M: 64.07) and non-religious group (M: 61.76) (see Appendix E8). As it has been empirically shown that NRSE is a powerful predictor of SWB (Boschen, 1996; Coyle et al., 1994; Piccolo, 2005; Tong & Song, 2004), the low score of this group helps to understand its corresponding low level of SWB. That is, individuals hold negative view of themselves are less likely to be buffered against the challenges of life and show lower SWB resilience than those hold positive self-view. Perhaps, low NRSE is the motivating factor that drives these people to seek for social support and recognition in the religious institutes. These organizations are, in fact, of special

attraction to people with low self-esteem, as their benevolent nature creates an overt impression that they adopt an open and positive attitude towards all kinds of people.

Another explanation may be that the people comprising the low religiosity group are generally unhappy in themselves. For instance, they are perplexed with the meaning of life or inflicted by the unfavourable life conditions. These people, therefore, hope that through the pursuit in religions, they can find out the answers to the questions that puzzle them or seek help from deities. However, due to their low religiosity, their level of religious achievement may not be high enough for them to genuinely benefit from the religious teachings and thereby promote their happiness (see pertinent discussions in 'Non-Religious Self-Esteem' under section 6.2.1; and the 4th paragraph of section 6.2.2); hence, their SWB remains at a low level.

6.3.3 Exploratory Study 4: Unique Contribution of RSE to SWB

As discussed in section 2.8, for those people with religious beliefs, their value systems are likely to be affected by their religions; hence, correspondingly, they have a tendency to evaluate themselves against religious values. To this effect, RSE is the source of felt worthiness derived from religions and is postulated to exert influence on SWB. In order to examine its extent of influence, regression analysis was performed to investigate how much significant variance it adds to SWB beyond the general factors of the homeostatic model. Taken all religious respondents together, RSE explains 1% additional variance (Table 45). This result has the significance that RSE, as a new construct, is substantiated to be useful in accounting for SWB of the religious adherents. However, in terms of individual religious groups, it is found that RSE provides unique variance only for the two Australian Christianity groups (OZCC & OZ2GC) (Table 46). This result is quite consistent with the findings that positive correlation between RSE and SWB merely exists for the high religiosity groups of Christianity (see Table 39 and pertinent discussion in section 6.3). As such, it seems that the extent of usefulness for RSE in accounting for SWB is the highest for Christianity believers.

In summary, the above results prove the usability and practicability of RSE, as a newly created construct, in delineating another important source of felt worthiness for the religious respondents, in addition to NRSE. Moreover, the self-esteem of the religious believers is shown to be made up of both RSE and NRSE, in that they are in inverse relationship, and with RSE developed at the expense of NRSE. Finally, RSE is demonstrated to be a crucial predictor of SWB, at least for the religious group of Christianity.

6.4 Hypothesis 4: That collective self-esteem (CSE) will contribute unique variance to the prediction of SWB above the variance accounted for by non-religious self-esteem (NRSE), for the Chinese in Hong Kong.

There is extensive evidence showing that the relative influences of NRSE and CSE as dominant source of self-worthiness is a function of cultural difference (Chen et al., 2002; Chen et al., 1998; Kashima & Hardie, 2000). As source of felt worthiness, the centrality of NRSE in individualist societies is germane to the self-oriented cultural values in these societies (Crocker et al., 1994; Diener & Diener, 1995; Markus & Kitayama, 1991); whereas CSE exerts stronger influence in collectivist societies, being underpinned by the prevalence of collectivity-oriented cultural values (Zhang, 2005). In turn, convergent evidence supports that both NRSE and CSE are powerful predictors of SWB, though CSE is more influential in the collectivist societies than individualist societies (Crocker et al., 1994; Zhang, 2005).

While the dominance of NRSE over CSE in explaining SWB in Australia is straightforward, the prediction in Hong Kong is not so simple. Hong Kong has the history of British rule and therefore has been westernized to a certain extent. However, it still shares the cultural values of Mainland China. Hence, it is predicted that CSE will have higher influence in accounting for SWB in Hong Kong.

Surprisingly, the results show that the opposite is true. It is noted that CSE appears to be a relatively more important source of felt worthiness to the Australian Chinese than Hong Kong Chinese, as it explains more variance of SWB for the former (Table 48 & 51) than the latter group (Table 47 & 51). Indeed, the result on homeostatic factors and CSE regressing against SWB shows that the variance explained by CSE is even 1% higher than NRSE for the Australian Chinese (Table 51). Even more striking is that, separate analyses for the Chinese immigrants in Australia and their second generation, demonstrate that CSE of the latter group contributes 1% more variance than the former in explaining SWB (Appendix F(1) & F(2)). These counter-intuitive findings are further supported by the analysis on level of collectivism (Table 49), in that the Australian Chinese groups get higher scores than the Hong Kong group.

The higher level of collectivism and greater importance of CSE for the Australian Chinese can perhaps be explained in terms of the migrant status and nostalgic sentiment, which are the encounters specific to this group.

Migrant Status

The examination of the relationship between the Australian Chinese as a migrant group and the resulting higher level of collectivism and CSE, is informed by the theories of social identification (Tajfel, 1981) and social categorization (Turner et al., 1987) (see section 2.4). Australia is a multi-national and multi-cultural society, and the Chinese group is one of the numerous migrant ethnic groups. The identity derived from being members of the group is, therefore, a salient social identity to the Chinese immigrants; thus leading them to view the ethnic group they belong to as ingroup and the other ethnic groups as outgroups (Hogg & Tindale, 2001; Turner, 1991). This ingroup-outgroup categorization will, in turn, enhance their group cohesiveness (Turner et al., 1987).

People who feel they belong to a group automatically internalize the attributes that describe the group and this becomes part of their self-evaluation, which then contributes to CSE (Crocker & Major, 1989). Thus, the reason for the ethnic group identity, as a major dimension of self-evaluation for the Chinese immigrants, is elaborated as follows:

For the Chinese immigrants in Australia, the outgroups present as potential competitors or threat to their survival or well-being in society. Therefore, developing a highly cohesive ingroup and strong sense of collectivism has functional and adaptive significance to them. That is, in facing life difficulties and challenges, the Chinese immigrants can mutually depend on one another to satisfy needs and solve problems, provide emotional support, as well as form into a coalition to voice grievances and fight for their rights or benefits. In fact, these functional utilities also apply to their second generation, since ethnic group identity remains a salient social identity to individuals who inhabit in a migration country with heterogeneous populations, regardless of their place of birth. Thus, as the Australian Chinese are highly dependent upon one another, their ethnic group signifies vital importance to them, and is pivotal as a source of felt worthiness.

Nostalgic Sentiment

Another possible explanation is related to the deliberate attempt of the Chinese immigrants to preserve the traditional Chinese cultural values, which is due to nostalgia. Life transition, such as migration, inevitably leads to change in social settings and the breaking of social bonds, that can make people feel adrift and isolated (Colson, 1971). This, in turn, triggers nostalgia which is a sentimental longing for the past and serves the psychological function of bolstering social bonds in the migrated country. That is, they have an enhanced tendency to initiate

interactions and relationships, and provide emotional support to others of the same ethnic group (Wildschut et al., 2006). This helps them to re-experience the past and therefore counteract the negative affect resulting from nostalgia (Cavanaugh, 1989). In this light, it is understandable why the Chinese immigrants are eager to form close network ties with another, and build up a cohesive Chinese community. These can be manifested as: living close together in the same or nearby district; organizing voluntary activities to offer support and share resources; running community centres to facilitate communication; establishing educational institutes to impart Chinese education; and building religious facilities for gatherings. The development of Chinatowns, which can be found in all the provinces of Australia, illustrates these phenomena (Australia's Culture Portal, 2009). Hence, the nostalgic sentiment, in turn, reinforces the ethnic group identity as an important dimension of self-evaluation for the Australian Chinese.

Regarding the second generation of the Australian Chinese immigrants, though they grow up in an individualist society and therefore incorporate the self-oriented value to a certain extent, they are also highly subjected to the influence of collectivist culture, in that their parents provide for their growth a tightly-knitted Chinese-style living environment and pass on the collectivistic thinking to them. Of course, parenting behavior exerts pervasive and enduring influence on an individual's development (Berk, 2003). Hence, it is possible that their upbringings in such circumstances make them place higher value on collectivism than individualism; and rely more on CSE as the source of worthiness than NRSE.

In short, the higher level of collectivism and significance of CSE in predicting SWB for the Australian Chinese may be attributed to the functional and nostalgic purposes that these features serve.

6.5 Hypothesis 5: That within the religious group, social group identification will contribute unique variance to non-religious self-esteem (NRSE) and SWB beyond religious belief.

There is much research supporting the idea that identification with a social group is positively associated with NRSE (Brown, 2000; Gergen, 1971; Tajfel, 1982; Turner et al., 1984). This finding can be addressed by the self-categorization process theorized by Turner et al. (1987). When people identify with a social group, self-categorization takes place in that they internalize the features such as attitudes, feelings and behaviours defining the group membership, as well as evaluating themselves in this collective term. Consequently, this process causes members of

group to appear attitudinally, affectively and behaviorally relatively homogenous and to perceive themselves as indistinguishable from the group. Such depersonalization of self-perception enhances group cohesion, which is defined as the mutual attraction between group members; and this, in turn, increases NRSE of group members (Turner et al., 1987). However, it seems that the above generic group process may not be directly applicable to religious group.

As discussed in section 2.6.1.3.3, 2.6.2.6.3 and 2.6.3.3.3, the religions of Buddhism, Taoism and Christianity espouse selflessness. It therefore follows that the standard for judging self-worthiness has no bearing on ego. Further, it is proposed that for those followers with stronger religious belief, their NRSE is less instrumental in realizing happiness. Hence, instead of exerting positive influence, it is predicted in section 2.4 that social identification with these three religious groups may, indeed, have deprecating effect on NRSE. Thus, this study was designed to find out whether social identification, in the context of the three religious groups in question, effects a change and its direction of change (positive or negative) in NRSE and SWB, beyond religious beliefs. The results are discussed as follows:

When taking all religious respondents together, social identification adds 2% unique variance beyond religiosity (1%) in explaining NRSE (see Table 52); whereas social identification contributes 4% significant variance beyond religiosity (6%) in the prediction of SWB (see Table 53). Furthermore, it is found that social identification remains positively related to NRSE even after the influence of religiosity has been taken into account (see Table 54). The implications of these results are twofold. First, the result on NRSE lends credence to the theories of social identification (Tajfel, 1981) and self-categorization (Turner et al., 1987) that, generally, there is a positive relationship between social group identity and NRSE. Additionally, the result pertaining to SWB further underpins the widespread belief that NRSE is a powerful predictor of SWB (Boschen, 1996; Coyle et al., 1994; Hills & Argyle, 2001a, 2001b; Matikka, 1996; Piccolo et al., 2005; Ralph et al., 1995; Tong & Song, 2004).

Second, these findings call into question the validity of the following propositions made in this study:

- (i) Owing to the espousal of selflessness by the three religions of interest, the standard of self-evaluation for the adherents has no bearing on ego; and therefore higher their religiosity, the lower will be their reliance of SWB on NRSE (see section 2.6.1.3.3, 2.6.2.6.3 and 2.6.3.3.3).
- (ii) Based on the aforesaid proposition, it is logically deduced that

identification with these three religious groups may exert a diminution effect on NRSE and, in turn, fail to induce any positive change in SWB (see section 2.4).

On *prima facie* evidence, the unique contributions of religiosity and social identification in accounting for NRSE and SWB tend to rebut the above propositions. However, they are still tenable if the results take into consideration the difficulty in eradicating egocentric mentality, which has already been discussed (see ‘Non-Religious Self-Esteem’ in section 6.2.1; and the 4th paragraph of section 6.2.2). As mentioned, egocentric mentality is a widely accepted value in that people have been acquiring in the mundane world. Hence, the eradication of such mentality is quite a difficult task which, in turn, takes lengthy and tremendous religious practice in regulating one’s thought and behavior. In this light, it is possible that the religious respondents may not have reached such high enough level of religious maturity that enables them to completely remove their egocentric mentality. As a result, they remain dependent on their ego to conduct self-evaluation and therefore their happiness remains closely related to NRSE. This assumption, that the religious respondents have not achieved complete selflessness, therefore explains why social identification with these religious groups can still effect positive change in NRSE and SWB.

6.6 General Discussion

6.6.1 Creation of a New Homeostatic Model of SWB

In this study, the revised homeostatic model of SWB is used as the basic theoretical framework in studying how religion affects SWB. This revised model is developed out of the homeostatic model of SWB (Cummins et al., 2003), which integrates personality (extraversion and neuroticism), cognition (NRSE, optimism and perceived control) and experiential factors (positive or negative life experiences) as moderators of SWB. However, based on the findings that core affect (later termed as HPMood), comprising content, happy and excited, is not only the key component of SWB, but also proposed as the driving force behind individual set-point in the whole homeostatic system (Davern & Cummins, 2006), this model was modified by replacing the factor of personality with core affect. The new model is termed as the revised homeostatic model (Lai, 2006).

In the study conducted by Lai (2006), including the experiential inputs of job satisfaction and partner satisfaction showed that the model is useful in explaining how there may be individual differences in the effectiveness with which individuals respond to life challenges. It also provided an empirical account of how experiential inputs combined with core affect and cognitive buffers to regulate people’s SWB.

Lately, Cummins (2010) has pointed out that core affect, as most recently conceptualized by Russell (2009), refers to both non-object directed mood and object-directed emotion, which therefore becomes incongruent with the biologically determined nature of core affect as postulated in the theory of SWB homeostasis. In a bid to make a clear differentiation, Cummins coined a new term of homeostatically protected mood (HPMood) as replacing core affect (Cummins, 2010) (see the pertinent section 2.3.3). Correspondingly, this amendment of the term is made with the revised homeostatic model as well (see Figure 5 in section 2.3.3).

The current study examines the relationship between religious experience and SWB within the revised homeostatic model. As two new factors of religious self-esteem (RSE) and collective self-esteem (CSE) are added into this model as additional buffers, this new model is termed as the revised homeostatic model of SWB incorporating RSE and CSE (see Figure 7 below). Religiosity is entered as another source of experiential inputs in addition to general life events for those with religious belief (Buddhism, Taoism and Christianity), in an effort to investigate whether this predicts unique SWB variance, through the mediation of cognitive buffers. The new model is portrayed as follows:

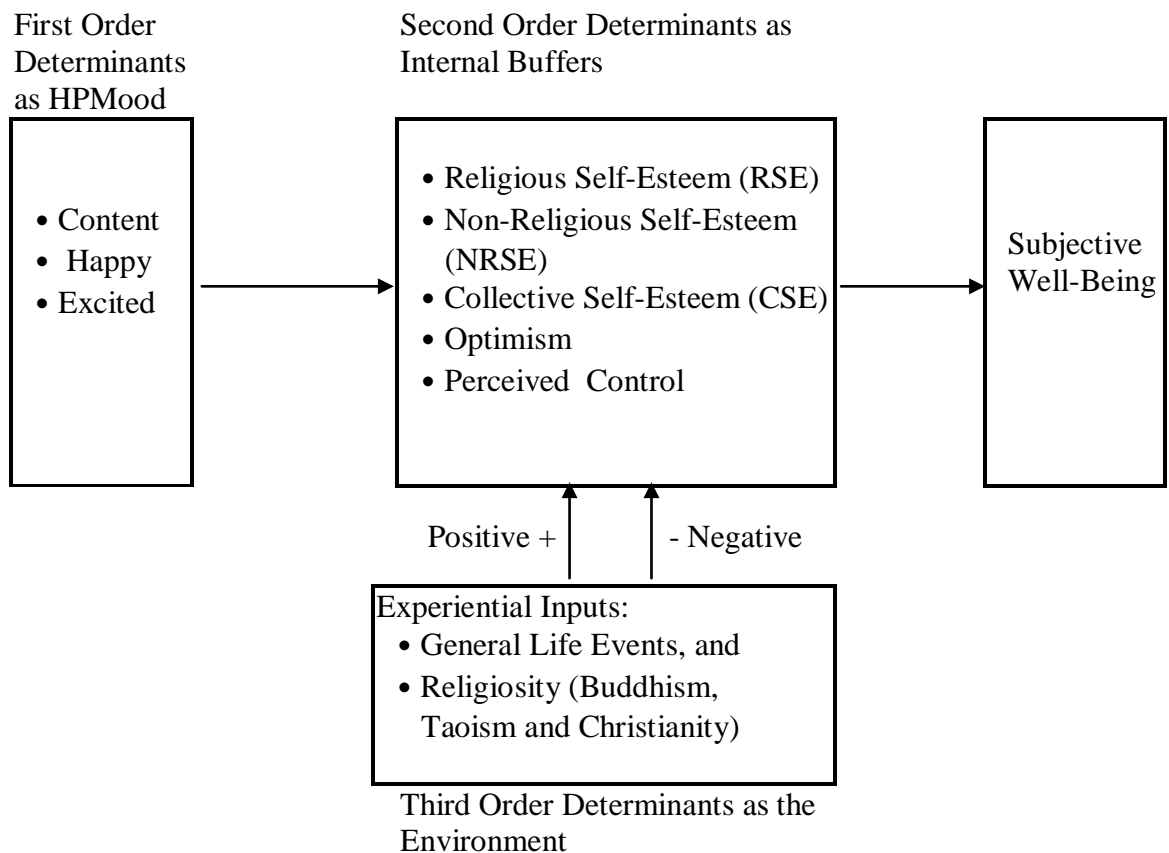


Figure 7. The Revised Homeostatic Model of SWB Incorporating RSE and CSE

Referring to the above model, SWB output is postulated as the interplay among the three factors - HPMood (content, happy and excited), cognitive buffers (RSE, NRSE, CSE, optimism and perceived control) and experiential inputs (general life events and religiosity). That is, the cognitive buffers mediate the relationships between HPMood and SWB, as well as experiential inputs and SWB. In this light, it is also posited that each of the cognitive buffers moderates the effects of HPMood and experiential inputs on SWB.

The results pertaining to the empirical tests of the above model are as follows:

(i) The three affective predictors comprising HPMood, viz. content, happy and excited reveal strong positive correlations with one another (see Appendix G1). Given that they inter-correlate so highly, they are considered as measures of the same construct – HPMood.

(ii) All five buffers; namely, RSE, NRSE, CSE, optimism and perceived control, demonstrate significant positive correlations with one another, except for RSE and NRSE (see Appendix G2). In fact, these two constructs are postulated in section 2.8 as negatively related. In supporting this proposed inverse relationship, significant negative correlations are found between RSE and NRSE for some of the low and high religiosity groups (see Table 41). The significant inter-correlations between these five factors are consistent with the possibility that they constitute a combined buffering system for the purpose of SWB output.

(iii) In the above model, HPMood, cognitive buffers and experiential inputs are assumed as related to SWB. Correlation analyses show that, with the exception of general life events, all of them demonstrate strong positive correlations with SWB (see Appendix G3). In fact, the non-significant correlation between general life events and SWB is supportive of the operation of homeostatic system in maintaining SWB at homeostatic level.

(iv) Regarding the mediating effect of cognitive buffers in the model, partial correlations were performed, in a bid to examine whether the strength of relationships between HPMood/experiential input (religiosity) and SWB is weakened, when the effects of cognitive buffers are partialled out. The results (see Appendix G4 and G5) show that the strength of significant positive correlation between HPMood and SWB is reduced from strong ($r=0.64$) to medium ($r=0.35$); whereas that of religiosity and SWB is decreased from medium ($r=0.47$) to small ($r=0.15$), after controlling for the effects of cognitive buffers. Hence, the mediating effects of cognitive buffers on these two relationships are supported.

(v) With respect to the five cognitive buffers in the model, it is predicted that they contribute unique SWB variance and also moderate the effect of HPMood on SWB. This has been confirmed by hierarchical regressions in this study. In these analyses,

the homeostatic variables were entered in Step 1 and the five cognitive buffers were, respectively, added in Step 2. It is found that all of the buffers not only make unique contribution but also exert moderating effect on HPMood, as the significant SWB variance explained by the latter variable was decreased after the addition of these buffers into the model. The pertinent references are provided as follows:

- Optimism: Refer to Table 36 and Appendix D(1) to D(2)
- NRSE: Refer to Table 37 and Appendix D(3) to D(4)
- Primary/Secondary Control: Refer to Table 38 and Appendix D(5) to D(8)
- RSE: Refer to Table 45 to 46 and Appendix E(1) to E(5)
- CSE: Refer to Table 50 to 51 and Appendix F(3) to F(4)

Additional empirical support for the moderating effect of cognitive buffers on HPMood is provided by hierarchical regression, in that the amount of significant variance accounted for by HPMood is substantially reduced from 41% to 6% after the addition of all five cognitive buffers simultaneously in Step 2, with each of the buffers contributing significant variance (see Appendix G6).

(vi) Furthermore, it is predicted that the five cognitive buffers moderate the effects of experiential inputs on SWB. The result of hierarchical regression in Table 18 provides support. In this analysis, the homeostatic variables including NRSE, optimism and perceived control were entered in Step 1 and the experiential factor of religiosity was added in Step 2. It is found that as well as providing unique SWB variance, religiosity shares variance with the other variables, which is reflected by the change of significant contribution made by NRSE and perceived control. The moderating effect of cognitive buffers on experiential inputs can be further supported by the result of hierarchical regression (see Appendix G7) where the unique variance provided by religiosity is largely decreased from 22% to 3% upon the addition of the five cognitive buffers simultaneously in Step 2, with each of the buffers contributing significant variance. Hence, the moderating effect of cognitive buffers on experiential inputs is empirically substantiated.

Taken together, the model is supported as to the way experiential factors, together with HPMood and cognitive factors, relate to SWB. Moreover, the two new cognitive buffers – RSE and CSE delineate other sources of felt worthiness which enhance the understanding of how cognitive factors influence SWB.

6.6.2 Restrictions of Using Ordinary Psychological Scales with Religious People

Some of the psychological scales which are popularly used may be inadequate or inapplicable for those with religious beliefs. For instance, the Rosenberg self-esteem scale seems to be inadequate for fully understanding self-

worthiness of the religious individuals, as their value system tends to involve religious values, too. To overcome this problem, RSE is a new construct delineating another source of self-worthiness which is derived from religion, and is proposed to be developed at the expense of Rosenberg's self-esteem construct (see section 2.8). The RSE scale was devised to measure such kind of felt worthiness. Indeed, the results of this study support the proposition that these two constructs are generally in an inverse relationship (see Table 41), and RSE is able to explain unique SWB variance (see Table 45 and 46).

It is also surprising to discover that there is no significant difference in secondary control between the religious and non-religious group, given the widespread belief that vicarious association with the powerful deities enables the religious believers to experience an enhanced sense of strength and power (Johnson & Downing, 1979; Rothbaum et al., 1982; Weisz et al., 1984). One possible explanation is that the scale used to measure secondary control (Chamber et al., 2003) is not relevant or specific enough to probe the vicarious and/or interpretive techniques that are mainly taught to the followers of Christianity and Taoism (see section 6.2.2).

Hence, the above examples highlight the possibility that, for the religious believers, responding to the items in these scales is highly affected by their view of faith, thus calling into question the validity of these scales as measurement for this special group.

6.6.3 Distinctiveness of SWB of the Religious People

As discussed in section 2.6, the values espoused by the three religions of interest are somewhat different from the non-religious world; hence, the nature of happiness for the religious believers may be different from the non-religious people, which are characterized by the following distinctiveness:

Other-Orientation

Virtue is the essence of many religions (Luk, 2007). With respect to Christianity, Buddhism and Taoism, the other-centeredness mentality is a manifestation of virtue which requires followers behaving in a way that benefits other individuals. For instance, the Buddhists believe that good karma is an essential condition for happy rebirth and good fortune in life, which is understood as the benevolent act for doing good to others (Gyatso, 1992). Taoism teaches that 'de' is the proper attitude, morality and lifestyle comprising the ideal society. It can be expressed as compassion in that people should love others as they love themselves

(Yip, 2006). Sacrificial love is an important teaching of Christianity (Ephesians 2:10), which can be manifested as serving other people or even to the utmost extent of laying down one's life for them (John 3:16).

In this light, it seems that these religious believers are not only concerned for the well-being of themselves, but also that of the others. Indeed, the welfare of others may even override their own, given their core religious value of shifting from self-orientation to other-orientation (Luk, 2007). Hence, it seems that altruistic behavior, referring to an act that is motivated by the desire to benefit another rather than oneself (Batson & Coke, 1981; Macaulay & Berkowitz, 1970; Vaughan & Hogg, 2002), may inevitably bring disadvantages or sufferings to the religious adherents. However, the results of this study show that SWB and LAAW of the religious group are significantly higher than the non-religious group (Table 23). In fact, there is a preponderance of research that suggests a significant positive relationship between religion and psychological well-being (Baroun, 2006; Banthia et al., 2007; Barkan & Greenwood, 2003; Johnson, 1995; Krause, 1997; Levin 1994; Litwinczuk, 2007; McFadden, 1995; Rule, 2007; Witter et al., 1985). Hence, it is of interest to consider the mechanism that may be able to counteract the potential adverse effect of altruistic behaviours on psychological well-being. The new homeostatic model of SWB (see Figure 7 in section 6.6.1) provides a possible explanation.

With respect to Cummins et al. (2002), it is postulated that negative experiences activate the cognitive buffers to keep SWB at a constant level. In the new homeostatic model, the cognitive factors of RSE, NRSE, optimism and perceived control are relevant in mediating the negative input of life events for the religious believers. The way that they operate to maintain SWB at homeostatic level is depicted as follows:

NRSE

Acting altruistically means giving help without expecting personal gain or reciprocation, and this kind of virtuous behavior is held in high esteem in many cultures (Batson & Coke, 1981; Vaughan & Hogg, 2002). As such, though the religious adherents may suffer personal loss in rendering help; their altruistic act, which is positively valued by society, rewards them with high social recognition and approval that in turn boosts their NRSE. Indeed, this argument is supported by the significantly higher level of NRSE for the highly religious believers than the non-believers (Appendix E8).

RSE

RSE refers to the sense of worthiness people derived from evaluating themselves against the values, virtues and morality of their religions (see section 2.8). Given that altruistic act is the reification of the core religious value of other-centeredness and is viewed as virtuous behaviour, the harm or sufferings that the religious believers experienced in course of helping will be outweighed by the high RSE they get in return. In this study, it is shown that those with higher religiosity will have higher RSE (Table 42).

With respect to NRSE and RSE, it is discussed in section 2.8 that they are inversely related. That is, people with high religiosity are more likely to derive their felt worthiness from RSE than NRSE, which is commensurable with the shift of mentality from self-orientation to other-orientation. Following this, SWB of the highly religious individuals should primarily be the mediating effect of RSE than NRSE. However, the result shows that there is no significant difference between RSE and NRSE for the high religiosity group (Table 42). In this light, it is thought that egocentric mentality is a hindrance, in that if the religious believers are able to completely eradicate such mentality, RSE will dominate over NRSE in self-evaluation (see pertinent discussion in section 6.3.1).

Perceived Control

Altruism can be viewed as a manifestation of virtue which in turn serves the function of enhancing primary control for Buddhism and Taoism. Some illustrative examples are given. In Buddhism, the followers believe that good karma or virtuous action is the main cause of happiness for present and future life (Gyatso, 1992). Hence, altruistic behavior fulfills this requirement and allows the believers to have high control over quality of life. In Taoism, people can exert control over their life quality by leading a virtuous life, since this is a way of living that is in harmony with the Nature (Tao Teh Ching, 2003). However, in this study, no significant difference on primary control is found between the Buddhists/Taoists and non-religious people (Table 33). This finding may be due to the fact that these followers have not fully benefited from the religious teaching, which is attributed to the failure of entire removal of egocentric mentality (see pertinent discussion in section 6.2.2). Despite this, primary control is still able to account for 2% and 4% significant SWB variance respectively for HKB and HKT, while none is made for the combined Christianity group (see Table 38). Hence, it seems that SWB of these two religious groups is, to a certain extent, related to the use of primary control.

Regarding Christianity, the followers tend to rationalize the sufferings occasioned by altruism in the form of secondary interpretive control. In Christianity, the meaning of life is to disseminate the message of love and gospel to other people

(Warren, 2002). Serving is the way of achieving this (Ephesians 2:10), as it helps the non-believers know about the Christianity-God and magnify the glory of Him (Warren, 2002). Hence, by deriving the meaning of altruistic behavior, the Christians can better accept the disadvantages so elicited and enhance their personal satisfaction. While the results show that no significant difference is found on secondary control between the Christianity and non-religious group (Table 33 and 34), and this form of control does not predict any significant SWB variance (Table 38); it may be that such failure is attributable to the inappropriateness of the secondary control scale employed (see pertinent discussion in section 6.2.2). In an attempt to overcome this problem, a new scale will be developed in Study 2.

Concerning secondary control, it is interesting to note that, among all religious and non-religious groups, it only predicts significant SWB variance for HKB (Table 38). The reason may be that, in the situations where the use of primary control is not effective in influencing the life circumstances to fit the Buddhists' goals, they adopt secondary control by cognitively accommodating themselves to the realities, in a bid to enhance their feelings of control. For example, when engaging in altruistic behaviours that personal loss is induced and instant reward is not evidenced, the Buddhists may remind themselves that something good may come out of it later, as a consequence of accumulation of merit. In this way, it helps them to buffer against the adverse psychological effects and maintain SWB at homeostatic level.

Optimism

In all three religions, altruistic behavior is promised with future gains. For instance, the Buddhists believe that acting altruistically is a virtue that will lead to happy rebirth and good fortune (Gyatso, 1992). In Taoism, the practice of the virtue of compassion is in synchrony with Tao which in turn makes human life flourishing (Hao, 2005). In Christianity, the sacrifice that followers made for the Christianity-God in their missionary commission will be rewarded in the eternal heaven (Warren, 2002). With the hope that the immediate disadvantages and displeasure suffered will be compensated by the advantages and pleasure securing in the future, the religious believers are highly optimistic, which is substantiated by their significantly higher level of optimism than the non-believers (Table 31).

In view of the above, NRSE, RSE, perceived control and optimism are the important cognitive factors that not only help the religious believers to redress the negative influence brought forth by the altruistic act, but also induce a boosting effect on SWB. This claim is consistent with the view that the way people think about and

explain what happens in their lives is intimately tied to their level of SWB (DeNeve, 1999).

In short, it seems that people with higher religiosity will develop higher other-oriented mentality and therefore engage in more altruistic behaviour. The consequential higher level of SWB is therefore consistent with a buffering effect from the cognitive factors. In addition to the attribute of other-orientation, the happiness of the religious adherents is also characterized by inner peace, which is discussed in the ensuing paragraphs.

Inner Peace

People usually enjoy the happiness brought by external stimulation from the material world; however, for the followers of the three religions in question, they tend to value a mind of peace. In this respect, the results of this study reveal that the level of peace for the religious people is significantly higher than those without religion (Table 27). Moreover, it is demonstrated that the affect of peace predicts 2% significant SWB variance for the religious adherents (Table 28) but none for the non-religious people (Table 29). Indeed, for these three religions, such kind of mental peace is not sought outside but restored inside (Keown, 1996; Hartz, 1993; Warren, 2002).

Examples are as follows: nirvana-in-life is an enlightened state favoured by the Buddhists, in that it is a state of consciousness free of negative emotions such as worry, anxiety and fear but characterized by peace (Keown, 1996). It is advised that such kind of calm and purified mind can be restored through meditation by pacifying distracting thoughts, purifying unruly emotions and inordinate desires, which are occasioned by the mundane world (Keown, 1996; Mitchell, 2002).

Taoism teaches that people should lead their life in synchrony with Nature (Hao, 2005; Hartz, 1993). In this vein, people ought to restore inner quietude and purity by tempering the will and detaching the emotions that are in association with the material world. Hence, it is necessary for people to put aside concern with externals, such as monetary rewards, fame and praise, as well as to lead a simple life by curbing their wanton and selfish desires (Hartz, 1993; Lopez, 1996).

In Christianity, a deep level of spiritual maturity is reflected by the inner calmness and quietude that followers experience, even when going through life adversities (Warren, 2002, *Streams in the Desert*, 2000). Moreover, inner peace is viewed as the source of strength for people in dealing with life difficulties (Streams

in the Desert, 2000). Such kind of peaceful mind can be attained through the establishment of a personal relationship with the Christianity-God, which is characterized by faith, trust, submission and obedience (Warren, 2002, *Streams in the Desert*, 2000) (see detailed discussion in section 2.6.3.2.4). Hence, for these three religions, inner peace is the real and long-lasting happiness, since such mental state affords people the pleasure that is unaffected by or independent of the fulfillment of material wish and the influence from external environment (Mitchell, 2002; Loy, 1997; *Streams in the Desert*, 2000).

In view of the above, SWB of the religious adherents is closely related to leading a virtuous life and restoring a peaceful mind. In this regard, egocentric mentality, which is a worldly standard that people acquire during their development, seems to be an obstacle in their pursuit of SWB (see 'Non-Religious Self-Esteem' in section 6.2.1; and the 4th paragraph of section 6.6.2). That is, in practising virtue, the other-oriented mentality is the prerequisite for behaving in a way that benefits the others. Given that people are so accustomed to self-centeredness, it is difficult for them to make the mental shift. Similarly, in order to pacify and purify the unruly mind filled with material and selfish desires, it is necessary to make self-transcendence by eradicating the egocentric mentality. As such, it is thought that the removal of egocentric mentality necessitates high level of spiritual edification, which in turn, requires intensive and lengthy religious practice in regulating one's thought and behaviour.

CHAPTER 7: STUDY ONE SUMMARY AND CONCLUSIONS

The major findings in this study are summarized under eight themes:

(A) The Relationship between Religion and SWB

One of the major findings from this study is that there are significant positive correlations between religiosity, S-R satisfaction and SWB, for all combined and individual religious groups. The only exception is that religiosity is not correlated with SWB for HKB. However, after controlling for S-R satisfaction, nearly all significant correlations between religiosity and SWB disappear. It is also found that the unique SWB variance explained by S-R satisfaction is higher than explained by religiosity for the combined religious group. When analyzing in terms of individual religious groups, S-R satisfaction explains variance for all of them except for HKB; however, religiosity only provides significant variance for OZCC and HKT. Hence, it seems that S-R satisfaction is a relatively stronger predictor of SWB than religiosity for the religious believers.

Moreover, S-R satisfaction contributes significant variance beyond the seven life domains in predicting LAAW for all Chinese religious believers in Australia and/or Hong Kong. Regarding individual religious groups, S-R satisfaction makes an independent contribution in OZCC, HKC and HKT but not OZ2GC and HKB. Hence, S-R can be verified as a domain of the PWI for the religious Chinese populations as well as the religions of Christianity and Taoism.

It is concluded that, consistent with past research, there is generally a positive link between religion and SWB. This claim seems to be applicable to the religions of Christianity and Taoism but is made with reservation for Buddhism. The reason for this is that the religious variables of S-R satisfaction and religiosity are able to explain SWB variance for the groups of Christianity and Taoism, but none for Buddhism. Meanwhile, among the three religions, only S-R of Buddhism fails to meet the criterion of being a life domain in the PWI. These counter-intuitive findings may be attributed to the centrality of belief, in Buddhism, that life is filled with suffering and real happiness can only be found in Nirvana, thus influencing the followers to view life in gloomy light and resulting in the lack of a significant relationship with SWB.

(B) Different SWB between Religious and Non-Religious People

Taking all religious respondents together, their level of SWB is significantly higher than the non-religious individuals. But in terms of individual groups, no

significant difference is found between the three religious groups (HKC, HKB and HKT) and non-religious group in Hong Kong, while the two Australian religious groups (OZCC and OZ2GC) have significantly higher level of SWB than all the religious and non-religious groups in Hong Kong.

This significant interaction between religion and culture, in terms of the religion-SWB link, is interpretable by referencing to the disparate living condition between Australia and Hong Kong. That is, the relatively disadvantageous living condition in Hong Kong may counteract the positive effect of religion on SWB; thus leading to the comparatively lower level of well-being, for both the religious and non-religious people.

(C) Affects, Religion and SWB

The affects of alertness and peace are studied as affective predictors of SWB, in addition to content, happy and excited. The results show that the religious individuals score significantly higher on both affects than the non-religious people. It may be that higher alertness is functional for the differentiation of religious values from the worldly ones, and peace is a favored mental state espoused by the three religions of interest.

Moreover, it is discovered that the affective composition is different between these two groups, in that only the affects of happy and content explain SWB variance for the non-religious individuals, but those of content, peace and excited provide unique contribution for the religious adherents. These differences lead to the speculation that religious experience and learning may alter the experience of HPMood, which is subsequently examined in Study 2.

(D) Cognitive Buffers: Optimism, NRSE and Perceived Control

In terms of optimism, non-religious self-esteem (NRSE) and perceived control (primary/secondary), it is found that the religious people are more optimistic. This may lend credence to extant evidence that religions can be viewed as coping resources that help to promote adherents' optimism in facing life adversities.

But contrary to predictions, NRSE of the religious believers is not significantly lower than the non-religious individuals, and no significant difference is found on either form of control for any of the groups.

The non-significant difference on NRSE between the religious and non-religious group, as well as on primary control between the Buddhists/Taoists and

non-religious people, can perhaps be interpreted. It may be a consequence of the difficulty experienced by religious adherents in completely eliminating self-centeredness, given that such mentality is ubiquitous. Meanwhile, it is possible that the lack of difference on secondary control is attributable to the inappropriateness or non-specificity of the scale used. This has led to the development of a new scale in Study 2.

Finally, although the Australian Chinese score significantly higher on primary control than the Hong Kong Chinese, they do not differ on secondary control. This is possibly explained by the occurrence of integration process under intercultural contact, in that the Australian Chinese embrace the host culture of individualism while maintaining their own cultural values of collectivism.

(E) Religious Self-Esteem (RSE) as a New Source of Worthiness and Predictor of SWB

As a newly proposed source of self-worthiness and predictor of SWB, results indicate that RSE and SWB are only significantly and positively correlated for the highly religious (religiosity \geq 70) Christianity groups. No correlation is found for the Buddhists, Taoists and the low religiosity Christians (religiosity \leq 69). In addition, while RSE contributes significant SWB variance for the combined religious group; in terms of individual groups, only the Australian Christians show an independent contribution. Hence, RSE seems most useful in predicting SWB of the Christians.

With respect to the postulation that RSE is developed out of NRSE, the results show that a significant negative correlation is generally found between them, though a stronger negative relationship for the high religiosity group is not supported. In addition, although the low religiosity group has significantly lower RSE than NRSE, no significant difference is found for high religiosity group.

The finding in respect of the low religiosity group supports an inverse relationship between RSE and NRSE; given that lower level of commitment to religion, a lesser part of adherents' self-esteem resides in RSE while a larger part is derived from NRSE. In explaining the result of high religiosity group, the reason may be that these individuals are not yet successful in the complete removal of egocentric mentality and therefore still highly dependent on NRSE as source of worthiness.

(F) Collective Self-Esteem (CSE) as a Predictor of SWB

CSE has been empirically shown to be more influential as a source of self-worthiness in collectivist society than individualist culture. But contrary to prediction, this study shows CSE explains more SWB variance for the Australian Chinese than Hong Kong Chinese. Indeed, within the homeostatic model, CSE provides more variance than NRSE for the Australian Chinese. Even more surprisingly, CSE accounts for more SWB variance for the second generation than the Chinese immigrants in Australia. Additionally, the Hong Kong Chinese score the lowest on collectivism compared with the Australian Chinese immigrants and their second generation.

It is concluded that CSE is a relatively more important source of felt worthiness and predictor of SWB for the Australian Chinese than Hong Kong Chinese. This intriguing phenomenon may be partly attributed to the adaptive function that the ethnic identity of the Australian Chinese served in facing the competition from other ethnic groups in an immigrant country. Alternatively, nostalgic sentiment may also be a motivating factor that reinforces the ethnic group identity as a pivotal dimension of self-evaluation. Besides, the highly Chinese-styled parenting behavior of the Chinese immigrants is the plausible explanation for the crucial role played by CSE in the self-evaluation of their second generation.

(G) Identification with Religious Groups

As all three religions espouse selflessness, it is proposed that the self-evaluation of followers may have no relevance to ego and therefore NRSE may be less instrumental in bringing happiness. Hence, it is predicted that identification with these religious groups will not make additional variance to NRSE and SWB beyond religiosity.

But the results show that social identification contributes respectively 2% and 4% unique variance, beyond religiosity, in explaining NRSE and SWB. In addition, social identification is significantly and positively related to NRSE after controlling the effect of religiosity.

These findings are explainable in terms of the egocentric mentality commonly acquired by the human beings. That is, it is possible that the religious believers have not yet attained a high enough level of religious maturity and therefore are not successfully in eradicating such mentality. Thus, they remain deriving their sense of worthiness largely from NRSE and their SWB is highly dependent on NRSE as well.

(H) Creation of a New Homeostatic Model of SWB

A test of the relationship between religion and SWB within the new model, incorporating RSE and CSE, demonstrated that HPMood (content, happy and excited), cognitive buffers (RSE, NRSE, CSE, optimism and perceived control) and experiential inputs (general life events and religiosity) are all factors that relate to SWB. That is, it is shown that the cognitive buffers mediate the relationships between HPMood and SWB, as well as between experiential inputs and SWB. In addition, each of the five cognitive buffers is shown to moderate the effects of HPMood and experiential inputs on SWB.

This new model is empirically supported in terms of the way experiential factors couple with HPMood and cognitive factors in relating to SWB. Moreover, the cognitive buffers allow some insights into why and how there are individual differences in the effectiveness in responding to life challenges. That is, people who are higher on each of the buffers will have higher adaptive capacities in dealing with adversities, thus enabling them to have higher SWB resilience.

Finally, referring to the above findings, two concerns are posed that merit investigation. One is related to the questionable validity of the secondary control scale used in this study. The other concern relates to the differential affective composition of religious and non-religious individuals, as it is believed that religious learning and experience is related to a peaceful mind. These issues will be further investigated in Study 2.

CHAPTER 8: STUDY TWO

8.1 Background

In Study One, some issues have been raised that warrant further enquiry. One is related to the creation of a scale purporting to measure secondary control of the religious adherents (refer to section 6.2.2). Another concerns the investigation of the affective composition of religious believers (refer to section 6.1.3). These two issues will be addressed, respectively, as Part 1 and 2 in Study Two, by focusing on the religion of Christianity.

8.1.1 Part 1

8.1.1.2 Introduction

In Study One, the results show that there is no significant difference between the religious and non-religious group on both primary and secondary control. Referring to the pertinent discussion in section 6.2.2, the insignificant results on primary control between the non-religious and religious respondents, especially the Buddhists and Taoists, may be attributed to the fact that these followers have not fully benefited themselves from the religious teachings, and therefore are not capable enough of shaping their life circumstances.

The reason for this failure, referring to section 6.2.2, may be that the incorporation of religious knowledge as well as its practical application in shaping one's value system and behavior necessitates lengthy and extensive effort, which may not be easy to attain. The eradication of egocentric mentality is illustrated as an example. According to Buddhism and Taoism, self-centeredness is an obstacle for people to commit to true belief. They therefore claim that it is only through the practice of their religious teachings i.e. Eightfold Path in Buddhism, and 'de' and 'wu wei' in Taoism, that people can change from self-centeredness to other-centeredness thinking. However, the achievement of such mentality change is not easy as humans are so accustomed to the egocentric mentality, which is a worldly standard that they have long been acquiring during their development. As such, it may take the followers long-term practice in adjusting value system and regulating behavior, before they can achieve the required mentality change and therefore genuinely benefit from the religious teachings.

It is possible that the non-significant difference on secondary control between non-religious and religious group, may be explained in terms of the inappropriateness and non-specificity of the scale employed. In this study, the secondary control scale comprises only 3 items (when something bad happens to me;

I remind myself something good may come of it; I remind myself I am better off than others; and I remind myself situation will improve if I am patient). These may not be relevant and specific enough to probe the vicarious and/or interpretive techniques that are taught to the religious adherents of Christianity and Taoism. Hence, it seems that it is necessary to develop a specific scale for measuring the use of secondary control by the religious believers.

In this relation, this second study focuses on the creation of such a scale specific to Christianity. Thus, this new scale is characterized by its relevance to the religious believers particularly Christians, rather than the non-religious individuals. It is also designed to measure secondary control since the existing primary control scale is adequate. Notably, however, this scale only probes the vicarious and interpretive techniques which are mainly taught in Christianity (see section 2.6.3.3.1); thus, it may not be an appropriate instrument to measure the secondary control technique used in other religions.

8.1.2 Part 2

8.1.2.1 Introduction

Study One explores the relative contributions of the five affective predictors – content, happy, excited, alert and peaceful, in explaining SWB for the religious and non-religious people. When all religious respondents are taken together, only content (5%), excited (1%) and peaceful (2%) explain unique variance. Moreover, separate analyses for individual religious groups reveal that only the affect of content explains variance for all of them. For the non-religious respondents, only content (6%) and happy (1%) contribute unique variance.

These findings lead to the speculation that, as a result of religious learning and experience, the experience of affective composition for the religious adherents may be somewhat different from non-religious people. Indeed, a mind of peace is the ideal and ultimate mental state strived for by the religious believers (refer to the 2nd paragraph of section 5.2.1.1.4; and ‘Inner Peace’ in section 6.6.3). That is, it affords people the pleasure that will not be affected by the stimulations from the mundane world, as well as helping to balance the disaffections brought about through unmet worldly desires. To achieve this, various kinds of practice and training relating to physical activities, as well as the appropriate life style, attitude and code of conduct have been developed by each religion; purporting to pacify the mind and restore their inner quietude and calmness (Hartz, 1993; Keown, 1996; Warren, 2002).

Despite the fact that core affect (latter termed as HPMood) is proposed as a constant for all people (see section 2.3.1), it is possible that the religious learning and experience can alter the affective composition experienced by the religious followers, in that the affect of quietude or calmness may become their crucial affective predictor of SWB. To test this, the affect item of peace was used in Study One; however, it only explains a relatively small proportion of variance (2%) for all religious respondents. Moreover, it fails to explain variance for individual religious groups, except for HKB. It is therefore possible that this single adjectival term is not specific or relevant enough to probe the real affective state of the religious adherents. Thus, the intention of this second study is to investigate, by focusing on the religion of Christianity, whether the validity of measurement will be enhanced, if more related adjectives are made available.

8.1.2.2 Methodology

As previously reported, the study by Davern and Cummins (2006) found the three core affect predictors (content, happy and excited) are more strongly categorized by the horizontal, hedonic axis than by the vertical, activation axis (see Figure 8 below). Consistent with the view that peace is a mental state favoured by Christianity (Streams in the Desert, 2000), it is therefore posited that, in terms of the circumplex model, the cluster of affects that is most representative of this group may be located in the quadrant defined by pleasure and deactivation.

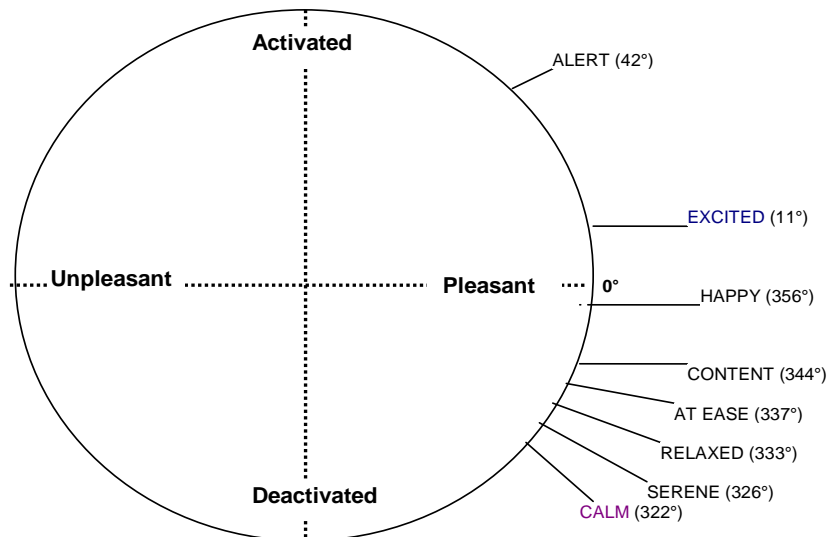


Figure 8. A Circumplex Representation of the Affective Adjectives to be Measured in Study Two (adapted from Davern & Cummins, 2006)

The adjectives in the deactivated-pleasant quadrant that were not measured in Study One are: at ease, relaxed, serene and calm; and these four terms are proposed to represent the affective state of feeling at peace with oneself. Peaceful, in a literal sense, is similar to serene and calm (Hornby, 1985). That is, peace is explained in terms of calm, and calm is also used to illustrate serene (Hornby, 1985). In addition, at ease refers to the freedom from anxiety and tension (Hornby, 1985) while relaxed means becoming less tense and tight (Hornby, 1985), both of which connote peaceful to a certain extent. Hence, these four affective descriptors will be added to those adjectives that were used in the previous study.

A circumplex representation of the affective items to be measured in this study is shown in Figure 8. According to Davern and Cummins (2006), the angle for each adjective in the circumplex is produced by plotting the location of all 31 affective items using the CIRCUM program by Browne (1992) and Fabrigar et al. (1997) (see section 2.3.1 for detailed description). A full list of the affective items to be measured in this study is shown below:

<u>Affective Adjectives</u>	<u>Location on Circumplex</u>
Alert	Activated
Excited	Pleasant Activated
Happy	Pleasant
Content	Pleasant
At Ease	Pleasant Deactivated
Relaxed	Pleasant Deactivated
Serene	Pleasant Deactivated
Calm	Pleasant Deactivated
Peaceful	---

Both the religious and non-religious participants in this study are required to indicate how each of the above items describes their feelings. The instructions for the affect items are “please indicate how each of the following describes your feelings when you think about your life in general.” The ratings are made on an 11-point end-defined scale. A comparison between these 2 groups will then be made.

CHAPTER 9: STUDY TWO METHODOLOGY

9.1 Participants

The sample was drawn from the 21st survey of the Australian Unity Wellbeing Index (AUWI) conducted in August 2009. Since 2001, regular surveys have been conducted to measure how Australians feel about life. Ethics approval was sought from the Deakin University Ethics Committee before the commencement of data collection. In this survey, 3000 questionnaires were mailed out and 1208 were returned, giving a response rate of 40%. Among these 1208 respondents, the distributions in relation to religion are: no religious belief (N=209), Christianity (N=718), Buddhism (N=12), Islam (N=7), Taoism (N=2), other religious beliefs (N=149) and unspecified (missing data on the question item) (N=111). Given that the numbers of respondents for Buddhism, Islam and Taoism are too low to form an individual group for study, they are therefore grouped with those with other religious beliefs and formed a mixed religious group (N=170). The demographic particulars of these three groups are provided below:

	Respondents With No Religious Belief	Christianity	Mixed Religious Group	Total
No. of Respondents (%):	209(19.05%)	718(65.45%)	170(15.50%)	1097(100%)
Gender:				
Male	105(21.78%)	304(63.07%)	73(15.15%)	482(100%)
Female	99(17.13%)	389(67.30%)	90(15.57%)	578(100%)
Age:				
Age 18-25	8(33.33%)	12(50%)	4(16.67%)	24(100%)
Age 26-35	15(24.20%)	39(62.90%)	8(12.90%)	62(100%)
Age 36-45	29(23.97%)	59(48.76%)	33(27.27%)	121(100%)
Age 46-55	44(19.30%)	143(62.72%)	41(17.98%)	228(100%)
Age 56-64	48(18.90%)	166(65.35%)	40(15.75%)	254(100%)
Age 65-74	39(17.26%)	164(72.57%)	23(10.18%)	226(100%)
Age 75-84	20(16.26%)	90(73.17%)	13(10.57%)	123(100%)
Age 85 or above	1(5%)	18(90%)	1(5%)	20(100%)
Who Lives With:				
Live By Yourself	44(18.57%)	149(62.87%)	44(18.56%)	237(100%)
One or More Children	53(16.99%)	200(64.10%)	59(18.91%)	312(100%)
Partner	144(20.11%)	473(66.06%)	99(13.83%)	716(100%)
One or Both of Parents	9(18.75%)	30(62.50%)	9(18.75%)	48(100%)
Live With Adults Who Are Neither Partner Nor Parents	4(9.10%)	33(75%)	7(15.90%)	44(100%)
Relationship:				
Never Married	21(19.27%)	67(61.47%)	21(19.27%)	109(100%)
Separated But Not Divorced	6(17.14%)	21(60%)	8(22.86%)	35(100%)
Married	122(18.32%)	455(68.32%)	89(13.36%)	666(100%)
Divorced	18(20.69%)	50(57.47%)	19(21.84%)	87(100%)
De Facto or Living Together	22(39.29%)	21(37.50%)	13(23.21%)	56(100%)
Widowed	15(14.02%)	79(73.83%)	13(12.15%)	107(100%)

	Respondents With No Religious Belief	Christianity	Mixed Religious Group	Total
Work:				
Full-Time Paid Employment	66(20.89%)	198(62.66%)	52(16.45%)	316(100%)
Full-Time Home or Family Care	10(12.20%)	53(64.63%)	19(23.17%)	82(100%)
Full-Time Retired	75(18.38%)	291(71.32%)	42(10.30%)	408(100%)
Full-Time Study	5(25%)	13(65%)	2(10%)	20(100%)
Semi-Retired	22(22%)	59(59%)	19(19%)	100(100%)
Unemployed	6(16.22%)	21(56.76%)	10(27.02%)	37(100%)
Full-Time Volunteer	0(0%)	2(28.57%)	5(71.43%)	7(100%)
Part-Time Categories:				
Part-Time Paid Employment	49(21.30%)	138(60%)	43(18.70%)	230(100%)
Part-Time Volunteer	37(15.88%)	167(71.67%)	29(12.45%)	233(100%)
Part-Time Study	6(11.11%)	33(61.11%)	15(27.78%)	54(100%)
Annual Household Income Before Tax (AUD):				
Less Than \$15,000	12(11.43%)	77(73.33%)	16(15.24%)	105(100%)
\$15,000 to \$30,000	35(15.56%)	161(71.56%)	29(12.89%)	225(100%)
\$31,000 to \$60,000	58(23.02%)	156(61.90%)	38(15.08%)	252(100%)
\$61,000 to \$100,000	40(17.78%)	144(64%)	41(18.22%)	225(100%)
\$101,000 to \$150,000	33(22.60%)	86(58.90%)	27(18.50%)	146(100%)
\$151,000 to \$250,000	11(22.92%)	31(64.58%)	6(12.50%)	48(100%)
\$251,000 to \$500,000	4(21.05%)	12(63.16%)	3(15.79%)	19(100%)
More Than \$500,000	1(33.33%)	1(33.33%)	1(33.33%)	3(100%)

9.2 Measures

The questionnaire used in the 21st survey is presented in Appendix A8. An 11-point end-defined scale was used for all items. As this study formed part of the survey, only some of the items included in the questionnaire are relevant to this study. Hence, they are specified as follows:

Life Satisfaction

It was measured by a single-item rating satisfaction with their life as a whole (see Appendix A8, item 1).

Subjective Well-Being

SWB was measured by the Personal Wellbeing Index (PWI) (International Wellbeing Group, 2006). The scale consists of eight items measuring satisfaction with domains as: standard of living, health, achievement, relationships, safety, community-connectedness, future security and spirituality-religion (see Appendix A8, items 2-9). The mean of the domain scores derived from PWI constitutes a measure of SWB. The scale has high internal consistency with Cronbach's alphas between .70 and .85

(International Wellbeing Group, 2006). The reliability coefficient for the current study was .88.

Religious Belief

Participants were asked to indicate which religious belief category (Christianity, Buddhism, Islam, Taoism and Other) they belonged to (see Appendix A8, item 78).

Religiosity

Religiosity was measured by a single-item that asked participants to rate how important their religious belief was to them (see Appendix A8, item 79).

Revised Homeostatic Model Predictors

HPMood. The three affective predictors-content, happy and excited, were measured by asking participants to indicate how each of them described their feelings when they thought about their life in general (see Appendix A8, items 17, 18 and 21). Davern and Cummins (2006) reported a coefficient alpha of .85 for the scale, and Lai (2006) obtained a Cronbach's alpha of .79. The coefficient alpha of .83 was obtained in this sample. Moreover, in a bid to study the affective difference between religious and non-religious people, six additional affective items were added: alert, at ease, relaxed, serene, calm and peaceful (see Appendix A8, items 19, 22-26).

Non-Religious Self-Esteem (NRSE). The ten-item Rosenberg Self-Esteem Scale (Rosenberg, 1979) was used, with the five negatively worded items reverse-coded (see Appendix A8, items 61-70). Rosenberg (1979) reported a scale reliability coefficient of .72 and the coefficient alpha in this study was .89.

Religious Self-Esteem (RSE). Religious self-esteem scale was newly created in Study One to measure the new construct of religious self-esteem (see Appendix A8, items 80-89). This scale consists of ten items. A pilot study was conducted by adding and testing these ten items in one of the regular surveys for the Australian Unity Wellbeing Index in 2007. A Cronbach's alpha of .92 was obtained. This same coefficient alpha was found in both Study One and Study Two.

Optimism. The Life Orientation Test – Revised (LOT-R) (Carver & Scheier, 2003) was used. LOT-R consists of six questions framed either in an optimistic or pessimistic fashion. This survey only used the three optimistically framed questions (see Appendix A8, items 71-73). The reliability coefficients reported for this three-item scale were .88 (Miller, 2005), .87 (Hateley, 2005), and .79 (Lai, 2006). In this study, a Cronbach's alpha of .85 was obtained.

Perceived Control. A six-item scale was used as a measure of primary (see Appendix A8, items 52-54) and secondary (see Appendix A8, items 55-57) control, with three items for each construct. This scale was extracted from that of Chambers et al. (2003) which originally consists of nine items including three items measuring relinquished control. The coefficient alphas of .76 (Chambers et al., 2005) and .68 (Lai, 2006) were reported for the nine-item scale. In Study One, the six-item scale was used and an alpha of .83 was obtained. In this study, the reliability coefficient was found as .82.

Christianity Secondary Control (Vicarious Control and Interpretive Control). A new secondary control scale designed specifically for Christians was created. This scale comprises two, three-item sub-scales, namely, vicarious control scale (see Appendix A8, items 90-92) and interpretive control scale (see Appendix A8, items 93-95); and the Cronbach's alpha of .95 was obtained for both of them. The reliability coefficient was found as .97 for this new six-item secondary control scale.

Experiential Input. General life events were measured by asking participants whether anything had happened recently that caused them to feel happier or sadder than normal. Participants were asked to respond to three categories of response: 'yes, happier'=3, 'no'=2 and 'yes, sadder'=1 (see Appendix A8, item 49).

CHAPTER 10: STUDY TWO RESULTS

10.1 Part 1

10.1.1 Data Screening and Preliminary Analyses

SPSS version 15.0 was used to screen and analyze data. In order to standardize the data onto a 0-100 scale, all results are presented according to Percentage Scale Maximum scores (%SM) (refer to the 1st paragraph of section 5.1 for detailed description.)

Using descriptive statistics, the plausibility of the means, standard deviations and range of values for all variables was examined so as to eliminate data entry errors and detect response sets. Data cleaning was performed by eliminating the data sets from the individual respondents showing consistently maximum or minimum scores on all the Personal Wellbeing Index items; as such data might indicate either acquiescence or a lack of understanding, which would distort the data analysis (PWI; International Wellbeing Group, 2006). In this data set, 8 cases were identified and deleted accordingly.

Using the Kolmogorov-Smirnov statistic, normality was violated for all variables ($p < .05$). The levels of skewness are: SWB=-12.22, non-religious self-esteem (NRSE)=-11.64, optimism=-8.56, perceived control=-11.70, religious self-esteem (RSE)=2.10, HPMood=-13.35 and secondary control (vicarious and interpretive control)=-1.42. According to Cohen and Cohen (1983), skewness is acceptable within the range of -7.00 to +7.00; hence, the levels of skewness for SWB, NRSE, optimism, perceived control and HPMood seem to need transformation. However, as pointed out by Pallant (2005), the distributions of scores on many scales and measures used in social sciences do not fall in a normally distributed curve. Life satisfaction and self-esteem measures, for example, are often negatively skewed, as most people tend to rate themselves at the high end (Pallant, 2005; Cummins, 1995). This phenomenon, however, does not necessarily indicate a problem with the scales but reflects the underlying nature of the construct being measured (Pallant, 2005). As such, the data were not transformed.

Outliers were found to exist in the variables of SWB, NRSE, optimism, perceived control and HPMood, by examining z-scores in the data file. However, the similarity of the means and 5% trimmed means indicated that none of the outliers significantly influenced mean scores, so outliers were retained (Pallant, 2005).

10.1.2 Factor Analysis for the Scales

Factor analyses were performed on all scales to check whether the items factor in the manner intended. These analyses used SPSS Principal Components Analysis.

PWI

The PWI comprises 8 items. The correlation matrix shows that almost all coefficients > 0.3 . The Kaiser-Meyer-Olkin value is 0.89 and the Bartlett's Test of Sphericity is significant at $p < .001$, which support the factorability of the data (Pallant, 2005). From the scree plot, it is clear that there is only one component and this explains 53% of the variance. The result of factor analysis is shown in Appendix H(1).

HPMood

The construct of HPMood comprises 3 indicators: content, happy and excited, and the result of factor analysis is attached at Appendix H(2). The correlation matrix reveals the presence of all coefficients > 0.3 . The Kaiser-Meyer-Olkin value is 0.62 and the Bartlett's Test of Sphericity is significant at $p < .001$. From the scree plot, it is clear that only one component is obtained and this explains 75.98% of the variance.

Optimism

Optimism is measured by 3 items. The correlation matrix reveals the presence of all coefficients > 0.3 . The Kaiser-Meyer-Olkin value is 0.71 and the Bartlett's Test of Sphericity is significant at $p < .001$. The scree plot shows that only one component is retained, which explains 76.80% of the variance. The result of factor analysis is attached at Appendix H(3).

Perceived Control

The construct of perceived control is measured by primary (PC) and secondary (SC) control which consists of 6 items. The result of factor analysis is attached at Appendix H(4). Inspection of the correlation matrix reveals that almost all the coefficients are > 0.3 . The Kaiser-Meyer-Olkin value is 0.80 and the Bartlett's Test of Sphericity is significant at $p < .001$. It is shown that, from the scree plot, only one component is retained, and this explains 55.84% of the variance. However, since the scale of perceived control is intended to form 2 sub-scales i.e. primary control and secondary control, Varimax rotation was performed by calling for 2 factors. The result is shown below:

Table 55: Varimax Rotation of Two Factor Solution for Perceived Control Items

Items	Component	
	1	2
SC6: When something bad happens to me, I remind myself situation will improve if I am patient.	.85	
SC5: When something bad happens to me, I remind myself I am better off than others.	.84	
SC4: When something bad happens to me, I remind myself something good may come of it.	.78	.38
PC2: When something bad happens to me, I look for different ways to improve the situation.	.31	.84
PC3: When something bad happens to me, I use my skills to overcome the problem.	.39	.75
PC1: When something bad happens to me, I ask others for help and advice.		.75

Using a factor loading of 0.4, no items are complex and the pattern of loadings is consistent with the original design of this scale. As shown in Table 56, the variance explained by primary control and secondary control are respectively 33.65% and 38.04 %, which totals to 71.69%.

Table 56: Total Variance Explained by the Two Factor Solution for Perceived Control Items

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	2.28	38.04	38.04
2	2.02	33.65	71.69

Non-Religious Self-Esteem (NRSE)

The factor analysis of the 10 items is attached at Appendix H5(i). The correlation matrix reveals that almost all the coefficients are > 0.3 . The Kaiser-Meyer-Olkin value is 0.92 and the Bartlett's Test of Sphericity is significant at $p < .001$. Inspection of scree plot and the Component Matrix indicates 2 components are extracted, which totally explain 64.98% of the variance. Varimax rotation was performed with the results provided in the following Table:

Table 57: Varimax Rotation of Two Factor Solution for NRSE Items

Items	Component	
	1	2
NRSE 6: I certainly feel useless at times.	.82	
NRSE 2: At times I think I am no good at all.	.81	
NRSE 8: I wish I could have more respect for myself.	.76	
NRSE 9: All in all, I am inclined to feel that I am a failure.	.70	.36
NRSE 5: I feel I do not have much to be proud of.	.66	
NRSE 3: I feel that I have a number of good qualities.		.84
NRSE 7: I feel that I'm a person of worth, at least on an equal plane with others		.79
NRSE 4: I am able to do things as well as most other people.		.78
NRSE 10: I take a positive attitude toward myself.	.49	.66
NRSE 1: On the whole, I am satisfied with myself.	.53	.60

In Table 57, it can be seen that, using a factor loading of 0.4, two of the items (no. 10 & 1) are complex. In this light, a second factor analysis was run by eliminating them. The results can be seen at Appendix H5(ii). This time, 2 components are again extracted and Varimax rotation was performed, with the result provided as follows:

Table 58: Varimax Rotation of Two Factor Solution for NRSE Items

Items	Component	
	1	2
NRSE 6: I certainly feel useless at times.	.84	
NRSE 2: At times I think I am no good at all.	.84	
NRSE 8: I wish I could have more respect for myself.	.77	
NRSE 5: I feel I do not have much to be proud of.	.68	
NRSE 3: I feel that I have a number of good qualities.		.85
NRSE 4: I am able to do things as well as most other people.		.82
NRSE 7: I feel that I'm a person of worth, at least on an equal plane with others.		.78

In the above Table, 2 clear factors emerged with 3 items measured NRSE in a positive manner while 4 items in a negative way. In Table 59, these 2 factors respectively explain 37.02% and 31.05% variance, with the cumulative variance being 68.07%.

Table 59: Total Variance Explained by the Two Factor Solution for NRSE Items

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	2.59	37.02	37.02
2	2.17	31.05	68.07

Religious Self-Esteem (RSE)

The factor analysis of the 10 items of RSE scale is attached at Appendix H(6). Inspection of the correlation matrix reveals that many of the coefficients are > 0.3 . The Kaiser-Meyer-Olkin value is 0.92 and the Bartlett's Test of Sphericity is significant at $p < .001$. According to the scree plot and Component Matrix, two components are extracted which explain 79.13% of the total variance. Varimax rotation was performed with the results provided in the following Table:

Table 60: Varimax Rotation of Two Factor Solution for RSE Items

Items	Component	
	1	2
RSE 6: If I lose my Belief, I feel useless.	.90	
RSE 9: If I lose my Belief, I feel that I am a failure.	.89	
RSE 8: Without my Belief, I would have no respect for myself.	.87	
RSE 5: Without my Belief, I have nothing to be proud of.	.86	
RSE 2: If I lose my Belief, I am no good at all.	.83	
RSE 4: My Belief allows me to do things as well as most other people.		.87
RSE 10: Because of my Belief, I take a positive attitude towards myself.		.86
RSE 3: Because of my Belief, I have a number of good qualities.		.85
RSE 1: My Belief allows me to be satisfied with myself.		.85
RSE 7: My Belief makes me feel that I'm a person of worth, at least on an equal plane with others.		.84

In Table 60, 2 clear factors are extracted, with half of the items measure RSE in a negative manner whereas another half in a positive way. These 2 factors respectively explain 40.31% and 38.82% variance, with the cumulative variance being 79.13%. The relevant Table is shown as below.

Table 61: Total Variance Explained by the Two Factor Solution for RSE Items

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	4.03	40.31	40.31
2	3.88	38.82	79.13

Christianity Secondary Control (Vicarious & Interpretive Control)

The newly created Christianity secondary control scale comprises 2 subscales (vicarious and interpretive control) and each has 3 items, totaling 6 items. The result of factor analysis is attached at Appendix H(7). The correlation matrix reveals the presence of all coefficients as > 0.3 . The Kaiser-Meyer-Olkin value is 0.90 and the Bartlett's Test of Sphericity is significant at $p < .001$. From the scree plot, it is shown that only one component is retained, which explains 86.25% of the variance. However, since this scale is intended to form 2 sub-scales, Varimax rotation was performed by calling for 2 factors. The result is appended below:

Table 62: Varimax Rotation of Two Factor Solution for the Items on Christianity Secondary Control

Items	Component	
	1	2
Interpretive Control 5: God uses my difficulties to teach me precious lessons when He knows there is a need.	.85	.44
Interpretive Control 4: My problems are opportunities for me to be blessed by God.	.83	.46
Interpretive Control 6: I know God is acting in my best interests even when bad things happen to me.	.80	.50
Vicarious Control 3: I trust in God's power to solve my problems.	.72	.62
Vicarious Control 2: When something bad happens to me, God gives me strength.	.47	.86
Vicarious Control 1: I have confidence in handling life's difficulties because I know God is looking after me.	.49	.85

All item loadings are complex, ranging from 0.44 to 0.86. Hence, the Christianity secondary control scale is a single factor scale.

In sum, the above results show that the scales of PWI, HPMood, optimism and perceived control factor as expected. However, the scales of NRSE and RSE fail to factor as intended; as 2 factors which tend to measure the construct in positive and negative manner are extracted for each of them. This indicates the presence of methods factors, in that the positive and negative forms of items in each scale are not equivalent. But since the 2 methods factors combine into a super-ordinate factor that shows the intended construct; hence, in the subsequent analyses pertaining to the 2 scales in question, the super-ordinate factor will remain to be used, given the purpose of this study does not include the investigation of methods factors. Regarding Christianity secondary control, as all 6 items from the 2 subscales have high loadings on both factors, it will be treated as a single construct in the ensuing analyses.

10.1.3 Data Analyses

10.1.3.1 Contribution of Secondary Control in Predicting SWB

Given that there are two secondary control scales i.e. the generic secondary control scale (Chambers et al., 2003) and the new one specifically designed for Christians, hierarchical multiple regression was performed to examine whether Christianity secondary control is able to make additional SWB variance beyond generic control, as well as the other homeostatic buffer factors. The analysis was performed with SWB (the mean of 8 domains) as the DV. The buffer variables of NRSE, optimism, RSE, primary control and generic secondary control were entered as Step 1, and the Christianity secondary control was input in Step 2. Prior to running the main analysis, several multiple regression assumptions were tested. The ratio of cases to independent variables was adequate. The values for tolerance and variance inflation were well above 0.10 and below 10 respectively, and the bivariate correlations between all IVs were below 0.70; hence, the assumption of multicollinearity was not violated (Pallant, 2005). Furthermore, the assumptions of normality, linearity and homoscedasticity of residuals were upheld by inspecting the residuals scatterplot and normal probability plot. The result is provided as follows:

Table 63: Regression Analyses for Buffer Factors of the Homeostatic Model and Christianity Secondary Control on SWB for the Christians

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	sr^2	R^2	ΔR^2
<u>Model 1</u>								
-Non-Religious Self-Esteem					0.32**	0.05	0.39***	
-Optimism					0.27***	0.04		
-Religious Self-Esteem					0.06			
-Primary Control					0.06			
-Generic Secondary Control					0.10*	0.01		
<u>Model 2</u>								
-Non-Religious Self-Esteem	77.21	16.55	694	0.56***	0.32***	0.05	0.40***	0.01***
-Optimism	69.64	18.24	718	0.55***	0.26***	0.04		
-Religious Self-Esteem	43.12	23.75	651	0.14***	-0.06			
-Primary Control	70.89	16.88	707	0.35***	0.05			
-Generic Secondary Control	75.82	16.61	704	0.39***	0.10*	0.01		
-Christianity Secondary Control	52.64	32.14	679	0.22***	0.17***	0.01		
-(SWB: DV)	74.72	14.21	627					

*** $p < .001$. ** $p < .01$. * $p < .05$.

In Step 1, the buffer factors of the homeostatic model account for a significant 39% of the variance, with NRSE (5%), optimism (4%) and generic secondary control (1%) contributing unique variance. In Step 2, with the addition of Christianity secondary control, an additional 1% of variance is explained. For the variables of NRSE, optimism and generic secondary control, their unique contributions remain stable.

However, since HPMood is supposed to be the genetic force driving individual differences of SWB, it is suspected that controlling this factor will remove the shared variance of the above buffer variables, and therefore show which of them provide actual unique contribution. To test this, two analyses were performed as: (i)

the partial correlations between SWB and buffer factors with HPMood as the covariate, and (ii) the hierarchical regression by adding HPMood in Step 2 subsequent to the input of all buffer variables (NRSE, optimism, RSE, primary control, generic secondary control and Christianity secondary control) in Step 1. SWB (the mean of 8 domains) was the DV. The result pertaining to partial correlations is shown below:

Table 64: Correlations and Partial Correlations (HPMood as Covariate) between the Homeostatic Variables and SWB for the Christians

		SWB	HP Mood	NRSE	Optimism	RSE	Primary Control	Generic Secondary Control
SWB	r							
	p.r.							
HP Mood	r	0.78**						
	p.r.	-						
NRSE	r	0.59**	0.59**					
	p.r.	0.20***	-					
Optimism	r	0.55**	0.59**	0.65**				
	p.r.	0.18***	-	0.46***				
RSE	r	0.14**	0.11	0.01	0.19**			
	p.r.	0.08	-	-0.07	0.15***			
Primary Control	r	0.35**	0.38**	0.43**	0.38**	0.07		
	p.r.	0.11**	-	0.28***	0.21***	0.03		
Generic Secondary Control	r	0.39**	0.42**	0.41**	0.45**	0.18**	0.56**	
	p.r.	0.11**	-	0.22***	0.28***	0.15***	0.47***	
Christianity Secondary Control	r	0.22**	0.17**	0.06	0.19**	0.73**	0.11**	0.17**
	p.r.	0.14***	-	-0.05	0.11**	0.72***	0.05	0.12**

p.r. is the partial correlation after the removal of HPMood variance

*** $p < .001$. ** $p < .01$. * $p < .05$.

In the above Table, it is demonstrated that, after controlling for the effect of HPMood, the strength of correlations between all variables was decreased. After this, the result regarding hierarchical regression is provided as follows:

Table 65: Regression Analyses for Buffer Factors of the Homeostatic Model and HPMood on SWB for the Christians

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Non-Religious Self-Esteem					0.32***	0.05	0.40***	
-Optimism					0.26***	0.04		
-Religious Self-Esteem					-0.06			
-Primary Control					0.05			
-Generic Secondary Control					0.10*	0.01		
-Christianity Secondary Control					0.17***	0.01		
<u>Model 2</u>								
-Non-Religious Self-Esteem	77.21	16.55	694	0.56***	0.12**	0.01	0.63***	0.23***
-Optimism	69.64	18.24	718	0.55***	0.07			
-Religious Self-Esteem	43.12	23.75	651	0.14***	-0.03			
-Primary Control	70.89	16.88	707	0.35***	0.02			
-Generic Secondary Control	75.82	16.61	704	0.39***	0.02			
-Christianity Secondary Control	52.64	32.14	679	0.22***	0.11**	0.01		
-HPMood	69.38	15.67	712	0.78***	0.64***	0.23		
-(SWB: DV)	74.72	14.21	627					

*** $p < .001$. ** $p < .01$. * $p < .05$.

In Step 1, the buffer factors of the homeostatic model account for a significant 40% of the variance, with NRSE (5%), optimism (4%), generic secondary control (1%) and Christianity secondary control (1%) contributing unique variance. In Step 2, with the addition of HPMood, a substantial additional variance of 23% is explained. The buffer variables of optimism and generic secondary control no longer make unique contribution. Also, the amount of contribution from NRSE (1%) is reduced by 4%, which becomes the shared variance with HPMood. It is found that only the SWB variance provided by Christianity secondary control (1%) remains unchanged.

In short, the result shows that after controlling for HPMood, only Christianity secondary control can explain unique SWB variance for the Christians, while the generic one fails to do so.

10.2 Part 2

10.2.1 Data Analyses

As the mental state espoused by Christianity is peaceful, it is argued that religious learning and experience will alter the chronic affective experience of the followers. Hence, it is predicted that, the Christians will score significantly higher than the non-religious individuals on the affect of peaceful as well as the related affects of at ease, relaxed, serene and calm. Multivariate analysis of variance (MANOVA) was performed to make a comparison between these two groups (see Table 66 below). Assumptions specific to MANOVA were assessed prior to analysis.

The requirement for sample size was satisfied as there are respectively 704 and 209 respondents in the Christianity and non-religious group. However, given that the cell sizes are different, Pillai's trace was employed as the multivariate test (Tabachnick & Fidell, 2001). The scatterplots between each pair of the variables demonstrated that the assumption of linearity was satisfied. Univariate and multivariate normality were tested by Kolmogorov-Smirnov statistic and Mahalanobis distance respectively, and the results revealed that both assumptions were violated. However, life satisfaction measures are often negatively skewed, given that most people are generally satisfied with their lives (Cummins, 1995); hence, data were not transformed. In terms of multicollinearity and singularity, all correlations were below 0.8 (Pallant, 2005), except for the correlation between content and happy ($r=0.90$). But since these 2 affects are the composite indicators of HPMood, high correlation is expected between them. The results of Box's M statistic ($p=.002$) and Levene's Test ($p>.05$) indicate that the assumptions of multivariate homogeneity of variance-covariance matrices and equality of error variances were upheld.

Table 66: MANOVA Analyses on the 9 Affect Items for the Christians and Non-Religious Individuals

Affect Items	Content			Excited			Happy			Alert			At Ease			Relaxed			Serene			Calm			Peaceful		
Groups	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Christianity	704	74.70	18.18	704	57.87	18.97	704	75.48	17.66	704	76.51	15.37	704	70.04	17.48	704	69.29	17.97	704	65.64	19.65	704	68.18	18.30	704	68.94	19.30
Non-Religious	209	74.40	18.57	209	55.89	19.27	209	74.69	18.00	209	76.32	16.06	209	70.81	16.72	209	69.19	18.60	209	64.26	21.07	209	66.84	20.18	209	66.70	20.10
MANOVA	Multivariate Test: $F(9,903)=1.27$, $P=.250$ Content: $F(1,911)= 0.04$, $P=.835$ Excited: $F(1,911)= 1.75$, $P=.186$ Happy: $F(1,911)= 0.32$, $P=.570$									Alert: $F(1,911)= 0.02$, $P=.877$ At Ease: $F(1,911)= 0.32$, $P=.572$ Relaxed: $F(1,911)= 0.01$, $P=.942$									Serene: $F(1,911)= 0.77$, $P=.380$ Calm: $F(1,911)= 0.82$, $P=.365$ Peaceful: $F(1,911)= 2.12$, $P=.146$								

In the above Table, it is shown that the two groups do not differ significantly on any of the affects.

10.2.1.1 Exploratory Study 1: Comparisons between High/Low Religiosity Christians and Non-Religious People on the 9 Affects

Given the above non-significant result, MANOVA was done again to examine whether there is difference between the high/low religiosity Christians and non-religious group. In defining high religiosity, the criterion of religiosity ≥ 70 is used, which is the same as that in Study One (see section 5.2.3). All statistical assumptions concerning these sub-samples of high/low religiosity were met as for the whole sample.

The results pertaining to the comparison between highly religious Christians and those without religion are provided below:

Table 67: MANOVA Analyses on the 9 Affect Items for the High Religiosity Christians and Non-Religious Group

Affect Items	Content			Excited			Happy			Alert			At Ease			Relaxed			Serene			Calm			Peaceful		
Groups	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
High Religiosity Christians	370	77.11	17.44	370	59.62	18.53	370	77.60	17.07	370	78.62	14.07	370	72.46	16.52	370	71.35	16.93	370	69.43	17.70	370	70.92	17.10	370	72.68	18.07
Non-Religious	209	74.40	18.57	209	55.89	19.27	209	74.69	18.00	209	76.32	16.06	209	70.81	16.72	209	69.19	18.60	209	64.26	21.07	209	66.84	20.18	209	66.70	20.10
MANOVA	Multivariate Test: $F(9,569)=2.91$, $P=.002$ Content: $F(1,577)= 3.07$, $P=.080$ Excited: $F(1,577)= 5.27$, $P=.022$ Happy: $F(1,577)= 3.72$, $P=.054$									Alert: $F(1,577)= 3.24$, $P=.073$ At Ease: $F(1,577)= 1.32$, $P=.252$ Relaxed: $F(1,577)= 2.03$, $P=.155$									Serene: $F(1,577)= 9.92$, $P=.002$ Calm: $F(1,577)= 6.65$, $P=.010$ Peaceful: $F(1,577)= 13.47$, $P=.000$								

A significant difference is found between the two groups on the combined DV. When inspecting the individual DVs, the highly religious Christians score significantly higher on the affects of excited, serene, calm and peaceful. However, given that HPMood may be the genetic force driving the affective differences instead of religious learning and experience, MANCOVA is therefore performed by using HPMood as the covariate. The result is provided below:

Table 68: MANCOVA Analyses on the 9 Affect Items for the High Religiosity Christians and Non-Religious Group (HPMood as Covariate)

Affect Items	Content			Excited			Happy			Alert			At Ease			Relaxed			Serene			Calm			Peaceful		
Groups	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
High Religiosity Christians	370	77.11	17.44	370	59.62	18.53	370	77.60	17.07	370	78.62	14.07	370	72.46	16.52	370	71.35	16.93	370	69.43	17.70	370	70.92	17.10	370	72.68	18.07
Non-Religious	209	74.40	18.57	209	55.89	19.27	209	74.69	18.00	209	76.32	16.06	209	70.81	16.72	209	69.19	18.60	209	64.26	21.07	209	66.84	20.18	209	66.70	20.10
MANCOVA (HPMood as Covariate)	Multivariate Test: $F(8,569)=2.58$, $P=.009$ Content: $F(1,576)=0.76$, $P=.383$, partial eta squared=.001 Excited: $F(1,576)=0.67$, $P=.414$, partial eta squared=.001 Happy: $F(1,576)=0.27$, $P=.606$, partial eta squared=.000									Alert: $F(1,576)=0.28$, $P=.600$, partial eta squared=.000 At Ease: $F(1,576)=0.23$, $P=.629$, partial eta squared=.000 Relaxed: $F(1,576)=0.01$, $P=.925$, partial eta squared=.000									Serene: $F(1,576)=4.75$, $P=.030$, partial eta squared=.008 Calm: $F(1,576)=2.28$, $P=.132$, partial eta squared=.004 Peaceful: $F(1,576)=7.99$, $P=.005$, partial eta squared=.014								

The above results reveal that after controlling for HPMood, only the univariate main effects of serene and peaceful reach statistical significance.

A similar MANOVA was also conducted between the low religiosity Christians (religiosity=169) and non-religious group (see Appendix I1). Pillai's criterion reveals that there is no significant multivariate main effect.

Given the different results in Table 66, 67 and 68, it is possible that the high and low religiosity Christians may perform differently on the 9 affects. Hence, MANOVA was again conducted for these 2 groups with the result appended below:

Table 69: MANOVA Analyses on the 9 Affect Items for the High and Low Religiosity Christians

Affect Items	Content			Excited			Happy			Alert			At Ease			Relaxed			Serene			Calm			Peaceful		
Groups	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
High Religiosity Christians	370	77.11	17.44	370	59.62	18.53	370	77.60	17.07	370	78.62	14.07	370	72.46	16.52	370	71.35	16.93	370	69.43	17.70	370	70.92	17.10	370	72.68	18.07
Low Religiosity Christians	323	71.70	18.65	323	55.82	19.36	323	72.79	18.13	323	74.03	16.19	323	67.21	18.03	323	67.03	18.70	323	61.49	20.86	323	65.08	19.10	323	64.71	19.72
MANOVA	Multivariate Test: $F(9,683)=5.34$, $P=.000$ Content: $F(1,691)= 15.53$, $P=.000$ Excited: $F(1,691)= 6.96$, $P=.009$ Happy: $F(1,691)= 12.91$, $P=.000$									Alert: $F(1,691)= 16.00$, $P=.000$ At Ease: $F(1,691)= 15.97$, $P=.000$ Relaxed: $F(1,691)= 10.21$, $P=.001$									Serene: $F(1,691)= 29.43$, $P=.000$ Calm: $F(1,691)= 18.04$, $P=.000$ Peaceful: $F(1,691)= 30.81$, $P=.000$								

In the above Table, all the multivariate and univariate main effects reach statistical significance; thus indicating that the high religiosity Christians score significantly higher than the low religiosity fellows on the 9 affects. However, in a bid to examine whether HPMood is an influencing agent on group differences, MANCOVA is performed with the results provided as follows:

Table 70: MANCOVA Analyses on the 9 Affect Items for the High and Low Religiosity Christians (HPMood as Covariate)

Affect Items	Content			Excited			Happy			Alert			At Ease			Relaxed			Serene			Calm			Peaceful		
Groups	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
High Religiosity Christians	370	77.11	17.44	370	59.62	18.53	370	77.60	17.07	370	78.62	14.07	370	72.46	16.52	370	71.35	16.93	370	69.43	17.70	370	70.92	17.10	370	72.68	18.07
Low Religiosity Christians	319	71.76	18.70	319	55.74	19.41	319	72.92	18.14	319	74.08	16.22	319	67.21	18.12	319	67.03	18.79	319	61.51	20.91	319	65.05	19.20	319	64.70	19.81
MANCOVA (HPMood as Covariate)	Multivariate Test: $F(8,679)=4.00$, $P=.045$ Content: $F(1,686)=0.72$, $P=.396$, partial eta squared=.001 Excited: $F(1,686)=0.17$, $P=.677$, partial eta squared=.000 Happy: $F(1,686)=0.04$, $P=.846$, partial eta squared=.000									Alert: $F(1,686)=3.84$, $P=.051$, partial eta squared=.006 At Ease: $F(1,686)=3.08$, $P=.080$, partial eta squared=.004 Relaxed: $F(1,686)=0.49$, $P=.483$, partial eta squared=.001									Serene: $F(1,686)=13.94$, $P=.000$, partial eta squared=.020 Calm: $F(1,686)=5.19$, $P=.023$, partial eta squared=.008 Peaceful: $F(1,686)=15.19$, $P=.000$, partial eta squared=.022								

The above results reveal that after controlling for HPMood, only the univariate main effects of serene, calm and peaceful reach statistical significance.

10.2.1.2 Exploratory Study 2: A Comparison between the Mixed Religious and Non-Religious Group on the 9 Affects

In Exploratory Study 1, the highly religious Christians score significantly higher than both low religiosity and non-religious people on the affective items. Hence, similar comparisons were also conducted between the mixed religious and non-religious group on the 9 affects, in a bid to investigate whether religion, in general, will alter the experience of affective composition for the believers. However, the result of MANOVA analysis reveals no significant difference for all the multivariate and univariate main effects (see Appendix I2). As such, three similar analyses were done to compare between the high/low religiosity and non-religious group as well as between high and low religiosity group. Despite the fact that significant multivariate main effects are found in the comparisons between high religiosity and non-religious group (Appendix I3), as well as between high and low religiosity group (Appendix I5), none of the univariate main effects reach significance level. Similarly, in the comparison between low religiosity and non-religious group (Appendix I4), no significant result is found for all multivariate and univariate main effects.

10.2.1.3 Exploratory Study 3: Relative Contributions of the 9 Affects to SWB

Further analyses were conducted to examine the relative contributions of the 9 affective predictors - content, excited, happy, alert, at ease, relaxed, serene, calm and peaceful, in predicting SWB for the non-religious (the means of 7 domains), Christianity and mixed religious group (the means of 8 domains). Standard regressions were performed with the assumptions for analyses met. The results are attached in Appendix I(6) to I(10) with a summary provided below:

Table 71: A Summary of Unique Variance Contributed by Affective Predictors to SWB of Non-Religious, Christianity and Mixed Religious Group

<div>Groups</div> <div>Variables</div>	Non-Religious			Christianity									Mixed Religious		
				Whole Group(High + Low Religiosity)			High Religiosity			Low Religiosity					
	<i>N</i>	<i>sr</i> ²	<i>R</i> ²	<i>N</i>	<i>sr</i> ²	<i>R</i> ²	<i>N</i>	<i>sr</i> ²	<i>R</i> ²	<i>N</i>	<i>sr</i> ²	<i>R</i> ²	<i>N</i>	<i>sr</i> ²	<i>R</i> ²
<u>Model</u>	0.60***			0.67***			0.61***			0.74***			0.82***		
-Content	209	-		717	0.01***		378	0.01**		327	0.01**		170	0.01*	
-Excited	209	-		713	0.01***		375	0.01**		326	0.005*		167	0.02**	
-Happy	209	-		717	0.02***		378	0.02***		327	0.03***		170	0.01*	
-Alert	209	0.02***		717	0.01***		378	-		327	0.02***		169	-	
-At Ease	209	0.01*		716	0.004**		378	-		326	0.01***		169	-	
-Relaxed	209	0.01*		714	0.004**		377	-		325	0.01**		168	-	
-Serene	209	-		711	-		375	-		324	-		168	-	
-Calm	209	0.02**		714	0.002*		376	-		326	0.01**		169	-	
-Peaceful	209	-		715	-		378	-		326	-		169	-	
(SWB: DV)															
<u>Model:</u>	unique variability = 0.06 shared variability = 0.54			unique variability = 0.06 shared variability = 0.61			unique variability = 0.04 shared variability = 0.57			unique variability = 0.10 shared variability = 0.64			unique variability = 0.04 shared variability = 0.78		

*** $p < .001$. ** $p < .01$. * $p < .05$

The above Table shows that the experiences of affective compositions for the groups are different. Concerning the Christianity group as a whole, nearly all affective predictors account for significant SWB variance, except for those of serene and peaceful. However, when inspecting the high and low religiosity group individually, it is surprising to find that while the affects of at ease, relaxed and calm make unique contribution for the low religiosity fellows, none of the peace-related items explain significant variance for the high religiosity individuals. Additionally, the results for the other 2 groups are intriguing. For the mixed religious group, while the composite indicators of HPMood (content, excited and happy) provide unique contributions, none of the peace-related items account for significant variance. By contrast, for the non-religious group, the affects of at ease, relaxed and calm, which are peace-related affective predictors, explain SWB variance; however, none of the HPMood indicators provide significant contribution. Moreover, when comparing the Christianity and non-religious group, there are no differences in their peace-related affective compositions, given the similar affects - at ease, relaxed and calm make unique contributions for both groups.

In summary, it seems that Christianity is related to a peaceful mind, as the results show that after controlling for HPMood, which acts as a source of genetic influence, the highly religious Christians still score significantly higher than the non-religious people on the affects of serene and peaceful, and higher than the low religiosity Christians on serene, calm and peaceful. In contrast, similar analyses for the mixed religious group reveal no significant differences. In terms of the affective compositions for the 3 groups, the affective composition involving peace does not differ between the Christians and non-religious individuals. Also, for the mixed religious group, none of the peace-related affects make unique SWB contribution. Surprisingly, for the Christianity group, the significant SWB variance contributed by the peace-related affects is confined to the low religiosity Christians.

CHAPTER 11: STUDY TWO DISCUSSION

11.1 Part 1

The most interesting result is that, after controlling for the effect of HPMood, proposed as the genetic force driving individual differences in SWB, the Christianity secondary control predicts 1% SWB variance, while none is provided by the generic measure of secondary control. The implications of this result are four-fold. First, the usefulness of this new scale in measuring secondary control for the Christians is confirmed. Second, the forms of secondary control employed by the Christians are primarily vicarious and interpretive control techniques, given that they are the main components of the Christianity secondary control scale. Third, the generic scale is not valid in measuring secondary control of the Christians, as it has been repeatedly demonstrated in Study One and Two that it fails to explain significant SWB variance, which is attributable to its inappropriateness and non-specificity in design. Fourth, Christianity secondary control is a powerful predictor of Christians' SWB in the homeostatic model, when comparing with the other cognitive buffers, as only this factor and NRSE are able to provide unique contribution and of the same strength (1%).

Furthermore, regarding the construction of Christianity secondary control scale, it was originally designed as comprising two subscales; namely, the vicarious and interpretive control scale. However, factor analysis reveals that this construct fails to factor as intended; thus indicating that vicarious and interpretive control should be combined into a single factor. Perhaps the establishment of a personal relationship with the Christianity-God is the possible factor that explains the propensity of the Christians in using these two forms of control, which is elaborated as follows:

As discussed in section 2.6.3.2.4, the most salient features characterizing the human relationship with God are faith, trust, submission and obedience. It is supposed that these four relational elements enable the followers to relate well with the all-powerful God, which in turn allow them to use vicarious and interpretive control effectively and therefore regain a sense of control over life circumstances. Some illustrative texts from the Bible are as follows. In life adversities, maintaining faith in God and entrusting in the promises of God enable the followers to believe that God loves them and will do the best things for them (Romans 8:28) (interpretive control); as well as giving them strength (Psalms 106:12-15) and help (Hebrews 13:6; Matthew 7:7-8) (vicarious control). In encountering troubles, people are advised to submit them to God by simply taking their hands off and let Him solve the problems

for them (Psalms 37:5) (vicarious control). Moreover, as God is love, He always acts in people's best interest even when letting them go through trials (interpretive control); hence, people should always be obedient to whatever God plans for them (John 15:9-11).

In view of the above, the failure of the Christianity secondary control to factor as two components (vicarious and interpretive control), and that it should be treated as a single construct, is interpretable. That is, the belief in an omnipotent, omnipresent and omniscient God (Psalms 65:6; 1Samuel 2:3) enables the Christians to vicariously associate themselves with Him and psychologically regain control of the adverse situations, as well as gaining in strength and confidence. Moreover, by interpreting negative life events as the 'good planning' intended by God, people can better accept the adversities and enhance their satisfaction with them. To this effect, these two forms of control will only be exercised effectively with the building up of a good relationship with God. Hence, both vicarious and interpretive control should be subsumed under the construct of establishing a personal relationship with God, which carries the characterization of faith, trust, submission and obedience.

In short, the validity of the new scale in measuring Christians' secondary control is substantiated. The effectiveness of such control is interpreted as entirely depending on the establishment of a good relationship with God. In this regard, further testing is warranted.

11.2 Part 2

This study tested the proposition that the sense of peace is an espoused mental state in Christianity, and religious learning and experience will accordingly alter the affective composition of the followers. Indeed, the results show that, after controlling for HPMood, which is proposed as the genetic force driving affective differences, the highly religious Christians ($\text{religiosity} \geq 70$) score significantly higher on the affects of serene, calm and peaceful than both low religiosity ($\text{religiosity} < 70$) and non-religious individuals. These results therefore support the above proposition.

It is interesting to note that no such affective differences are found with respect to the mixed religious group. The reasons for this may be twofold. First, peace is supposed to be a favored mental state in only some of the other religions such as Buddhism and Taoism; however, given their low number of respondents (12 Buddhists and 2 Taoists) represented in the mixed religious group ($N=170$), the predicted effect may be swamped. Second, peace may not be the espoused mental state of the other religions in this group.

The notion that peace is the chronic affective experience for Christians, in addition to the HPMood of content, happy and excited, is further addressed by examining the relative contributions of the nine affects (content, excited, happy, alert, at ease, relaxed, serene, calm and peaceful), in explaining SWB variance for the Christianity, mixed religious and non-religious group (Table 71). The results are discussed as follows:

A comparison of the results between Christianity and mixed religious group shows that Christianity ties to a peaceful mind, as the associated affects of at ease, relaxed and calm explain SWB variance, while no such effect is found for the mixed religious group. However, the finding that the non-religious group (at ease: 1%; relaxed: 1%; calm: 2%) shows higher level of contributions from similar affects to Christianity group (at ease: 0.4%; relaxed: 0.4%; calm: 0.2%) tends to challenge the above claim. Here, this counter-evidence will be evaluated in terms of its veridicality. According to the statistics as of 2007 (Religion in Australia, 2010), 64% of the Australian population are Christians, 6% belong to other religions, and 30% are non-religious. Indeed, these figures are quite consistent with those in this study (Christianity: 65%, mixed religious group: 16% and non-religious group: 19%), in the sense that the Australian population is demographically dominated by Christians. It therefore follows that Christianity may be driving results from the general Australian population, and the influence of the non-religious group is much diminished. Furthermore, the result of non-religious group seems in other respects anomalous. As compared with those of Christianity and mixed religious group, none of the composite indicators of HPMood (content, happy and excited) are able to explain SWB variance within the non-religious group. This is contrary to the proposition and supportive evidence that these three predictors are a constant for all people (see section 2.3.1).

Nevertheless, it is premature to deduce that Christianity is related to a more peaceful mind, given that the peace-related affects only explain SWB variance for the low religiosity Christians. Indeed, this is inconsistent with the result, as abovementioned, that the highly religious Christians are comparatively higher on the affects involving peace than those with low religiosity.

Taken together, the results in this study can be treated as preliminary evidence in support of the proposition that the religious learning and experience of Christianity may be associated with a change in the believers' affective composition. Therefore, it is recommendable that more studies should be conducted before a decisive conclusion can be drawn.

CHAPTER 12: STUDY TWO SUMMARY AND CONCLUSIONS

In Part 1 of this study, a new secondary control scale specifically for Christianity was developed; however, this should be a single construct instead of comprising two factors as intended. The usefulness of this scale and its advantage over the generic secondary control scale is substantiated, in that the new scale is able to explain 1% unique SWB variance, while none is made by the generic measure, after controlling for the effect of HPMood in the homeostatic model. It is also conceptualized that the exercise of Christianity secondary control highly relies on the establishment of a personal relationship with the Christianity-God, which is characterized by faith, trust, submission and obedience. Indeed, without these four relational factors, the vicarious and interpretive secondary control techniques (the main components of the scale) are unable to function effectively. In this relation, since different religions have their unique beliefs and teachings, it gives rise to the understanding that, if secondary control is being used, a specific scale should be tailor-made for each of them. That is, it is pivotal to take their uniqueness into account in the design and construction of the scale, so as to validly measure the secondary control employed by their respective followers.

Part 2 of this study tested the proposition that the religious learning and experience of Christianity will alter the believers' affective composition. It is found that the highly religious Christians rate significantly higher on peace-related affects than low religiosity Christians and non-religious people. However, counter-evidence is present, in that the non-religious group makes higher SWB contribution from similar peace-related affects to the Christianity group, and also these affects only predict SWB variance for low but not high religiosity Christians. These counter-intuitive and inconsistent results undermine the idea that Christianity is related to a more peaceful mind. In this regard, the notion warrants further inquiry, which is due to the inconclusive findings in this study, as well as the central importance of peace as an affective experience within the Christianity teaching.

All-in-all, the findings in Study Two offer some insights into the cognitive strategy and affective experience specific to the Christians. They also yield a better understanding of their SWB, as well as how and why it is different from those without religion.

CHAPTER 13: STUDY THREE

13.1 Introduction

Many studies have shown that SWB is affected by culture, in that the level of SWB reported by people in Eastern societies is lower than that in Western (Leelakulthanit & Day, 1993; Wong, 1993; Cummins, 1998; Lau et al., 2005). A plausible reason is cultural response bias (CRB: Stening & Everett, 1984; Lee et al., 2002; Lau et al., 2005), which is attributed to the influence of Chinese culture (Lu, 2001; Lau et al., 2005). According to Lu (2001), the philosophical thoughts of Confucianism, Taoism and Buddhism form the backbone of the orthodox Chinese culture. As these three schools of thought advocate spiritual cultivation and mind-work such as self-retrospection and self-transcendence, they admonish people to eliminate excessive desires, live a simple life and restore a clear mind. Hence, intense hedonic emotions are not stressed (Lu, 2001). Under this influence, people tend to be more modest and prone to adopt restrained expression of intense emotion. As a result, they are less likely to rate themselves at the ends of the response scale (Lau et al. 2005). Thus, the objective of this present study is to achieve a better understanding of the effect of CRB on SWB, based on the data obtained in Study One and Two. As such, four groups of respondents - the Hong Kong Chinese, Australian Chinese (Chinese immigrants and their second generation) and Australians will be studied. It is predicted that the presence of CRB in these groups varies as a function of relative influence of Eastern and Western culture.

13.2 Methodology

The analyses are based on the data acquired in Study One (the religious and non-religious Chinese from both Hong Kong and Australia) and Study Two (the religious and non-religious Australians). In assessing whether CRB exists, the SWB means and standard errors (SEs) for different groups are compared using one-way ANOVA. The basic assessment principle is that, the presence of CRB is consistent with the observation that the distribution of SWB values around each mean does not differ, despite differences in the sample means. As stated in the homeostatic model, if homeostatic failure exists, a lower mean is reflected in a larger variance due to an increased distribution of scores below the normal range. However, if CRB is operating to reduce the mean, then the variability of scores between groups is a function of CRB rather than homeostatic failure, and so the sample variance within Australian and Chinese samples should be equivalent (Lau et al., 2005). To determine whether the SEs between groups differ significantly, the averaged SE for each of the eight domains from each group will be compared. The reason for using

the averaged domain SE instead of averaged domain standard deviation (SD) in assessing CRB, is due to the fact that the magnitude of SD is comparatively more affected by the unequal sample size of each group.

However, it is noteworthy that there are in fact numerous factors, including CRB, that are contributory to between-group SWB mean differences. Hence, the obtainment of results synchronizing with the patterns associated with CRB (see the preceding paragraph) does not imply that the lower SWB of a specific group, supposedly under higher Eastern cultural influence, can be attributed to CRB. Rather, it only means further support can be provided to the proposition that the Asians' lower SWB is related to CRB. In this relation, as this is an attempt to yield a better understanding of the extent of CRB influence on SWB, an exploratory study (Exploratory Study 3) will be conducted by controlling the factor of income, which is widely held to exert strong influence on individuals' well-being (Danziger et al., 2000; Lane, 2000; MacLeod & Conway, 2005).

Additionally, the following analyses will be conducted to determine whether the results are consistent with the presence of CRB:

Exploratory Study 1: removing the top response categories from SWB, eight life domains and LAAW. Based on the notion that CRB is reflected by the avoidance of extreme ratings, it is predicted that the between-group mean differences will be reduced with the removal of top scores from these variables.

Exploratory Study 2: comparing the 4 groups' performance (the Hong Kong Chinese, Australian Chinese immigrants, second generation and Australians) on the 3 items in Study One and Two, which are related to CRB. That is, if the avoidance of extreme scores on SWB is related to the relative influence of Chinese culture, this effect will also be identified on these 3 items.

Exploratory Study 3: using income as a covariate in the assessment of CRB. It is predicted that if CRB is an influencing agent, the results on between-group SWB differences, both before and after controlling for income, will be similar. In addition, analysis will be conducted to examine whether SWB for all 4 groups differs as a function of income (high, medium and low). It is predicted that if CRB operates to affect the SWB of a specific group, this effect will be identified irrespective of the income level.

CHAPTER 14: STUDY THREE RESULTS

14.1 Results

To test for the presence of CRB, the SWB means (the means of 8 domains) and standard errors (SEs) for the four groups of respondents - the Australians, second generation, Australian Chinese immigrants, and Hong Kong Chinese were compared using one-way ANOVA. It is predicted that the Hong Kong Chinese, who are dominantly affected by the Chinese culture, will be the lowest. Contrarily, as the Australians inhabit in a typical Western cultural environment, their SWB will be the highest. The Australian Chinese (the Chinese immigrants and their second generation), who are subject to the influence of both Eastern and Western cultures, will lie between the above two groups. However, based on the logic that the Australian Chinese immigrants have been exposed to stronger influence of Chinese culture than their second generation, it follows that the former group will score comparatively lower on SWB. The results are provided below:

Table 72: Australians/Second Generation/Australian Chinese Immigrants/Hong Kong Chinese x SWB

Groups	SWB			
	N	Mean	SD	SE
Australians (AU)	994	74.65	14.17	0.45
Second Generation (2G)	134	77.11	11.66	1.01
Australian Chinese Immigrants (OZI)	191	71.32	11.85	0.86
Hong Kong Chinese (HK)	603	66.36	12.61	0.51
p	F(3,1918)=55.84, p=.000			
Post-hocs Tukey	-AU>OZI, p=.009 -AU>HK, p=.000 -2G>OZI, p=.001 -2G>HK, p=.000 -OZI>HK, p=.000			

As predicted, SWB of the Hong Kong Chinese is the lowest and that the Australian Chinese immigrants score significantly lower than their second generation. However, it is noted that, though the group of Australians yields significantly higher SWB than the Australian Chinese immigrants, it does not differ significantly from the second generation.

To find out whether the difference between groups is consistent with the presence of CRB, ANOVA was used to compare the averaged domain SEs. In line with the assessment principle (see section 13.2), it is predicted that if CRB exists in those groups having lower SWB, their averaged domain SE will not be significantly different from those reporting comparatively higher SWB. The result is shown as follows:

Table 73: Australians/Second Generation/Australian Chinese Immigrants/Hong Kong Chinese x Averaged Standard Error (8 Domains) from Table 72

Groups	Averaged SE (8 Domains)		
	N	Mean	SD
AU	8	0.58	0.06
2G	8	1.42	0.08
OZI	8	1.22	0.11
HK	8	0.69	0.13
p	F(3,28)=132.96, p=.000		
Post-hocs Tukey	-2G>AU, p=000 -2G>OZI, p=002 -2G>HK, p=000 -OZI>AU, p=.000 -OZI>HK, p=.000		

It is found that the averaged domain SE of the Hong Kong Chinese is significantly different from the second generation and Australian Chinese immigrants but not from the Australians; whereas that of the Australian Chinese immigrants differs significantly from the Australians and second generation. Taken together the results in Table 72 and 73, only those patterns between the Hong Kong Chinese and Australians are consistent with the presence of CRB.

14.1.1 Exploratory Study 1: Removal of Top Response Categories

Since CRB is proposed to be caused by the Asians' avoidance of choosing extremely high scores, a series of ANOVAs were performed with the progressive removal of top response categories from: (i) SWB, (ii) each of the eight life domains, and (iii) Life satisfaction as a whole (LAAW). Analyses omitted those respondents who rated, progressively, ≥ 95 , ≥ 90 and ≥ 80 on the above variables. It is predicted that, in these sequential analyses, the mean differences between groups will be gradually reduced.

(i) Removal of Top Response Categories from SWB

The results pertaining to the removal of SWB ratings (≤ 94 , ≤ 89 and ≤ 79) are presented as follows:

Table 74: Australians/Second Generation/Australian Chinese Immigrants/Hong Kong Chinese x SWB ≤ 94 , ≤ 89 , ≤ 79)

Groups	SWB (Full)				SWB ≤ 94				SWB ≤ 89				SWB ≤ 79			
	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE
AU	994	74.65	14.17	0.45	960	73.87	13.78	0.45	862	71.87	13.12	0.45	573	65.70	11.91	0.50
2G	134	77.11	11.66	1.01	128	76.21	11.14	0.99	118	74.95	10.68	0.98	71	69.05	9.78	1.16
OZI	191	71.32	11.85	0.86	189	71.07	11.66	0.85	182	70.29	11.16	0.83	141	66.63	9.97	0.84
HK	603	66.36	12.61	0.51	600	66.21	12.44	0.51	594	65.95	12.24	0.50	524	63.63	11.10	0.49
p	F(3,1918)=55.84, p=.000				F(3,1873)=49.33, p=.000				F(3,1752)=33.41, p=.000				F(3,1305)=7.24, p=.000			
Post-hocs Tukey	-AU>OZI, p=.009 -AU>HK, p=.000 -2G>OZI, p=.001 -2G>HK, p=.000 -OZI>HK, p=.000				-AU>OZI, p=.035 -AU>HK, p=.000 -2G>OZI, p=.003 -2G>HK, p=.000 -OZI>HK, p=.000				-AU>HK, p=.000 -2G>OZI, p=.009 -2G>HK, p=.000 -OZI>HK, p=.000				-AU>HK, p=.013 -2G>HK, p=.001 -OZI>HK, p=.027			

As predicted, the mean differences between groups diminish as a function of consecutive removal of the top scores (SWB ≤ 94 , ≤ 89 & ≤ 79). However, the decrease in significant intergroup differences may be due to the lower sample size occasioned by the successive removal of top response categories. So, Figure 7 below shows the pattern of change between/within groups:

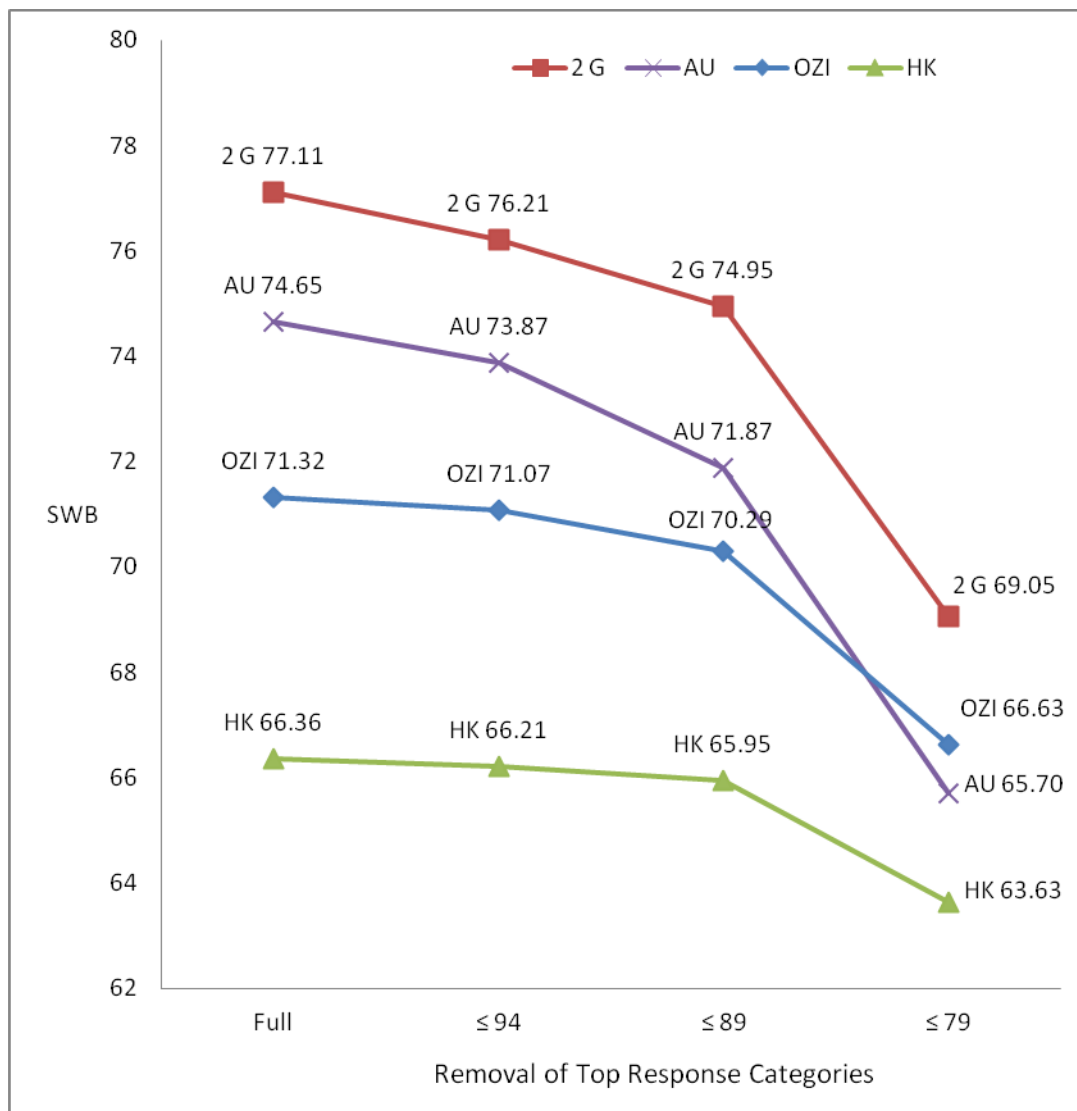


Figure 9. Australians/Second Generation/Australian Chinese Immigrants/Hong Kong Chinese x SWB (Full, ≤94, ≤89, ≤79)

It is evident that these four trend-lines are not parallel. The most dramatic change in within-sample means occurs for the Australians and the least change occurs within the Hong Kong Chinese. From the Full to the ≤79 condition, the changes are -8.95 and -2.73 points respectively. This pattern is consistent with the presence of CRB. The pattern of the other two groups is intermediate, with the second generation falling -8.06 and the Australian Chinese immigrants falling -4.69 points. These differences are also consistent with the anticipated strength of CRB due to their relative exposure to the host culture.

(ii) Removal of Top Response Categories from the Eight Life Domains

The comparisons between the 4 groups regarding the removal of extreme ratings (≤94, ≤89 & ≤79) from each of the 8 domains are shown below:

Table 75: Australians/Second Generation/Australian Chinese Immigrants/Hong Kong Chinese x Eight Life Domains (94, ≤89, ≤79)

Domains Group Mean (SD) (SE)	Standard of Living				Health				Achievement				Relationships			
	Full	≤94	≤89	≤79	Full	≤94	≤89	≤79	Full	≤94	≤89	≤79	Full	≤94	≤89	≤79
AU (n=1208)	77.93 (17.24) (0.50)	74.35 (15.92) (0.50)	68.66 (14.97) (0.55)	58.52 (14.37) (0.72)	71.14 (19.86) (0.58)	69.42 (19.11) (0.57)	64.43 (18.06) (0.60)	55.03 (16.98) (0.71)	70.13 (20.52) (0.59)	67.87 (19.50) (0.59)	63.22 (18.31) (0.61)	55.10 (17.19) (0.69)	76.83 (21.52) (0.62)	71.42 (20.41) (0.66)	63.37 (19.56) (0.75)	53.11 (18.50) (0.91)
2G (n=134)	83.28 (14.86) (1.28)	78.46 (13.42) (1.32)	72.35 (12.94) (1.57)	62.67 (14.61) (2.67)	80.08 (15.63) (1.35)	75.95 (13.97) (1.33)	70.50 (12.82) (1.43)	61.91 (12.54) (1.94)	70.90 (17.14) (1.48)	69.05 (15.97) (1.42)	66.22 (14.90) (1.42)	59.04 (13.66) (1.60)	70.82 (16.68) (1.44)	68.72 (15.24) (1.36)	66.87 (14.47) (1.35)	59.60 (13.29) (1.55)
OZI (n=204)	73.88 (14.93) (1.07)	71.87 (13.54) (1.00)	68.85 (12.23) (0.98)	60.88 (10.18) (1.07)	70.05 (18.63) (1.33)	67.37 (17.04) (1.27)	63.70 (15.51) (1.25)	57.39 (13.80) (1.31)	65.72 (17.06) (1.23)	64.82 (16.33) (1.19)	62.49 (15.06) (1.15)	57.56 (13.41) (1.15)	73.42 (15.53) (1.11)	71.69 (14.41) (1.06)	68.67 (13.31) (1.06)	61.35 (12.45) (1.27)
HK (n=716)	66.67 (16.25) (0.61)	65.69 (15.44) (0.59)	63.86 (14.43) (0.57)	58.13 (12.52) (0.58)	66.21 (16.60) (0.63)	65.58 (16.09) (0.61)	63.43 (14.98) (0.59)	58.13 (13.43) (0.61)	59.82 (17.29) (0.65)	59.18 (16.66) (0.63)	58.02 (15.84) (0.61)	54.15 (13.96) (0.59)	70.34 (15.27) (0.58)	68.93 (14.15) (0.55)	66.52 (12.91) (0.53)	59.93 (10.75) (0.53)
p/Post-hocs Tukey	<u>Full:F(3,2226)=81.88, p=.000</u> AU>OZI, p=.008; AU>HK, p=.000 2G>AU, p=.000; 2G>H K, p=.002; 2G>OZI, p=.000; OZI>HK, p=.000 <u>≤94: F(3,1995)=51.06, p=.000</u> AU>HK, p=.000; 2G>AU, p=.047; 2G>OZI, p=.003; 2G>HK, p=.000; OZI>HK, p=.000 <u>≤89: F(3,1611)=17.32, p=.000</u> AU>HK, p=.000; 2G>HK, p=.000; OZI>HK, p=.001 <u>≤79: F(3,985)=2.06, p=.105</u> No post-hocs Difference				<u>Full:F(3,2223)=24.51, p=.000</u> AU>HK, p=.000; 2G>AU, p=.000 2G>OZI, p=.000; 2G>HK, p=.000; <u>≤94:F(3,2104)=13.95, p=.000</u> AU>HK, p=.000; 2G>AU, p=.000; 2G>OZI, p=.000; 2G>HK, p=.000 <u>≤89:F(3,1772)=4.40, p=.004</u> 2G>AU, p=.009; 2G>OZI, p=.016; 2G>HK, p=.002 <u>≤79:F(3,1196)=5.42, p=.001</u> 2G>AU, p=.025; HK>AU, p=.006				<u>Full:F(3,2221)=45.75, p=.000</u> AU>OZI, p=.015; AU>HK, p=.000; 2G>HK, p=.000; OZI>HK, p=.001 <u>≤94:F(3,2113)=35.09, p=.000</u> AU>HK, p=.000; 2G>HK, p=.000; OZI>HK, p=.001 <u>≤89:F(3,1864)=15.49, p=.000</u> AU>HK, p=.000; 2G>HK, p=.000; OZI>HK, p=.011 <u>≤79:F(3,1389)=3.45, p=.016</u> No post-hocs Difference				<u>Full:F(3,2225)=18.88, p=.000</u> AU>2G, p=.003; AU>HK, p=.000 <u>≤94:F(3,1946)=3.36, p=.018</u> AU>HK, p=.025 <u>≤89:F(3,1548)=6.88, p=.000</u> OZI>AU, p=.001; HK>AU, p=.003 <u>≤79F(3,989)=18.35, p=.000</u> 2G>AU, p=.003; OZI>AU, p=.000; HK>AU, p=.000			

Domains Group Mean (SD) (SE)	Safety				Community-Connectedness				Future Security				Spirituality-Religion			
	Full	≤94	≤89	≤79	Full	≤94	≤89	≤79	Full	≤94	≤89	≤79	Full	≤94	≤89	≤79
AU (n=1208)	79.88 (17.88) (0.52)	75.53 (16.81) (0.54)	68.21 (16.31) (0.64)	57.32 (16.26) (0.88)	72.08 (19.43) (0.56)	69.39 (18.20) (0.55)	64.41 (16.85) (0.57)	55.68 (15.19) (0.64)	72.30 (20.47) (0.59)	69.16 (19.22) (0.59)	63.58 (17.91) (0.62)	54.66 (16.40) (0.70)	74.70 (19.85) (0.70)	68.97 (17.47) (0.68)	63.55 (15.51) (0.68)	55.65 (12.78) (0.68)
2G (n=134)	82.31 (16.22) (1.40)	75.82 (14.21) (1.44)	69.86 (12.89) (1.55)	61.08 (11.97) (1.97)	74.25 (16.10) (1.39)	71.95 (14.75) (1.33)	67.35 (12.97) (1.31)	62.54 (12.16) (1.44)	73.51 (16.56) (1.43)	70.42 (14.63) (1.34)	67.19 (13.24) (1.30)	60.59 (11.70) (1.42)	81.72 (17.92) (1.55)	73.94 (15.95) (1.65)	67.79 (14.65) (1.78)	59.76 (13.87) (2.17)
OZI (n=204)	75.10 (15.93) (1.14)	73.19 (14.89) (1.10)	68.90 (13.70) (1.14)	61.06 (13.10) (1.42)	65.97 (17.62) (1.26)	64.33 (16.33) (1.19)	62.09 (15.07) (1.15)	57.19 (13.31) (1.15)	71.29 (16.94) (1.22)	68.88 (15.36) (1.15)	66.08 (14.13) (1.13)	58.85 (12.25) (1.20)	75.74 (17.82) (1.37)	70.50 (15.20) (1.29)	67.42 (14.05) (1.28)	59.87 (12.79) (1.48)
HK (n=716)	69.06 (16.70) (0.63)	67.38 (15.47) (0.60)	64.85 (14.22) (0.58)	58.38 (12.19) (0.60)	63.10 (17.29) (0.65)	62.52 (16.79) (0.64)	60.77 (15.77) (0.62)	55.46 (13.67) (0.61)	63.40 (19.57) (0.75)	62.02 (18.57) (0.72)	60.03 (17.60) (0.71)	54.52 (15.96) (0.73)	73.67 (19.86) (0.99)	69.00 (17.31) (0.95)	64.65 (16.10) (0.95)	57.60 (14.85) (1.06)
p/Post-hocs Tukey	<u>Full: F(3,2225)=64.09, p=.000</u> AU>OZI, p=.002; AU>HK, p=.000 2G> OZI, p=.001; 2G>HK, p=.000; OZI>HK, p=.000 <u>≤94: F(3,1926)=35.73, p=.000</u> AU>HK, p=.000; 2G>HK, p=.000; OZI>HK, p=.000 <u>≤89: F(3,1462)=7.04, p=.000</u> AU>HK, p=.000; 2G>HK, p=.045; OZI>HK, p=.020 <u>≤79: F(3,877)=2.15, p=.093</u> No post-hocs Difference				<u>Full: F(3,2220)=40.26, p=.000</u> AU>OZI, p=.000; AU>HK, p=.000; 2G>OZI, p=.000; 2G>HK, p=.000 <u>≤94: F(3,2084)=26.80, p=.000</u> AU>OZI, p=.001; AU>HK, p=.000; 2G>OZI, p=.001; 2G>HK, p=.000 <u>≤89: F(3,1791)=8.91, p=.000</u> AU>HK, p=.000; 2G>OZI, p=.049; 2G>HK, p=.001; <u>≤79: F(3,1272)=5.58, p=.001</u> 2G>AU, p=.001; 2G>HK, p=.001				<u>Full: F(3,2199)=32.42, p=.000</u> AU>HK, p=.000; 2G>HK, p=.000; OZI>HK, p=.000 <u>≤94: F(3,2024)=22.90, p=.000</u> AU>HK, p=.000; 2G>HK, p=.000; OZI>HK, p=.000 <u>≤89: F(3,1717)=10.01, p=.000</u> AU>HK, p=.001; 2G>HK, p=.001; OZI>HK, p=.001 <u>≤79: F(3,1198)=5.06, p=.002</u> 2G>AU, p=.018; 2G>HK, p=.015				<u>Full: F(3,1513)=6.05, p=.000</u> 2G>AU, p=.001; 2G>OZI, p=.040; 2G>HK, p=.000 <u>≤94: F(3,1223)=3.17, p=.024</u> 2G>AU, p=.042; 2G>HK, p=.018 <u>≤89: F(3,997)=3.11, p=.026</u> No post-hocs Difference <u>≤79: F(3,664)=3.02, p=.029</u> No post-hocs Difference			

As predicted, the significant mean differences between groups gradually reduce (domains of health, relationships, community-connectedness and future security) or disappear (domains of standard of living, achievement, safety and spirituality-religion), with the progressive removal of top scores. Nevertheless, this result is made with the caveat that the decrease in intergroup differences may be due to the reducing sample size elicited by the successive removal of top response categories. As such, a portrait of the pattern regarding between/within group score change, for each of the eight domains, is given below from Figure 10 to 17:

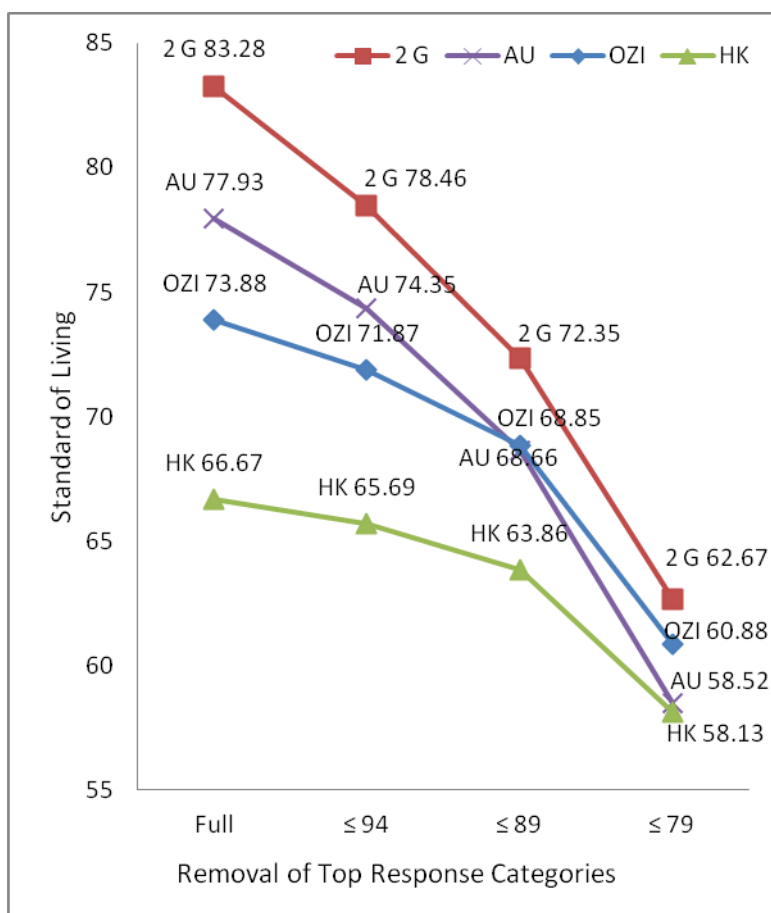


Figure 10.
Australian/Second
Generation/Australian
Chinese Immigrants/Hong
Kong Chinese x Standard
of Living (Full, ≤94, ≤89,
≤79)

Change in Within Sample Means
(From Full to ≤79)

AU:	-19.41
2G:	-20.61
OZI:	-13.00
HK:	-8.54

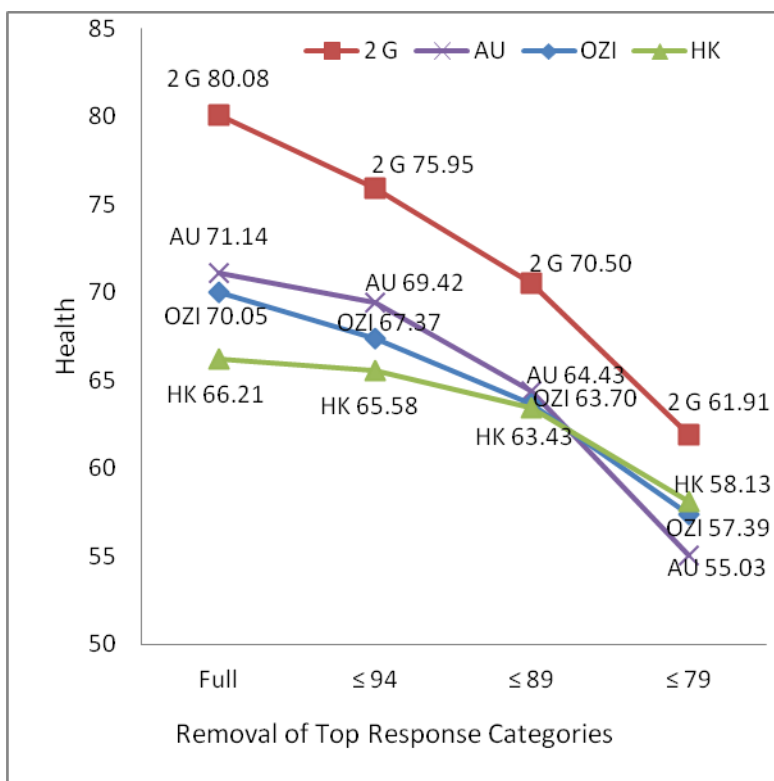


Figure 11.
Australian/Second
Generation/Australian
Chinese Immigrants/Hong
Kong Chinese x Health
(Full, ≤94, ≤89, ≤79)

Change in Within Sample Means
(From Full to ≤79)

AU:	-16.11
2G:	-18.17
OZI:	-12.66
HK:	-8.08

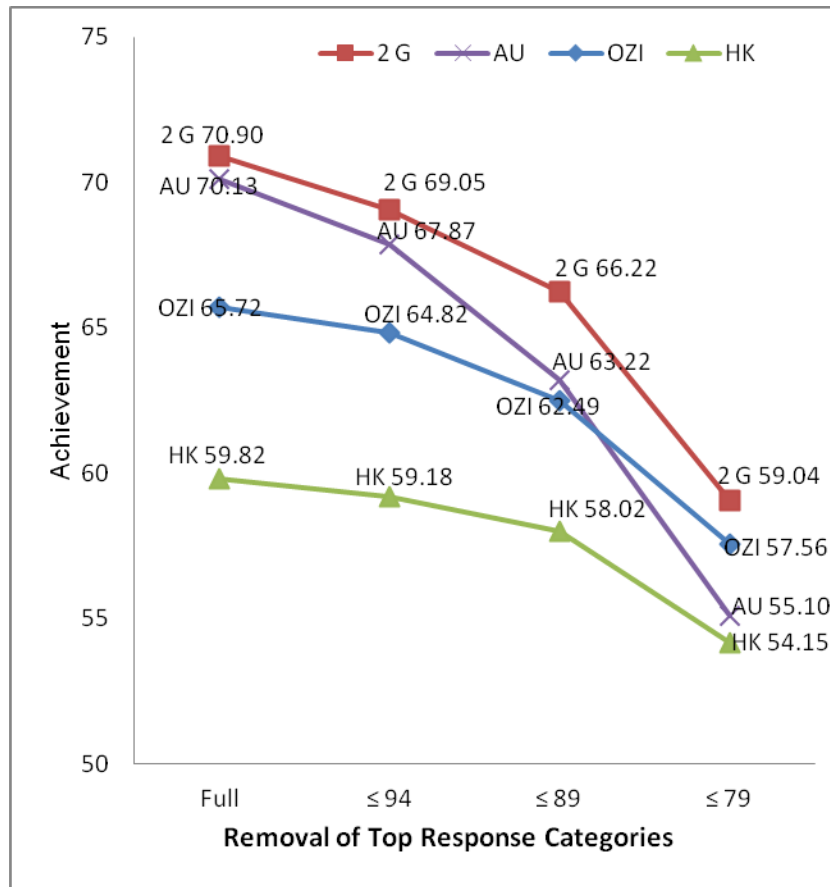


Figure 12.
Australian/Second
Generation/Australian
Chinese Immigrants/Hong
Kong Chinese x
Achievement (Full, ≤94,
≤89, ≤79)

Change in Within Sample Means
(From Full to ≤79)

AU:	-15.03
2G:	-11.86
OZI:	-8.16
HK:	-5.67

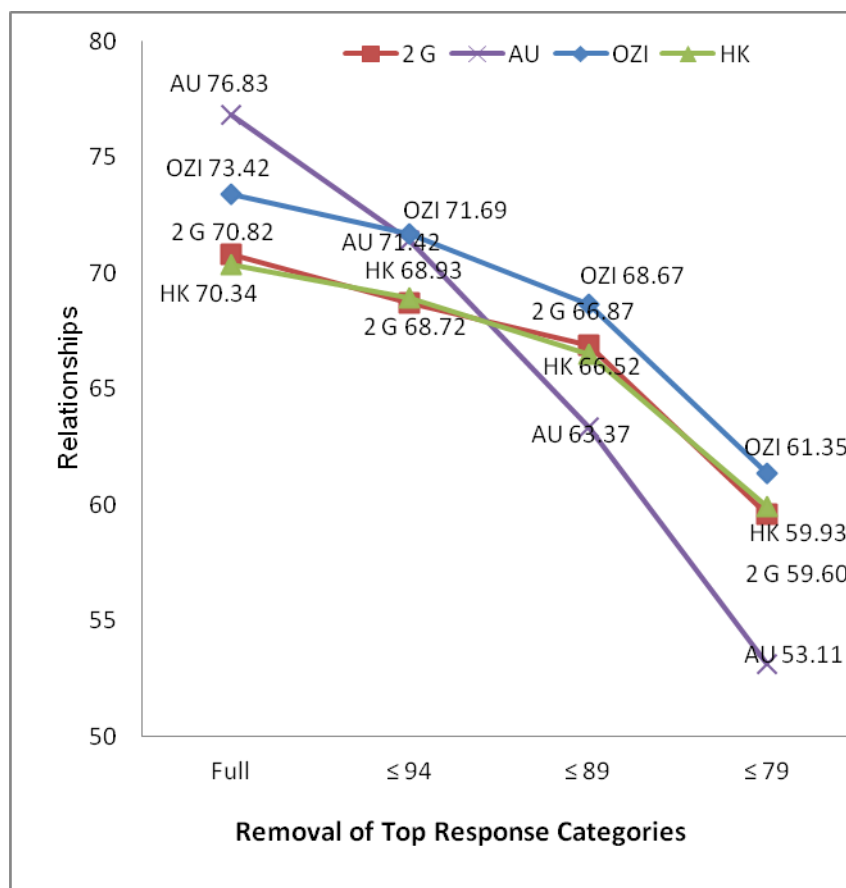


Figure 13.
Australian/Second
Generation/Australian
Chinese Immigrants/Hong
Kong Chinese x
Relationships (Full, ≤94,
≤89, ≤79)

Change in Within Sample Means
(From Full to ≤79)

AU:	-23.72
2G:	-11.22
OZI:	-12.07
HK:	-10.41

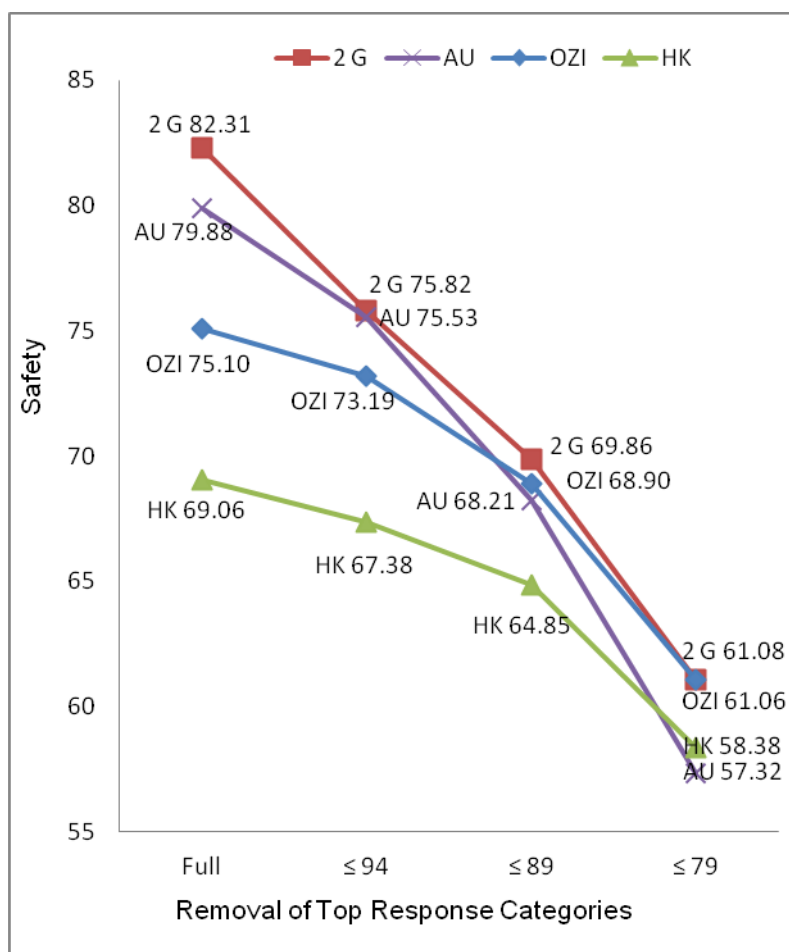


Figure 14.
Australian/Second
Generation/Australian
Chinese Immigrants/Hong
Kong Chinese x Safety (Full,
≤94, ≤89, ≤79)

Change in Within Sample Means
(From Full to ≤79)

AU:	-22.56
2G:	-21.23
OZI:	-14.04
HK:	-10.68

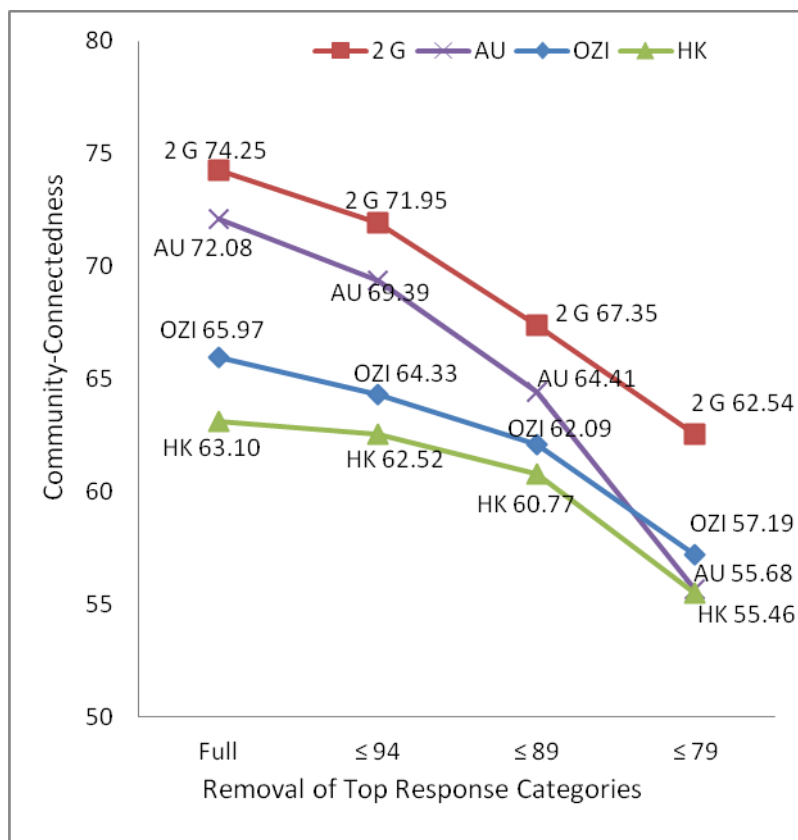


Figure 15.
Australian/Second
Generation/Australian
Chinese Immigrants/Hong
Kong Chinese x Community-
Connectedness (Full, ≤94,
≤89, ≤79)

Change in Within Sample Means
(From Full to ≤79)

AU:	-16.40
2G:	-11.71
OZI:	-8.78
HK:	-7.64

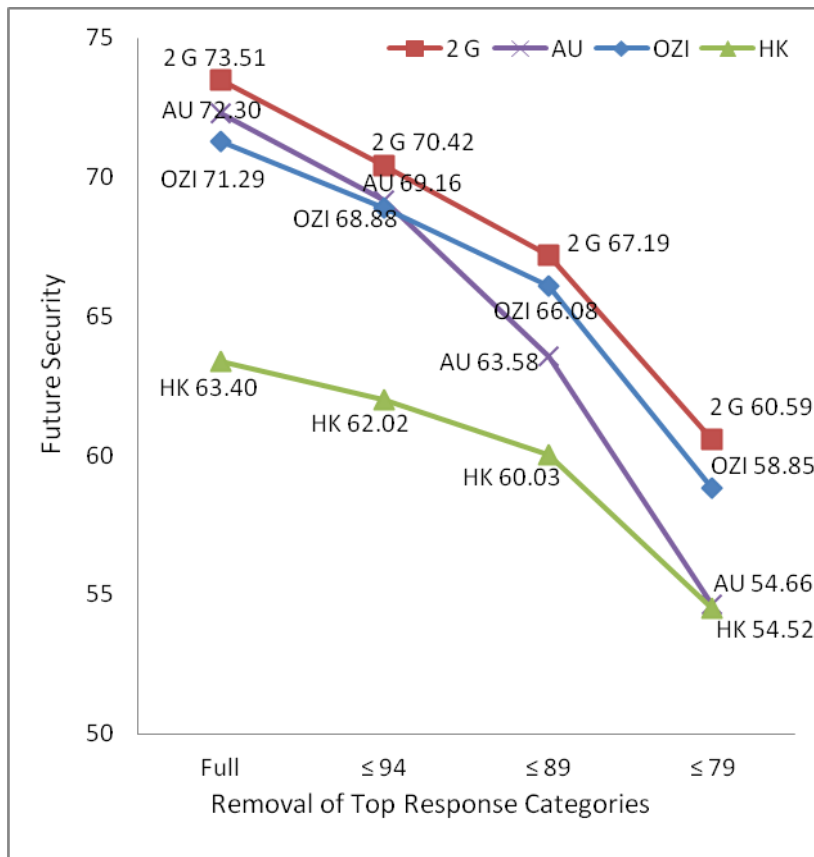


Figure 16.
Australian/Second
Generation/Australian
Chinese Immigrants/Hong
Kong Chinese x Future
Security (Full, ≤94, ≤89,
≤79)

Change in Within Sample Means
(From Full to ≤79)

AU:	-17.64
2G:	-12.92
OZI:	-12.44
HK:	-8.88

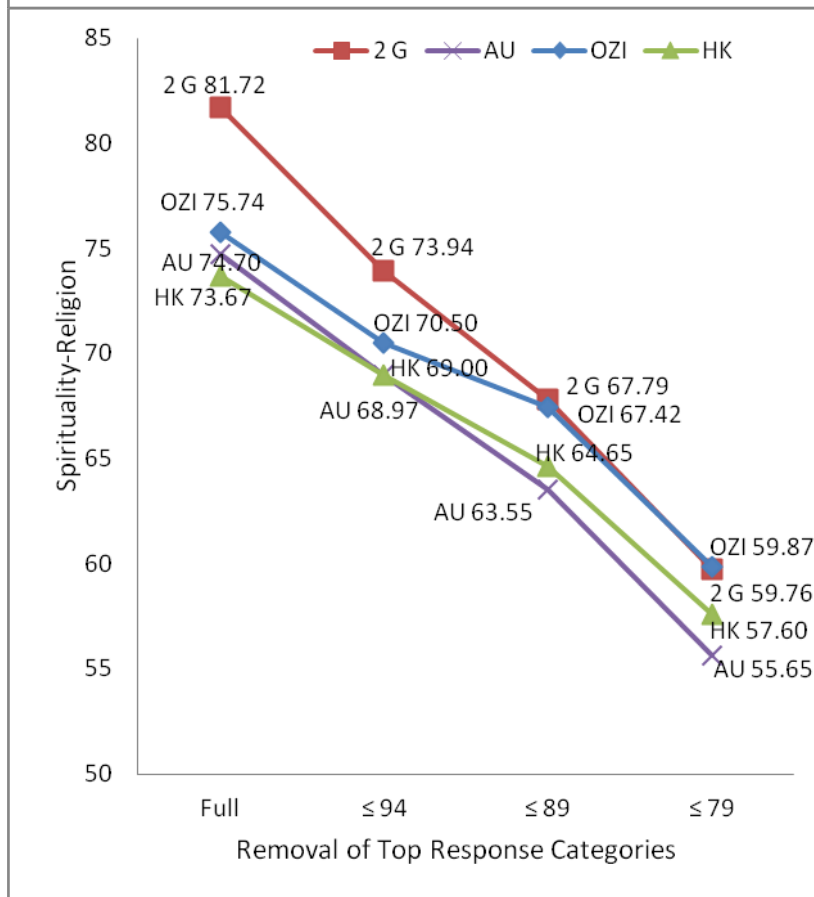


Figure 17.
Australian/Second
Generation/Australian
Chinese Immigrants/Hong
Kong Chinese x
Spirituality-Religion
(Full, ≤94, ≤89, ≤79)

Change in Within Sample Means
(From Full to ≤79)

AU:	-19.05
2G:	-21.96
OZI:	-15.87
HK:	-16.07

Referring to the four trend-lines of each of the above 8 domains, the biggest changes in within-sample means are identified in the Australians (domains of achievement, relationships, safety, community-connectedness and future security) and second generation (domains of standard of living, health and spirituality-religion); whereas the smallest change is found in the Hong Kong Chinese on all domains, except for spirituality-religion. For the Australian Chinese immigrants, majority of the change is intermediate. Generally, these patterns are congruent with the anticipated magnitude of CRB manifested by these 4 groups.

(iii) Removal of Top Response Categories from LAAW

The results on the removal of LAAW ratings (≤ 94 , ≤ 89 and ≤ 79) are shown as follows:

Table 76: Australians/Second Generation/Australian Chinese Immigrants/Hong Kong Chinese x LAAW (≤ 94 , ≤ 89 , ≤ 79)

Groups	LAAW (Full)				LAAW ≤ 94				LAAW ≤ 89				LAAW ≤ 79			
	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE
AU	1202	75.84	17.62	0.51	1083	73.19	16.54	0.50	850	68.58	15.80	0.54	440	57.93	15.73	0.75
2G	134	75.82	15.62	1.35	121	73.22	14.16	1.29	103	70.29	13.32	1.31	52	60.77	12.96	1.80
OZI	196	73.83	15.86	1.13	179	71.34	14.28	1.07	155	68.45	13.15	1.06	90	60.11	11.47	1.21
HK	705	68.58	15.86	0.60	674	67.14	14.68	0.57	634	65.69	13.93	0.55	430	58.91	11.94	0.58
p	F(3,2233)=28.70, p=.000				F(3,2053)=21.64, p=.000				F(3,1738)=6.06, p=.000				F(3,1008)=1.20, p=.308			
Post-hocs Tukey	-AU>HK, p=.000 -2G>HK, p=.000 -OZI>HK, p=.001				-AU>HK, p=.000 -2G>HK, p=.000 -OZI>HK, p=.008				-AU>HK, p=.001 -2G>HK, p=.018				No post-hocs difference			

Consistent with prediction, the sample means become more equalized as a function of sequential removal of extreme scores. Similar to the above results, the Hong Kong Chinese score the lowest on all ratings. Moreover, when LAAW is restricted to ≤ 89 , this group no longer differs significantly from the Australian Chinese immigrants. When the analysis only includes those ≤ 79 , no significant intergroup difference is found. Again, it is cautious that the decrease in significant between-group differences may be due to lower sample size, which is occasioned by the progressive removal of extreme scores. Hence, Figure 18 depicts the pattern of change between/within groups as follows:

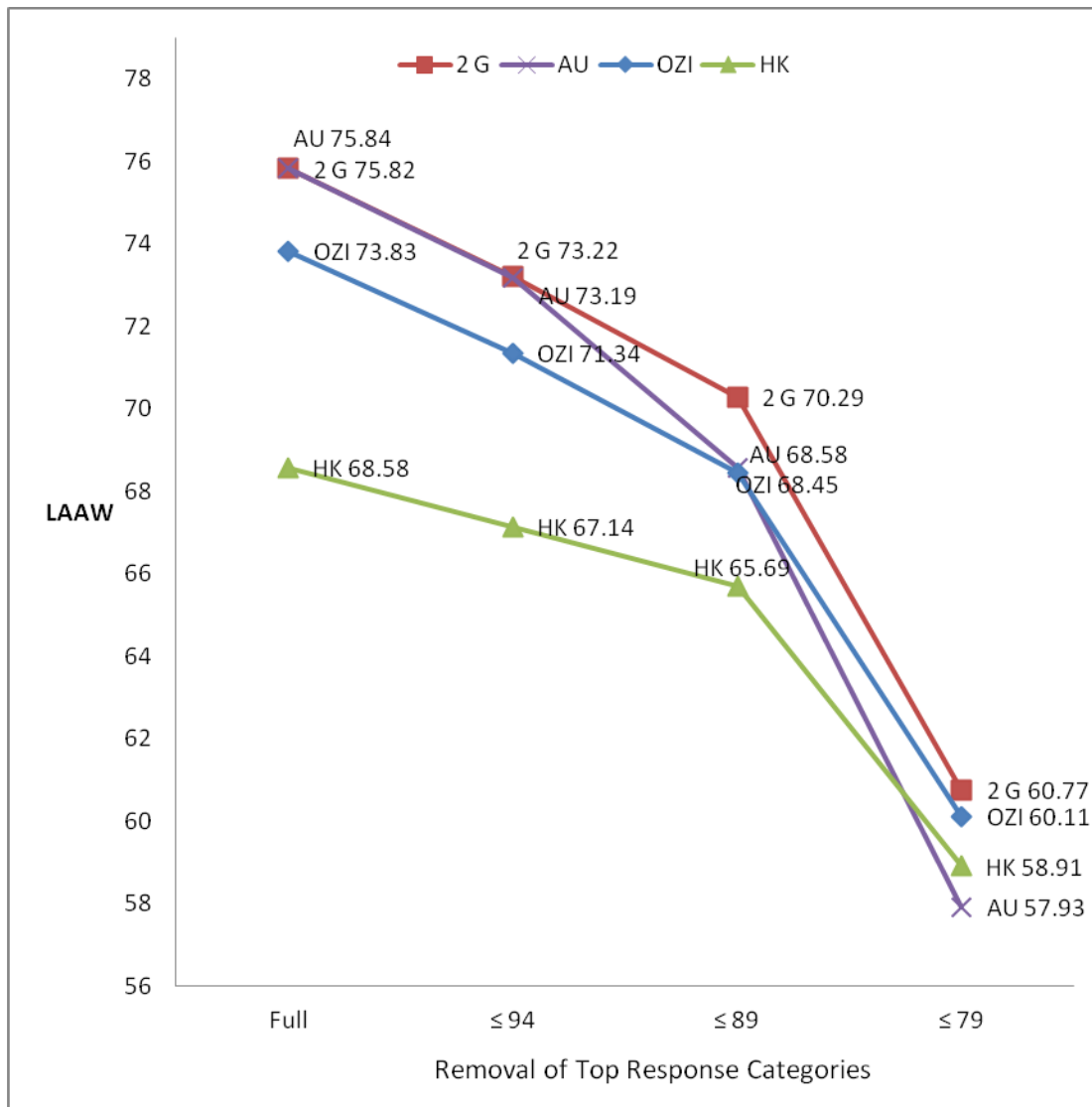


Figure 18. Australians/Second Generation/Australian Chinese Immigrants/Hong Kong Chinese x LAAW (Full, ≤94, ≤89, ≤79)

When inspecting the extent of intra-group score change, it remains most drastic for the Australians (-17.91), which is then followed by the second generation (-15.05) and Australian Chinese immigrants (-13.72), and the least change occurs for the Hong Kong Chinese (-9.67). Again, these patterns of scores comply with the magnitude of CRB predicted for these 4 groups.

14.1.2 Exploratory Study 2: Further Examination of the Presence of Cultural Response Bias

The above results show that the presence of CRB is most apparent with the Hong Kong Chinese. Hence, a verification study was conducted, by comparing the performance of these 4 groups on the following cultural response bias items used in Study One and/or Two: (1) If you had twice as much household income as you have now, how happy do you think you would be? (2) If you had half as much household income as you have now, how happy do you think you would be? (3) Thinking back

on your life, what is the highest level of happiness you have ever experienced? As item (1) and (2) had not been administered in Study Two (the 21st survey of the Australian Unity Wellbeing Index (AUWI)), the data related to the Australians will then be drawn from another regular survey i.e. the 17th survey of AUWI, in a bid to perform a comparison involving 4 groups on these 2 items.

With respect to the notion that CRB is reflected by the avoidance of extreme scores and is present in those who subject to higher influence of Eastern culture, the results for these three items are predicted as follows: (i) For item (1) and (3), the Australians will rate the highest level of happiness while the Hong Kong Chinese will be the lowest. The performance of the Australian Chinese immigrants and second generation will be intermediate, with the anticipation that the latter group will score higher. (ii) As item (2) was designed to measure CRB in a negative direction, it is predicted that the Hong Kong Chinese will score the highest, which is followed by the Australian Chinese immigrants and then the second generation, and the Australians will be the lowest. ANOVAs were performed and the results are presented below:

Table 77: Australians/Second Generation/Australian Chinese Immigrants/Hong Kong Chinese x Items Testing Cultural Response Bias

	Twice Household Income (Item 1)				Half Household Income (Item 2)				Highest Level Happiness (Item 3)			
	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE
AU	1954	79.47	21.12	0.48	1957	37.83	26.77	0.61	1206	89.14	15.33	0.44
2G	136	66.69	20.62	1.77	136	50.22	21.62	1.85	131	89.70	13.06	1.14
OZI	193	77.62	19.00	1.37	192	41.82	25.16	1.82	199	79.70	18.72	1.33
HK	685	76.31	18.21	0.70	679	36.30	24.13	0.93	684	73.70	19.21	0.73
p	F(3,2955)=19.02, p=.000				F(3,2960)=12.38, p=.000				F(3,2216)=131.90, p=.000			
Post-hocs Tukey	-AU>2G, p=.000 -AU>HK, p=.003 -OZI>2G, p=.000 -HK>2G, p=.000				-2G>AU, p=.000 -2G>OZI, p=.020 -2G>HK, p=.000 -OZI>HK, p=.045				-AU>OZI, p=.000 -AU>HK, p=.000 -2G>OZI, p=.000 -2G>HK, p=.000 -OZI>HK, p=.000			

Contrary to the above predictions, the second generation score the lowest on item (1) but highest on item (2). As regards item (3), though there is no significant difference between the Australians and second generation, the Hong Kong Chinese score significantly lower than the other 3 groups and that the second generation is higher than Australian Chinese immigrants. Hence, the prediction on this item is generally supported.

14.1.3 Exploratory Study 3: Income as Covariate

In Lau et al. (2005), it is reasoned that, as compared with the Australians, the Hong Kong Chinese' lower SWB mean, but similar SD, is consistent with the presence of CRB. However, the unequal sample size in the low income group (Australia: n=54; Hong Kong: n=127) of this study might undermine the reliability of the between-country differences. Indeed, it is found that the high income group showed fewer domain differences (five out of eight) between the two countries than the lower income group (seven out of eight), quite probably due to the different sample sizes. Thus, this next analysis will measure the SWB differences between the 4 groups by using income as a covariate. Moreover, further analysis will be conducted to examine whether the separation between the SWB means for the 4 groups differ as a function of income. The equivalent income ranges to be used for Hong Kong and Australia are specified as follows:

	Hong Kong <u>(Monthly Household Income)</u>	Australia <u>(Annual Household Income Before Tax)</u>
Low	\$14,999 or less	\$30,999 or less
Medium	\$15,000-\$20,000	\$31,000-\$60,000
High	\$20,001 and above	\$60,001 and above

The income categories correspond with the standard income levels of each country. For Hong Kong, the three levels of income ranges are formulated with reference to '2006 Population By-Census-Summary Results' (Census and Statistics Department, 2006). In this report, it is stated that the median monthly domestic household income is \$17,250, so the range of \$15,000-20,000 was adopted as the medium level of household income in this study. On par with this, the upper and lower limit, respectively for the low and high income range, was set in conjunction with this medium income range. In Australia, the median annual household income is \$53,404 (Australian Bureau of Statistics, 2006). The formulation of the above three income levels is consistent with those used in the Australian Unity Wellbeing Index Survey (Cummins et al., 2007b).

To study the influence of income on between-group SWB differences, ANCOVA was conducted by controlling for the effect of income. It is predicted that if CRB is a genuine source of influence on SWB, the pattern of result will be similar to Table 72, for which the influence of income has not been adjusted. The result is provided below:

Table 78: Australians/Second Generation/Australian Chinese Immigrants/Hong Kong Chinese x SWB (Income as Covariate)

	SWB (Extracted from Table 72)			SWB (Income as Covariate)		
	N	Mean	SD	N	Mean	SD
AU	994	74.65	14.17	925	74.80	13.99
2G	134	77.11	11.66	107	76.90	12.26
OZI	191	71.32	11.85	174	71.86	11.52
HK	603	66.36	12.61	566	66.61	12.71
p	F(3,1918)=55.84, p=.000			F(3,1767)=54.08, p=.000, partial eta squared=.084		
Post-hocs Tukey	-AU>OZI, p=.009 -AU>HK, p=.000 -2G>OZI, p=.001 -2G>HK, p=.000 -OZI>HK, p=.000			-AU>OZI, p=.009 -AU>HK, p=.000 -2G>OZI, p=.001 -2G>HK, p=.000 -OZI>HK, p=.000		

After controlling for income, there are still significant differences in SWB between the 4 groups. Moreover, the same between-group pattern is evident. Hence, the following analysis attempts to investigate whether SWB for these 4 groups varies as a function of differential levels of income. It is predicted that, the pattern of between-group differences will not change. ANOVAs were performed and the results are provided below:

Table 79: Australians/Second Generation/Australian Chinese Immigrants/Hong Kong Chinese x Income (Low/Medium/High) x SWB

	Low Income Group				Medium Income Group				High Income Group			
	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE
AU	288	72.36	15.79	0.93	238	74.67	13.39	0.87	399	76.63	12.65	0.63
2G	32	74.92	15.71	2.87	29	78.41	11.56	2.15	46	77.34	9.82	1.45
OZI	63	71.88	13.13	1.65	63	69.03	11.30	1.42	48	75.55	8.23	1.19
HK	155	61.85	13.66	1.10	126	67.02	12.95	1.15	285	69.01	11.32	0.67
p	F(3,534)=19.08, p=.000				F(3,452)=13.17, p=.000				F(3,774)=25.07, p=.000			
Post-hocs Tukey	-AU>HK, p=.000 -2G>HK, p=.000 -OZI>HK, p=.000				-AU>OZI, p=.012 -AU>HK, p=.000 -2G>OZI, p=.007 -2G>HK, p=.000				-AU>HK, p=.000 -2G>HK, p=.000 -OZI>HK, p=.002			

As predicted, the Hong Kong Chinese register the lowest SWB at all income levels. Moreover, as shown below, the pattern of between-group differences on SWB is robust to income level.

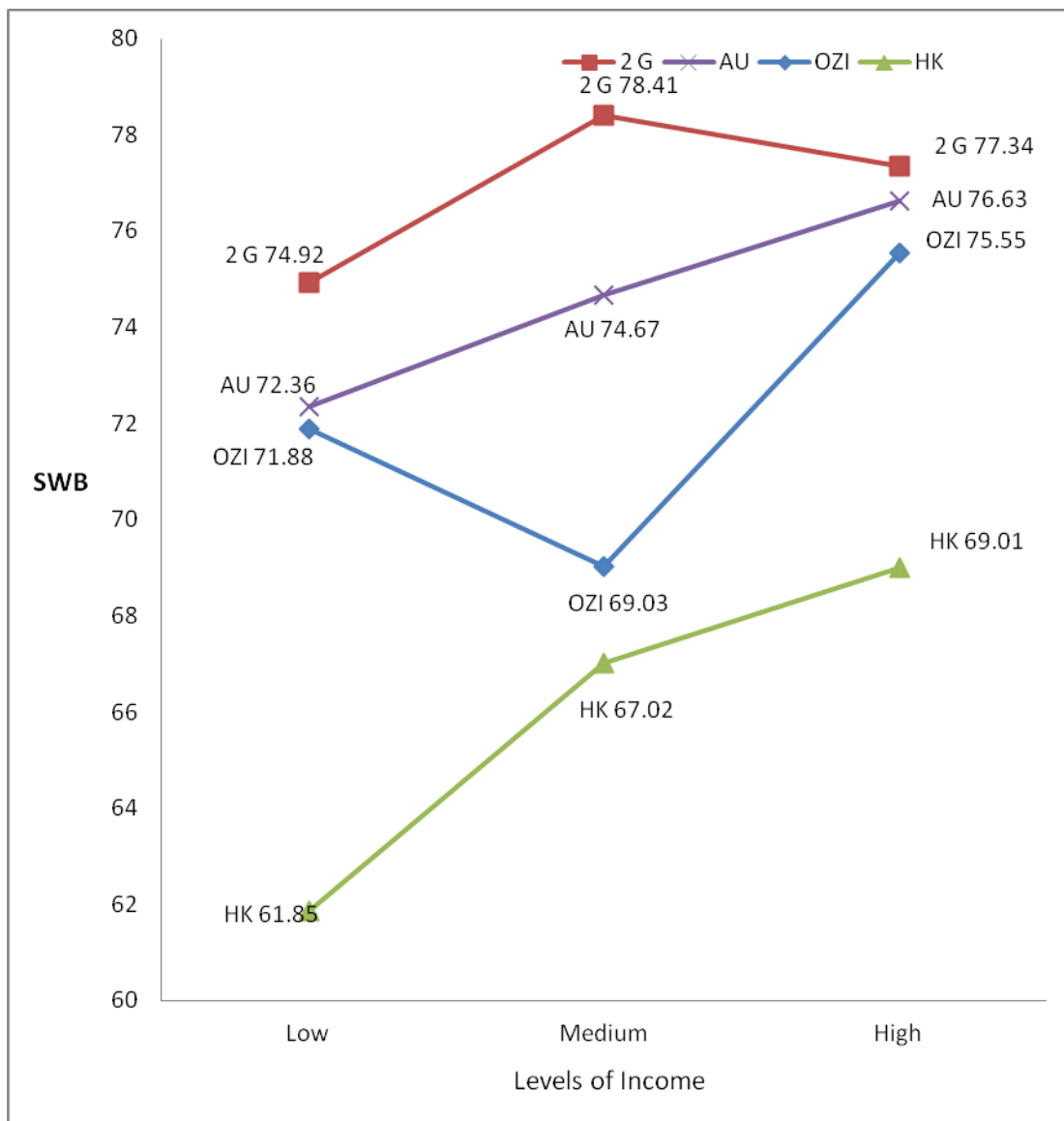


Figure 19. Australians/Second Generation/Australian Chinese Immigrants/Hong Kong Chinese x SWB x Income (Low, Medium, High)

This pattern of result is consistent with the existence of CRB in the Hong Kong Chinese.

In summary, this study shows that the relatively lower level of SWB reported by the Hong Kong Chinese, as compared with the Australians, is quite possibly related to the presence of CRB.

CHAPTER 15: STUDY THREE DISCUSSION AND CONCLUSION

This study attempts to examine whether cultural response bias (CRB) contributes to the lower SWB reported by the Asians. To test this, four groups of respondents, viz. the Australians, Australian Chinese immigrants, second generation and Hong Kong Chinese, who are subject to differential influences of Western and Eastern culture, are compared. Given that Hong Kong dominantly shares the culture of Mainland China while Australia is typified as Western society, the manifestation of CRB is expected to be highest for the Hong Kong Chinese and lowest for the Australians. In addition, as the Australian Chinese immigrants have been more exposed to the influence of Chinese culture than their second generation, CRB is anticipated to be stronger in the former group. As such, the findings in this study are discussed as follows:

First, the pattern of result for the Hong Kong Chinese (lower SWB mean but similar averaged domain SE) (Table 72 and 73), as compared with the Australians, is consistent with the existence of CRB. Hence, CRB is most apparent with this Hong Kong group. This finding is further supported by Exploratory Study 2 and 3. In Exploratory Study 2, the Hong Kong Chinese score lowest when asked to rate their 'highest level of happiness'. In Exploratory Study 3, after controlling for the effect of income, which is widely held to exert strong influence on SWB (Danziger et al., 2000; Lane, 2000; MacLeod & Conway, 2005), the Hong Kong Chinese remain the lowest on SWB. Also, this group registers the lowest SWB, among the four groups, at all income levels. These findings are consistent with past research (Chen, 1995; Lee et al., 2002; Stening & Everett, 1984;), in that the Asians are more likely to avoid extreme ratings; and are in support of Lau et al. (2005) that the measured differences in SWB between the Australians and Hong Kong Chinese is due to CRB. Hence, this study lends credence to the extant literature that cultural factor i.e. the influence of Chinese culture is contributory to the lower SWB reported by the Asians.

The three schools of philosophy; namely, Confucianism, Taoism and Buddhism have profoundly shaped the Chinese culture and the mentality of Chinese people for thousands of years (Lu, 2001). They emphasize that happiness is an individual mental state, which can be understood as a mind of peace, as well as a harmonious state of existence within oneself and with the environment (Lau et al., 2005; Lu, 2001; Yau, 2003). In fact, such kind of mental state can only be achieved by spiritual enrichment and mind cultivation, rather than through material gratification and physical comfort (Lu, 2001; Yau, 2003). In achieving this, people should adopt a simple lifestyle, maintain a clear mind, and eliminate excessive and

selfish desires (Lu, 2001; Yau, 2003). Correspondingly, intense hedonic emotions are not encouraged, as they may disturb the peaceful mind and the harmonious life state (Lu, 2001). As a result, those people who are under stronger influence of the Chinese culture tend to be more modest and less likely to rate themselves extremely on the response scale (Lau et al., 2005). This, in turn, helps to explain why the Asians report lower SWB than the Westerners.

Second, compared with the Australians, the pattern of result for the Australian Chinese immigrants (lower SWB but higher averaged domain SE) (Table 72 and 73) implies that the lower SWB reported by the latter group is probably not related to CRB. Perhaps, the higher variance of the Chinese immigrants reflects the induced variability in SWB, relating to how well they adapt in a migrant country. That is, some immigrants adapt better and are happier, while some adjust more poorly and become unhappier. When moving into a new environment, there is a multitude of adaptive tasks that the immigrants have to deal with e.g. learning a new language, solving housing problem, job-seeking, re-establishing social support system and adjusting to a new culture (Collins, 1993; Crissman, 1991; Omeri & Atkins, 2002; Tien, 1966; Walsh & Walsh, 1987). All these are potential stressors that may have deleterious effect on their physical and mental health. As reported by Walsh and Walsh (1987), those immigrants who lack social support in a new environment and assimilate poorly into the host culture may have higher levels of blood pressure and idiopathic hypertension. Other studies have demonstrated that poor adaptation in a migrant country is significantly related to depressive symptoms (Vega et al., 1987), acculturative stress (Berry et al., 1987), emotional disorder (Aviram & Levav, 1975), feelings of powerlessness and low self-esteem (Kuo, 1976), and feelings of fear, loss and apprehension (Shuval, 1982). Hence, the lower SWB of the Australian Chinese immigrants probably reflects that they are subjected to more SWB homeostatic challenge, which may be occasioned by the problems of adaptation and cultural adjustment.

Third, the non-significant difference on SWB between the second generation and Australians (Table 72) may be explained by the fact that, since the second generation are born and raised in Australia, they have been exposed to similarly high influence of Western culture as the Australians. This also gives rise to the understanding that one generation is probably enough to acculturate for most people. As stated in Crissman (1991, p.35), “....Chinese children in Australia will grow up to be more or less Australian culturally,.....mainly through the schools, by television, and in neighbourhood play groups, to other Australians”. As regards the significantly higher SWB of the second generation, compared with the Australian Chinese

immigrants (Table 72), it may be attributed to their better adjustment in a migrant country. In this regard, some studies have revealed that the second generation of the immigrant families achieve better assimilation, which is manifested by the adaption of the “Australian way of life”, including the language, customs and social practices (Brandon, 2008; Crissman, 1991). Moreover, given that the second generation receive their education in Australia, this facilitates better occupational opportunities in society (Crissman, 1991). Hence, it is not surprising that the second generation tend to have higher SWB than their parents.

Fourth, the findings in this study are consistent with the anticipated strength of CRB manifested by the four groups of respondents. In Exploratory Study 1, the results pertaining to the removal of top scores from SWB, the domains and LAAW indicate that, generally, the most drastic change in within-sample means occurs for the Australians and the least change occurs within the Hong Kong Chinese. The changes for the Australian Chinese immigrants and second generation are intermediate, with the former group showing bigger change. These patterns lend support to the proposition that the manifestation of CRB varies as a function of relative exposure to Western and Eastern culture.

Contrary to prediction, it is found that in Exploratory Study 2, the second generation score the lowest on the item of ‘twice household income’ but highest on ‘half household income’, which were designed to measure CRB. These results may be attributed to the fact that, since the majority of respondents in this group are youngsters, which is reflected by their age distribution (Age 17 or below: 53%; Age 18-25: 42%; Age 26-35: 4%; Age 46-55: 1%); it therefore follows that most of them are still studying and not required to shoulder the financial burden of their families. As a result, household income may not be their prime concern and is relatively unimportant to their happiness. Hence, these two question items are not valid in measuring happiness of this group.

In conclusion, this study is supportive of the idea that CRB is the possible explanation of the SWB difference between the Australians and Chinese in this study.

CHAPTER 16: OVERVIEW AND CONCLUSIONS

16.1 Overview of Major Findings

This thesis comprises three linked studies. The thrust of Study One was to find out whether religion is contributory to SWB, with particular reference to three religions-Christianity, Buddhism and Taoism. By studying the relationship between religions and SWB within the homeostatic model, it was hoped to increase understanding of the affective and cognitive factors involve in SWB. Study Two focused on studying Christianity, with particular concern on the types of secondary control techniques employed, and the relationship between peace-related affects and SWB. Utilizing the data collected in Study One and Two, Study Three attempted to understand whether cultural response bias (CRB) contributes to the SWB difference between the people from Australia and Hong Kong, by comparing four groups of respondents as Australians, Australian Chinese (Chinese immigrants and their second generation) and Hong Kong Chinese. Overall, this set of studies contributes significantly to our understanding of the relationship between religion and SWB, as well as sheds light on cultural difference in responding to self-evaluative scales. The major findings of these three studies are discussed as follows:

The Relationship Between Three Religions and SWB

It is widely held that a positive link exists between religion and SWB (e.g. Banthia et al., 2007; Barkan & Greenwood, 2003; Baroun, 2006). On this basis, Study One investigated the relationship between the religions of Christianity, Buddhism and Taoism, and SWB. When combining all religious respondents, the results indicated that religiosity and spirituality-religion (S-R) satisfaction were positively and significantly correlated with SWB. These findings lend credence to the extant literature. Nevertheless, between these two religious variables, S-R satisfaction made a higher independent contribution to SWB and the correlation between religiosity and SWB became insignificant after controlling for the effect of S-R satisfaction. Hence, it was concluded that S-R satisfaction was a more powerful predictor of SWB.

In relation to this interpretation, there are two issues that warrant further consideration. First, given that S-R satisfaction and SWB (satisfaction with seven life domains) both use satisfaction responses, the higher SWB contribution made by S-R satisfaction may be due to methods variance, rather than any higher-order variance genuinely provided by this construct. Second, the finding that religiosity affects SWB via S-R satisfaction, is consistent with other studies showing that the positive relationship between religiosity and SWB is moderated by other factors.

These factors are, for example, purpose in life (French & Joseph, 1999), ego transcendence (Witter et al., 1985) and increased social support (Idler et al., 2003). Hence, it seems that there is not a simple relationship between religiosity and SWB, and therefore it is advisable for future research to adopt a latent variable approach, in which the construct of religiosity is operationalized using multiple indicators (Witter et al., 1985).

In terms of individual religious groups, while the notion that religion is contributory to SWB seems applicable to Christianity and Taoism, it is reserved in relation to Buddhism, given the following evidence: (1) there were significant positive relationships between religiosity, S-R satisfaction and SWB for all individual religious groups, except that religiosity was not correlated with SWB for Buddhism. (2) S-R satisfaction explained unique SWB variance for all groups but none for Buddhism. (3) Religiosity predicted significant SWB variance for the Chinese Christians in Australia and the Taoists but none for the Buddhists. (4) The S-R satisfaction of Buddhism did not contribute significant variance beyond the other seven domains of the Personal Wellbeing Index (PWI) in predicting Life Satisfaction as a Whole (LAAW); hence, it failed the inclusion requirement as a life domain in the PWI.

A possible reason for these results may be the differential nature or focus of measurement. By using the PWI, this study intended to study the religious believers' subjective feelings towards different dimensions of life represented by the PWI domains. To this effect, it is likely that the Buddhists' view of life is affected by the core value of Buddhism, in that life is filled with sufferings (see section 2.6.1.1 & 2.6.1.2). This, in turn, influences them to adopt a pervasive negative perspective in evaluating different aspects of life and; therefore, may explain the lack of a significant relationship between Buddhism and SWB.

These findings seem at odds with the positive relationship between Buddhism and well-being as reported by the other authors (see section 2.7). In these studies, the demonstration of such positive relationship related to the development of a healthy self-concept (Emavardhana & Tori, 1997) and the enhancement of physical health by practising Buddhist meditation (Howell, 1994; Herron & Hills, 2000). Alternatively, such studies focus on demonstrating how meditative practices are effective in restoring the inner peace through the management of negative emotions, such as anger (Flanagan, 2003; Katz, 2000; Specia et al., 2000), stress (Tsai & Crockett, 1993; McCain et al., 1996; Specia et al., 2000), anxiety (Kabat-Zinn et al., 1992; Miller et al., 1995; Pearl & Carlozzi, 1994), depression (Miller et al., 1995; Teasdale et al., 2000; Williams et al., 2001) and distress (Shapiro et al., 1998).

Hence, the physical and psychological health implications of these past studies are not directly comparable with this current study.

If the Buddhists locate real happiness in Nirvana, and its manifestation in life is characterized by peace, which is the pleasure independent of, or unaffected by, the sufferings that humans inevitably have to face (Keown, 1996 & Klostermaier, 1999) (also see 'Third Noble Truth' in section 2.6.1.2), then it appears that the most valid way in measuring well-being for this group is to probe their level of peace. Indeed, some of the results do offer empirical support that the Buddhists have high level of wellbeing measured as peace. That is, despite the fact that peace contributed unique SWB variance for the combined religious group in Hong Kong (peace was only measured in Hong Kong), it only made an independent contribution for Buddhism when the analyses were in terms of individual religious group (Table 30). Furthermore, this affect predicted the highest SWB variance for the Buddhists as compared with the other measured affects (Table 30). Taking these findings into account, the incongruence between the three religions is somewhat reconciled; and the relationship between the religion of Buddhism and SWB becomes tenable.

The relationship between religion and SWB was also examined by finding out whether S-R can be established as a life domain in the PWI. S-R is a newly added domain of the PWI (PWI; International Wellbeing Group, 2006); hence, this study served the purpose of testing its scope of applicability by studying this item in different kinds of religions and populations. It was found that S-R fulfilled the criterion for a life domain of the PWI for the religious groups of Christianity and Taoism, as well as the religious Chinese populations in Australian and/or Hong Kong. Hence, religion is generally contributory to SWB for these groups.

Nevertheless, it is notable that this new domain of S-R makes no unique LAAW contribution for the general population in Australia (Caras, 2003; PWI; International Wellbeing Group, 2006). This highlights the phenomenon that, in Australia, the level of SWB varies across different sectors of populations, which might be attributed to their differential levels of adaptation in an immigrant country. Evidence to support this claim is cited from Study Three. It is found that SWB of the Australians (M:74.65) and the second generation of the Chinese immigrants (M:77.11) was significantly higher than the Australian Chinese immigrants (M:71.32). These differential levels of SWB were explained in terms of the better adaptation experienced by the second generation than the Australian Chinese immigrants, which therefore enabled the former group to attain a similarly high level of SWB to the Australians (see pertinent discussion in Chapter 15). Indeed, it is

found that S-R of the second generation, as for the Australians, also failed the inclusion requirement of being a domain of the PWI (see section 6.1.1). Hence, it seems that those people who adapt well are happier and therefore their S-R satisfaction may not bring additional happiness beyond the other seven domains. But for those Australian Chinese immigrants who adapt more poorly, and whose SWB is under stronger homeostatic challenge, S-R satisfaction is able to bring them additional happiness.

In order to conduct further testing on the relationship between religion and SWB, a comparison was made between the religious and non-religious respondents. When combining all the respondents from Australia and Hong Kong, the religious believers reported significantly higher SWB. However, in terms of locality, no significant difference was found between the religious and non-religious group in Hong Kong, while the religious individuals in Australia displayed significantly higher SWB than all religious and non-religious people in Hong Kong. This, therefore, highlights the possibility that the benign effect of religion on well-being varies as a function of culture. That is, the comparatively disadvantageous living conditions in Hong Kong counteract the favourable effect of religion, thereby leading to the overall lower SWB for the Hong Kong people. Indeed, a significant interaction was found between religion and culture, which was interpreted in terms of the disparate living conditions between these two countries. This, therefore, carries the implication that, in studying the effect of religion on SWB, particularly in comparing respondents from different localities or cultures, the objective life circumstances or living conditions should be taken into account.

In conclusion, this study yielded convergent lines of evidence in support of a positive tie between religion and SWB as follows: (1) The religious variables of religiosity and S-R satisfaction were, in general, correlated positively with SWB. (2) However, while there was a positive link between the religions of Christianity and Taoism with SWB, this did not apply to Buddhism. (3) S-R satisfaction generally met the inclusion criterion as a domain of PWI. (4) The SWB of the religious believers was generally higher than the non-believers. Given these findings, it is evident that religion is commonly, but not universally, contributory to SWB.

Affective Experience of Religious Believers

The affects of alertness and peace were studied as SWB predictors in addition to HPMood (content, happy and excited), given their high relevance for the religious adherents. As discussed in section 2.8, it is important for the followers of the three religions to put aside their self-oriented values in order to incorporate their religious

values. As such, high alertness is functional for differentiating effectively the worldly values from those of their religions. Moreover, peace is an embraced mental state of these three religions, which affords the followers the pleasure independent of the fulfillment of material desires and stimulation from external environmental sources (see 'Inner Peace' in section 6.6.3). Indeed, the findings revealed that the religious believers, from both Australia and Hong Kong, rated higher on the affects of alertness and peace, than the non-believers (Table 27). Moreover, peace as an affective predictor was able to explain unique SWB variance for the combined religious group in Hong Kong, due mainly to the inclusion of the Buddhists.

The implications of these findings are two-fold: First, regarding the positive relationship between religion and well-being, some empirical studies have suggested the important role played by the affect of peace. Other authors have found that the enhancement of psychological and physical health is related to the alteration of physiological responses occasioned by a sense of peace which occurred during the religious activities such as prayer (Masters & Spielmans, 2007) and meditation (Flanagan, 2003). The finding that peace is contributory to SWB of the religious adherents is consistent with these studies. Second, given the significance of peace as a mental state for the religious adherents, it was speculated that religious experience may alter the experience of HPMood, which was further addressed in Study Two.

By focusing on Christianity, Study Two examined whether the Christians have a more peaceful mind and its relation to SWB. Hence, the peace-related affects of at ease, relaxed, serene and calm were studied in addition to those measured in Study One (content, happy, excited, alert and peaceful). The results revealed that, compared with the non-believers, the Christians rated significantly higher on the affects involving peace; however, these affects made higher SWB contribution for the non-believers. Given these inconclusive evidence, further inquiry is recommended.

Other than the affective factors, some cognitive factors also influence the relationship between religion and SWB.

Religion, Cognitive Buffers and SWB

The cognitive factors of optimism, non-religious self-esteem (NRSE: Rosenberg's self-esteem construct) and perceived control constitute the proposed buffering system of the homeostatic model. Hence, Study One investigated the relationships between religions, SWB and these three cognitive factors.

It was predicted that the religious people would have higher optimism than the non-religious people, and this was supported. This lends credence to the extant evidence that religion is tantamount to a coping resource (Barkan & Greenwood, 2003; Masters & Spielmanns, 2007; Witter et al., 1985) that enhances SWB resilience when facing life adversities (Barkan & Greenwood, 2003; Witter et al., 1985).

In serving as a cognitive buffer for the religious people, NRSE was anticipated to be lower for the believers than non-believers. Given that the three religions of interest embrace other-centeredness over self-centeredness (see section 2.6.1.3.3, 2.6.2.6.3 & 2.6.3.3.3), it was hypothesized that their followers might be lower in egocentric mentality and therefore would score significantly lower on NRSE. However, the findings revealed that there was no significant difference between the religious and non-religious people on NRSE. The deprecating effect of religions on NRSE was further addressed by examining the relationship between social group identification and NRSE. The rationale for this investigation comes from studies which have demonstrated that social group identification enhances individuals' self-esteem (Brown, 2000; Turner et al., 1984). Thus, given that these three religious groups espouse selflessness, the internalization of this salient feature by the followers, as part of their self-concept, may have deprecating effect on self-esteem. It was therefore predicted that identification with these religious groups would not increase the power of NRSE to predict SWB beyond religious beliefs. But contrary to prediction, social identification made an independent contribution beyond religiosity, in explaining NRSE and SWB. Indeed, social identification was significantly and positively related to NRSE after controlling for religiosity. These findings were attributed to the fact that, as egocentric mentality is a basic human attribute, the religious adherents might have difficulty in its complete eradication, thus resulting in the high reliance on NRSE as source of perceived wellbeing.

In terms of the cognitive buffer of primary and secondary control, it was predicted that the Buddhists would have higher primary control, Christians higher secondary control, and Taoists higher primary and secondary control, than the non-religious group. The rationale for these was that: since the Buddhists believe that a happy life can only be garnered by their own cumulative merit of good karma, primary control is emphasized (see section 2.6.1.3.1). In Christianity, a flourishing life is only the giving of God and determined by how much people submit to God; hence, the Christians mainly use secondary control (see section 2.6.3.3.1). The Taoists tend to adopt both forms of control, as they can enhance their life quality by practising the Taoist teachings, as well as by petitioning deities (see section 2.6.2.6.1). However, no significant differences were found on either form of control for any of

the groups. The non-significant difference on primary control might be attributed to the difficulty experienced by the religious believers in removing egocentric mentality, which in turn hinders them from fully benefiting from the religious teachings. The lack of difference on secondary control is, indeed, quite contradictory to the widespread belief that vicarious association with deities enables the religious adherents to regain a sense of control over life circumstances (Rothbaum et al., 1982; Weisz et al., 1984). This result might be explained in terms of the inappropriateness or non-specificity of the scale employed, which subsequently led to the creation of a new scale for Christianity in Study Two.

In an attempt to better understand the secondary control techniques used by the Christians, a new Christianity secondary control scale was created comprising two components - vicarious and interpretive control. The effective functioning of these forms of control is entirely dependent on the building up of a personal relationship with God, which carries the relational elements of faith, trust, submission and obedience. These, in turn, allow the Christians to regain a sense of control over their life circumstances. Indeed, after adjusting the effect of HPMood, this new scale was able to make a contribution of 1% SWB variance, while none was provided by the generic secondary control scale (Chambers et al., 2003). Moreover, Christianity secondary control appears to be an important cognitive buffer for the Christians and a powerful predictor of their SWB in the homeostatic model; as among the cognitive buffers (optimism, NRSE, RSE, primary control, generic secondary control and Christianity secondary control), only this one and NRSE were able to explain SWB variance and of the same strength (1%). These findings not only indicate the predictive usefulness of this new scale, but also have important implication pertaining to such psychological measurements applied to the religious people. That is, owing to their incorporation of the religious values, their responses to psychological scales are highly affected by their faith; hence, valid measurement may necessitate the development of a specific scale tailor-made for them.

Apart from the above three buffers, collective self-esteem (CSE) and a newly created construct of religious self-esteem (RSE), were studied as new cognitive buffers of the homeostatic model. Pertaining to CSE, Zhang (2005) argued that those people who live within the collectivist cultures are more likely to derive their sense of worthiness from the collective nature of group identity. However, this current research discovered that CSE predicted higher SWB variance for the Australian Chinese than Hong Kong Chinese, and its unique SWB contribution was higher than NRSE for the Australian Chinese. Nevertheless, these counter-intuitive results became understandable when considering the levels of collectivism for these two

groups, since the Australian Chinese rated higher than the Hong Kong Chinese on this factor (Table 49).

The higher level of collectivism and importance of CSE for the Australian Chinese might be due to two reasons. First, ethnic identity serves an adaptive function for the Australian Chinese in facing competition from the other ethnic groups in an immigrant country. Second, nostalgic sentiment of the immigrants triggers them to form social bond with those from the same ethnic group, thus reinforcing the ethnic group identity as a pivotal dimension of self-evaluation. Even more intriguing, the independent SWB contribution made by CSE was higher for the second generation than the Chinese immigrants in Australia. This phenomenon might be attributed to the provision of a highly Chinese-style living environment and the teaching of collectivist thinking by their parents, thus resulting in the important role of CSE played in their self-evaluation. In view of the above, this study carries the significance of giving some new understandings of this construct in that: (1) it delineates that under certain life circumstance such as migrating to a new country, the relative importance of CSE as felt worthiness will be enhanced. (2) CSE also serves functional utilities for those people who inhabit in an immigrant country.

RSE is a cognitive buffer that functions specifically for religious people. Because such people incorporate religious teachings, their self-evaluations should be influenced by the religious values. Hence, RSE was proposed as a source of worthiness and a predictor of SWB specific to the followers of the three religions in question. Moreover, as the three religions espouse selflessness, people must put aside their egocentric mentality in order to incorporate the religious values; hence, RSE was postulated to be developed at the expense of NRSE and an inverse relationship was expected between them. As predicted, the relationship between RSE and SWB was significant for the high religiosity believers, and RSE was able to make 1% unique SWB variance for the combined religious group. But in terms of individual groups, a significant positive correlation was only identified for the highly religious Christians. Hence, it appears that RSE is most useful in explaining SWB of the Christians.

Concerning the relationship between RSE and NRSE, a significant negative correlation was generally found, though it did not favour the high religiosity believers. Moreover, while the low religiosity group had significantly lower RSE than NRSE, no significant difference was identified for high religiosity group. These insignificant findings for the high religiosity group were again explicated by the ubiquity of egocentric mentality and the difficulty in its complete eradication,

thereby resulting in the high dependence on NRSE as felt worthiness. Nevertheless, this study revealed the inadequacy of NRSE in accounting for the self-worthiness of the religious believers. The usability and practicability of RSE as another pivotal source of worthiness is also corroborated.

Creating a New Model

By testing the relationship between religions and SWB within the homeostatic model, it was demonstrated that HPMood (content, happy and excited), cognitive buffers (RSE, NRSE, CSE, optimism and perceived control), and experiential inputs (general life events and religiosity) are all factors that relate to SWB. As such, a new model termed as the revised homeostatic model of SWB incorporating RSE and CSE has been created. This new model has two important implications. First, the addition of two new cognitive buffers (RSE and CSE) enhances our understanding of the way cognitive factors function to protect HPMood when people are facing life adversities. Second, such enhancement of understanding is particularly associated with the religious believers. That is, in addition to NRSE, their RSE serves as an additional source of worthiness which allows them to achieve higher SWB resilience. Moreover, specifically for the Christians, they can exercise the Christianity secondary control techniques (vicarious and interpretive control), thereby enabling them to be more adaptive in encountering negative events. Thus, given that the cognitive buffering system of the religious individuals is more multi-faceted, these findings help explain the strong positive link between religion and SWB.

Cultural Response Bias and SWB Difference

Some cross-cultural studies on SWB have revealed that the Asians tend to have lower SWB than the Westerners (Cummins, 1998; Lau et al., 2005). A plausible explanation for this is cultural response bias (CRB: Lau et al., 2005; Lee et al., 2002). By using the data collected in Study One and Two, this study investigated the effect of CRB on SWB.

By using four groups of respondents (the Australians, Australian Chinese immigrants, second generation and Hong Kong Chinese), it was found that CRB was most apparent with the Hong Kong Chinese. Also, the strength of CRB manifested by them was consistent with prediction. That is, after removing the top scores from SWB, the life domains and LAAW, the most drastic decrease in group means occurred for the Australians, followed by the second generation and Australian Chinese immigrants, with least change occurring for the Hong Kong Chinese. All these are in support of the proposition that the influence of Chinese culture, which

embraces modesty and restrained expression of intense emotion (Lu, 2001), is related to the lower SWB reported by Asians.

Given that CRB is a crucial issue in understanding cross-cultural difference in SWB, this study has important implication for the homeostatic theory (see section 2.3) as an explanation of the SWB ‘golden standard’ value ($75 \pm 2.5\%SM$) formulated by Cummins (1995, 1998) (see ‘Normative Level of SWB’ in section 2.2). That is, since the level at which SWB is reported between different cultural groups can be at least somewhat accounted for by cultural factors, this helps to explain why the SWB of people in Hong Kong is predictably about 10 percentage points lower than for people in Australia (Cummins, 1998; Lau et al., 2005).

16.2 Limitations

In studying the relationship between religion and SWB, the present study was limited to the religions of Christianity, Buddhism and Taoism. Hence, the results may not be generalized to other religious beliefs.

Another limitation relates to the low number of respondents in the category of non-religious believer in Australia. Owing to the fact that this group was only incidentally obtained during the course of data collection by convenience sampling, there were only 29 cases in this category. This number was relatively small in comparison with the other five religious groups as well as the non-religious group in Hong Kong. This has implications for the validity and reliability of the results.

Finally, the SWB difference between religious and non-religious people was interpreted as a function of interaction between religion and culture (see pertinent discussion in section 6.1.2). However, it should be noted that the samples of Buddhists and Taoists were only drawn from Hong Kong, not from Australia. Hence, it cannot be assumed that this interaction would also apply in Australia.

16.3 Future Research

This thesis offers some insights and directions for future research as follows:

First, the development of the Christianity secondary control scale helps to understand the control techniques used by the Christians, as well as how it relates to their SWB. However, since each religion has its own unique beliefs and teachings, a specific secondary control scale may also be needed for each of the other religions, as it may help to know what kinds of techniques its followers employ and their relationship with SWB.

Second, as a new construct, RSE has been applied to study the religions of Christianity, Buddhism and Taoism, and is found to be particularly useful in explaining SWB of the Christians. In order to investigate its scope of applicability, it could be studied in the context of other religions.

Third, further investigation should be done to examine whether the peace-related affects are able to explain higher SWB variance for the Christians, given the inconclusive findings in Study Two. Furthermore, in order to better understand whether there is generally a close tie between religious experience and a peaceful mental state, more studies should be conducted with different religions.

Fourth, in Study One, it is argued that other-orientation is the core value for the three religions of interest, in that their followers are obligated to behave in a way that benefits other individuals (see section 6.6.3). Thus, further study could investigate whether these adherents have higher level of other-orientation than the non-believers, as well as whether this factor relates to their SWB.

Fifth, in an effort to achieve a comprehensive understanding of the effect of CRB on SWB, more cross-cultural studies should be conducted by using samples from different Western and Eastern societies.

In summary, this study expands on the current psychological knowledge concerning the relationship between religion and SWB. That is, by embedding such relationship within the homeostatic model, it offers some insights into the affective experiences of the religious believers, as well as their cognitive strategies employed in achieving higher SWB resilience when encountering life adversities.

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Appendix A1

(五) 有關應付生活上的難題

當遇到生活上的困難時，你會怎樣應付呢？

請表達你對以下問題的同意程度。

	完全不同意	一半一半	完全同意
26 當遇到困難時，我會向其他人求助或詢問意見。	0 1 2 3 4 5 6 7 8 9 10		
27 當遇到困難時，我會尋求不同的方法去改善情況。	0 1 2 3 4 5 6 7 8 9 10		
28 當遇到困難時，我會運用自己的技能來解決問題。	0 1 2 3 4 5 6 7 8 9 10		
29 當一些不好的事情發生在我身上時，我會提醒自己好的事情會跟著來到。	0 1 2 3 4 5 6 7 8 9 10		
30 當遇到一些不如意的事情時，我會提醒自己我的情況已經比其他人好。	0 1 2 3 4 5 6 7 8 9 10		
31 當遇到困難時，我會提醒自己如果我能忍耐一下的話，情況是會改善的。	0 1 2 3 4 5 6 7 8 9 10		

(六) 有關你對自己的感受

請表達你對以下問題的同意程度。

	完全不同意	一半一半	完全同意
32 總括而言，我對自己感到滿意。	0 1 2 3 4 5 6 7 8 9 10		
33 有些時候，我認為自己是一無是處。	0 1 2 3 4 5 6 7 8 9 10		
34 我覺得我有很多優點。	0 1 2 3 4 5 6 7 8 9 10		
35 我做事的能力和大部份人一樣好。	0 1 2 3 4 5 6 7 8 9 10		
36 我覺得自己沒有甚麼值得驕傲。	0 1 2 3 4 5 6 7 8 9 10		
37 有些時候，我確實覺得自己很無用。	0 1 2 3 4 5 6 7 8 9 10		
38 我認為自己是個有價值的人，至少基本上是與別人相等的。	0 1 2 3 4 5 6 7 8 9 10		
39 我希望我能對自己有更多的尊重。	0 1 2 3 4 5 6 7 8 9 10		
40 總括來說，我覺得我是一個失敗者。	0 1 2 3 4 5 6 7 8 9 10		
41 我對於自己是抱著肯定的態度。	0 1 2 3 4 5 6 7 8 9 10		

(七) 有關你期望發生的事情

請表達你對以下問題的同意程度。

	完全不同意	一半一半	完全同意
42 總的來說，我預期發生在我身上的好事會多過壞事。	0 1 2 3 4 5 6 7 8 9 10		
43 我對前景常感樂觀。	0 1 2 3 4 5 6 7 8 9 10		
44 當前途未定的時候，我通常會預想好的結果。	0 1 2 3 4 5 6 7 8 9 10		

(八) 有關你所屬的社會羣體

以下問題涉及你的「社會羣體」狀況，其範圍可包括你屬於的性別類型、種族、國籍、民族、宗教團體、工作單位、社會等級和學校班別等。作為這些「社會羣體」的成員，請根據你的個人感受回答以下問題。

	完全不同意	一半一半	完全同意
45 在我的「社會羣體」中，我是一名有價值的成員。	0 1 2 3 4 5 6 7 8 9 10		
46 對於我的「社會羣體」，我感到我作出的貢獻不大。	0 1 2 3 4 5 6 7 8 9 10		
47 在我的「社會羣體」中，我是一名合作的成員。	0 1 2 3 4 5 6 7 8 9 10		
48 在我的「社會羣體」中，我時常感到自己無用。	0 1 2 3 4 5 6 7 8 9 10		
49 我時時感到遺憾我是屬於某一些「社會羣體」。	0 1 2 3 4 5 6 7 8 9 10		
50 總括來講，我感到高興我是我的「社會羣體」中的一名成員。	0 1 2 3 4 5 6 7 8 9 10		
51 整體上，我時常感到不值得成為我的「社會羣體」中的一名成員。	0 1 2 3 4 5 6 7 8 9 10		
52 對於我所屬於的「社會羣體」，我的感覺很好。	0 1 2 3 4 5 6 7 8 9 10		

- 53 整體上，其他人都認為我的「社會羣體」是好的。
- 54 大部份人普遍認為我的「社會羣體」比其他社羣效率較低。
- 55 總括來講，其他人都尊重我的「社會羣體」。
- 56 總括來講，其他人認為我不值得成為我所屬於的「社會羣體」中的一名成員。
- 57 總括來講，我的「社會羣體」身份不太影響我對自己的看法。
- 58 我的「社會羣體」對於反映我是誰是重要的。
- 59 我的「社會羣體」對於反映我是甚麼種類的人是不重要的。
- 60 總括來講，我是屬於「社會羣體」在我個人形象中佔了重要部份。

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

(九) 更多有關你所屬「社會羣體」的事情

請表達你對以下問題的同意程度。

- 61 僱員喜歡與羣體一起工作，多過自己一個人工作。
- 62 如果與我一起工作的羣體拖慢了我的進度，最好是離開而自己一個人工作。
- 63 為顯出個人優越之處，必須離開羣體而自己一個人。
- 64 自己一個人工作比同羣體一起工作，能將工作做得更好。
- 65 如有個人問題，我寧願自己奮力去解決，也不會同朋友商討。
- 66 作為僱員，即使個人意見與其他人不同，也應該接受羣體決定。
- 67 由羣體來解決問題，所得的結果會比由個人來解決更好。
- 68 我身邊人的需要，比我個人的需要更重要。

完全不同意 一半一半 完全同意

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

(十) 你是甚麼種類的人

當你想及你整个人生時，請就以下各題的形容詞表達你的感受如何。你可以由零至十分選擇一個適合你的分數，並在適當的分數上加上圓圈。‘零’分代表你覺得非常之不恰當，‘十’分代表你覺得非常之恰當。如果你選擇‘五’分，就代表中立。

- 69 興奮
- 70 開心
- 71 滿意
- 72 警惕

非常之不恰當 一半一半 非常之恰當

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

(十一) 有關你生活中的事情

- 73 最近有無一些發生在你身上的事情，令你比平時開心或唔開心？

☐ 有比平時開心

☐ 沒有 [請直接回答第七十四題]

☐ 有比平時唔開心

非常細 一半一半 非常大

0 1 2 3 4 5 6 7 8 9 10

{假如答案是‘有’的話，你覺得這件事對你的影響有幾大？你可以由零至十分選擇一個適合你的分數，並在適當的分數上加上圓圈。‘零’分代表你覺得影響非常之細，‘十’分代表你覺得影響非常之大。如果你選擇‘五’分，就代表中立。}

(十二)你有多開心

- 74 假如你全家的每月收入是現時收入的兩倍，你覺得你會有幾開心？
- 75 假如你全家的每月收入是現時收入的一半，你覺得你會有幾開心？
- 76 回想你過去的人生，你曾經歷過最開心的程度是幾多？

完全不感到開心 一半一半 非常之開心

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

(十三)個人資料

- 77 性別：☐ 男 ☐ 女
- 78 年齡：☐ (17歲或以下) 我現時的年齡是 _____ 歲
☐ (18-25 歲)
☐ (26-35 歲)
☐ (36-45 歲)
☐ (46-55 歲)
☐ (56-64 歲)
☐ (65-74 歲)
☐ (75-84 歲)
☐ (85歲或以上)
- 79 你在澳洲居留了幾年？請將答案填寫在空格內。
- 80 你是否在澳洲出生？
☐ 是
☐ 否(假如答案是‘否’的話，請指出你來自甚麼地方。)
☐ 香港
☐ 中國大陸
☐ 其他(請註明)： _____
- 81 你在家中主要說的語言是：
☐ 廣東話
☐ 國語
☐ 英語
☐ 其他(請註明)： _____
- 82 教育程度：
☐ 沒有
☐ 小學程度
☐ 中學程度
☐ 大專程度
☐ 大學程度或以上
☐ 其他(請註明)： _____
- 83 你家庭每年收入(未扣稅前)：
☐ \$30,999或以下
☐ \$31,000至\$60,000
☐ \$60,001或以上

多謝合作

Appendix A2

The Spirituality-Religion Domain of Subjective Well-Being in Chinese Culture

Section A: Personal Well-Being

You will be asked about how satisfied you feel, on a scale of Zero - 10.

Zero means you feel completely dissatisfied. 10 means you feel completely satisfied.

And the middle of the scale is 5, which means you feel neither satisfied nor dissatisfied. Please circle your answer.

	Completely dissatisfied	Completely satisfied
1 Thinking about your own life and personal circumstances, how satisfied are you with your life as a whole?	0 1 2 3 4 5 6 7 8 9 10	
Turning now to various areas of your life, -----“		
How satisfied are you ...?		
2 with your standard of living?	0 1 2 3 4 5 6 7 8 9 10	
3 with your health?	0 1 2 3 4 5 6 7 8 9 10	
4 with what you are currently achieving in life?	0 1 2 3 4 5 6 7 8 9 10	
5 with your personal relationships?	0 1 2 3 4 5 6 7 8 9 10	
6 with how safe you feel?	0 1 2 3 4 5 6 7 8 9 10	
7 with feeling as part of your community?	0 1 2 3 4 5 6 7 8 9 10	
8 with your future security?	0 1 2 3 4 5 6 7 8 9 10	
9 with your spirituality or religion?	0 1 2 3 4 5 6 7 8 9 10	

○ I have no spiritual or religious beliefs [please proceed to item 26]

Section B: About Your Religion or Spiritual Beliefs

10 Which religious or spiritual group do you belong to? Please put a “X” in the box.

Christianity ☐

Buddhism ☐

Taoism ☐

Other (please specify): _____

not important

extremely important

11 How important is your religious belief to you?

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

Section C: About Your Religious Group

Consider your membership in the religious group that you belong to and respond to the following statements on the basis of how you feel about your religious group and your membership in it.

Zero means you completely disagree. 10 means you completely agree.

And the middle of the scale is 5, which means you neither agree nor disagree. Please circle your answer.

	Completely disagree	Completely agree
12 I think it is accurate if I am described as a typical member of the group.	0 1 2 3 4 5 6 7 8 9 10	
13 I often acknowledge the fact that I am a member of the group.	0 1 2 3 4 5 6 7 8 9 10	
14 I would feel good if I were described as a typical member of the group.	0 1 2 3 4 5 6 7 8 9 10	
15 I often refer to the name of the group when I introduce myself.	0 1 2 3 4 5 6 7 8 9 10	

Section D: More About Your Religious Belief

In the following statements, the term ‘Belief’ stands for your belief in God or your Spiritual Beliefs, which ever applies to you. Please indicate how much you agree with them?

	Completely disagree	Completely agree
16 My Belief allows me to be satisfied with myself.	0 1 2 3 4 5 6 7 8 9 10	
17 If I lose my Belief, I am no good at all.	0 1 2 3 4 5 6 7 8 9 10	
18 Because of my Belief, I have a number of good qualities.	0 1 2 3 4 5 6 7 8 9 10	
19 My Belief allows me to do things as well as most other people.	0 1 2 3 4 5 6 7 8 9 10	
20 Without my Belief, I have nothing to be proud of.	0 1 2 3 4 5 6 7 8 9 10	
21 If I lose my Belief, I feel useless.	0 1 2 3 4 5 6 7 8 9 10	
22 My Belief makes me feel that I'm a person of worth, at least on an equal plane with others.	0 1 2 3 4 5 6 7 8 9 10	
23 Without my Belief, I would have no respect for myself.	0 1 2 3 4 5 6 7 8 9 10	
24 If I lose my Belief, I feel that I am a failure.	0 1 2 3 4 5 6 7 8 9 10	
25 Because of my Belief, I take a positive attitude towards myself.	0 1 2 3 4 5 6 7 8 9 10	

Section E: Coping With Life

When bad things happen to you, how do you cope with them? Please indicate how much do you agree with the following statements?

	Completely disagree	Completely agree
26 When something bad happens to me, I ask others for help and advice.	0 1 2 3 4 5 6 7 8 9 10	
27 When something bad happens to me, I look for different ways to improve the situation.	0 1 2 3 4 5 6 7 8 9 10	
28 When something bad happens to me, I use my skills to overcome the problem.	0 1 2 3 4 5 6 7 8 9 10	
29 When something bad happens to me, I remind myself something good may come of it.	0 1 2 3 4 5 6 7 8 9 10	
30 When something bad happens to me, I remind myself I am better off than others.	0 1 2 3 4 5 6 7 8 9 10	
31 When something bad happens to me, I remind myself situation will improve if I am patient.	0 1 2 3 4 5 6 7 8 9 10	

Section F: More About Yourself

How much do you agree with the following statements?

	Completely disagree	Completely agree
32 On the whole, I am satisfied with myself.	0 1 2 3 4 5 6 7 8 9 10	
33 At times I think I am no good at all.	0 1 2 3 4 5 6 7 8 9 10	
34 I feel that I have a number of good qualities.	0 1 2 3 4 5 6 7 8 9 10	
35 I am able to do things as well as most other people.	0 1 2 3 4 5 6 7 8 9 10	
36 I feel I do not have much to be proud of.	0 1 2 3 4 5 6 7 8 9 10	
37 I certainly feel useless at times.	0 1 2 3 4 5 6 7 8 9 10	
38 I feel that I'm a person of worth, at least on an equal plane with others.	0 1 2 3 4 5 6 7 8 9 10	
39 I wish I could have more respect for myself.	0 1 2 3 4 5 6 7 8 9 10	
40 All in all, I am inclined to feel that I am a failure.	0 1 2 3 4 5 6 7 8 9 10	
41 I take a positive attitude toward myself.	0 1 2 3 4 5 6 7 8 9 10	

Section G: What You Expect To Happen

How much do you agree with the following statements?

	Completely disagree	Completely agree
42 Overall, I expect more good things to happen to me than bad.	0 1 2 3 4 5 6 7 8 9 10	
43 I'm always optimistic about my future.	0 1 2 3 4 5 6 7 8 9 10	
44 In uncertain times, I usually expect the best.	0 1 2 3 4 5 6 7 8 9 10	

Section H: About the Social Groups You Belong

Consider your memberships in the social groups such as gender, race, nationality, ethnicity, religion, work unit, socioeconomic class and school class, and respond to the following statements on the basis of how you feel about these groups and your memberships in them.

	Completely disagree	Completely agree
45 I am a worthy member of the social groups I belong to.	0 1 2 3 4 5 6 7 8 9 10	
46 I feel I don't have much to offer to the social groups I belong to.	0 1 2 3 4 5 6 7 8 9 10	
47 I am a cooperative participant in the social groups I belong to.	0 1 2 3 4 5 6 7 8 9 10	
48 I often feel I'm a useless member of my social groups.	0 1 2 3 4 5 6 7 8 9 10	
49 I often regret that I belong to some of the social groups I do.	0 1 2 3 4 5 6 7 8 9 10	
50 In general, I'm glad to be a member of the social groups I belong to.	0 1 2 3 4 5 6 7 8 9 10	
51 Overall, I often feel that the social groups of which I am a member are not worthwhile.	0 1 2 3 4 5 6 7 8 9 10	
52 I feel good about the social groups I belong to.	0 1 2 3 4 5 6 7 8 9 10	
53 Overall, my social groups are considered good by others.	0 1 2 3 4 5 6 7 8 9 10	
54 Most people consider my social groups, on the average, to be more ineffective than other social groups.	0 1 2 3 4 5 6 7 8 9 10	
55 In general, others respect the social groups that I am a member of.	0 1 2 3 4 5 6 7 8 9 10	

- 56 In general, others think that the social groups I am a member of are unworthy.
- 57 Overall, my group memberships have very little to do with how I feel about myself.
- 58 The social groups I belong to are an important reflection of who I am.
- 59 The social groups I belong to are unimportant to my sense of what kind of a person I am.
- 60 In general, belonging to social groups is an important part of my self-image.

0	1	2	3	4	5	6	7	8	9	10
0	1	2	3	4	5	6	7	8	9	10
0	1	2	3	4	5	6	7	8	9	10
0	1	2	3	4	5	6	7	8	9	10
0	1	2	3	4	5	6	7	8	9	10

Section I: More About Your Social Group

How much do you agree with the following statements?

- 61 Employees like to work in a group rather than by themselves.
- 62 If the group is slowing me down, it is better to leave it and work alone.
- 63 To be superior, a person must stand alone.
- 64 One does better work working alone than in a group.
- 65 I would rather struggle through a personal problem by myself than discuss it with my friends.
- 66 Employees should accept the groups' decision even when personally they have different opinion.
- 67 Problem solving by groups gives better results than problem solving by individuals.
- 68 The needs of people close to me should take priority over my personal needs.

Completely disagree

Completely agree

0	1	2	3	4	5	6	7	8	9	10
0	1	2	3	4	5	6	7	8	9	10
0	1	2	3	4	5	6	7	8	9	10
0	1	2	3	4	5	6	7	8	9	10
0	1	2	3	4	5	6	7	8	9	10
0	1	2	3	4	5	6	7	8	9	10
0	1	2	3	4	5	6	7	8	9	10
0	1	2	3	4	5	6	7	8	9	10

Section J: The Kind Of Person You Are

Please indicate how each of the following items describes your feelings when you think about your life in general? Zero means "not at all". 10 means "extremely". And the middle of the scale is 5, which means "neutral". Please circle your answer.

- 69 Excited.
- 70 Happy.
- 71 Content.
- 72 Alert

Not at all

extremely

0	1	2	3	4	5	6	7	8	9	10
0	1	2	3	4	5	6	7	8	9	10
0	1	2	3	4	5	6	7	8	9	10
0	1	2	3	4	5	6	7	8	9	10

Section K: Events In Your Life

- 73 Has anything happened to you recently causing you to feel happier or sadder than normal? Please put a "X" in the box.

Yes, happier ☐ Yes, sadder ☐ No ☐ [If 'no', proceed to item 74]

{If 'yes'}

On a scale from 0 to 10, how strong would you rate this influence? Please circle your answer.

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

Section L: How Happy You Are

How much do you agree with the following statements?

- 74 If you had twice as much household income as you have now, how happy do you think you would be?
- 75 If you had half as much household income as you have now, how happy do you think you would be?
- 76 Thinking back on your life, what is the highest level of happiness you have ever experienced?

Not Happiness at all

Complete Happiness

0	1	2	3	4	5	6	7	8	9	10
0	1	2	3	4	5	6	7	8	9	10
0	1	2	3	4	5	6	7	8	9	10

Section M: Demographic Questions

- 77 Sex: ☐ Male ☐ Female
- 78 Age: ☐ Age 17 or below, I am now _____ years old
☐ Age 18-25
☐ Age 26-35
☐ Age 36-45
☐ Age 46-55
☐ Age 56-64
☐ Age 65-74
☐ Age 75-84
☐ Age 85 or above
- 79 How many years have you been in Australia? Please indicate in the box.
- 80 Where did you come from?
☐ Hong Kong
☐ Mainland China
☐ Born in Australia
☐ Other (please specify): _____
- 81 What is the language that is mainly spoken at your home?
☐ Cantonese
☐ Mandarin
☐ English
☐ Other (please specify): _____
- 82 Education Level:
☐ No
☐ Primary
☐ Secondary
☐ Post-Secondary
☐ University or above
☐ Other (please specify): _____
- 83 Annual Household Income Before Tax:
☐ \$30,999 or less
☐ \$31,000 - HK\$60,000
☐ \$60,001 and above

Thank You

Appendix A3

(四) 有關你的宗教信仰

請表達你對以下問題的同意程度，並在適當的分數上加上圓圈。

	完全不同意	一半一半	完全同意
16 因著我的信仰，我對自己感到滿意。	0 1 2 3 4 5 6 7 8 9 10		
17 假如沒有了信仰，我認為自己是一無是處。	0 1 2 3 4 5 6 7 8 9 10		
18 我的信仰令我覺得我有很多優點。	0 1 2 3 4 5 6 7 8 9 10		
19 我的信仰使我做起事上來，和大部份人一樣好。	0 1 2 3 4 5 6 7 8 9 10		
20 如果沒有了信仰，我覺得自己沒有值得驕傲的地方。	0 1 2 3 4 5 6 7 8 9 10		
21 假如沒有了信仰，我確實覺得自己很無用。	0 1 2 3 4 5 6 7 8 9 10		
22 因著我的信仰，我認為自己是個有價值的人，至少基本上是與別人相等的。	0 1 2 3 4 5 6 7 8 9 10		
23 假如沒有了信仰，我會對自己失去了尊重。	0 1 2 3 4 5 6 7 8 9 10		
24 假如失去了信仰，我覺得我是一個失敗者。	0 1 2 3 4 5 6 7 8 9 10		
25 因著我的信仰，我對自己是抱著肯定的態度。	0 1 2 3 4 5 6 7 8 9 10		

(五) 有關應付生活上的難題

當遇到生活上的困難時，你會怎樣應付呢？

請表達你對以下問題的同意程度，並在適當的分數上加上圓圈。

	完全不同意	一半一半	完全同意
26 當遇到困難時，我會向其他人求助或詢問意見。	0 1 2 3 4 5 6 7 8 9 10		
27 當遇到困難時，我會尋求不同的方法去改善情況。	0 1 2 3 4 5 6 7 8 9 10		
28 當遇到困難時，我會運用自己的技能來解決問題。	0 1 2 3 4 5 6 7 8 9 10		
29 當一些不好的事情發生在我身上時，我會提醒自己好的事情會跟著來到。	0 1 2 3 4 5 6 7 8 9 10		
30 當遇到一些不如意的事情時，我會提醒自己我的情況已經比其他人好。	0 1 2 3 4 5 6 7 8 9 10		
31 當遇到困難時，我會提醒自己如果我能忍耐一下的話，情況是會改善的。	0 1 2 3 4 5 6 7 8 9 10		

(六) 有關你對自己的感受

請表達你對以下問題的同意程度，並在適當的分數上加上圓圈。

	完全不同意	一半一半	完全同意
32 總括而言，我對自己感到滿意。	0 1 2 3 4 5 6 7 8 9 10		
33 有些時候，我認為自己是一無是處。	0 1 2 3 4 5 6 7 8 9 10		
34 我覺得我有很多優點。	0 1 2 3 4 5 6 7 8 9 10		
35 我做事的能力和大部份人一樣好。	0 1 2 3 4 5 6 7 8 9 10		
36 我覺得自己沒有甚麼值得驕傲。	0 1 2 3 4 5 6 7 8 9 10		
37 有些時候，我確實覺得自己很無用。	0 1 2 3 4 5 6 7 8 9 10		
38 我認為自己是個有價值的人，至少基本上是與別人相等的。	0 1 2 3 4 5 6 7 8 9 10		
39 我希望我能對自己有更多的尊重。	0 1 2 3 4 5 6 7 8 9 10		
40 總括來說，我覺得我是一個失敗者。	0 1 2 3 4 5 6 7 8 9 10		
41 我對於自己是抱著肯定的態度。	0 1 2 3 4 5 6 7 8 9 10		

(七) 有關你期望發生的事情

請表達你對以下問題的同意程度，並在適當的分數上加上圓圈。

	完全不同意	一半一半	完全同意
42 總的來說，我預期發生在我身上的好事會多過壞事。	0 1 2 3 4 5 6 7 8 9 10		
43 我對前景常感樂觀。	0 1 2 3 4 5 6 7 8 9 10		
44 當前途未定的時候，我通常會預想好的結果。	0 1 2 3 4 5 6 7 8 9 10		

(八) 有關你所屬的社會羣體

以下問題涉及你的「社會羣體」狀況，其範圍可包括你屬於的性別類型、種族、國籍、民族、宗教團體、工作單位、社會等級和學校班別等。作為這些「社會羣體」的成員，請根據你的個人感受回答以下問題，並在適當的分數上加上圓圈。

	完全不同意	一半一半	完全同意
45 在我的「社會羣體」中，我是一名有價值的成員。	0 1 2 3 4 5 6 7 8 9 10		
46 對於我的「社會羣體」，我感到我作出的貢獻不大。	0 1 2 3 4 5 6 7 8 9 10		
47 在我的「社會羣體」中，我是一名合作的成員。	0 1 2 3 4 5 6 7 8 9 10		
48 在我的「社會羣體」中，我時常感到自己無用。	0 1 2 3 4 5 6 7 8 9 10		
49 我時時感到遺憾我是屬於某一些「社會羣體」。	0 1 2 3 4 5 6 7 8 9 10		
50 總括來講，我感到高興我是我的「社會羣體」中的一名成員。	0 1 2 3 4 5 6 7 8 9 10		
51 整體上，我時常感到不值得成為我的「社會羣體」中的一名成員。	0 1 2 3 4 5 6 7 8 9 10		
52 對於我所屬於的「社會羣體」，我的感覺很好。	0 1 2 3 4 5 6 7 8 9 10		
53 整體上，其他人都認為我的「社會羣體」是好的。	0 1 2 3 4 5 6 7 8 9 10		
54 大部份人普遍認為我的「社會羣體」比其他社羣效率較低。	0 1 2 3 4 5 6 7 8 9 10		
55 總括來講，其他人都尊重我的「社會羣體」。	0 1 2 3 4 5 6 7 8 9 10		
56 總括來講，其他人認為我不值得成為我所屬於的「社會羣體」中的一名成員。	0 1 2 3 4 5 6 7 8 9 10		
57 總括來講，我的「社會羣體」身份不太影響我對自己的看法。	0 1 2 3 4 5 6 7 8 9 10		
58 我的「社會羣體」對於反映我是誰是重要的。	0 1 2 3 4 5 6 7 8 9 10		
59 我的「社會羣體」對於反映我是甚麼種類的人是不重要的。	0 1 2 3 4 5 6 7 8 9 10		
60 總括來講，我是屬於「社會羣體」在我個人形象中佔了重要部份。	0 1 2 3 4 5 6 7 8 9 10		

(九) 更多有關你所屬「社會羣體」的事情

請表達你對以下問題的同意程度，並在適當的分數上加上圓圈。

	完全不同意	一半一半	完全同意
61 僱員喜歡與羣體一起工作，多過自己一個人工作。	0 1 2 3 4 5 6 7 8 9 10		
62 如果與我一起工作的羣體拖慢了我的進度，最好是離開而自己一個人工作。	0 1 2 3 4 5 6 7 8 9 10		
63 為顯出個人優越之處，必須離開羣體而自己一個人。	0 1 2 3 4 5 6 7 8 9 10		
64 自己一個人工作比同羣體一起工作，能將工作做得更好。	0 1 2 3 4 5 6 7 8 9 10		
65 如有個人問題，我寧願自己奮力去解決，也不會同朋友商討。	0 1 2 3 4 5 6 7 8 9 10		
66 作為僱員，即使個人意見與其他人不同，也應該接受羣體決定。	0 1 2 3 4 5 6 7 8 9 10		
67 由羣體來解決問題，所得的結果會比由個人來解決更好。	0 1 2 3 4 5 6 7 8 9 10		
68 我身邊人的需要，比我個人的需要更重要。	0 1 2 3 4 5 6 7 8 9 10		

(十) 你是甚麼種類的人

當你想及你整個人生時，請就以下各題的形容詞表達你的感受如何。你可以由零至十分選擇一個適合你的分數，並在適當的分數上加上圓圈。‘零’分代表你覺得非常之不恰當，‘十’分代表你覺得非常之恰當。如果你選擇‘五’分，就代表中立。

		非常之不恰當	一半一半	非常之恰當
69	興奮	0 1 2 3 4 5 6 7 8 9 10		
70	開心	0 1 2 3 4 5 6 7 8 9 10		
71	滿意	0 1 2 3 4 5 6 7 8 9 10		
72	警惕	0 1 2 3 4 5 6 7 8 9 10		
73	平靜	0 1 2 3 4 5 6 7 8 9 10		

(十一) 有關你生活中的事情

74 最近有無一些發生在你身上的事情，令你比平時開心或唔開心？請在適當的方格內加上“X”號。

- ☐ 有，比平時開心 ☐ 沒有 [請直接回答第七十五題]
☐ 有，比平時唔開心

{假如答案是‘有’的話，你覺得這件事對你的影響有幾大？你可以由零至十分選擇一個適合你的分數，並在適當的分數上加上圓圈。‘零’分代表你覺得影響非常之細，‘十’分代表你覺得影響非常之大。如果你選擇‘五’分，就代表中立。}

	非常之細	一半一半	非常之大
	0 1 2 3 4 5 6 7 8 9 10		

(十二) 你有多開心

請在適當的分數上加上圓圈。

	完全不感到開心	一半一半	非常之開心
75 假如你全家的每月收入是現時收入的兩倍，你覺得你會有幾開心？	0 1 2 3 4 5 6 7 8 9 10		
76 假如你全家的每月收入是現時收入的一半，你覺得你會有幾開心？	0 1 2 3 4 5 6 7 8 9 10		
77 回想你過去的人生，你曾經歷過最開心的程度是幾多？	0 1 2 3 4 5 6 7 8 9 10		

(十三) 個人資料

- 78 性別：☐ 男 ☐ 女
- 79 年齡：
☐ (17歲或以下) 我的年齡是 _____ 歲
☐ (18-25 歲) ☐ (26-35 歲) ☐ (36-45 歲)
☐ (46-55 歲) ☐ (56-64 歲) ☐ (65-74歲)
☐ (75-84 歲) ☐ (85歲或以上)
- 80 請指出你出生的地方。
☐ 香港 ☐ 中國大陸 ☐ 其他(請註明)：_____
- 81 你在香港居留了幾年? 請將答案填寫在空格內。
- 82 你在家中主要說的語言是：
☐ 廣東話 ☐ 國語 ☐ 英語 ☐ 其他(請註明)：_____
- 83 你的教育程度：
☐ 沒有 ☐ 小學程度 ☐ 中學程度
☐ 大專程度 ☐ 大學程度或以上 ☐ 其他(請註明)：_____
- 84 你家庭每月收入：
☐ \$14,999或以下 ☐ \$15,000至\$20,000 ☐ \$20,001或以上

多謝合作

The Spirituality-Religion Domain of Subjective Well-Being in Chinese Culture

Section A: Personal Well-Being

You will be asked about how satisfied you feel, on a scale of Zero - 10. Zero means you feel completely dissatisfied. 10 means you feel completely satisfied. And the middle of the scale is 5, which means you feel neither satisfied nor dissatisfied. Please circle your answer.

1. Thinking about your own life and personal circumstances, how satisfied are you with your life as a whole?

	0	1	2	3	4	5	6	7	8	9	10
											completely
											dissatisfied
											completely
											satisfied

Turning now to various areas of your life, -----“

How satisfied are you ...?

2. with your standard of living?

0	1	2	3	4	5	6	7	8	9	10
completely dissatisfied										completely satisfied

3. with your health?

0	1	2	3	4	5	6	7	8	9	10
completely dissatisfied										completely satisfied

4. with what you are currently achieving in life?

0	1	2	3	4	5	6	7	8	9	10
completely dissatisfied										completely satisfied

5. with your personal relationships?

0	1	2	3	4	5	6	7	8	9	10
completely dissatisfied										completely satisfied

6. with how safe you feel?

0	1	2	3	4	5	6	7	8	9	10
completely dissatisfied										completely satisfied

7. with feeling as part of your community?

0	1	2	3	4	5	6	7	8	9	10
completely dissatisfied										completely satisfied

8. with your future security?

0	1	2	3	4	5	6	7	8	9	10
completely dissatisfied										completely satisfied

9. Do you have any spiritual or religious beliefs?

Yes ☐ No ☐ [If 'no', please proceed to item 26]

{If 'yes'}

How satisfied are you with your spirituality or religion? Please circle your answer.

0 1 2 3 4 5 6 7 8 9 10
completely dissatisfied completely satisfied

Section B: About Your Religion or Spiritual Beliefs

10. Which religious or spiritual group do you belong to? Please put a "✓" in the box.

Christianity ☐

Buddhism ☐

Taoism ☐

Other (please specify): _____

11. How important is your religious belief to you?

0 1 2 3 4 5 6 7 8 9 10
not important extremely important

Section C: About Your Religious

Consider your membership in the religious group that you belong to and respond to the following statements on the basis of how you feel about your religious group and your membership in it. Zero means you completely disagree. 10 means you completely agree. And the middle of the scale is 5, which means you neither agree nor disagree. Please circle your answer.

12. I think it is accurate if I am described as a typical member of the group.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

13. I often acknowledge the fact that I am a member of the group.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

14. I would feel good if I were described as a typical member of the group.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

15. I often refer to the name of the group when I introduce myself.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

Section E: Coping With Life

**When bad things happen to you, how do you cope with them?
Please indicate how much do you agree with the following
statements?**

26. When something bad happens to me, I ask others for help and advice.

0	1	2	3	4	5	6	7	8	9	10
completely disagree										completely agree

27. When something bad happens to me, I look for different ways to improve the situation.

0	1	2	3	4	5	6	7	8	9	10
completely disagree										completely agree

28. When something bad happens to me, I use my skills to overcome the problem.

0	1	2	3	4	5	6	7	8	9	10
completely disagree										completely agree

29. When something bad happens to me, I remind myself something good may come of it.

0	1	2	3	4	5	6	7	8	9	10
completely disagree										completely agree

30. When something bad happens to me, I remind myself I am better off than others.

0	1	2	3	4	5	6	7	8	9	10
completely disagree										completely agree

31. When something bad happens to me, I remind myself situation will improve if I am patient.

0	1	2	3	4	5	6	7	8	9	10
completely disagree										completely agree

Section F: More About Yourself

How much do you agree with the following statements?

32. On the whole, I am satisfied with myself.

0	1	2	3	4	5	6	7	8	9	10
completely disagree										completely agree

33. At times I think I am no good at all.

0	1	2	3	4	5	6	7	8	9	10
completely disagree										completely agree

34. I feel that I have a number of good qualities.

0	1	2	3	4	5	6	7	8	9	10
completely disagree										completely agree

35. I am able to do things as well as most other people.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

36. I feel I do not have much to be proud of.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

37. I certainly feel useless at times.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

38. I feel that I'm a person of worth, at least on an equal plane with others.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

39. I wish I could have more respect for myself.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

40. All in all, I am inclined to feel that I am a failure.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

41. I take a positive attitude toward myself.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

Section G: What You Expect To

How much do you agree with the following statements?

42. Overall, I expect more good things to happen to me than bad.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

43. I'm always optimistic about my future.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

44. In uncertain times, I usually expect the best.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

Section H: About the Social Groups You

Consider your memberships in the social groups such as gender, race, nationality, ethnicity, religion, work unit, socioeconomic class and school class, and respond to the following statements

on the basis of how you feel about these groups and your memberships in them.

45. I am a worthy member of the social groups I belong to.

0	1	2	3	4	5	6	7	8	9	10
completely disagree										completely agree

46. I feel I don't have much to offer to the social groups I belong to.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

47. I am a cooperative participant in the social groups I belong to.

0	1	2	3	4	5	6	7	8	9	10
completely disagree										completely agree

48. I often feel I'm a useless member of my social groups.

0	1	2	3	4	5	6	7	8	9	10
completely disagree										completely agree

49. I often regret that I belong to some of the social groups I do.

0	1	2	3	4	5	6	7	8	9	10
completely disagree										completely agree

50. In general, I'm glad to be a member of the social groups I belong to.

0 1 2 3 4 5 6 7 8 9 10
completely completely
disagree agree

51. Overall, I often feel that the social groups of which I am a member are not worthwhile.

0	1	2	3	4	5	6	7	8	9	10
completely disagree										completely agree

52. I feel good about the social groups I belong to.

0	1	2	3	4	5	6	7	8	9	10
completely disagree										completely agree

53. Overall, my social groups are considered good by others.

0	1	2	3	4	5	6	7	8	9	10
completely disagree										completely agree

54. Most people consider my social groups, on the average, to be more ineffective than other social groups.

0 1 2 3 4 5 6 7 8 9 10
completely completely
disagree agree

55. In general, others respect the social groups that I am a member of.

0	1	2	3	4	5	6	7	8	9	10
completely disagree										completely agree

56 In general, others think that the social groups I am a member of are unworthy.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

57. Overall, my group memberships have very little to do with how I feel about myself.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

58. The social groups I belong to are an important reflection of who I am.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

59. The social groups I belong to are unimportant to my sense of what kind of a person I am.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

60. In general, belonging to social groups is an important part of my self-image.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

Section I: More About Your Social Group

How much do you agree with the following statements?

61. Employees like to work in a group rather than by themselves.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

62. If the group is slowing me down, it is better to leave it and work alone.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

63. To be superior, a person must stand alone.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

64. One does better work working alone than in a group.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

65. I would rather struggle through a personal problem by myself than discuss it with my friends.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

66. Employees should accept the groups' decision even when personally they have different opinion.

0 1 2 3 4 5 6 7 8 9 10
completely disagree completely agree

67. Problem solving by groups gives better results than problem solving by individuals.

0 1 2 3 4 5 6 7 8 9 10
completely completely
disagree agree

68. The needs of people close to me should take priority over my personal needs.

0 1 2 3 4 5 6 7 8 9 10
completely completely
disagree agree

Section J: The Kind Of Person You Are

Please indicate how each of the following items describes your feelings when you think about your life in general? Zero means “not at all”. 10 means “extremely”. And the middle of the scale is 5, which means “neutral”. Please circle your answer.

69. Excited.

0 1 2 3 4 5 6 7 8 9 10
not at all extremely

70. Happy.

0 1 2 3 4 5 6 7 8 9 10
not at all extremely

71. Content.

0 1 2 3 4 5 6 7 8 9 10
not at all extremely

72. Alert

0 1 2 3 4 5 6 7 8 9 10
not at all extremely

73. Peaceful

0 1 2 3 4 5 6 7 8 9 10
not at all extremely

Section K: Events In Your Life

74. Has anything happened to you recently causing you to feel happier or sadder than normal? Please put a “✓” in the box.

Yes, happier ☐ Yes, sadder ☐ No ☐ [If ‘no’, proceed to item 75]

{If ‘yes’}

On a scale from 0 to 10, how strong would you rate this influence? Please circle your answer.

0 1 2 3 4 5 6 7 8 9 10

Section L: How Happy You Are

How much do you agree with the following statements?

75. If you had twice as much household income as you have now, how happy do you think you would be?

0 1 2 3 4 5 6 7 8 9 10
No happiness Completely
at all happy

76. If you had half as much household income as you have now, how happy do you think you would be?

0 1 2 3 4 5 6 7 8 9 10
No happiness at all Completely happy

77. Thinking back on your life, what is the highest level of happiness you have ever experienced?

0 1 2 3 4 5 6 7 8 9 10
completely dissatisfied completely satisfied
You will be asked about how satisfied you feel, on a scale of Zero to 10. Zero means you feel completely dissatisfied. 10 means you feel completely satisfied. The midpoint of the scale is 5, which means halfway between dissatisfied and satisfied. Please circle your answer.

1. Thinking about your own life and personal circumstances, how satisfied are you with your life as a whole?

0 1 2 3 4 5 6 7 8 9 10
completely dissatisfied completely satisfied

79. Age

☐ Age 17 or below (I am now _____ years old)

Turning now to various areas of your life, -----"

☐ Age 18-25 ☐ Age 26-35 ☐ Age 36-45 ☐ Age 46-55 ☐ Age 56-64

How satisfied are you ...?

☐ Age 65-74 ☐ Age 75-84 ☐ Age 85 or above

2. with your standard of living?

0 1 2 3 4 5 6 7 8 9 10
completely dissatisfied completely satisfied

80. Are you born in Hong Kong?

☐ Yes ☐ No [If 'no', where did you come from?]

3. with your health?

☐ Mainland China

☐ Other (please specify): _____

completely dissatisfied completely satisfied

81. How many years have you been in Hong Kong? Please indicate in the box.

4. with what you are currently achieving in life?

82. What is the language that is mainly spoken at your home?

☐ Cantonese

☐ Mandarin

☐ English

☐ Other (please specify): _____

5. with your personal relationships?

0 1 2 3 4 5 6 7 8 9 10
completely dissatisfied completely satisfied

83. Education Level:

☐ No

☐ Primary

6. with how safe you feel?

☐ Secondary

☐ Post-Secondary

☐ University or above

☐ Other (please specify): _____

completely dissatisfied completely satisfied

74. With feeling as part of your community?

8. Monthly Household Income:

☐ \$14,999 or less

☐ \$15,000 - \$20,000

☐ \$20,001 and above

8. with your future security?

0 1 2 3 4 5 6 7 8 9 10
completely dissatisfied completely satisfied

End



個人幸福及宗教信仰與中國文化的關係

各位參與問卷調查的人仕：

你們好！本人黎靜嫻現正在 Deakin University 修讀心理學哲學博士課程。根據課程要求，本人須完成一項研究調查及一篇相關的論文。就此課程，本人的主要導師是 Deakin University 的 Robert Cummins 教授。此外，還有兩位導師，其中一位是 Deakin University 的高級講師 Janine Webb 博士；而另一位是在香港理工大學任職副教授的 Anna Lau (劉麗珍) 博士。

本研究調查的目的是希望能深入瞭解在中國人的社會中宗教信仰與個人幸福的關係。

這項研究調查的對象是在澳洲居留的中國人。由於你符合此要求，因此本人誠意邀請你參與本問卷調查。如果你同意參加的話，請填妥夾附的問卷，而完成此問卷調查大約需時二十分鐘。

本問卷調查會問及你的個人幸福狀況，例如：你對你的人生或宗教信仰的滿意程度。除此以外，還會提問有關你怎樣應付生活上的困難和你對你所屬的社會羣體之感受等問題。還有，你需要提供一些個人資料，例如：性別及年齡等。

參與此問卷調查純粹出於個人自願，故此，你可以在參與途中基於任何理由退出而不會有任何不良後果。此外，本問卷調查屬匿名性質，並且不會將個別參與者的調查結果公佈，藉此確定你在問卷中所披露的資料得以絕對保密。為此，請你切勿在問卷上填寫你的姓名或任何可識別你個人身份的意見。當你將問卷填妥及交回時，表示你同意參與此項研究調查。本研究調查所獲得的資料將會妥善地存放在安全的地方及保存六年，然後銷毀。

參與此問卷調查預計不會對你構成任何情緒上的困擾，但假如你感到情緒不安的話，可致電輔導熱線(03) 9244 6300 尋求協助。

本研究調查的編號是 EC120-2007。如你欲知有關的研究調查結果，或有任何疑問，可致電 (613) 9244 6845 或透過電郵 robert.cummins@deakin.edu.au 與 Robert Cummins 教授聯絡。

隨函附上回郵信封，煩請儘快將問卷填妥及寄回。多謝合作。

如你對本研究調查有其他意見，可聯絡：The Secretary, Deakin University Human Research Ethics Committee, Research Services, Deakin University, 221 Burwood Highway, Burwood VIC 3125 (研究調查編號: EC 120-2007).

Telephone: (613) 9251 7123
E-mail: research-ethics@deakin.edu.au

Appendix A6

Plain Language Statement

The Spirituality-Religion Domain of Subjective Well-Being in Chinese Culture

My name is Lufanna LAI and I am completing a degree of Doctor of Philosophy in the School of Psychology at Deakin University. The study program involves a research project and a thesis. My principal supervisor is Dr. Robert Cummins, who is a professor in the School of Psychology at Deakin University. There are also two co-supervisors. One of them is Dr. Janine Webb, who is a senior lecturer in the School of Psychology at Deakin University. Another one is Dr. Anna L. D. Lau, who is an associate professor in the Hong Kong Polytechnic University.

The aim of this study is to better understand the relationship between spiritual or religious beliefs and wellbeing within the Chinese population.

The participants will be the Chinese people in Australia. You are invited to take part in this research. If you agree to participate, you will be required to complete the questionnaire as attached. This will take approximately twenty minutes of your time.

This survey will ask you questions about your well-being such as how satisfied you are with your life and your religion or spiritual beliefs if you have them. The survey will also ask you questions about how you feel in coping with life such as when something bad happens and how you feel about the social groups you belong to. The survey will ask for some demographic information such as your age and gender.

Participation is voluntary, so you may withdraw at any stage for any reason without being disadvantaged in any way. Moreover, please ensure that you do not write your name, or any other comments that will make you identifiable, on the attached questionnaire. Questionnaires are completely anonymous and individual results will not be reported to ensure your confidentiality is protected. By completing and returning the questionnaire, you are consenting to take part in this research. The data from this survey will be kept in a secure storage for a period of six years and will then be destroyed.

It is not expected that participating in this study will cause you any undue emotional discomfort, stress or harm. However, if this does occur, please contact the Counselling Hotlines on (03) 9244 6300.

If you wish to be provided with the results of this research, or have any further questions about this study, please contact Professor Robert Cummins on (613) 9244 6845, or alternatively, at robert.cummins@deakin.edu.au, by quoting the project ID: EC 120-2007.

Enclosed please find a reply paid envelope. It is highly appreciated if you can complete and return the questionnaire as soon as possible. Thank you.

Should you have any concerns about the conduct of the research project, please contact the Secretary, Deakin University Human Research Ethics Committee, Research Services, Deakin University, 221 Burwood Highway, Burwood VIC 3125, by quoting the project ID: EC 120-2007.

Telephone: (613) 9251 7123 E-mail: research-ethics@deakin.edu.au

個人幸福及宗教信仰與中國文化的關係



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參與此問卷調查純粹出於個人自願，故此，你可以在參與途中基於任何理由退出而不會有任何不良後果。此外，本問卷調查屬匿名性質，並且不會將個別參與者的調查結果公佈，藉此確定你在問卷中所披露的資料得以絕對保密。為此，請你切勿在問卷上填寫你的姓名或任何可識別你個人身份的意見。當你將問卷填妥及交回時，表示你同意參與此項研究調查。本研究調查所獲得的資料將會妥善地存放在安全的地方及保存六年，然後銷毀。

參與此問卷調查預計不會對你構成任何情緒上的困擾，但假如你感到情緒不安的話，可致電輔導熱線(852) 2382 0000 尋求協助。

本研究調查的編號是 EC120-2007。如你欲知有關的研究調查結果，又或有任何疑問，可致電 (852) 2766 6714 或透過電郵 rsalau@inet.polyu.edu.hk 與劉麗珍(Anna Lau) 博士聯絡。

煩請儘快將問卷填妥及寄回。多謝合作。

如你對本研究調查有其他意見，可聯絡：The Secretary, Deakin University Human Research Ethics Committee, Research Services,
Deakin University, 221 Burwood Highway, Burwood VIC 3125 (研究調查編號: EC 120-2007).

Telephone: (613) 9251 7123

E-mail: research-ethics@deakin.edu.au

Australian Unity Wellbeing Index



I thank you for your involvement in this survey. This is a confidential questionnaire so please ensure that you do not write your name, or any other comments that will make you identifiable. By completing the questionnaire you are consenting to take part in this research as explained in the Plain Language Statement enclosed. The intention of this project is to investigate different aspects of life satisfaction in Australia.

Please read each question and response option carefully before answering the questions and make sure that you have provided an answer for every question.

SECTION A

PERSONAL WELLBEING

Thinking about your own life and personal circumstances, please **circle** the number that best represents how satisfied you feel with your life.

How satisfied are you with...	Very Dissatisfied									Neutral									Completely Satisfied				
1 your life as a whole?	0	1	2	3	4	5	6	7	8	9	10	0	1	2	3	4	5	6	7	8	9	10	
2 your standard of living?	0	1	2	3	4	5	6	7	8	9	10	0	1	2	3	4	5	6	7	8	9	10	
3 your health?	0	1	2	3	4	5	6	7	8	9	10	0	1	2	3	4	5	6	7	8	9	10	
4 what you are currently achieving in life?	0	1	2	3	4	5	6	7	8	9	10	0	1	2	3	4	5	6	7	8	9	10	
5 your personal relationships?	0	1	2	3	4	5	6	7	8	9	10	0	1	2	3	4	5	6	7	8	9	10	
6 how safe you feel?	0	1	2	3	4	5	6	7	8	9	10	0	1	2	3	4	5	6	7	8	9	10	
7 feeling part of your community?	0	1	2	3	4	5	6	7	8	9	10	0	1	2	3	4	5	6	7	8	9	10	
8 your future security?	0	1	2	3	4	5	6	7	8	9	10	0	1	2	3	4	5	6	7	8	9	10	
9 your spirituality or religion?	0	1	2	3	4	5	6	7	8	9	10	0	1	2	3	4	5	6	7	8	9	10	
or (If you have no spiritual or religious beliefs)												na											

SECTION B

LIFE IN AUSTRALIA

How satisfied are you with...	Very Dissatisfied									Neutral									Completely Satisfied			
10 life in Australia?	0	1	2	3	4	5	6	7	8	9	10	0	1	2	3	4	5	6	7	8	9	10
11 the economic situation in Australia?	0	1	2	3	4	5	6	7	8	9	10	0	1	2	3	4	5	6	7	8	9	10
12 the state of the natural environment in Australia?	0	1	2	3	4	5	6	7	8	9	10	0	1	2	3	4	5	6	7	8	9	10
13 the social conditions in Australia?	0	1	2	3	4	5	6	7	8	9	10	0	1	2	3	4	5	6	7	8	9	10
14 government in Australia?	0	1	2	3	4	5	6	7	8	9	10	0	1	2	3	4	5	6	7	8	9	10
15 business in Australia?	0	1	2	3	4	5	6	7	8	9	10	0	1	2	3	4	5	6	7	8	9	10
16 national security in Australia?	0	1	2	3	4	5	6	7	8	9	10	0	1	2	3	4	5	6	7	8	9	10

SECTION C

HOW YOU GENERALLY FEEL

Please indicate how each of the following describes your feelings when you think about your life in general.

	Not At All									Extremely	
17 How content do you generally feel?	0	1	2	3	4	5	6	7	8	9	10
18 How happy do you generally feel?	0	1	2	3	4	5	6	7	8	9	10
19 How alert do you generally feel?	0	1	2	3	4	5	6	7	8	9	10
20 How unhappy do you generally feel?	0	1	2	3	4	5	6	7	8	9	10

Section C continued

Not At All

Extremely

- | | | | | | | | | | | | | |
|----|-------------------------------------|---|---|---|---|---|---|---|---|---|---|----|
| 21 | How excited do you generally feel? | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 22 | How at ease do you generally feel? | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 23 | How relaxed do you generally feel? | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 24 | How serene do you generally feel? | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 25 | How calm do you generally feel? | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 26 | How peaceful do you generally feel? | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

SECTION D

OVER THE PAST WEEK

How much did these statements apply to you over the past week?

Not At All

Extremely

- | | | | | | | | | | | | | |
|----|---|---|---|---|---|---|---|---|---|---|---|----|
| 27 | I found it hard to wind down. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 28 | I was aware of dryness of my mouth. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 29 | I couldn't seem to experience any positive feeling at all. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 30 | I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion). | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 31 | I found it difficult to work up the initiative to do things. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 32 | I tended to over-react to situations. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 33 | I experienced trembling (eg, in the hands). | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 34 | I felt that I was using a lot of nervous energy. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 35 | I was worried about situations in which I might panic and make a fool of myself. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 36 | I felt that I had nothing to look forward to. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 37 | I found myself getting agitated. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 38 | I found it difficult to relax. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 39 | I felt down-hearted and blue. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 40 | I was intolerant of anything that kept me from getting on with what I was doing. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 41 | I felt I was close to panic. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 42 | I was unable to become enthusiastic about anything. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 43 | I felt I wasn't worth much as a person. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 44 | I felt that I was rather touchy. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 45 | I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat). | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 46 | I felt scared without any good reason. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 47 | I felt that life was meaningless. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

SECTION E

EVENTS IN YOUR LIFE

No
HappinessComplete
Happiness

- | | | | | | | | | | | | | |
|----|---|---|---|---|---|---|---|---|---|---|---|----|
| 48 | Thinking back on your life, what is the highest level of happiness you have ever experienced? | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----|---|---|---|---|---|---|---|---|---|---|---|----|

- 49 Has anything happened to you recently causing you to feel happier or sadder than normal? Please tick as appropriate

☐

Yes, happier

☐

Yes, sadder

☐

No—Please skip to Coping With Life (Item 52)

Very Weak

Very Strong

(If Yes) On a scale from 0 to 10, how strong would you rate this influence?

- | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|----|

- 50 Which areas of your life have been strongly influenced by this event? Please tick **all** areas that have been affected.
- ☐ Standard of living ☐ Relationships ☐ Achieving in life
☐ Health ☐ Personal safety ☐ Connection to your community ☐ Future security
- 51 Now please tick the **one single** life area that has been **most strongly** affected.
- ☐ Standard of living ☐ Relationships ☐ Achieving in life
☐ Health ☐ Personal safety ☐ Connection to your community ☐ Future security

SECTION F

COPING WITH LIFE

How much do you agree that when something bad happens...

Disagree
Completely

Neutral

Agree
Completely

- | | | | | | | | | | | | | |
|----|---|---|---|---|---|---|---|---|---|---|---|----|
| 52 | I ask others for help or advice. | 3 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 53 | I look for different ways to improve the situation. | 3 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 54 | I use my skills to overcome the problem. | 3 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 55 | I remind myself that something good may come of it. | 3 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 56 | I remind myself that I am better off than some others. | 3 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 57 | I remember that the situation will improve if I am patient. | 3 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 58 | I don't do anything, as nothing can help. | 3 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 59 | I spend time by myself. | 3 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 60 | I just let my feelings out so others know how I feel. | 3 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

SECTION G

MORE ABOUT YOURSELF

How much do you agree with the following statements?

Disagree
Completely

Neutral

Agree
Completely

- | | | | | | | | | | | | | |
|----|--|---|---|---|---|---|---|---|---|---|---|----|
| 61 | On the whole, I am satisfied with myself. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 62 | At times I think I am no good at all. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 63 | I feel that I have a number of good qualities. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 64 | I am able to do things as well as most other people. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 65 | I feel I do not have much to be proud of. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 66 | I certainly feel useless at times. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 67 | I feel that I'm a person of worth, at least on an equal plane with others. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 68 | I wish I could have more respect for myself. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 69 | All in all, I am inclined to feel that I am a failure. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 70 | I take a positive attitude toward myself. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

SECTION H

WHAT YOU EXPECT TO HAPPEN

How much do you agree with the following statements?

Disagree
Completely

Neutral

Agree
Completely

- | | | | | | | | | | | | | |
|----|--|---|---|---|---|---|---|---|---|---|---|----|
| 71 | In uncertain times, I usually expect the best. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 72 | I'm always optimistic about my future. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 73 | Overall, I expect more good things to happen to me than bad. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

SECTION I

THE KIND OF PERSON YOU ARE

How much do you agree with the following statements?

Disagree
Completely

Neutral

Agree
Completely

74	I see myself as extraverted and enthusiastic.	0	1	2	3	4	5	6	7	8	9	10
75	I see myself as anxious and easily upset.	0	1	2	3	4	5	6	7	8	9	10
76	I see myself as reserved and quiet.	0	1	2	3	4	5	6	7	8	9	10
77	I see myself as calm and emotionally stable.	0	1	2	3	4	5	6	7	8	9	10

Please complete the sections below only if you have a religious belief. If you do not have a religious belief you have finished this questionnaire. Thank you for helping us once again.

SECTION J

YOUR RELIGION

78 What is your religion?

- ☐ Christianity
 ☐ Buddhism
 ☐ Islam
 ☐ Taoism
 ☐ Other (please specify) _____

79 How important is your religious belief to you?

Not
ImportantExtremely
Important

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

SECTION K

YOUR RELIGIOUS BELIEFS

In the following statements, the term 'Belief' stands for your religious beliefs. Please indicate how much do you agree with each statement.

Disagree
CompletelyAgree
Completely

80	My Belief allows me to be satisfied with myself.	0	1	2	3	4	5	6	7	8	9	10
81	If I lose my Belief, I am no good at all.	0	1	2	3	4	5	6	7	8	9	10
82	Because of my Belief, I have a number of good qualities.	0	1	2	3	4	5	6	7	8	9	10
83	My Belief allows me to do things as well as most other people.	0	1	2	3	4	5	6	7	8	9	10
84	Without my Belief, I have nothing to be proud of.	0	1	2	3	4	5	6	7	8	9	10
85	If I lose my Belief, I feel useless.	0	1	2	3	4	5	6	7	8	9	10
86	My Belief makes me feel that I'm a person of worth, at least on an equal plane with others.	0	1	2	3	4	5	6	7	8	9	10
87	Without my Belief, I would have no respect for myself.	0	1	2	3	4	5	6	7	8	9	10
88	If I lose my Belief, I feel that I am a failure.	0	1	2	3	4	5	6	7	8	9	10
89	Because of my Belief, I take a positive attitude towards myself.	0	1	2	3	4	5	6	7	8	9	10

SECTION L

COPING WITH LIFE THROUGH RELIGION

Because of your religious beliefs, how do you cope with the bad things that happen to you? Please indicate how much do you agree with the following statements.

Disagree
CompletelyAgree
Completely

90	I have confidence in handling life's difficulties because I know God is looking after me.	0	1	2	3	4	5	6	7	8	9	10
91	When something bad happens to me, God gives me strength.	0	1	2	3	4	5	6	7	8	9	10
92	I trust in God's power to solve my problems.	0	1	2	3	4	5	6	7	8	9	10
93	My problems are opportunities for me to be blessed by God.	0	1	2	3	4	5	6	7	8	9	10
94	God uses my difficulties to teach me precious lessons when He knows there is a need.	0	1	2	3	4	5	6	7	8	9	10
95	I know God is acting in my best interests even when bad things happen to me.	0	1	2	3	4	5	6	7	8	9	10

Thank you for your time and participation in this survey

Dear Friend of the Australian Centre on Quality of Life

Below you will find some questions that refer to your life circumstances. We know you have completed a similar set in the past, and we have these data on file, but would appreciate confirmation of your current situation.

- 1 Your Gender ☐ Male ☐ Female
- 2 Your age
- 3 Your postcode
- 4 Please indicate from the list who lives with you. (tick whichever boxes apply)

<input type="checkbox"/> No one, you live by yourself	<input type="checkbox"/> One or more children
<input type="checkbox"/> Your partner	<input type="checkbox"/> One or both of your parents
<input type="checkbox"/> One or more adults who are neither your partner nor your parent	
- 5 Please indicate which of the following categories apply to you at the present time.

<input type="checkbox"/> Never married	<input type="checkbox"/> Separated but not divorced	<input type="checkbox"/> Married
<input type="checkbox"/> Divorced	<input type="checkbox"/> De facto or living together	<input type="checkbox"/> Widowed
- 6 Please indicate which of the following categories best applies to you at the present time. Are you in...

<input type="checkbox"/> Full-time paid employment	<input type="checkbox"/> Full-time home or family care	<input type="checkbox"/> Full-time retired
<input type="checkbox"/> Full-time study	<input type="checkbox"/> Semi-retired	<input type="checkbox"/> Unemployed
<input type="checkbox"/> Full-time volunteer		
- 7 Please indicate whether any of the following part time categories applies to you at the present time. Are you...?

<input type="checkbox"/> In part-time paid employment	<input type="checkbox"/> A part-time volunteer	<input type="checkbox"/> In part-time study
---	--	---
- 8 Please indicate your household's total annual income before tax.

<input type="checkbox"/> Less than \$15,000	<input type="checkbox"/> \$15,000 to \$30,000	<input type="checkbox"/> \$31,000 to \$60,000
<input type="checkbox"/> \$61,000 to \$100,000	<input type="checkbox"/> \$101,000 to \$150,000	<input type="checkbox"/> \$151,000 to \$250,000
<input type="checkbox"/> \$251,000 to \$500,000	<input type="checkbox"/> More than \$500,000	
- 9 Please indicate your height and weight.

<input type="text"/> cm	<input type="text"/> kg
or	
<input type="text"/> feet <input type="text"/> inches	<input type="text"/> stone <input type="text"/> pounds
- 10 Which day of the week is it today?
- 11 Today's date is
- 12 I completed the questionnaire at a.m./p.m.

Appendix B1

(1) PWI

Correlation Matrix

Correlation	Standard of Living	Health	Achieving in Life	Relationships	Safety	Community-Connectedness	Future Security	Spirituality-Religion
Standard of Living	1.00	.50	.61	.38	.54	.46	.56	.36
Health	.50	1.00	.47	.35	.47	.41	.46	.27
Achieving in Life	.61	.47	1.00	.44	.49	.48	.58	.39
Relationships	.38	.35	.44	1.00	.52	.49	.43	.40
Safety	.54	.47	.49	.52	1.00	.58	.63	.45
Community-Connectedness	.46	.41	.48	.49	.58	1.00	.57	.41
Future Security	.56	.46	.58	.43	.63	.57	1.00	.42
Spirituality-Religion	.36	.27	.39	.40	.45	.41	.42	1.00

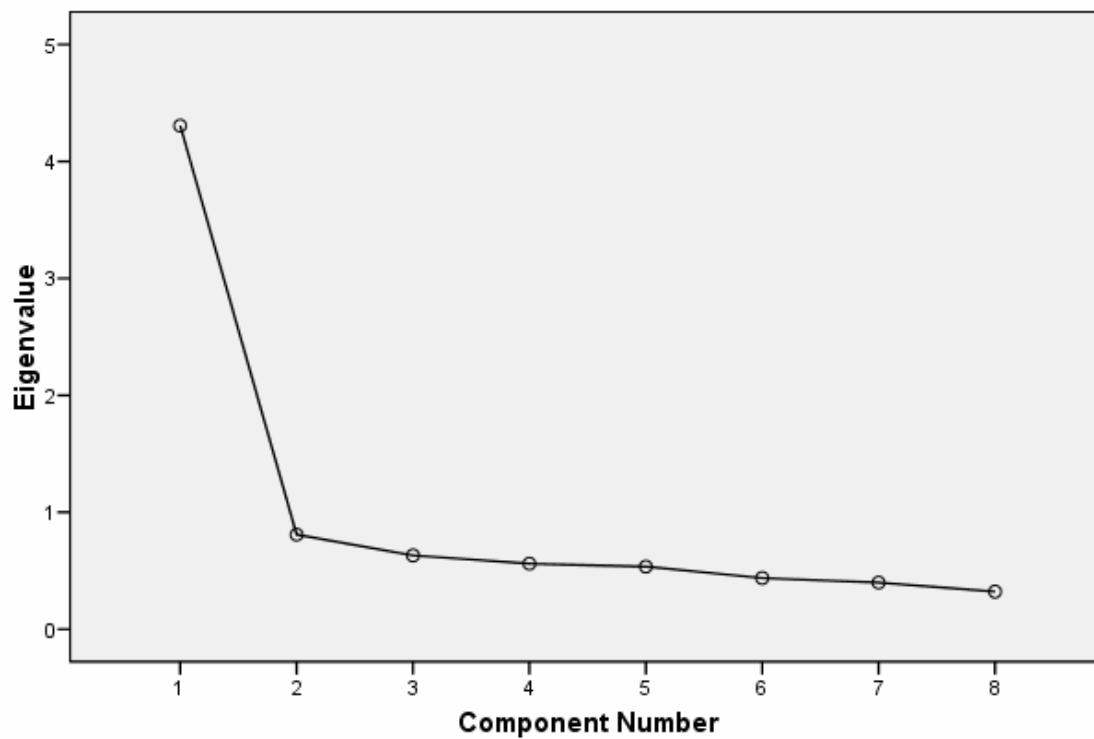
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.91
Bartlett's Test of Sphericity	Approx. Chi-Square	2265.21
	df	28
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.31	53.81	53.81	4.31	53.81	53.81
2	.81	10.11	63.93			
3	.63	7.89	71.82			
4	.56	7.01	78.83			
5	.54	6.70	85.53			
6	.44	5.47	91.00			
7	.40	4.99	95.98			
8	.32	4.02	100.00			

Extraction Method: Principal Component Analysis.

Scree Plot**Component Matrix (a)**

	Component
	1
Safety	.81
Future Security	.80
Achieving in Life	.77
Standard of Living	.76
Community-Connectedness	.75
Relationships	.67
Health	.67
Spirituality-Religion	.61

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

Appendix B2

(2) HPMood

Correlation Matrix

		Excited	Happy	Content
Correlation	Excited	1.00	.66	.56
	Happy	.66	1.00	.78
	Content	.56	.78	1.00

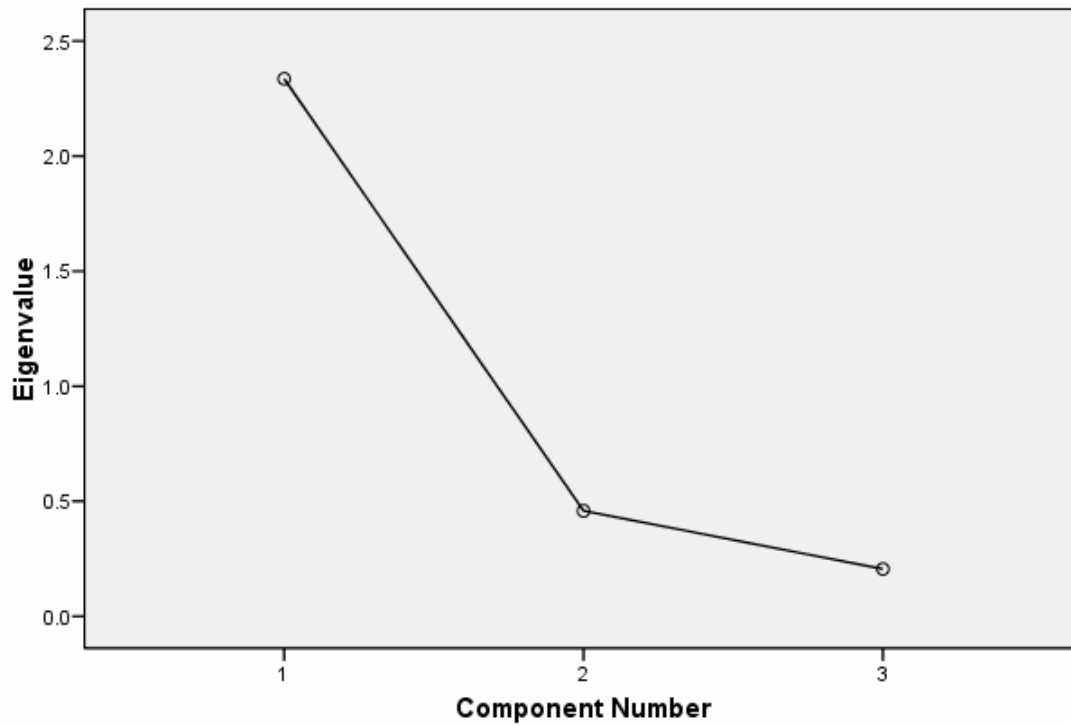
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.68
Bartlett's Test of Sphericity	Approx. Chi-Square df Sig.	1502.56 3 .000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.34	77.86	77.86	2.34	77.86	77.86
2	.46	15.28	93.14			
3	.21	6.86	100.00			

Extraction Method: Principal Component Analysis.

Scree Plot**Component Matrix(a)**

	Component
	1
Happy	.93
Content	.89
Excited	.83

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

Appendix B3

(3) Optimism

Correlation Matrix

		Optimism 1	Optimism 2	Optimism 3
Correlation	Optimism 1	1.00	.57	.48
	Optimism 2	.57	1.00	.61
	Optimism 3	.48	.61	1.00

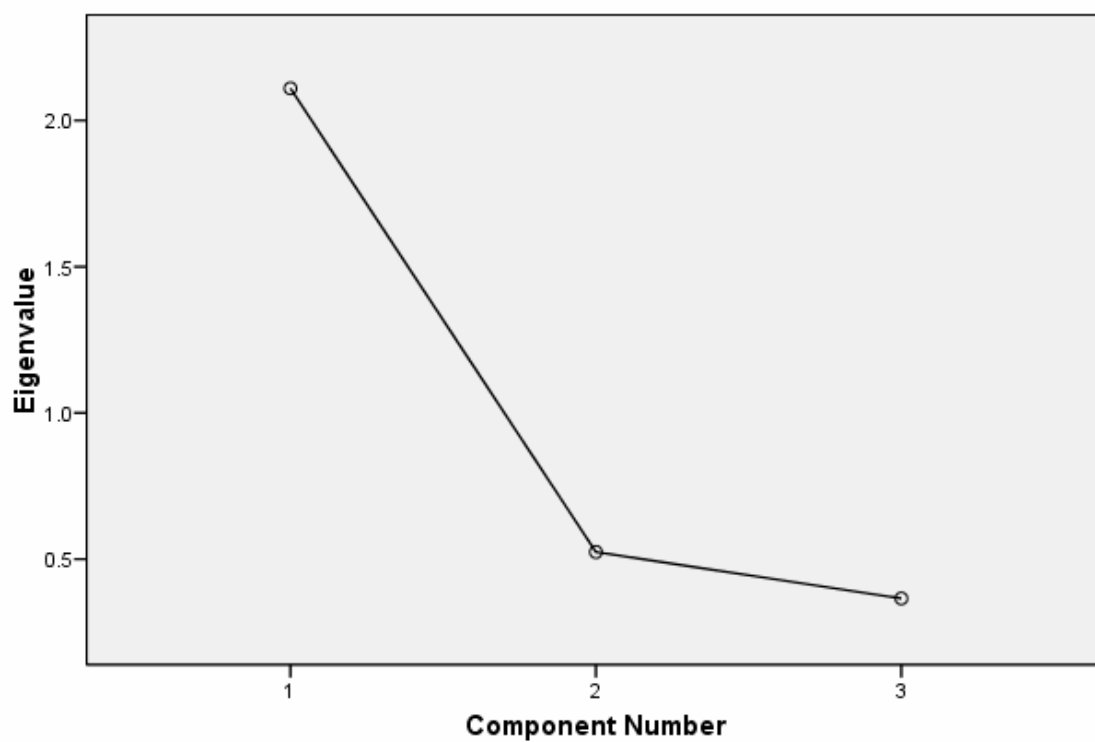
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.69
Bartlett's Test of Sphericity	Approx. Chi-Square	905.32
	df	3
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.11	70.33	70.33	2.11	70.33	70.33
2	.53	17.48	87.82			
3	.37	12.18	100.00			

Extraction Method: Principal Component Analysis.

Scree Plot**Component Matrix(a)**

	Component
	1
Optimism 2	.88
Optimism 3	.83
Optimism 1	.81

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

Appendix B4

(4) Perceived Control

Correlation Matrix

		PC 1	PC 2	PC 3	SC 4	SC 5	SC 6
Correlation	PC 1	1.00	.57	.32	.34	.30	.36
	PC 2	.57	1.00	.58	.45	.41	.50
	PC 3	.32	.58	1.00	.34	.36	.34
	SC 4	.34	.45	.34	1.00	.57	.63
	SC 5	.30	.41	.36	.57	1.00	.65
	SC 6	.36	.50	.34	.63	.65	1.00

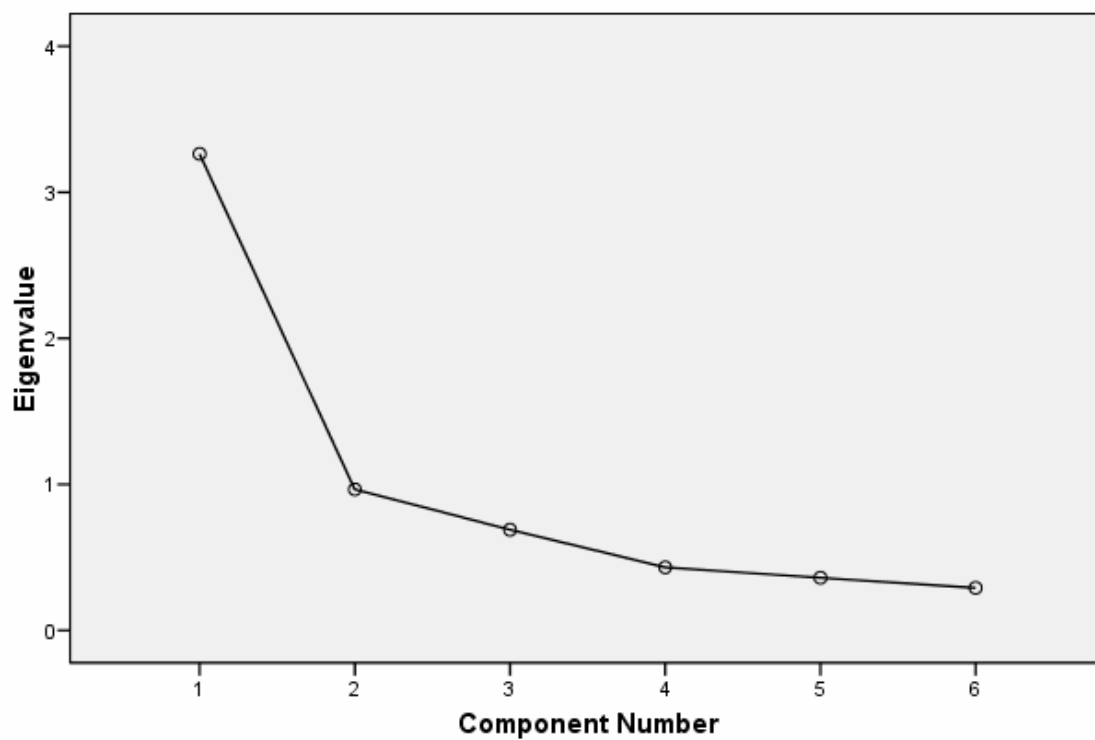
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.80
Bartlett's Test of Sphericity	Approx. Chi-Square	2378.53
	df	15
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.26	54.37	54.37	3.26	54.37	54.37
2	.97	16.09	70.46			
3	.69	11.49	81.95			
4	.43	7.19	89.14			
5	.36	6.01	95.15			
6	.29	4.85	100.00			

Extraction Method: Principal Component Analysis.

Scree Plot**Component Matrix(a)**

	Component
	1
SC 6	.81
PC 2	.80
SC 4	.77
SC 5	.76
PC 3	.65
PC 1	.64

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

Appendix B5(i)

(5) (i) Non-Religious Self-Esteem (NRSE)

Correlation Matrix

Correlation	NRSE 1	NRSE 2	NRSE 3	NRSE 4	NRSE 5	NRSE 6	NRSE 7	NRSE 8	NRSE 9	NRSE 10
NRSE 1	1.00	.21	.50	.46	.10	.28	.44	-.12	.35	.60
NRSE 2	.21	1.00	.11	.17	.32	.69	.20	.04	.53	.34
NRSE 3	.50	.11	1.00	.60	.25	.17	.45	.02	.24	.41
NRSE 4	.46	.17	.60	1.00	.13	.23	.49	-.10	.25	.49
NRSE 5	.10	.32	.25	.13	1.00	.38	.07	.24	.36	.11
NRSE 6	.28	.69	.17	.23	.38	1.00	.20	.05	.55	.37
NRSE 7	.44	.20	.45	.49	.07	.20	1.00	-.19	.35	.54
NRSE 8	-.13	.04	.02	-.10	.24	.05	-.19	1.00	.03	-.17
NRSE 9	.35	.53	.24	.25	.36	.55	.35	.03	1.00	.44
NRSE 10	.60	.34	.41	.49	.11	.37	.54	-.17	.44	1.00

KMO and Bartlett's Test

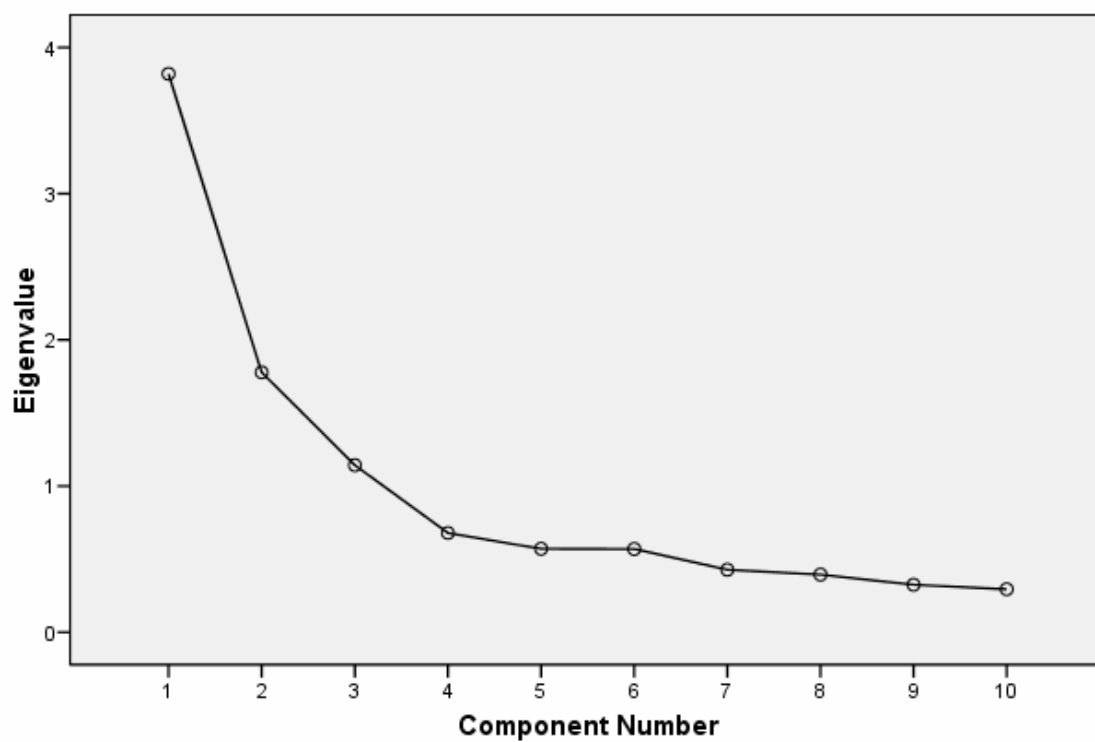
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.82
Bartlett's Test of Sphericity	Approx. Chi-Square df Sig.	3636.30 45 .000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings(a)
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	3.82	38.20	38.20	3.82	38.20	38.20	3.29
2	1.78	17.78	55.97	1.78	17.78	55.97	2.88
3	1.14	11.43	67.40	1.14	11.43	67.40	1.33
4	.68	6.79	74.19				
5	.57	5.71	79.90				
6	.57	5.69	85.59				
7	.43	4.28	89.87				
8	.39	3.94	93.81				
9	.33	3.25	97.06				
10	.29	2.94	100.00				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Scree Plot**Component Matrix(a)**

	Component		
	1	2	3
NRSE 10	.77		
NRSE 1	.71	-.31	
NRSE 9	.69	.37	
NRSE 4	.67	-.38	
NRSE 7	.67	-.37	
NRSE 6	.65	.54	
NRSE 3	.65	-.33	.49
NRSE 2	.59	.56	-.30
NRSE 5	.39	.53	.43
NRSE 8		.47	.68

Extraction Method: Principal Component Analysis.
a. 3 components extracted.

Appendix B5(ii)

(5) (ii) Non-Religious Self-Esteem (NRSE)

Correlation Matrix

Correlation	NRSE 1	NRSE 2	NRSE 3	NRSE 4	NRSE 6	NRSE 7	NRSE 8	NRSE 9
NRSE 1	1.00	.21	.50	.46	.28	.44	-.13	.35
NRSE 2	.21	1.00	.11	.17	.69	.20	.04	.53
NRSE 3	.50	.11	1.00	.60	.17	.45	.02	.24
NRSE 4	.46	.17	.60	1.00	.23	.49	-.10	.25
NRSE 6	.28	.69	.17	.23	1.00	.20	.05	.55
NRSE 7	.44	.20	.45	.49	.20	1.00	-.19	.35
NRSE 8	-.13	.04	.02	-.10	.05	-.19	1.00	.03
NRSE 9	.35	.53	.24	.25	.55	.35	.03	1.00

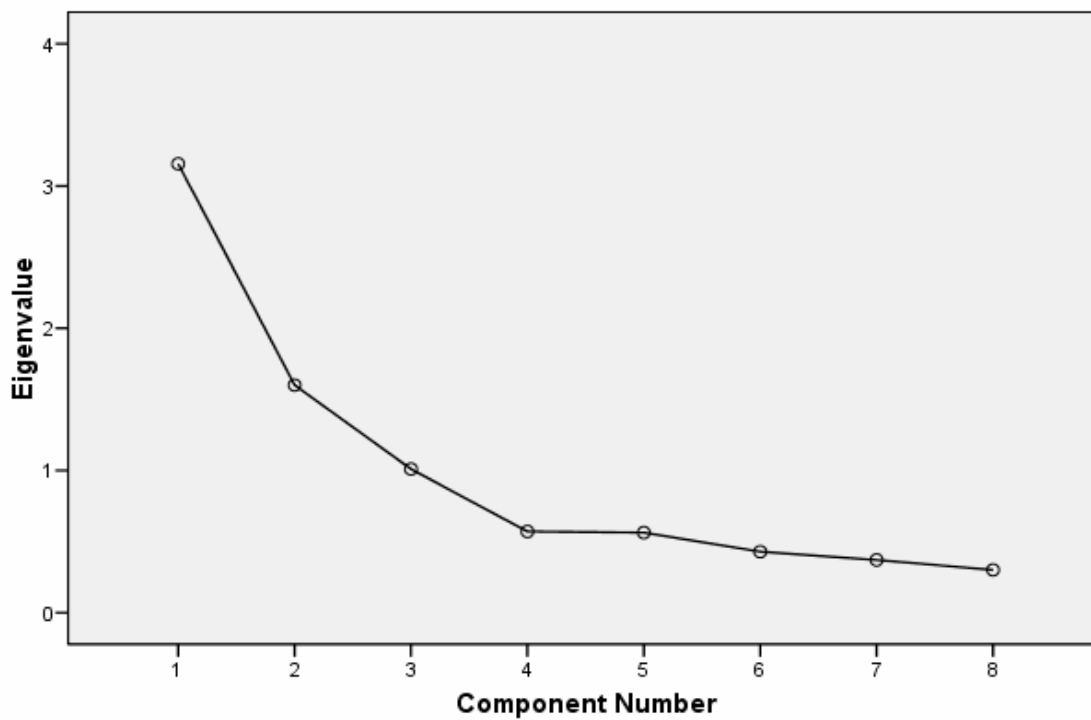
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.77
Bartlett's Test of Sphericity	Approx. Chi-Square df Sig.	2580.57 28 .000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.16	39.45	39.45	3.16	39.45	39.45
2	1.60	20.00	59.45	1.60	20.00	59.45
3	1.01	12.63	72.07	1.01	12.63	72.07
4	.57	7.14	79.21			
5	.56	7.04	86.25			
6	.43	5.36	91.61			
7	.37	4.64	96.24			
8	.30	3.76	100.00			

Extraction Method: Principal Component Analysis.

Scree Plot**Component Matrix(a)**

	Component		
	1	2	3
NRSE 1	.71		
NRSE 9	.70	.40	
NRSE 4	.69	-.42	
NRSE 7	.68	-.34	
NRSE 3	.66	-.45	.35
NRSE 6	.65	.59	
NRSE 2	.60	.64	
NRSE 8		.33	.91

Extraction Method: Principal Component Analysis.

a. 3 components extracted.

Appendix B5(iii)

(5) (iii) Non-Religious Self-Esteem (NRSE)

Correlation Matrix

Correlation	NRSE 1	NRSE 2	NRSE 3	NRSE 4	NRSE 6	NRSE 7	NRSE 9
NRSE 1	1.00	.21	.50	.46	.28	.44	.35
NRSE 2	.21	1.00	.11	.17	.69	.20	.53
NRSE 3	.50	.11	1.00	.60	.17	.45	.24
NRSE 4	.46	.17	.60	1.00	.23	.49	.25
NRSE 6	.28	.69	.17	.23	1.00	.20	.55
NRSE 7	.44	.20	.45	.49	.20	1.00	.35
NRSE 9	.35	.53	.24	.25	.55	.35	1.00

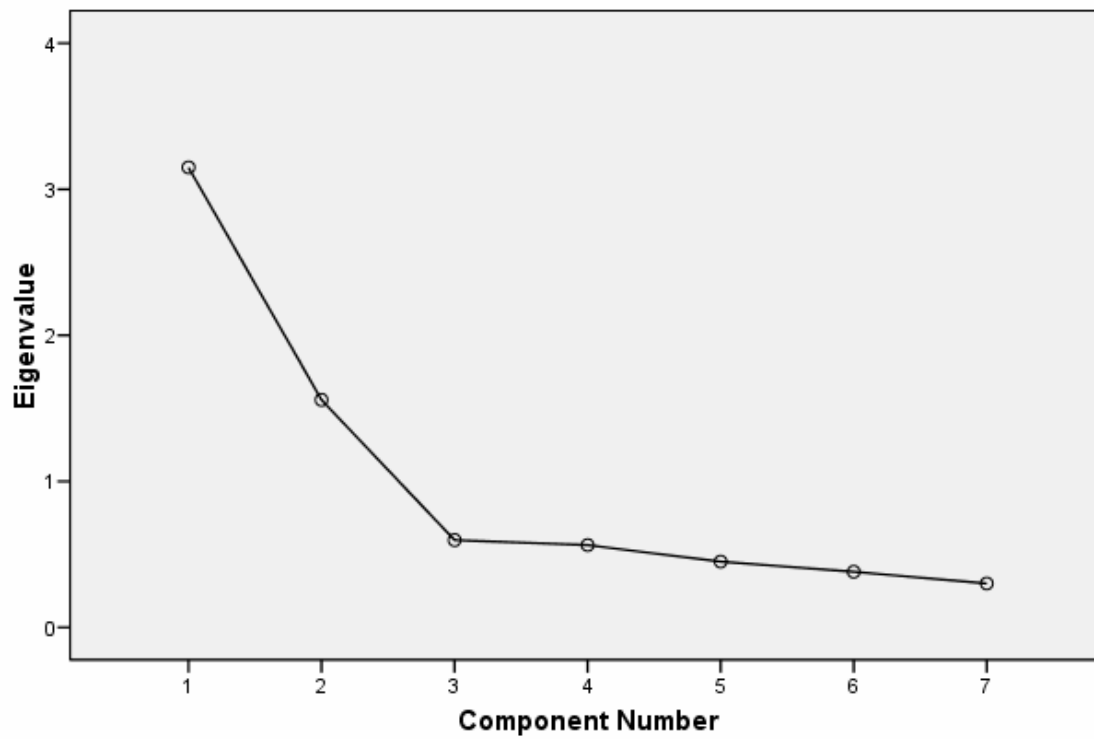
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.78
Bartlett's Test of Sphericity	Approx. Chi-Square	2502.10
	df	21
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.15	44.99	44.99	3.15	44.99	44.99
2	1.56	22.25	67.24	1.56	22.25	67.24
3	.60	8.54	75.78			
4	.56	8.05	83.83			
5	.45	6.43	90.27			
6	.38	5.44	95.71			
7	.30	4.30	100.00			

Extraction Method: Principal Component Analysis.

Scree Plot**Component Matrix(a)**

	Component	
	1	2
NRSE 1	.70	
NRSE 9	.70	.40
NRSE 4	.69	-.44
NRSE 7	.67	-.32
NRSE 3	.66	-.51
NRSE 6	.66	.59
NRSE 2	.61	.65

Extraction Method: Principal Component Analysis.
a. 2 components extracted.

Appendix B6(i)

(6) (i) Religious Self-Esteem (RSE)

Correlation Matrix

Correlation	RSE 1	RSE 2	RSE 3	RSE 4	RSE 5	RSE 6	RSE 7	RSE 8	RSE 9	RSE 10
RSE 1	1.00	.34	.54	.50	.37	.32	.51	.31	.31	.56
RSE 2	.34	1.00	.45	.38	.67	.71	.49	.60	.62	.40
RSE 3	.54	.45	1.00	.68	.48	.44	.56	.39	.40	.55
RSE 4	.50	.38	.68	1.00	.49	.42	.56	.41	.40	.54
RSE 5	.37	.67	.48	.49	1.00	.77	.56	.71	.69	.48
RSE 6	.32	.71	.44	.42	.77	1.00	.53	.77	.77	.44
RSE 7	.51	.49	.56	.56	.56	.53	1.00	.50	.50	.69
RSE 8	.31	.60	.39	.41	.71	.77	.50	1.00	.84	.45
RSE 9	.31	.62	.40	.40	.69	.77	.50	.84	1.00	.44
RSE 10	.56	.40	.55	.54	.48	.44	.69	.45	.44	1.00

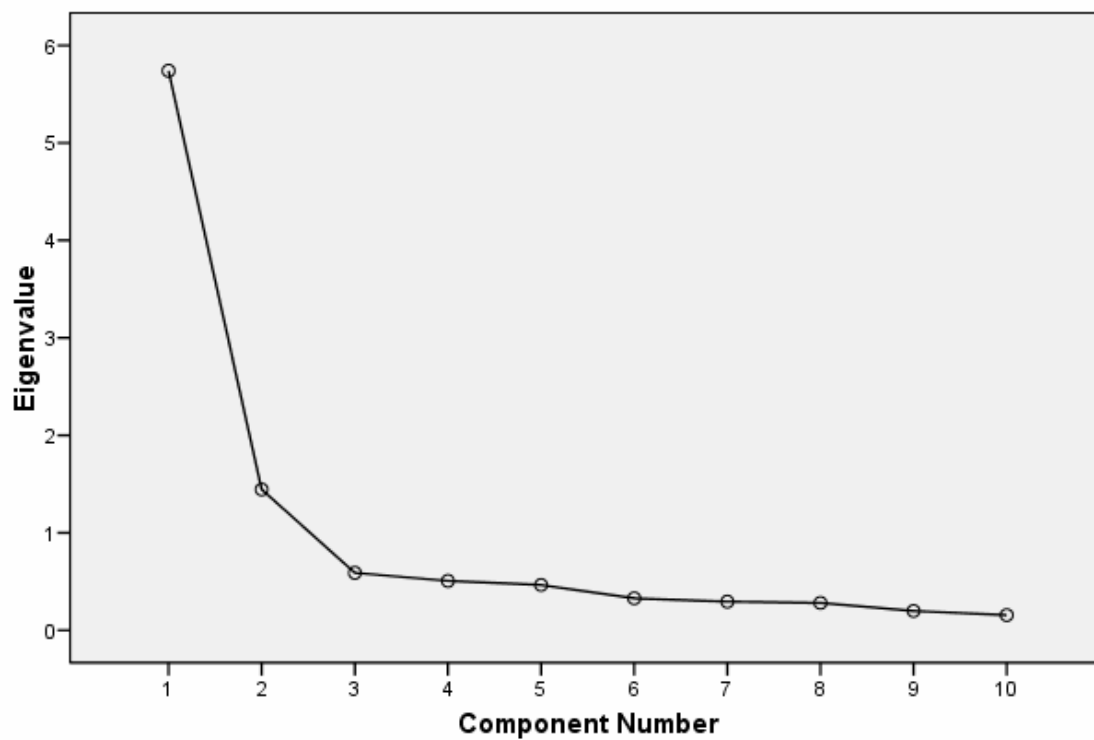
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.91
Bartlett's Test of Sphericity	Approx. Chi-Square df Sig.	5241.53 45 .000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.74	57.40	57.40	5.74	57.40	57.40
2	1.45	14.45	71.85	1.45	14.45	71.85
3	.59	5.89	77.74			
4	.51	5.07	82.81			
5	.46	4.64	87.45			
6	.33	3.27	90.72			
7	.29	2.94	93.66			
8	.28	2.80	96.46			
9	.20	1.98	98.44			
10	.16	1.56	100.00			

Extraction Method: Principal Component Analysis.

Scree Plot**Component Matrix(a)**

	Component	
	1	2
RSE 5	.84	
RSE 6	.83	-.38
RSE 8	.81	-.40
RSE 9	.81	-.40
RSE 7	.78	
RSE 2	.76	
RSE 10	.72	.39
RSE 3	.71	.43
RSE 4	.70	.42
RSE 1	.60	.52

Extraction Method: Principal Component Analysis.
a. 2 components extracted.

Appendix B6(ii)**(6) (ii) Religious Self-Esteem (RSE)****Correlation Matrix**

Correlation	RSE 1	RSE 2	RSE 3	RSE 4	RSE 6	RSE 8	RSE 9	RSE 10
RSE 1	1.00	.34	.54	.50	.32	.31	.31	.56
RSE 2	.34	1.00	.45	.38	.71	.60	.62	.40
RSE 3	.54	.45	1.00	.68	.44	.39	.40	.55
RSE 4	.50	.38	.68	1.00	.42	.41	.40	.54
RSE 6	.32	.71	.44	.42	1.00	.77	.77	.44
RSE 8	.31	.60	.39	.41	.77	1.00	.84	.45
RSE 9	.31	.62	.40	.40	.77	.84	1.00	.44
RSE 10	.56	.40	.55	.54	.44	.45	.44	1.00

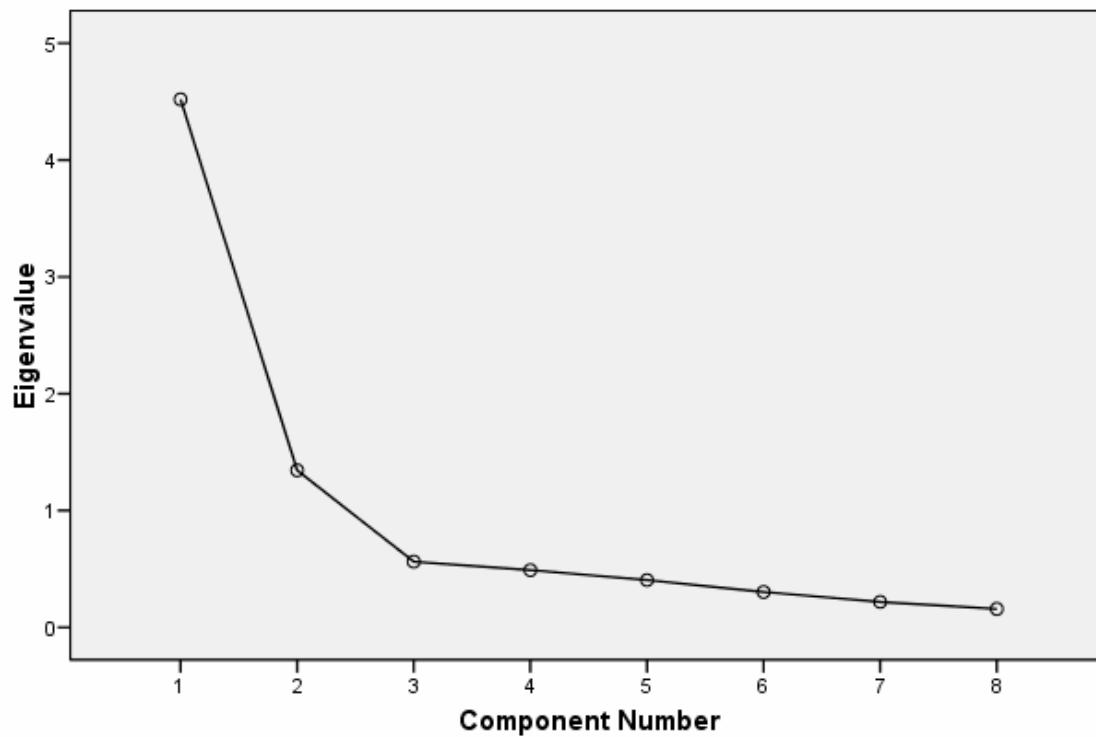
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.87
Bartlett's Test of Sphericity	Approx. Chi-Square df Sig.	3736.50 28 .000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.52	56.49	56.49	4.52	56.49	56.49
2	1.34	16.80	73.29	1.34	16.80	73.29
3	.56	7.03	80.33			
4	.49	6.13	86.45			
5	.41	5.07	91.52			
6	.30	3.79	95.31			
7	.22	2.72	98.03			
8	.16	1.97	100.00			

Extraction Method: Principal Component Analysis.

Scree Plot**Component Matrix(a)**

	Component	
	1	2
RSE 6	.83	-.38
RSE 9	.82	-.42
RSE 8	.81	-.41
RSE 2	.76	
RSE 3	.73	.44
RSE 10	.72	.36
RSE 4	.71	.43
RSE 1	.62	.52

Extraction Method: Principal Component Analysis.
a. 2 components extracted.

Appendix B7(i)

(7) (i) Collective Self-Esteem (CSE)

Correlation Matrix

Correlation	CSE 1	CSE 2	CSE 3	CSE 4	CSE 5	CSE 6	CSE 7	CSE 8	CSE 9	CSE 10	CSE 11	CSE 12	CSE 13	CSE 14	CSE 15	CSE 16
CSE 1	1.00	.34	.48	.36	.14	.44	.24	.48	.40	.25	.39	.21	.06	.35	.14	.34
CSE 2	.34	1.00	.11	.52	.26	.17	.37	.22	.16	.28	.13	.25	.19	.13	.20	.09
CSE 3	.48	.11	1.00	.19	.13	.48	.23	.50	.42	.22	.41	.24	-.06	.24	.05	.26
CSE 4	.36	.53	.19	1.00	.46	.19	.50	.26	.18	.42	.20	.48	.03	.05	.14	.09
CSE 5	.14	.26	.13	.46	1.00	.24	.61	.29	.20	.43	.23	.50	.07	-.00	.21	-.01
CSE 6	.44	.17	.48	.19	.24	1.00	.29	.72	.55	.21	.55	.27	.03	.36	.16	.40
CSE 7	.24	.37	.23	.50	.61	.29	1.00	.31	.22	.50	.26	.60	.12	.02	.25	.03
CSE 8	.48	.22	.50	.26	.29	.72	.31	1.00	.65	.33	.61	.31	-.00	.34	.19	.38
CSE 9	.40	.16	.42	.18	.20	.55	.22	.65	1.00	.30	.64	.26	-.04	.32	.09	.34
CSE 10	.25	.28	.22	.42	.43	.21	.50	.33	.30	1.00	.33	.55	.05	.05	.21	.08
CSE 11	.39	.13	.41	.20	.23	.54	.26	.61	.64	.33	1.00	.33	-.05	.36	.14	.36
CSE 12	.20	.25	.24	.48	.50	.27	.60	.31	.30	.55	.33	1.00	.04	.01	.16	.08
CSE 13	.06	.19	-.06	.03	.07	.03	.12	-.00	-.04	.05	-.05	.04	1.00	.16	.38	.08
CSE 14	.35	.13	.24	.05	-.00	.36	.02	.34	.32	.05	.36	.01	.16	1.00	.37	.51
CSE 15	.14	.20	.05	.14	.21	.16	.25	.19	.09	.21	.14	.16	.38	.37	1.00	.18
CSE 16	.34	.09	.26	.09	-.01	.40	.03	.38	.34	.08	.36	.08	.08	.51	.18	1.00 0

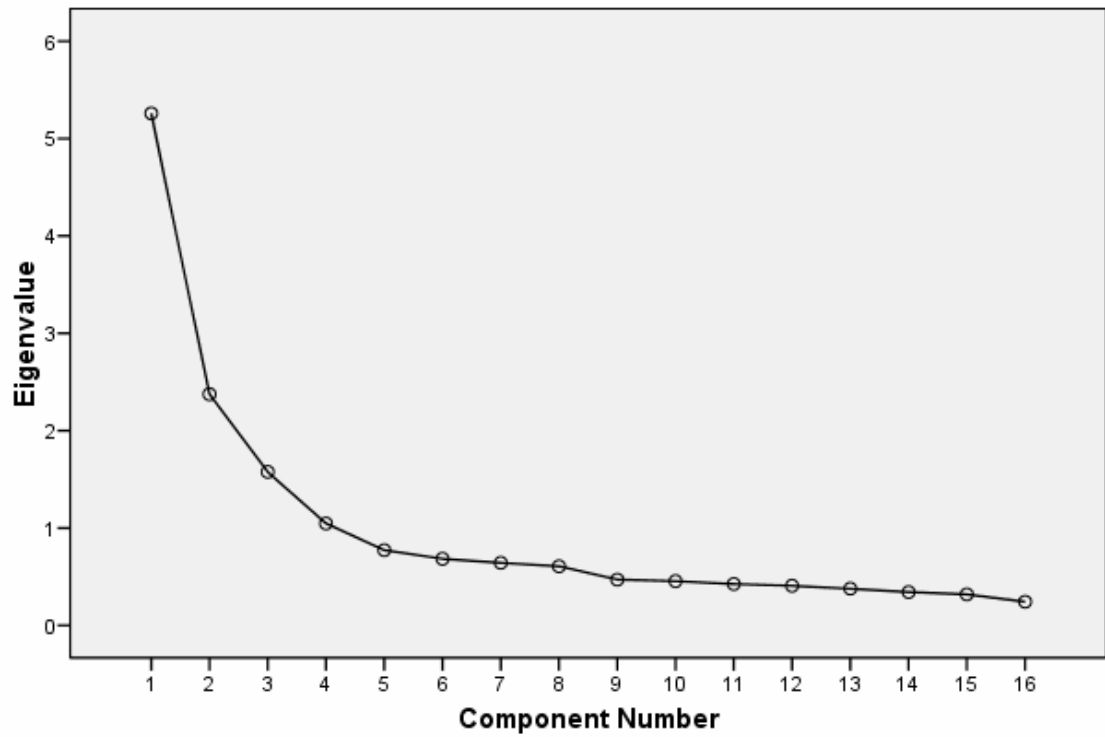
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.87
Bartlett's Test of Sphericity	Approx. Chi-Square	6264.31
	df	120
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.26	32.87	32.87	5.26	32.87	32.87
2	2.38	14.84	47.71	2.38	14.84	47.71
3	1.58	9.85	57.56	1.58	9.85	57.56
4	1.05	6.55	64.11	1.05	6.55	64.11
5	.77	4.83	68.94			
6	.68	4.27	73.21			
7	.64	4.01	77.22			
8	.61	3.79	81.02			
9	.47	2.94	83.96			
10	.45	2.84	86.80			
11	.43	2.66	89.45			
12	.41	2.54	92.00			
13	.38	2.36	94.35			
14	.34	2.14	96.49			
15	.32	1.99	98.48			
16	.24	1.52	100.00			

Extraction Method: Principal Component Analysis.

Scree Plot**Component Matrix(a)**

	Component			
	1	2	3	4
CSE 8	.79			
CSE 6	.72	-.34		
CSE 11	.71			
CSE 9	.69	-.33		
CSE 1	.64			-.47
CSE 7	.61	.56		
CSE 12	.60	.48		
CSE 3	.59			
CSE 10	.58	.42		
CSE 4	.56	.49		-.41
CSE 5	.53	.55		
CSE 16	.46	-.49		
CSE 14	.44	-.49	.46	
CSE 13			.74	
CSE 15	.35		.69	
CSE 2	.45	.34		-.57

Extraction Method: Principal Component Analysis.
a. 4 components extracted.

Appendix B7(ii)

(7) (ii) Collective Self-Esteem (CSE)

Correlation Matrix

Correlation	CSE 2	CSE 3	CSE 5	CSE 6	CSE 7	CSE 8	CSE 9	CSE 10	CSE 11	CSE 12	CSE 13	CSE 15
CSE 2	1.00	.11	.26	.17	.37	.22	.16	.28	.13	.25	.19	.20
CSE 3	.11	1.00	.13	.48	.23	.50	.42	.22	.41	.24	-.06	.05
CSE 5	.26	.13	1.00	.24	.61	.29	.20	.43	.23	.50	.07	.21
CSE 6	.17	.48	.24	1.00	.29	.72	.55	.21	.54	.27	.03	.16
CSE 7	.37	.23	.61	.29	1.00	.31	.22	.50	.26	.60	.12	.25
CSE 8	.22	.50	.29	.72	.31	1.00	.65	.33	.61	.31	-.00	.19
CSE 9	.16	.42	.20	.55	.22	.65	1.00	.30	.64	.26	-.04	.09
CSE 10	.28	.22	.43	.21	.50	.33	.30	1.00	.33	.55	.05	.21
CSE 11	.13	.41	.23	.54	.26	.61	.64	.33	1.00	.33	-.05	.14
CSE 12	.25	.24	.50	.27	.60	.31	.26	.55	.33	1.00	.04	.16
CSE 13	.19	-.06	.07	.03	.12	-.00	-.04	.05	-.05	.04	1.00	.38
CSE 15	.20	.05	.21	.16	.25	.19	.09	.21	.14	.16	.38	1.00

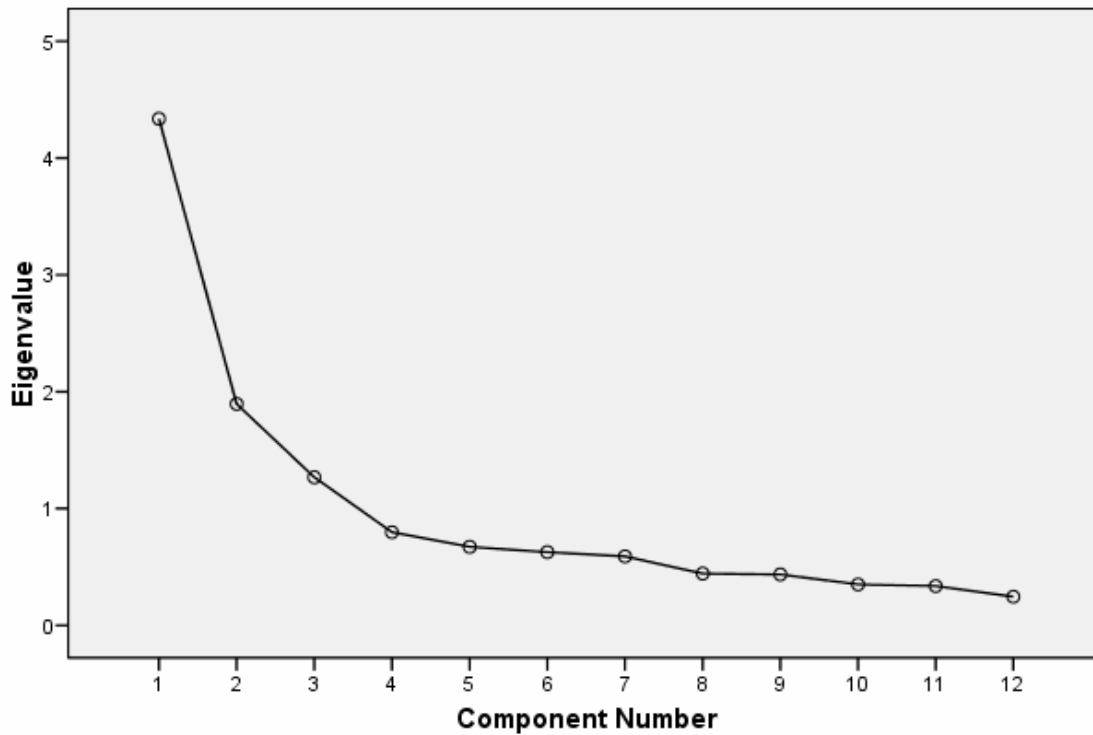
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.85
Bartlett's Test of Sphericity	Approx. Chi-Square	4326.54
	df	66
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.34	36.13	36.13	4.34	36.13	36.13
2	1.90	15.80	51.93	1.90	15.80	51.93
3	1.27	10.56	62.50	1.27	10.56	62.50
4	.80	6.64	69.14			
5	.67	5.61	74.75			
6	.62	5.23	79.97			
7	.59	4.92	84.90			
8	.44	3.70	88.59			
9	.44	3.63	92.22			
10	.35	2.92	95.15			
11	.34	2.81	97.95			
12	.25	2.05	100.00			

Extraction Method: Principal Component Analysis.

Scree Plot**Component Matrix(a)**

	Component		
	1	2	3
CSE 8	.79	-.37	
CSE 6	.71	-.38	
CSE 11	.71	-.38	
CSE 9	.69	-.44	
CSE 7	.67	.48	
CSE 12	.66	.36	-.33
CSE 10	.63	.34	
CSE 5	.59	.45	
CSE 3	.57	-.38	
CSE 2	.41	.37	
CSE 13		.45	.72
CSE 15	.33	.38	.61

Extraction Method: Principal Component Analysis.
a. 3 components extracted.

Appendix B7(iii)**(7) (iii) Collective Self-Esteem (CSE)****Correlation Matrix**

Correlation	CSE 2	CSE 3	CSE 5	CSE 6	CSE 7	CSE 8	CSE 9	CSE10	CSE 11	CSE 12
CSE 2	1.00	.11	.26	.17	.37	.22	.16	.28	.13	.25
CSE 3	.11	1.00	.13	.48	.23	.50	.42	.22	.41	.24
CSE 5	.26	.13	1.00	.24	.61	.29	.20	.43	.23	.50
CSE 6	.17	.48	.24	1.00	.29	.72	.55	.21	.54	.27
CSE 7	.37	.23	.61	.29	1.00	.31	.22	.50	.26	.60
CSE 8	.22	.50	.29	.72	.31	1.00	.65	.33	.61	.31
CSE 9	.16	.42	.20	.55	.22	.65	1.00	.30	.64	.26
CSE 10	.28	.22	.43	.21	.50	.33	.30	1.00	.33	.55
CSE 11	.13	.41	.23	.54	.26	.61	.64	.33	1.00	.33
CSE 12	.25	.24	.50	.27	.60	.31	.26	.55	.33	1.00

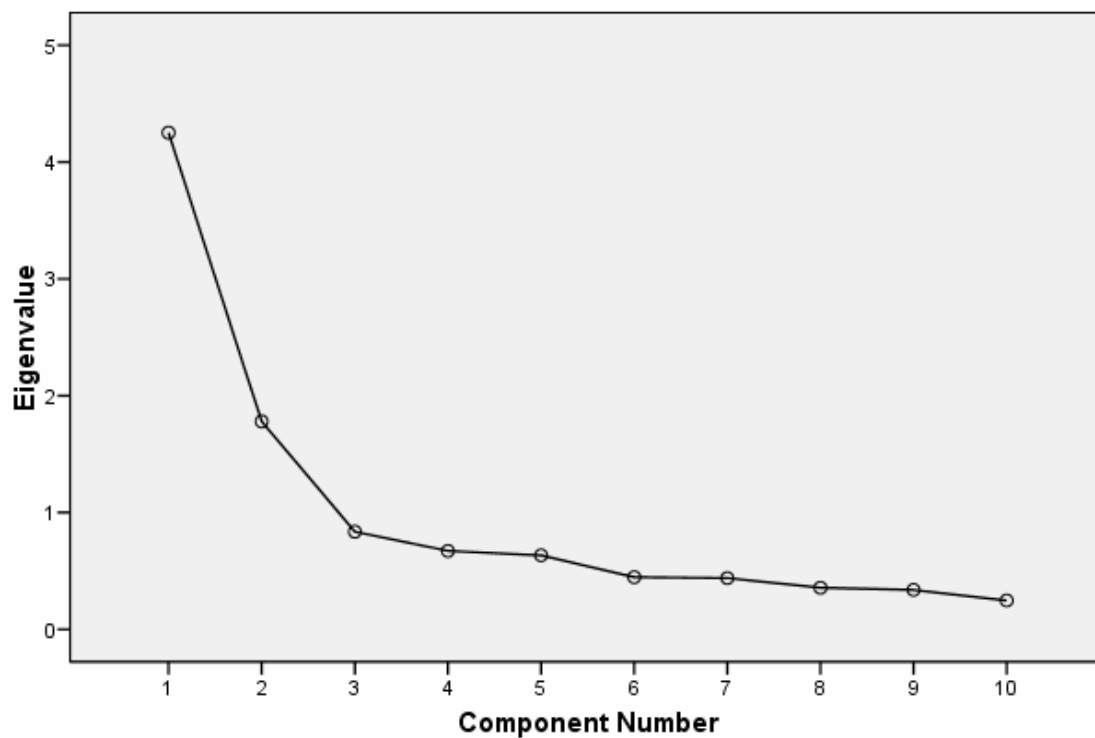
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.86
Bartlett's Test of Sphericity	Approx. Chi-Square	4034.97
	df	45
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.25	42.51	42.51	4.25	42.51	42.51
2	1.78	17.80	60.31	1.78	17.80	60.31
3	.84	8.36	68.67			
4	.67	6.72	75.39			
5	.63	6.34	81.72			
6	.45	4.47	86.19			
7	.44	4.39	90.59			
8	.36	3.56	94.15			
9	.34	3.38	97.53			
10	.25	2.47	100.00			

Extraction Method: Principal Component Analysis.

Scree Plot**Component Matrix(a)**

	Component	
	1	2
CSE 8	.79	-.38
CSE 6	.72	-.40
CSE 11	.72	-.35
CSE 9	.71	-.42
CSE 7	.66	.54
CSE 12	.65	.46
CSE 10	.63	.41
CSE 3	.58	-.35
CSE 5	.58	.52
CSE 2	.40	.33

Extraction Method: Principal Component Analysis.
a. 2 components extracted.

Appendix B8

(8) Social Identification

Correlation Matrix

Correlation	Social Identification 1	Social Identification 2	Social Identification 3	Social Identification 4
Social Identification 1	1.00	.57	.73	.49
Social Identification 2	.57	1.00	.64	.53
Social Identification 3	.73	.64	1.00	.60
Social Identification 4	.49	.53	.60	1.00

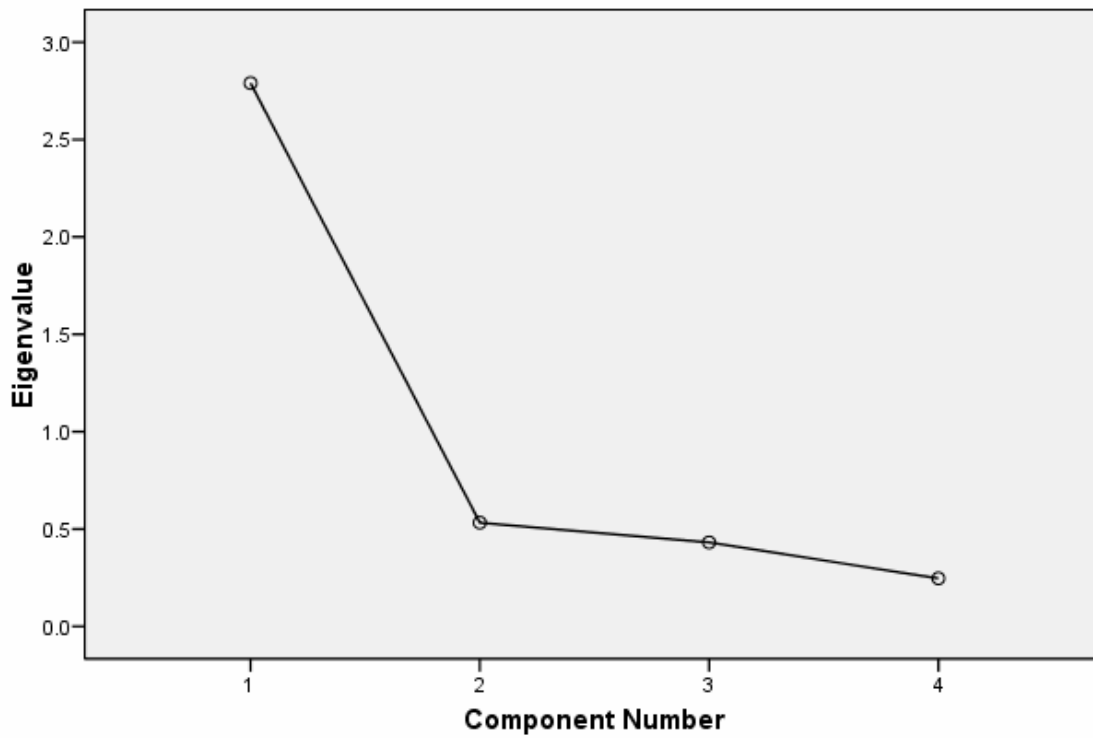
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.79
Bartlett's Test of Sphericity	Approx. Chi-Square df Sig.	1404.25 6 .000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.79	69.74	69.74	2.79	69.74	69.74
2	.53	13.31	83.06			
3	.43	10.78	93.84			
4	.25	6.16	100.00			

Extraction Method: Principal Component Analysis.

Scree Plot**Component Matrix(a)**

	Component
	1
Social Identification 3	.90
Social Identification 1	.84
Social Identification 2	.82
Social Identification 4	.78

Extraction Method: Principal Component Analysis.

a 1 components extracted.

Appendix B9

(9) Individualism-Collectivism (I-C)

Correlation Matrix

		I-C 1	I-C 2	I-C 3	I-C 4	I-C 5	I-C 6	I-C 7	I-C 8
Correlation	I-C 1	1.00	.13	.14	.11	.09	.26	.31	.27
	I-C 2	.13	1.00	.55	.44	.26	.06	.19	.06
	I-C 3	.14	.55	1.00	.56	.37	.06	.14	.06
	I-C 4	.11	.44	.56	1.00	.37	.02	.13	.09
	I-C 5	.09	.26	.37	.37	1.00	-.03	.07	-.02
	I-C 6	.26	.06	.06	.02	-.03	1.00	.37	.28
	I-C 7	.31	.19	.14	.13	.07	.37	1.00	.41
	I-C 8	.27	.06	.06	.09	-.02	.28	.41	1.00

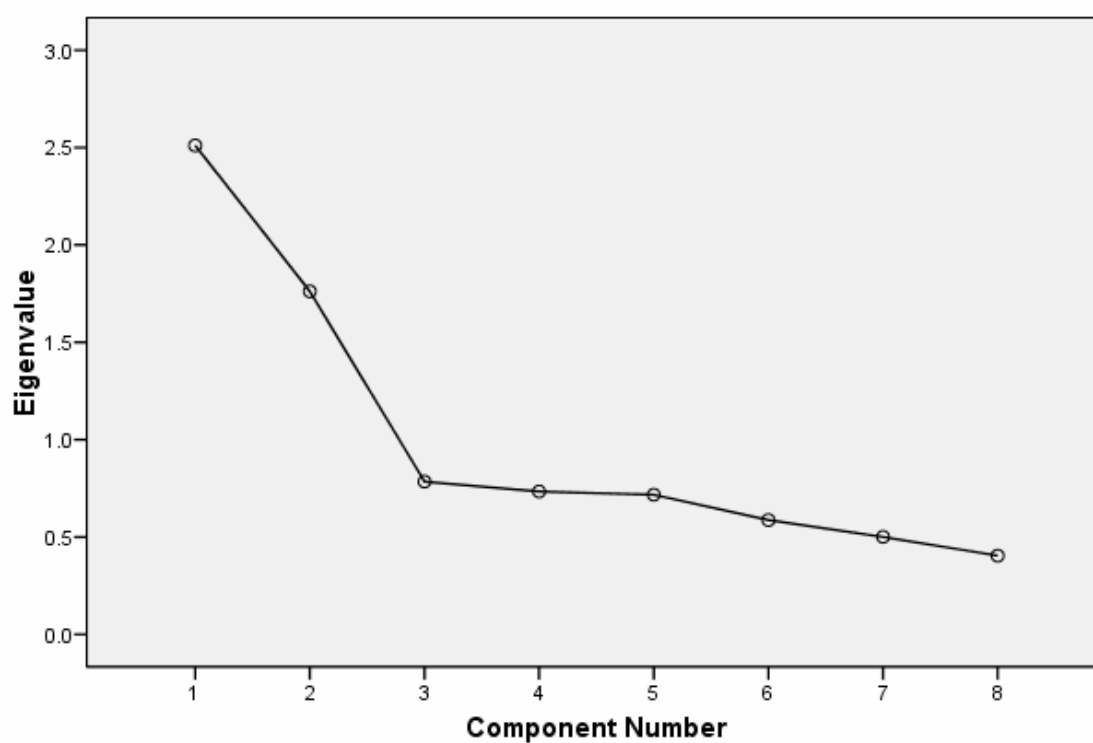
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.74
Bartlett's Test of Sphericity	Approx. Chi-Square	1505.76
	df	28
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.51	31.39	31.39	2.51	31.39	31.39
2	1.76	22.02	53.41	1.76	22.02	53.41
3	.79	9.81	63.22			
4	.73	9.17	72.39			
5	.72	8.96	81.35			
6	.59	7.34	88.69			
7	.50	6.26	94.95			
8	.40	5.05	100.00			

Extraction Method: Principal Component Analysis.

Scree Plot

Component Matrix(a)

	Component	
	1	2
I-C 3	.75	-.36
I-C 4	.71	-.36
I-C 2	.70	
I-C 5	.51	-.38
I-C 8	.37	.61
I-C 6	.33	.61
I-C 7	.51	.58
I-C 1	.44	.45

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

Appendix C(1)

(1) Regression Analyses for Homeostatic Model Factors and S-R Satisfaction on SWB for OZCC

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Life Events					0.06		0.45***	
-HPMood					0.29**	0.05		
-Non-Religious Self-Esteem					0.21**	0.03		
-Optimism					0.15			
-Perceived Control					0.19*	0.02		
<u>Model 2</u>								
-Life Event	2.16	0.83	144	0.06	0.04		0.57***	0.12***
-HPMood	69.92	16.70	169	0.57***	0.19*	0.02		
-Non-Religious Self-Esteem	60.57	13.28	166	0.47***	0.14*	0.02		
-Optimism	71.73	18.60	164	0.51***	0.08			
-Perceived Control	76.55	13.94	170	0.53***	0.06			
-Spirituality- Religion	75.74	17.82	169	0.68***	0.44***	0.12		
Satisfaction								
-(SWB#: DV)	71.49	11.51	165					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security)

Appendix C(2)

(2) Regression Analyses for Homeostatic Model Factors and S-R Satisfaction on SWB for OZ2GC

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
Model 1								
-Life Events					0.01		0.48***	
-HPMood					0.23*	0.03		
-Non-Religious Self-Esteem					0.36***	0.07		
-Optimism					0.14			
-Perceived Control					0.12			
Model 2								
-Life Event	1.86	0.85	130	- 0.07	0.03		0.53***	0.05***
-HPMood	74.09	16.34	133	0.59***	0.20*	0.02		
-Non-Religious Self-Esteem	64.85	16.94	129	0.62***	0.29**	0.04		
-Optimism	66.75	17.18	127	0.47***	0.13			
-Perceived Control	73.18	12.62	134	0.44***	0.08			
-Spirituality- Religion	81.72	17.92	134	0.52***	0.26***	0.05		
-Satisfaction								
-(SWB#: DV)	76.45	11.81	134					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security)

Appendix C(3)

(3) *Regression Analyses for Homeostatic Model Factors and S-R Satisfaction on SWB for HKC*

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
Model 1								
-Life Events					0.04		0.51***	
-HPMood					0.35***	0.06		
-Non-Religious Self-Esteem					0.21**	0.03		
-Optimism					0.32**	0.04		
-Perceived Control					0.06			
Model 2								
-Life Events	1.93	0.79	172	- 0.12	0.04		0.53***	0.02**
-HPMood	65.80	16.64	172	0.64***	0.29**	0.04		
-Non-Religious Self-Esteem	62.79	11.42	174	0.56***	0.18*	0.02		
-Optimism	69.08	17.38	174	0.63***	0.30**	0.04		
-Perceived Control	72.75	15.14	175	0.37***	-0.10			
-Spirituality- Religion Satisfaction	69.20	19.18	163	0.52***	0.19**	0.02		
-(SWB#: DV)	66.09	13.33	167					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security)

Appendix C(4)

(4) Regression Analyses for Homeostatic Model Factors and S-R Satisfaction on SWB for HKB

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Life Events					0.05		0.52***	
-HPMood					0.24**	0.04		
-Non-Religious Self-Esteem					0.31***	0.06		
-Optimism					0.06			
-Perceived Control					0.33***	0.08		
<u>Model 2</u>								
-Life Events	1.97	0.82	140	- 0.03	0.04		0.52***	0.00
-HPMood	61.28	15.96	143	0.55***	0.24**	0.04		
-Non-Religious Self-Esteem	61.42	13.25	138	0.58***	0.31***	0.06		
-Optimism	69.05	14.77	147	0.46***	0.06			
-Perceived Control	72.95	14.00	146	0.55***	0.33***	0.08		
-Spirituality- Religion Satisfaction	78.20	20.41	128	0.28**	0.01			
-(SWB#: DV)	63.95	12.80	143					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security)

Appendix C(5)

(5) Regression Analyses for Homeostatic Model Factors and S-R Satisfaction on SWB for HKT

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Life Events					0.10		0.54***	
-HPMood					0.44***	0.13		
-Non-Religious Self-Esteem					0.22*	0.04		
-Optimism					0.16			
-Perceived Control					0.11			
<u>Model 2</u>								
-Life Events	1.93	0.86	121	0.02	0.08		0.57***	0.03*
-HPMood	62.99	17.47	127	0.66***	0.39***	0.09		
-Non-Religious Self-Esteem	63.14	11.94	129	0.52***	0.25**	0.04		
-Optimism	70.77	15.41	130	0.53***	0.13			
-Perceived Control	73.81	12.96	130	0.44***	0.04			
-Spirituality- Religion Satisfaction	75.00	18.95	110	0.50***	0.20*	0.03		
-(SWB#: DV)	67.84	12.72	103					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security)

Appendix C(6)

(6) Regression Analyses for Homeostatic Model Factors and Religiosity on SWB for OZCC

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Life Events					0.06		0.45***	
-HPMood					0.27**	0.04		
-Non-Religious Self-Esteem					0.22**	0.04		
-Optimism					0.17			
-Perceived Control					0.18			
<u>Model 2</u>								
-Life Events	2.16	0.83	144	0.06	0.05		0.48***	0.03***
-HPMood	69.92	16.70	169	0.57***	0.25**	0.03		
-Non-Religious Self-Esteem	60.57	13.28	166	0.47***	0.23**	0.04		
-Optimism	72.17	17.78	163	0.54***	0.12			
-Perceived Control	76.55	13.94	170	0.53***	0.15			
-Religiosity	87.47	16.94	166	0.40***	0.19**	0.03		
-(SWB#: DV)	71.49	11.51	165					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security)

Appendix C(7)

(7) Regression Analyses for Homeostatic Model Factors and Religiosity on SWB for OZ2GC

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
Model 1								
-Life Events					0.02		0.48***	
-HPMood					0.23*	0.02		
-Non-Religious Self-Esteem					0.37***	0.07		
-Optimism					0.14			
-Perceived Control					0.12			
Model 2								
-Life Events	1.86	0.85	130	-0.07	0.02		0.48***	0.00
-HPMood	74.09	16.34	133	0.59***	0.23*	0.03		
-Non-Religious Self-Esteem	64.85	16.94	129	0.62***	0.35***	0.06		
-Optimism	67.28	16.17	126	0.44***	0.14			
-Perceived Control	73.18	12.62	134	0.44***	0.11			
-Religiosity	90.45	15.12	133	0.28***	0.07			
-(SWB#: DV)	76.45	11.81	134					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security)

Appendix C(8)

(8) Regression Analyses for Homeostatic Model Factors and Religiosity on SWB for HKC

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Life Events					0.04		0.51	
-HPMood					0.37***	0.07		
-Non-Religious Self-Esteem					0.20**	0.02		
-Optimism					0.31***	0.04		
-Perceived Control					-0.06			
<u>Model 2</u>								
-Life Events	1.93	0.79	172	- 0.12	0.04		0.51	0.00
-HPMood	65.80	16.63	172	0.64***	0.37**	0.07		
-Non-Religious Self-Esteem	62.79	11.42	174	0.56***	0.20**	0.02		
-Optimism	69.77	16.25	172	0.62***	0.31***	0.04		
-Perceived Control	72.75	15.14	175	0.37***	-0.06			
-Religiosity	82.69	18.94	171	0.34***	-0.01			
-(SWB#: DV)	66.09	13.33	167					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security)

Appendix C(9)

(9) Regression Analyses for Homeostatic Model Factors and Religiosity on SWB for HKB

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
Model 1								
-Life Events					0.05		0.52***	
-HPMood					0.24**	0.04		
-Non-Religious Self-Esteem					0.31***	0.06		
-Optimism					0.06			
-Perceived Control					0.33***	0.08		
Model 2								
-Life Events	1.97	0.82	140	- 0.03	0.05		0.52***	0.00
-HPMood	61.28	15.96	143	0.55***	0.25**	0.04		
-Non-Religious Self-Esteem	61.42	13.25	138	0.58***	0.31***	0.06		
-Optimism	69.05	14.77	147	0.46***	0.07			
-Perceived Control	72.95	14.00	146	0.55***	0.34***	0.08		
-Religiosity	78.26	19.89	128	0.15*	-0.05			
-(SWB#: DV)	63.95	12.80	143					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security)

Appendix C(10)

(10) Regression Analyses for Homeostatic Model Factors and Religiosity on SWB for HKT

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Life Events					0.10		0.54***	
-HPMood					0.44***	0.13		
-Non-Religious Self-Esteem					0.22**	0.04		
-Optimism					0.16			
-Perceived Control					0.11			
<u>Model 2</u>								
-Life Events	1.93	0.86	121	0.02	0.07		0.60***	0.06***
-HPMood	62.99	17.47	127	0.66***	0.40***	0.11		
-Non-Religious Self-Esteem	63.14	11.94	129	0.52***	0.22**	0.04		
-Optimism	70.77	15.40	130	0.53***	0.14			
-Perceived Control	73.81	12.96	130	0.44***	0.001			
-Religiosity	74.57	19.53	129	0.51***	0.28***	0.06		
-(SWB#: DV)	66.52	13.10	131					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security)

Appendix C(11)

(11) Regression Analyses for 7 Life Domains and S-R on LAAW for OZR

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Standard of Living					0.37***	0.09	0.47***	
-Health					0.12*	0.01		
-Achieving in Life					0.08			
-Relationships					0.21***	0.03		
-Safety					-0.10			
-Community-Connectedness					-0.005			
-Future Security					0.24***	0.03		
<u>Model 2</u>								
-Standard of Living	78.65	15.33	303	0.57***	0.38***	0.09	0.48***	0.01*
-Health	74.74	17.87	302	0.40***	0.11*	0.01		
-Achieving in Life	68.71	16.86	302	0.48***	0.05			
-Relationships	72.41	15.65	303	0.44***	0.18***	0.02		
-Safety	78.61	16.16	303	0.40***	-0.12*	0.01		
-Community-Connectedness	69.77	17.29	303	0.38***	-0.03			
-Future Security	73.02	16.51	301	0.51***	0.22***	0.03		
-Spirituality-Religion	78.38	18.08	303	0.46***	0.13*	0.01		
-(LAAW: DV)	75.02	15.88	303					

****p*<.001. ***p*<.01. **p*<.05.

Appendix C(12)

(12) Regression Analyses for 7 Life Domains and S-R on LAAW for HKR

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Standard of Living					0.39***	0.08	0.58***	
-Health					0.07			
-Achieving in Life					0.16***	0.01		
-Relationships					0.20***	0.02		
-Safety					0.03			
-Community-Connectedness					-0.01			
-Future Security					0.11*	0.01		
<u>Model 2</u>								
-Standard of Living	66.56	16.03	468	0.69***	0.37***	0.07	0.59***	0.01***
-Health	65.51	17.34	468	0.52***	0.09*	0.004		
-Achieving in Life	59.77	17.13	469	0.58***	0.16***	0.01		
-Relationships	69.89	15.64	469	0.55***	0.20***	0.02		
-Safety	69.42	16.80	467	0.53***	-0.002			
-Community-Connectedness	62.92	17.44	466	0.46***	-0.02			
-Future Security	64.57	19.28	457	0.56***	0.10*	0.005		
-Spirituality-Religion	73.67	19.86	401	0.41***	0.13***	0.01		
-(LAAW: DV)	68.70	15.70	469					

****p*<.001.***p*<.01.**p*<.05.

Appendix C(13)

(13) Regression Analyses for 7 Life Domains and S-R on LAAW for OZCC

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Standard of Living					0.33***	0.07	0.48***	
-Health					0.12			
-Achieving in Life					0.22**	0.03		
-Relationships					0.15*	0.02		
-Safety					-0.13			
-Community-Connectedness					0.04			
-Future Security					0.19*	0.02		
<u>Model 2</u>								
-Standard of Living	74.97	14.73	169	0.57***	0.34***	0.08	0.51***	0.03**
-Health	70.48	18.44	168	0.38***	0.10			
-Achieving in Life	66.96	16.48	168	0.56***	0.18*	0.02		
-Relationships	73.67	14.71	169	0.41***	0.06			
-Safety	75.68	15.54	169	0.33***	-0.15*	0.01		
-Community-Connectedness	66.21	17.42	169	0.40***	-0.001			
-Future Security	72.64	16.51	167	0.51***	0.15			
-Spirituality-Religion	75.74	17.82	169	0.54***	0.24**	0.03		
-(LAAW: DV)	74.38	16.10	169					

*** $p < .001$. ** $p < .01$. * $p < .05$.

Appendix C(14)

(14) Regression Analyses for 7 Life Domains and S-R on LAAW for OZ2GC

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Standard of Living					0.41***	0.10	0.51***	
-Health					0.16*	0.02		
-Achieving in Life					-0.12			
-Relationships					0.29***	0.05		
-Safety					-0.004			
-Community-Connectedness					-0.12			
-Future Security					0.26**	0.04		
<u>Model 2</u>								
-Standard of Living	83.28	14.86	134	0.60***	0.41***	0.10	0.51***	0.00
-Health	80.08	15.63	134	0.45***	0.16*	0.02		
-Achieving in Life	70.90	17.14	134	0.38***	-0.12			
-Relationships	70.82	16.68	134	0.50***	0.28***	0.04		
-Safety	82.31	16.22	134	0.48***	-0.02			
-Community-Connectedness	74.25	16.10	134	0.35***	-0.12			
-Future Security	73.51	16.56	134	0.51***	0.26**	0.03		
-Spirituality-Religion	81.72	17.92	134	0.35***	0.06			
-(LAAW: DV)	75.82	15.62	134					

****p*<.001. ***p*<.01. **p*<.05.

Appendix C(15)

(15) Regression Analyses for 7 Life Domains and S-R on LAAW for HKC

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Standard of Living					0.29***	0.04	0.61***	
-Health					0.10			
-Achieving in Life					0.25**	0.03		
-Relationships					0.29***	0.04		
-Safety					-0.07			
-Community-Connectedness					-0.007			
-Future Security					0.10			
<u>Model 2</u>								
-Standard of Living	67.67	15.81	176	0.67***	0.25***	0.03	0.63***	0.02**
-Health	66.74	16.65	175	0.54***	0.10			
-Achieving in Life	60.85	15.52	176	0.68***	0.23**	0.02		
-Relationships	69.38	15.97	176	0.62***	0.27***	0.03		
-Safety	69.94	16.40	174	0.48***	- 0.08			
-Community-Connectedness	63.79	17.64	177	0.49***	- 0.04			
-Future Security	65.03	20.73	171	0.55***	0.10			
-Spirituality-Religion	69.20	19.18	163	0.52***	0.17**	0.02		
-(LAAW: DV)	69.27	15.81	177					

****p*<.001. ***p*<.01. **p*<.05.

Appendix C(16)

(16) Regression Analyses for 7 Life Domains and S-R on LAAW for HKB

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Standard of Living					0.34***	0.05	0.53***	
-Health					0.12			
-Achieving in Life					0.13			
-Relationships					0.18*	0.02		
-Safety					0.16			
-Community-Connectedness					-0.07			
-Future Security					0.02			
<u>Model 2</u>								
-Standard of Living	64.67	15.73	152	0.67***	0.32**	0.04	0.53***	0.00
-Health	64.64	17.58	151	0.57***	0.17			
-Achieving in Life	57.83	17.45	152	0.50***	0.13			
-Relationships	69.34	16.70	152	0.51***	0.18*	0.02		
-Safety	68.37	16.40	153	0.59***	0.12			
-Community-Connectedness	59.87	17.90	149	0.34***	- 0.07			
-Future Security	62.60	18.19	150	0.45***	- 0.02			
-Spirituality-Religion	78.20	20.41	128	0.27***	0.11			
-(LAAW: DV)	66.45	14.80	152					

****p*<.001. ***p*<.01. **p*<.05.

Appendix C(17)

(17) Regression Analyses for 7 Life Domains and S-R on LAAW for HKT

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Standard of Living					0.48***	0.14	0.65***	
-Health					0.01			
-Achieving in Life					0.10			
-Relationships					0.09			
-Safety					0.001			
-Community-Connectedness					0.05			
-Future Security					0.25**	0.03		
<u>Model 2</u>								
-Standard of Living	67.27	16.59	139	0.73***	0.44***	0.12	0.66***	0.01*
-Health	64.93	17.93	142	0.46***	0.02			
-Achieving in Life	60.50	18.57	141	0.57***	0.09			
-Relationships	71.14	14.00	141	0.48***	0.08			
-Safety	69.93	17.77	140	0.51***	-0.05			
-Community-Connectedness	65.07	16.34	140	0.53***	0.03			
-Future Security	66.18	18.50	136	0.66***	0.28**	0.03		
-Spirituality-Religion	75.00	18.95	110	0.47***	0.15*	0.01		
-(LAAW : DV)	70.43	16.31	140					

*** $p < .001$. ** $p < .01$. * $p < .05$.

Appendix C(18)

(18) Regression Analyses for 4 Affective Predictors on SWB for OZCC

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²
Excited	63.10	22.37	171	0.43***	0.10		0.41***
Happy	71.74	17.62	172	0.52***	- 0.03		
Content	74.50	17.21	169	0.61***	0.55***	0.10	
Alert	64.47	19.37	170	0.29***	0.16*	0.02	
Peaceful	-	-	-	-	-	-	
(SWB [^] : DV)	72.02	11.72	165				

Model: Unique variability = 0.12; shared variability = 0.29; *** $p < .001$. ** $p < .01$. * $p < .05$

SWB[^]: SWB was computed by aggregating and averaging the 8 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security and S-R)

Appendix C(19)

(19) Regression Analyses for 4 Affective Predictors on SWB for OZ2GC

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²
Excited	70.98	18.98	133	0.45***	0.11		0.36***
Happy	76.39	18.44	133	0.57***	0.31*	0.03	
Content	74.89	19.53	133	0.52***	0.27**	0.04	
Alert	68.27	20.69	133	0.14	- 0.04		
Peaceful	-	-	-	-	-	-	
(SWB [^] : DV)	77.11	11.66	134				

Model: Unique variability = 0.07; shared variability = 0.29; *** $p < .001$. ** $p < .01$. * $p < .05$

SWB[^]: SWB was computed by aggregating and averaging the 8 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security and S-R)

Appendix C(20)

(20) Regression Analyses for 5 Affective Predictors on SWB for HKC

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²
Excited	59.71	17.98	172	0.54***	0.08		0.57***
Happy	68.04	18.57	173	0.65***	0.11		
Content	69.60	18.69	173	0.74***	0.59***	0.12	
Alert	61.79	17.84	173	0.15*	0.005		
Peaceful	66.71	20.91	173	0.42***	0.02	-	
(SWB [^] : DV)	66.83	12.99	154				

Model: Unique variability = 0.12; shared variability = 0.45; *** $p < .001$. ** $p < .01$. * $p < .05$

SWB[^]: SWB was computed by aggregating and averaging the 8 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security and S-R)

Appendix C(21)

(21) Regression Analyses for 5 Affective Predictors on SWB for HKB

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²
Excited	50.98	19.22	143	0.31***	0.11		0.39***
Happy	65.31	19.60	147	0.50***	0.10		
Content	67.45	18.59	145	0.53***	0.25*	0.03	
Alert	62.81	18.45	146	0.25**	0.04		
Peaceful	66.21	18.37	145	0.52***	0.33***	0.07	
(SWB [^] : DV)	65.92	12.20	120				

Model: Unique variability = 0.10; shared variability = 0.29; *** $p < .001$. ** $p < .01$. * $p < .05$

SWB[^]: SWB was computed by aggregating and averaging the 8 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security and S-R)

Appendix C(22)

(22) Regression Analyses for 5 Affective Predictors on SWB for HKT

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²
Excited	56.46	20.61	127	0.49***	- 0.006		0.58***
Happy	66.38	18.93	127	0.64***	0.24*	0.02	
Content	66.31	20.16	130	0.72***	0.47***	0.09	
Alert	60.87	17.05	127	0.23*	0.14*	0.02	
Peaceful	64.92	19.78	130	0.49***	0.13		
(SWB [^] : DV)	67.84	12.72	103				

Model: Unique variability = 0.13; shared variability = 0.45; *** $p < .001$. ** $p < .01$. * $p < .05$

SWB[^]: SWB was computed by aggregating and averaging the 8 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security and S-R)

Appendix C(23)

(23) Correlations between Religiosity and SWB After Controlling for S-R Satisfaction

Groups \ Variables	Religiosity & SWB#	Religiosity & SWB# (After Controlling For S-R Satisfaction)
	(r)	(r)
Australia		
-Chinese Immigrant Christians(OZCC)	0.40** (N=156)	-0.02 (N=155)
-2 nd Generation Chinese Christians (OZ2GC)	0.28** (N=131)	-0.04 (N=130)
Combined OZCC & OZ2GC (OZR)	0.36** (N=289)	-0.02 (N=288)
Hong Kong		
-Christians (HKC)	0.34** (N=158)	-0.04 (N=151)
-Buddhists (HKB)	0.15 (N=137)	-0.12 (N=117)
-Taoists (HKT)	0.51** (N=116)	0.26** (N=100)
Combined HKC, HKB & HKT (HKR)	0.32** (N=415)	0.04 (N=374)
Combined OZCC, OZ2GC, HKC, HKB & HKT (OZHKR):	0.38** (N=706)	0.07 (N=673)

** $p < .01$. (two-tailed)

SWB#: SWB was computed by aggregating and averaging the 7 domain scores

Appendix C(24)

(24) Religion x Locality: SWB#

Religion Places	Non-Religious			Religious			Total		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Australia	26	66.92	11.98	299	73.71	11.89	325	73.17	12.02
Hong Kong	226	65.61	12.51	441	65.52	13.11	667	65.55	12.90
Total	252	65.74	12.44	740	68.83	13.25	992	68.05	13.11
p	Main Effect: Locality: F(1,988)=11.76, p=0.001 Main Effect: Religion: F(1,988)=5.85, p=0.016 Interaction Effect: F(1,988)=6.15, p=0.013								

SWB#: SWB was computed by aggregating and averaging the 7 domain scores

Appendix C(25)

(25) Religious and Non-Religious Group x Excited/Happy/Content

Groups	Excited			Happy			Content		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Non-Religious Group	252	59.41	19.80	255	69.10	18.07	258	67.71	17.92
Religious Group	746	60.27	20.88	752	69.55	18.96	750	70.65	19.03
T-test each column	t(996)=-0.58, p=.566			t(1005)=-0.33, p=.740			t(1006)=-2.17, p=.030		

Appendix D(1)

(1) Regression Analyses for Homeostatic Model Factors and Optimism on SWB for the Combined Religious Group

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-HPMood					0.44***	0.13	0.47***	
-Non-Religious Self-Esteem					0.25***	0.04		
-Perceived Control					0.14***	0.02		
<u>Model 2</u>								
-HPMood	66.87	17.17	744	0.63***	0.41***	0.10	0.48***	0.01**
-Non-Religious Self-Esteem	62.45	13.41	736	0.52***	0.23***	0.03		
-Perceived Control	73.90	13.90	755	0.44***	0.11**	0.01		
-Optimism	69.91	16.20	738	0.48***	0.11**	0.01		
-(SWB#: DV)	68.83	13.25	740					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security)

Appendix D(2)

(2) Regression Analyses for Homeostatic Model Factors and Optimism on SWB for the Combined Non-Religious Group

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-HPMood					0.36***	0.08	0.47***	
-Non-Religious Self-Esteem					0.26***	0.05		
-Perceived Control					0.21***	0.03		
<u>Model 2</u>								
-HPMood	65.56	16.34	252	0.61***	0.31***	0.05	0.48***	0.01**
-Non-Religious Self-Esteem	61.76	12.28	255	0.53***	0.25***	0.04		
-Perceived Control	72.54	12.97	264	0.55***	0.16*	0.01		
-Optimism	67.08	16.87	259	0.52***	0.15**	0.01		
-(SWB#: DV)	65.74	12.44	252					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security)

Appendix D(3)

(3) Regression Analyses for Homeostatic Model Factors and NRSE on SWB for the Combined Religious Group

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-HPMood					0.49***	0.16	0.44***	
-Optimism					0.16***	0.02		
-Perceived Control					0.12***	0.01		
<u>Model 2</u>								
-HPMood	66.87	17.17	744	0.63***	0.41***	0.10	0.47***	0.03***
-Optimism	69.91	16.20	738	0.48***	0.11**	0.01		
-Perceived Control	73.90	13.90	755	0.44***	0.10**	0.01		
-Non-Religious Self-Esteem	62.45	13.41	736	0.52***	0.22***	0.03		
-(SWB#: DV)	68.83	13.25	740					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security)

Appendix D(4)

(4) Regression Analyses for Homeostatic Model Factors and NRSE on SWB for the Combined Non-Religious Group

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-HPMood					0.36***	0.08	0.45***	
-Optimism					0.18**	0.02		
-Perceived Control					0.23***	0.03		
<u>Model 2</u>								
-HPMood	65.56	16.34	252	0.61***	0.31***	0.05	0.49***	0.04***
-Optimism	67.08	16.87	259	0.52***	0.15*	0.01		
-Perceived Control	72.54	12.97	264	0.55***	0.16*	0.01		
-Non-Religious Self-Esteem	61.76	12.28	255	0.53***	0.25***	0.04		
-(SWB#: DV)	65.74	12.44	252					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security)

Appendix D(5)

(5) Regression Analyses for Homeostatic Model Factors and Primary/Secondary Control on SWB for the Combined Christianity Group (OZCC+OZ2GC+HKC)

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-HPMood					0.40***	0.09	0.46***	
-Non-Religious Self-Esteem					0.23***	0.04		
-Optimism					0.16***	0.02		
<u>Model 2</u>								
-HPMood	69.59	16.87	474	0.62***	0.39***	0.08	0.46***	0.00
-Non-Religious Self-Esteem	62.57	13.85	469	0.53***	0.23***	0.04		
-Optimism	69.94	16.86	461	0.50***	0.13**	0.01		
-Primary Control	75.37	14.19	482	0.32***	-0.02			
-Secondary Control	73.18	17.45	482	0.41***	0.08			
-(SWB#: DV)	70.98	12.94	466					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security)

Appendix D(6)

(6) Regression Analyses for Homeostatic Model Factors and Primary/Secondary Control on SWB for HKB

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-HPMood					0.30***	0.06	0.44***	
-Non-Religious Self-Esteem					0.34***	0.08		
-Optimism					0.17*	0.02		
<u>Model 2</u>								
-HPMood	61.28	15.96	143	0.55***	0.25**	0.04	0.51***	0.07***
-Non-Religious Self-Esteem	61.42	13.25	138	0.58***	0.32***	0.07		
-Optimism	69.05	14.77	147	0.46***	0.06			
-Primary Control	71.63	15.53	147	0.44***	0.15*	0.02		
-Secondary Control	74.42	16.92	150	0.48***	0.20*	0.03		
-(SWB#: DV)	63.95	12.80	143					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security)

Appendix D(7)

(7) Regression Analyses for Homeostatic Model Factors and Primary/Secondary Control on SWB for HKT

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-HPMood					0.46***	0.15	0.53***	
-Non-Religious Self-Esteem					0.23**	0.04		
-Optimism					0.19*	0.03		
<u>Model 2</u>								
-HPMood	62.99	17.47	127	0.66***	0.47***	0.15	0.57***	0.04**
-Non-Religious Self-Esteem	63.14	11.94	129	0.52***	0.19*	0.03		
-Optimism	70.77	15.41	130	0.53***	0.17*	0.02		
-Primary Control	73.54	14.79	132	0.45***	0.24**	0.04		
-Secondary Control	73.81	15.03	133	0.31***	-0.13			
-(SWB#: DV)	66.52	13.10	131					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security)

Appendix D(8)

(8) Regression Analyses for Homeostatic Model Factors and Primary/Secondary Control on SWB for the Combined Non-Religious Group

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-HPMood					0.36***	0.08	0.48***	
-Non-Religious Self-Esteem					0.29***	0.06		
-Optimism					0.22***	0.03		
<u>Model 2</u>								
-HPMood	65.56	16.34	252	0.61***	0.29***	0.05	0.51***	0.03**
-Non-Religious Self-Esteem	61.76	12.28	255	0.53***	0.24***	0.04		
-Optimism	67.08	16.87	259	0.52***	0.18**	0.02		
-Primary Control	74.15	13.17	266	0.52***	0.18**	0.02		
-Secondary Control	70.91	16.50	267	0.49***	0.04			
-(SWB#: DV)	65.74	12.44	252					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security)

Appendix E(1)

(1)Regression Analyses for Homeostatic Model Factors and RSE on SWB for OZCC

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Life Events					0.06		0.47***	
-HPMood					0.29***	0.05		
-Non-Religious Self-Esteem					0.21**	0.03		
-Optimism					0.16			
-Perceived Control					0.21*	0.02		
<u>Model 2</u>								
-Life Events	2.16	0.83	144	0.06	0.06		0.49***	0.02*
-HPMood	69.92	16.70	169	0.59***	0.28**	0.04		
-Non-Religious Self-Esteem	60.57	13.28	166	0.48***	0.25***	0.04		
-Optimism	71.73	18.60	164	0.53***	0.13			
-Perceived Control	76.55	13.94	170	0.55***	0.13			
-Religious Self-Esteem	70.36	19.54	170	0.40***	0.16*	0.02		
-(SWB [^] : DV)	72.02	11.72	165					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB[^]: SWB was computed by aggregating and averaging the 8 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security and S-R)

Appendix E(2)

(2)Regression Analyses for Homeostatic Model Factors and RSE on SWB for OZ2GC

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
Model 1								
-Life Events					0.003		0.48***	
-HPMood					0.23*	0.03		
-Non-Religious Self-Esteem					0.36***	0.07		
-Optimism					0.12			
-Perceived Control					0.13			
Model 2								
-Life Events	1.86	0.85	130	-0.08	0.003		0.50***	0.02*
-HPMood	74.09	16.34	133	0.60***	0.22*	0.02		
-Non-Religious Self-Esteem	64.85	16.94	129	0.63***	0.35***	0.07		
-Optimism	66.75	17.18	127	0.47***	0.12			
-Perceived Control	73.18	12.62	134	0.46***	0.12			
-Religious Self-Esteem	69.35	18.33	131	0.28***	0.14*	0.02		
-(SWB [^] : DV)	77.11	11.66	134					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB[^]: SWB was computed by aggregating and averaging the 8 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security and S-R)

Appendix E(3)

(3) Regression Analyses for Homeostatic Model Factors and RSE on SWB for HKC

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
Model 1								
-Life Events					0.02		0.61***	
-HPMood					0.39***	0.07		
-Non-Religious Self-Esteem					0.22***	0.03		
-Optimism					0.28***	0.03		
-Perceived Control					0.02			
Model 2								
-Life Events	1.93	0.79	172	-0.15*	0.03		0.61***	0.00
-HPMood	65.80	16.64	172	0.72***	0.37***	0.06		
-Non-Religious Self-Esteem	62.79	11.42	174	0.61***	0.24***	0.03		
-Optimism	69.08	17.38	174	0.68***	0.27***	0.03		
-Perceived Control	72.75	15.14	175	0.46***	0.001			
-Religious Self-Esteem	62.33	16.95	172	0.34***	0.09			
-(SWB [^] : DV)	66.83	12.99	154					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB[^]: SWB was computed by aggregating and averaging the 8 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security and S-R)

Appendix E(4)

(4) Regression Analyses for Homeostatic Model Factors and RSE on SWB for HKB

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
Model 1								
-Life Events					0.05		0.55***	
-HPMood					0.21*	0.03		
-Non-Religious Self-Esteem					0.34***	0.08		
-Optimism					0.06			
-Perceived Control					0.37***	0.10		
Model 2								
-Life Events	1.97	0.82	140	-0.03	0.05		0.55***	0.00
-HPMood	61.28	15.96	143	0.53***	0.21*	0.03		
-Non-Religious Self-Esteem	61.42	13.25	138	0.60***	0.34***	0.06		
-Optimism	69.05	14.77	147	0.47***	0.06			
-Perceived Control	72.95	14.00	146	0.57***	0.37***	0.10		
-Religious Self-Esteem	53.77	22.03	144	0.02	-0.002			
-(SWB [^] : DV)	65.92	12.20	120					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB[^]: SWB was computed by aggregating and averaging the 8 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security and S-R)

Appendix E(5)

(5) Regression Analyses for Homeostatic Model Factors and RSE on SWB for HKT

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
Model 1								
-Life Events					0.15*	0.02	0.62***	
-HPMood					0.44***	0.13		
-Non-Religious Self-Esteem					0.13			
-Optimism					0.19*	0.02		
-Perceived Control					0.25**	0.05		
Model 2								
-Life Events	1.93	0.86	121	0.06	0.14*	0.02	0.62***	0.00
-HPMood	62.99	17.47	127	0.68***	0.42***	0.11		
-Non-Religious Self-Esteem	63.14	11.94	129	0.48***	0.15			
-Optimism	70.77	15.41	130	0.57**	0.18*	0.02		
-Perceived Control	73.81	12.96	130	0.55***	0.24**	0.04		
-Religious Self-Esteem	50.95	22.07	127	0.31***	0.05			
-(SWB [^] : DV)	67.84	12.72	103					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB[^]: SWB was computed by aggregating and averaging the 8 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security and S-R)

Appendix E(6)

(6) *High/Low RSE x SWB*

Groups	SWB^		
	N	Mean	SD
Low RSE (≤ 69)	401	67.48	13.22
High RSE (≥ 70)	250	74.51	11.14
p	t(649)=-7.00, p=.000		

SWB^: SWB was computed by aggregating and averaging the 8 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security and S-R)

Appendix E(7)

(7) *High Religiosity/Low Religiosity/Non-Religious Group x SWB*

Groups	SWB		
	N	Mean	SD
High Religiosity	552	72.26	11.56
Low Religiosity	91	59.73	12.66
Non-Religious	252	65.74	12.44
Total	895	69.15	12.66
One-Way ANCOVA	F(2.892)=57.41, p=.000		
Post-hocs Tukey	-High Religiosity>Low Religiosity, p=.000 -High Religiosity>Non-Religious, p=.000 -Non-Religious>Low Religiosity, p=.000		

SWB: SWB was the mean of 8 domains (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security and S-R) for high religiosity and low religiosity group. For the non-religious group, SWB was the mean of 7 domains by excluding S-R.

Appendix E(8)

(8) *High Religiosity/Low Religiosity/Non-Religious Group x NRSE*

Groups	NRSE		
	N	Mean	SD
High Religiosity	588	64.07	13.13
Low Religiosity	108	54.99	11.61
Non-Religious	255	61.76	12.28
Total	951	62.42	13.04
One-way ANOVA	F(2.948)=23.63, p=.000		
Post-hocs Tukey	-High Religiosity>Low Religiosity, p=.000 -High Religiosity>Non-Religious, p=.042 -Non-Religious>Low Religiosity, p=.000		

Appendix F(1)

(1) Regression Analyses for NRSE and CSE on SWB for the Chinese Immigrants in Australia

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Non-Religious Self-Esteem					0.47***	0.22	0.22***	
<u>Model 2</u>								
-Non-Religious Self-Esteem	60.57	13.28	166	0.47***	0.32***	0.07	0.28***	0.06***
-Collective Self-Esteem	69.70	12.88	154	0.46***	0.29***	0.06		
-(SWB#: DV)	71.49	11.51	165					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security)

Appendix F(2)

(2) Regression Analyses for NRSE and CSE on SWB for the Second Generation in Australia

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Non-Religious Self-Esteem					0.62***	0.39	0.39***	
<u>Model 2</u>								
-Non-Religious Self-Esteem	64.85	16.94	129	0.62***	0.44***	0.13	0.46***	0.07***
-Collective Self-Esteem	71.50	13.18	126	0.57***	0.32***	0.07		
-(SWB#: DV)	71.50	13.18	126					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security)

Appendix F(3)

(3) *Regression Analyses for Homeostatic Model Factors and CSE on SWB for the Chinese in Hong Kong*

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-HPMood					0.36***	0.08	0.50***	
-Non-Religious Self-Esteem					0.26***	0.05		
-Optimism					0.14***	0.01		
-Perceived Control					0.12***	0.01		
<u>Model 2</u>								
-HPMood	64.28	16.70	667	0.62***	0.36***	0.07	0.50***	0.00
-Non-Religious Self-Esteem	62.28	12.24	669	0.55***	0.24***	0.03		
-Optimism	68.83	16.01	680	0.53***	0.14***	0.01		
-Perceived Control	73.05	13.72	687	0.48***	0.11**	0.01		
-Collective Self-Esteem	64.65	11.52	635	0.44***	0.04			
-(SWB#: DV)	65.55	12.90	667					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security)

Appendix F(4)

(4) Regression Analyses for Homeostatic Model Factors and CSE on SWB for the Chinese in Australia

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-HPMood					0.29***	0.05	0.45***	
-Non-Religious Self-Esteem					0.28***	0.05		
-Optimism					0.16**	0.02		
-Perceived Control					0.13*	0.01		
<u>Model 2</u>								
-HPMood	71.12	16.60	329	0.59***	0.28***	0.04	0.48***	0.03***
-Non-Religious Self-Esteem	62.27	14.82	322	0.54***	0.19***	0.02		
-Optimism	69.90	17.25	317	0.47***	0.16**	0.02		
-Perceived Control	74.59	13.53	332	0.46***	0.07			
-Collective Self-Esteem	69.98	13.01	305	0.51***	0.22***	0.03		
-(SWB#: DV)	73.17	12.02	325					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security)

Appendix F(5)

(5) Regression Analyses for Homeostatic Model Factors and CSE on SWB for the Chinese in Hong Kong (Omitting NRSE as IV)

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-HPMood					0.43***	0.12	0.45***	
-Optimism					0.22***	0.03		
-Perceived Control					0.15***	0.02		
<u>Model 2</u>								
-HPMood	64.28	16.70	667	0.62***	0.40***	0.10	0.46***	0.01***
-Optimism	68.83	16.01	680	0.53***	0.19***	0.02		
-Perceived Control	73.05	13.72	687	0.48***	0.13***	0.01		
-Collective Self-Esteem	64.65	11.52	635	0.44***	0.14***	0.01		
-(SWB#: DV)	65.55	12.90	667					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness & future security)

Appendix F(6)

(6) Regression Analyses for Homeostatic Model Factors and CSE on SWB for the Chinese in Hong Kong (Omitting HPMood & Optimism as IVs)

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Non-Religious Self-Esteem					0.43***	0.16	0.38***	
-Perceived Control					0.31***	0.08		
<u>Model 2</u>								
-Non-Religious Self-Esteem	62.28	12.24	669	0.55***	0.38***	0.09	0.39***	0.01**
-Perceived Control	73.05	13.72	687	0.48***	0.29***	0.06		
-Collective Self-Esteem	64.65	11.52	635	0.44***	0.11**	0.01		
-(SWB#: DV)	65.55	12.90	667					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness & future security)

Appendix F(7)

(7) Regression Analyses for Homeostatic Model Factors and CSE on SWB for the Chinese in Hong Kong (Omitting HPMood & Perceived Control as IVs)

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Non-Religious Self-Esteem					0.39***	0.11	0.39***	
-Optimism					0.36***	0.09		
<u>Model 2</u>								
-Non-Religious Self-Esteem	62.28	12.24	669	0.55***	0.34***	0.07	0.40***	0.01*
-Optimism	68.83	16.01	680	0.53***	0.33***	0.08		
-Collective Self-Esteem	64.65	11.52	635	0.44***	0.10*	0.01		
-(SWB#: DV)	65.55	12.90	667					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness & future security)

Appendix F(8)

(8) Regression Analyses for Homeostatic Model Factors and CSE on SWB for the Chinese in Hong Kong (Omitting Optimism & Perceived Control as IVs)

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-HPMood					0.46***	0.16	0.46***	
-Non-Religious Self-Esteem					0.33***	0.08		
<u>Model 2</u>								
-HPMood	64.28	16.70	667	0.62***	0.45***	0.15	0.47***	0.01*
-Non-Religious Self-Esteem	62.28	12.24	669	0.55***	0.28***	0.05		
-Collective Self-Esteem	64.65	11.52	635	0.44***	0.09*	0.01		
-(SWB#: DV)	65.55	12.90	667					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB#: SWB was computed by aggregating and averaging the 7 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness & future security)

Appendix G(1)

(1) Correlations between the Three Affective Predictors of HPMood

		Excited	Happy	Content
Excited	r	1	0.66**	0.56**
	N	998	998	996
Happy	r	0.66**	1	0.78**
	N	998	1007	1000
Content	r	0.56**	0.78**	1
	N	996	1000	1008

** $p < 0.01$ (two-tailed). * $p < 0.05$. (two-tailed)

Appendix G(2)

(2) Correlations between The Five Cognitive Factors

		RSE	NRSE	CSE	Optimism	Perceived Control
RSE	r	1	0.02	0.27**	0.27**	0.32**
	N	744	716	676	714	732
NRSE	r	0.02	1	0.55**	0.44**	0.39**
	N	716	991	908	957	976
CSE	r	0.27**	0.55**	1	0.39**	0.42**
	N	676	908	940	927	929
Optimism	r	0.27**	0.44**	0.39**	1	0.54**
	N	714	957	927	997	978
Perceived Control	r	0.32**	0.39**	0.42**	0.54**	1
	N	732	976	929	978	1019

** $p < 0.01$. * $p < 0.05$. (two-tailed)

Appendix G(3)

(3) Correlations between SWB and Homeostatic Model Factors

		Content	Happy	Excited	RSE	NRSE	CSE	Optimism	Perceived Control	Life Events	Religiosity
SWB^	r	0.64**	0.59**	0.47**	0.33**	0.53**	0.52**	0.52**	0.51**	-0.05	0.47**
	N	905	906	899	651	889	848	893	910	847	654

** $p < 0.01$. * $p < 0.05$. (two-tailed)

SWB^: SWB was computed by aggregating and averaging the 8 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security and S-R)

Appendix G(4)

(4) Correlations between HPMood and SWB after Controlling Cognitive Buffers

Correlation Between HPMood and SWB^	
Before Controlling Cognitive Buffers	After Controlling Cognitive Buffers
0.64*** (N=896)	0.35*** (N=574)

*** $p < .001$. (two-tailed)

SWB^: SWB was computed by aggregating and averaging the 8 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security and S-R)

Appendix G(5)

(5) Correlations between Religiosity and SWB after Controlling Cognitive Buffers

Correlation Between Religiosity and SWB^	
Before Controlling Cognitive Buffers	After Controlling Cognitive Buffers
0.47*** (N=652)	0.15*** (N=574)

*** $p < .001$. (two-tailed)

SWB^: SWB was computed by aggregating and averaging the 8 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security and S-R)

Appendix G(6)

(6) Regression Analyses for *HPMood* and Cognitive Factors on *SWB* for All Respondents

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-HPMood					0.64***	0.41	0.41***	
<u>Model 2</u>								
-HPMood	66.54	16.97	996	0.64***	0.33***	0.06	0.54***	0.13***
-Religious Self-Esteem	61.80	21.15	744	0.33***	0.11***	0.01		
-Non-Religious Self-Esteem	62.28	13.13	991	0.53***	0.19***	0.02		
-Collective Self-Esteem	66.38	12.27	940	0.52***	0.16***	0.02		
-Optimism	69.17	16.42	997	0.52***	0.11**	0.01		
-Perceived Control	73.55	13.67	1019	0.51***	0.11**	0.01		
-(SWB [^] : DV)	68.94	12.91	928					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB[^]: SWB was computed by aggregating and averaging the 8 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security and S-R)

Appendix G(7)

(7) Regression Analyses for Experiential Inputs and Cognitive Factors on SWB for All Respondents

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²	ΔR^2
<u>Model 1</u>								
-Life Events					-0.04		0.23***	
-Religiosity					0.47***	0.22		
<u>Model 2</u>								
-Life Events	2.03	0.84	950	-0.05	0.04		0.51***	0.28***
-Religiosity	82.85	18.95	748	0.47***	0.20***	0.03		
-Religious Self-Esteem	61.80	21.15	744	0.33***	0.08*	0.01		
-Non-Religious Self-Esteem	62.28	13.13	991	0.53***	0.27***	0.04		
-Collective Self-Esteem	66.38	12.27	940	0.52***	0.13***	0.01		
-Optimism	69.17	16.42	997	0.52***	0.18***	0.02		
-Perceived Control	73.55	13.67	1019	0.51***	0.16***	0.02		
-(SWB [^] : DV)	68.94	12.91	928					

*** $p < .001$. ** $p < .01$. * $p < .05$.

SWB[^]: SWB was computed by aggregating and averaging the 8 domain scores (standard of living, health, achievement, personal relationships, safety, community-connectedness, future security and S-R)

Appendix H(1)

(1) PWI

Correlation Matrix

Correlation	Standard of Living	Health	Achieving in Life	Relationships	Safety	Community-Connectedness	Future Security	Spirituality-Religion
Standard of Living	1.00	.51	.54	.48	.46	.47	.60	.37
Health	.51	1.00	.54	.35	.42	.40	.45	.25
Achievement	.54	.54	1.00	.56	.41	.57	.55	.39
Relationships	.48	.35	.56	1.00	.40	.49	.46	.37
Safety	.46	.42	.41	.40	1.00	.50	.65	.30
Community-Connectedness	.47	.40	.57	.49	.50	1.00	.58	.40
Future Security	.60	.45	.55	.46	.65	.58	1.00	.38
Spirituality-Religion	.37	.25	.39	.37	.30	.40	.38	1.00

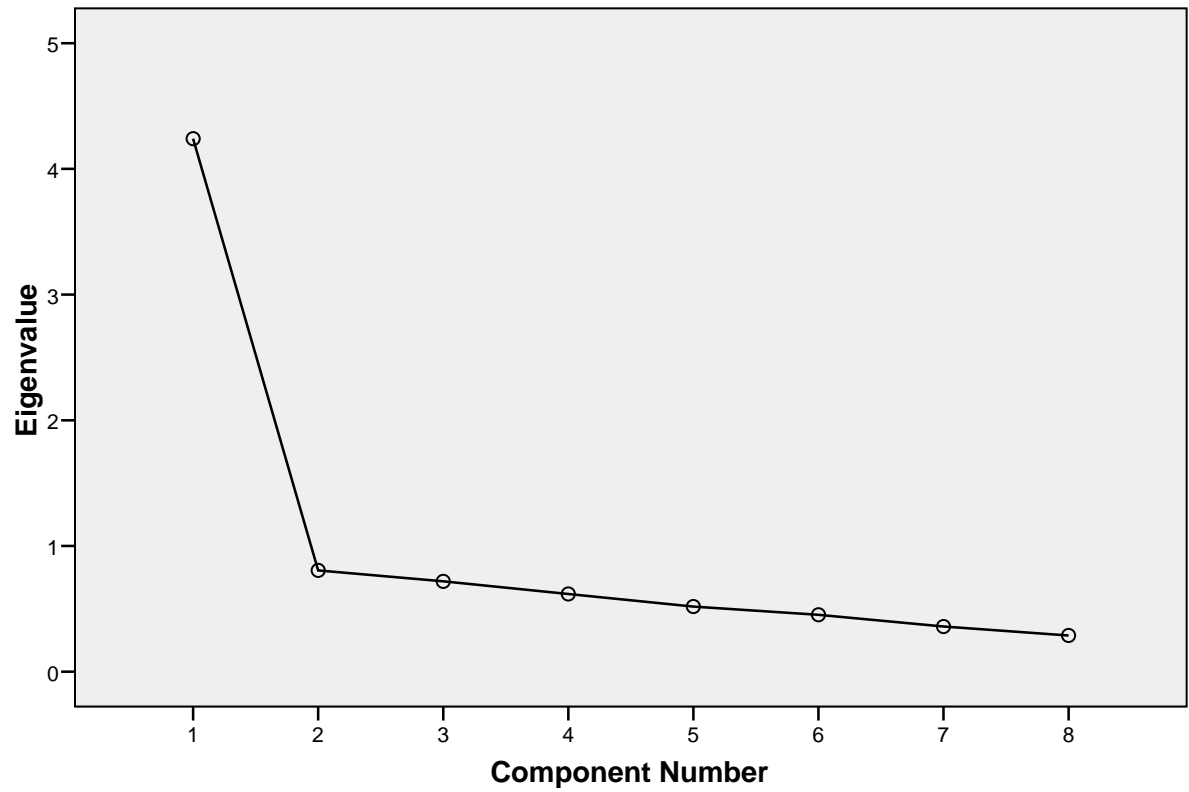
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.89
Bartlett's Test of Sphericity	Approx. Chi-Square df Sig.	2643.98 28 .000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.24	53.00	53.00	4.24	53.00	53.00
2	.81	10.07	63.07			
3	.72	8.98	72.06			
4	.62	7.73	79.78			
5	.52	6.47	86.25			
6	.45	5.66	91.91			
7	.36	4.49	96.40			
8	.29	3.60	100.00			

Extraction Method: Principal Component Analysis.

Scree Plot**Component Matrix(a)**

	Component
	1
Standard of Living	.77
Health	.67
Achievement	.79
Relationships	.71
Safety	.71
Community-Connectedness	.76
Future Security	.81
Spirituality-Religion	.57

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Appendix H(2)

(2) HPMood

Correlation Matrix

Correlation	HPMood:Content	HPMood:Happy	HPMood:Excited
HPMood:Content	1.00	.90	.47
HPMood:Happy	.90	1.00	.51
HPMood:Excited	.47	.51	1.00

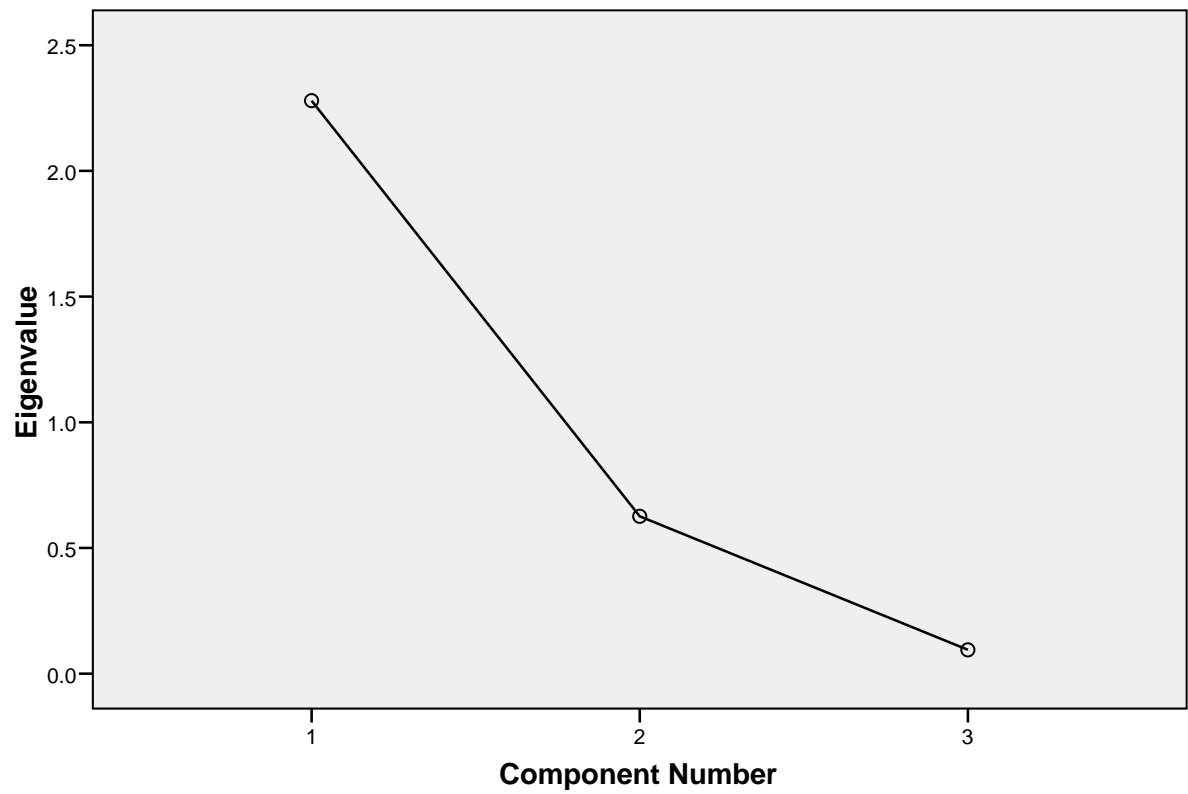
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.62
Bartlett's Test of Sphericity	Approx. Chi-Square	2388.16
	df	3
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.28	75.98	75.98	2.28	75.98	75.98
2	.63	20.86	96.84			
3	.10	3.16	100.00			

Extraction Method: Principal Component Analysis.

Scree Plot**Component Matrix(a)**

	Component
	1
HPMood:Content	.93
HPMood:Happy	.94
HPMood:Excited	.72

Extraction Method: Principal Component Analysis.

a 1 components extracted.

Appendix H(3)

(3) Optimism

Correlation Matrix

Correlation	Optimism 1	Optimism 2	Optimism 3
Optimism 1	1.00	.66	.57
Optimism 2	.66	1.00	.72
Optimism 3	.57	.72	1.00

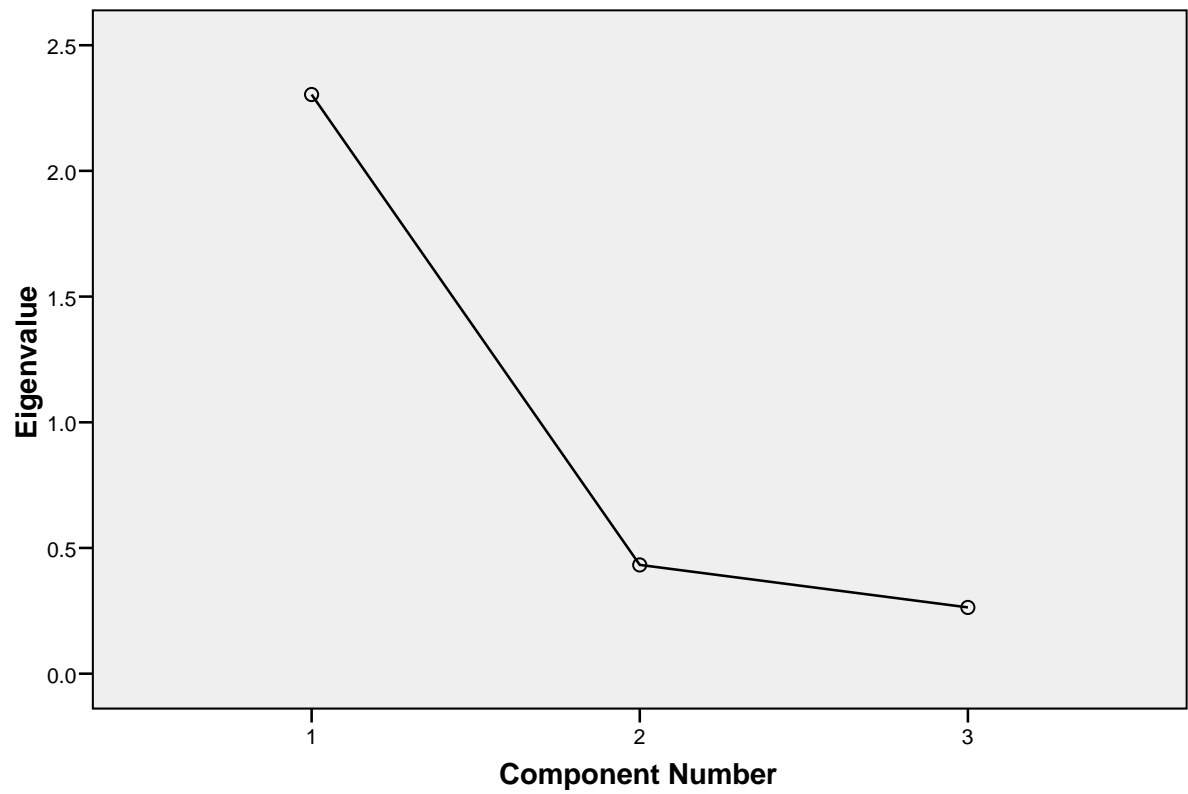
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.71
Bartlett's Test of Sphericity	Approx. Chi-Square	1604.43
	df	3
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.30	76.80	76.80	2.30	76.80	76.80
2	.43	14.42	91.21			
3	.26	8.79	100.00			

Extraction Method: Principal Component Analysis.

Scree Plot**Component Matrix(a)**

	Component
	1
Optimism 1	.85
Optimism 2	.91
Optimism 3	.87

Extraction Method: Principal Component Analysis.

a 1 components extracted.

Appendix H(4)

(4) Perceived Control

Correlation Matrix

Correlation	PC 1	PC 2	PC 3	SC 4	SC 5	SC 6
PC 1	1.00	.44	.34	.33	.28	.26
PC 2	.44	1.00	.74	.52	.40	.40
PC 3	.34	.74	1.00	.56	.40	.44
SC 4	.33	.52	.56	1.00	.62	.63
SC 5	.28	.40	.40	.62	1.00	.60
SC 6	.26	.40	.44	.63	.60	1.00

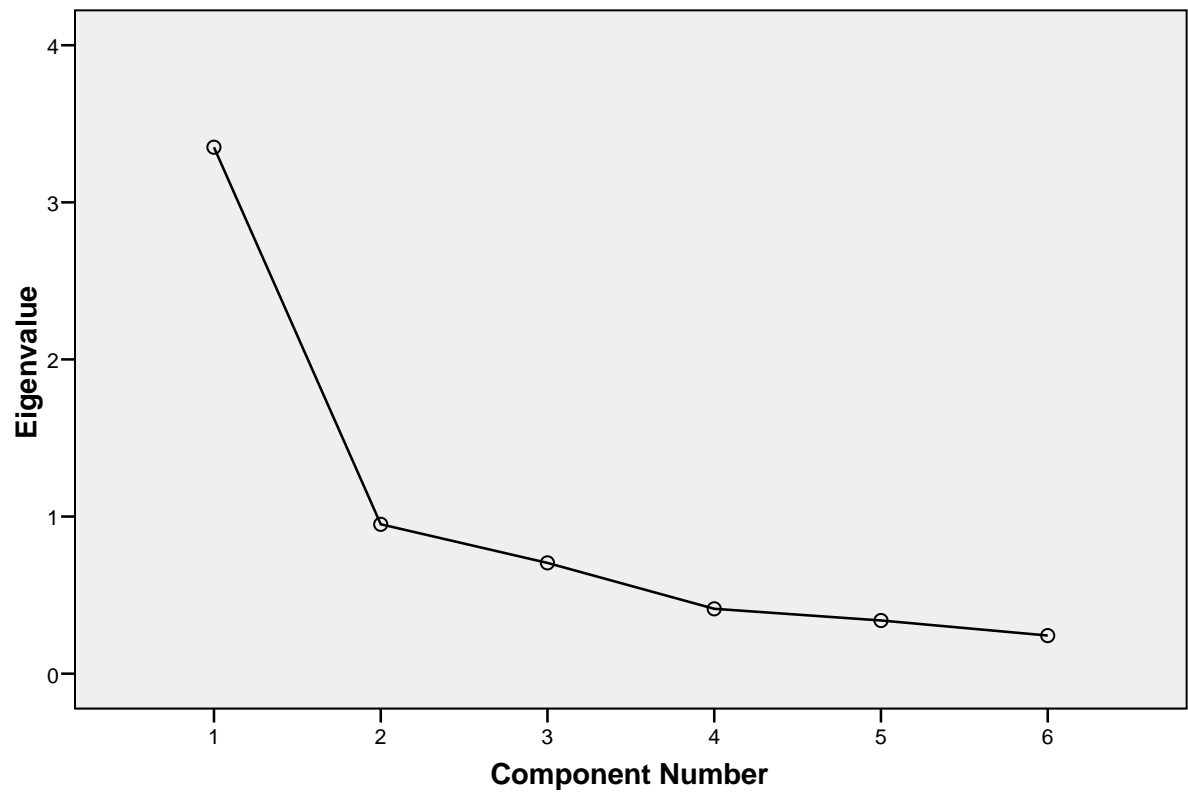
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.80
Bartlett's Test of Sphericity	Approx. Chi-Square	3037.46
	df	15
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.35	55.84	55.84	3.35	55.84	55.84
2	.95	15.85	71.69			
3	.71	11.75	83.44			
4	.41	6.88	90.32			
5	.34	5.64	95.96			
6	.24	4.04	100.00			

Extraction Method: Principal Component Analysis.

Scree Plot**Component Matrix(a)**

	Component
	1
PC 1	.55
PC 2	.79
PC 3	.79
SC 4	.83
SC 5	.74
SC 6	.75

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Appendix H(5)(i)

(5) (i) Non-Religious Self-Esteem (NRSE)**Correlation Matrix**

Correlation	NRSE 1	NRSE 2	NRSE 3	NRSE 4	NRSE 5	NRSE 6	NRSE 7	NRSE 8	NRSE 9	NRSE 10
NRSE 1	1.00	.48	.54	.44	.43	.50	.54	.49	.56	.67
NRSE 2	.48	1.00	.31	.29	.47	.66	.41	.58	.55	.49
NRSE 3	.54	.31	1.00	.57	.32	.30	.60	.32	.41	.55
NRSE 4	.44	.29	.57	1.00	.34	.33	.55	.29	.34	.47
NRSE 5	.43	.47	.32	.34	1.00	.53	.37	.43	.50	.42
NRSE 6	.50	.66	.30	.33	.53	1.00	.36	.54	.55	.47
NRSE 7	.54	.41	.60	.55	.37	.36	1.00	.36	.47	.64
NRSE 8	.49	.58	.32	.29	.43	.54	.36	1.00	.54	.53
NRSE 9	.56	.55	.41	.34	.50	.55	.47	.54	1.00	.55
NRSE 10	.67	.49	.55	.47	.42	.47	.64	.53	.55	1.00

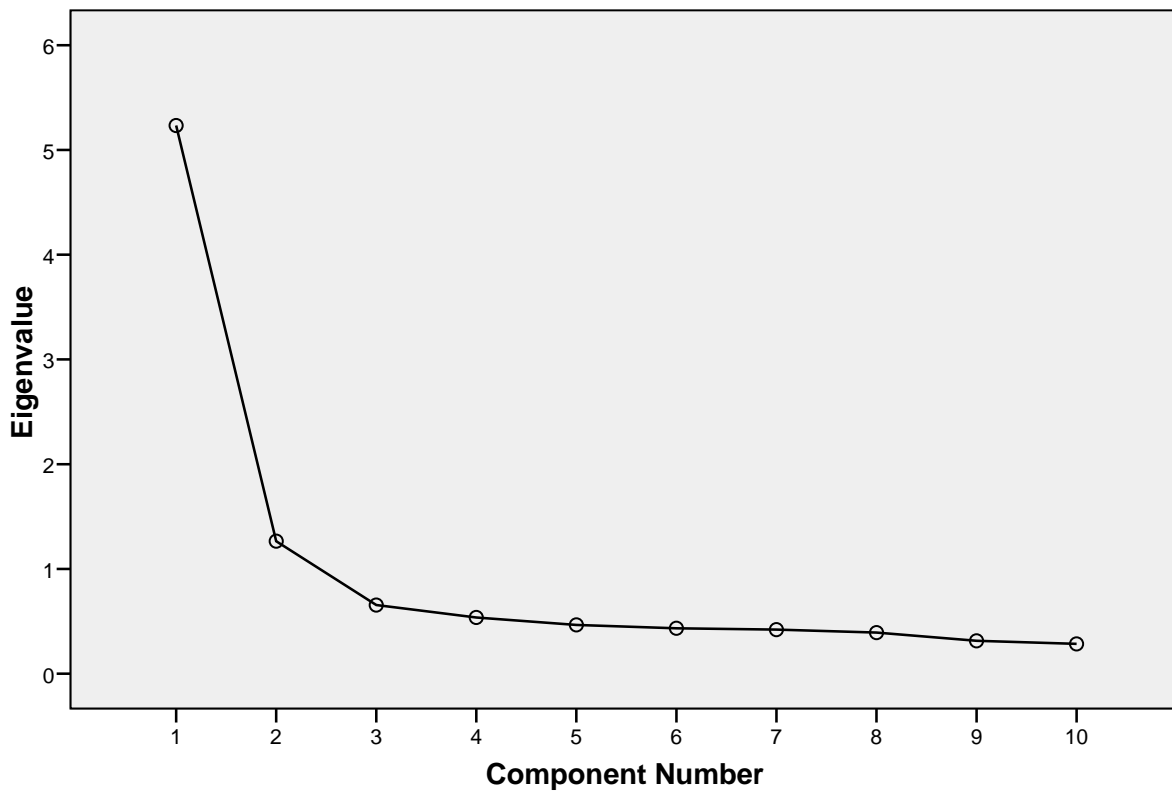
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.92
Bartlett's Test of Sphericity	Approx. Chi-Square df Sig.	5894.24 45 .000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.23	52.34	52.34	5.23	52.34	52.34	3.481	34.81	34.81
2	1.27	12.65	64.98	1.27	12.65	64.98	3.018	30.18	64.98
3	.66	6.55	71.54						
4	.54	5.37	76.90						
5	.47	4.66	81.56						
6	.43	4.34	85.89						
7	.42	4.21	90.10						
8	.39	3.92	94.02						
9	.31	3.14	97.16						
10	.28	2.84	100.00						

Extraction Method: Principal Component Analysis.

Scree Plot**Component Matrix(a)**

	Component	
	1	2
NRSE 10	.81	
NRSE 1	.79	
NRSE 9	.76	
NRSE 7	.73	.40
NRSE 6	.73	-.41
NRSE 2	.73	-.41
NRSE 8	.71	-.34
NRSE 3	.68	.52
NRSE 5	.66	
NRSE 4	.63	.49

Extraction Method: Principal Component Analysis.

a 2 components extracted.

Appendix H(5)(ii)

(5) (ii) Non-Religious Self-Esteem (NRSE)

Correlation Matrix

Correlation	NRSE 2	NRSE 3	NRSE 4	NRSE 5	NRSE 6	NRSE 7	NRSE 8
NRSE 2	1.00	.31	.29	.47	.66	.41	.58
NRSE 3	.31	1.00	.57	.32	.30	.60	.32
NRSE 4	.29	.57	1.00	.34	.33	.55	.29
NRSE 5	.47	.32	.34	1.00	.53	.37	.43
NRSE 6	.66	.30	.33	.53	1.00	.36	.54
NRSE 7	.41	.60	.55	.37	.36	1.00	.36
NRSE 8	.58	.32	.29	.43	.54	.36	1.00

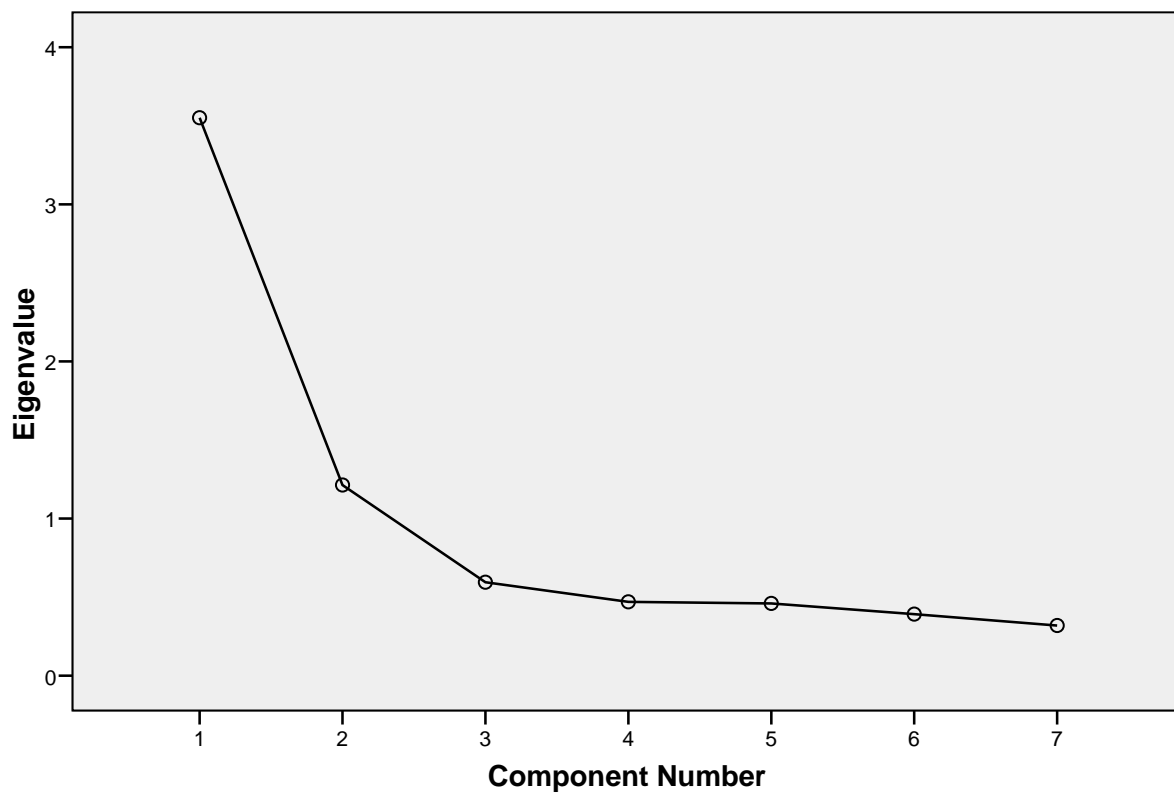
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.84
Bartlett's Test of Sphericity	Approx. Chi-Square df Sig.	3166.30 21 .000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.55	50.73	50.73	3.55	50.73	50.73
2	1.21	17.34	68.07	1.21	17.34	68.07
3	.60	8.50	76.56			
4	.47	6.71	83.28			
5	.46	6.57	89.84			
6	.39	5.60	95.44			
7	.32	4.56	100.00			

Extraction Method: Principal Component Analysis.

Scree Plot**Component Matrix(a)**

	Component	
	1	2
NRSE 6	.76	-.40
NRSE 2	.76	-.40
NRSE 7	.73	.41
NRSE 8	.71	-.35
NRSE 5	.69	
NRSE 3	.68	.54
NRSE 4	.66	.51

Extraction Method: Principal Component Analysis.

a 2 components extracted.

Appendix H(6)

(6) Religious Self-Esteem (RSE)

Correlation Matrix

Correlation	RSE 1	RSE 2	RSE 3	RSE 4	RSE 5	RSE 6	RSE 7	RSE 8	RSE 9	RSE 10
RSE 1	1.00	.28	.66	.69	.29	.28	.64	.26	.22	.72
RSE 2	.28	1.00	.41	.39	.71	.75	.40	.68	.71	.37
RSE 3	.66	.41	1.00	.79	.42	.43	.74	.41	.37	.74
RSE 4	.69	.39	.79	1.00	.39	.38	.75	.35	.33	.72
RSE 5	.29	.71	.42	.39	1.00	.81	.42	.71	.75	.39
RSE 6	.28	.75	.43	.38	.81	1.00	.43	.77	.79	.41
RSE 7	.64	.40	.74	.75	.42	.43	1.00	.42	.41	.77
RSE 8	.26	.68	.41	.35	.71	.77	.42	1.00	.80	.40
RSE 9	.22	.71	.37	.33	.75	.79	.41	.80	1.00	.40
RSE 10	.72	.37	.74	.72	.39	.41	.77	.40	.40	1.00

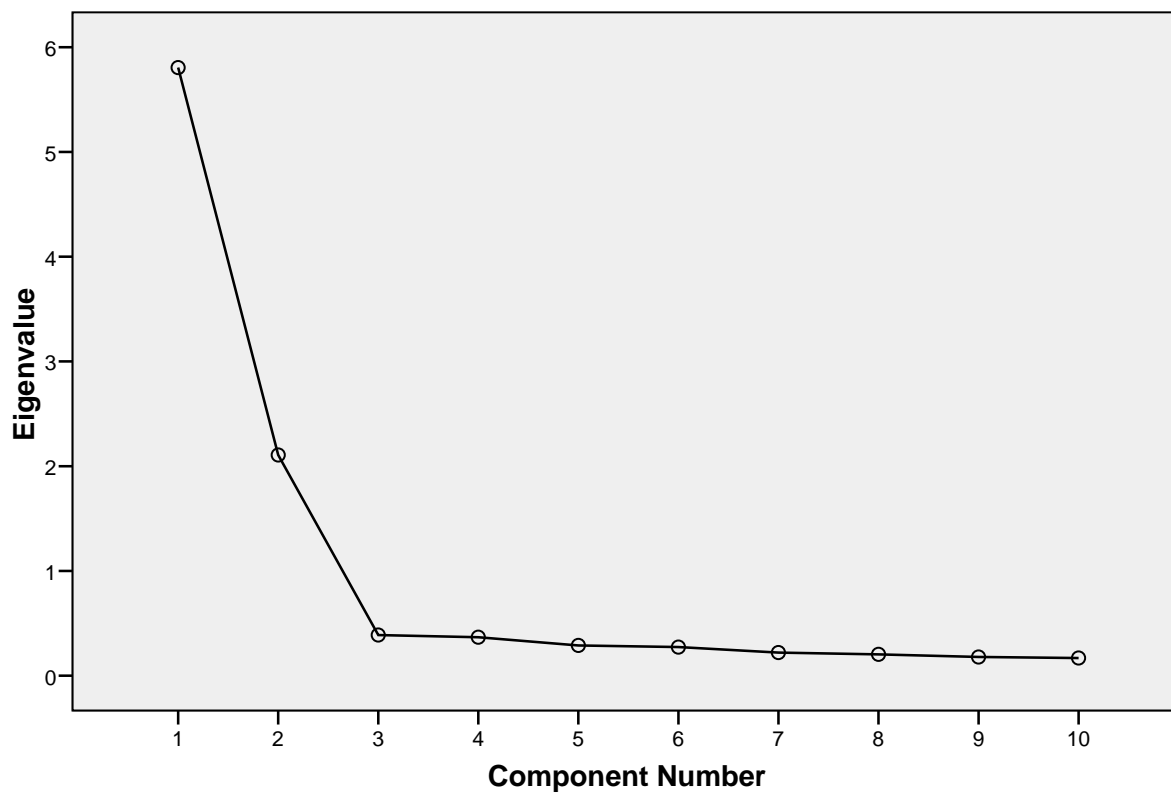
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.92
Bartlett's Test of Sphericity	Approx. Chi-Square df Sig.	6943.57 45 .000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.806	58.06	58.06	5.81	58.06	58.06
2	2.107	21.07	79.13	2.11	21.07	79.13
3	.388	3.88	83.01			
4	.367	3.67	86.68			
5	.289	2.89	89.57			
6	.273	2.73	92.29			
7	.220	2.20	94.50			
8	.203	2.03	96.53			
9	.178	1.78	98.31			
10	.169	1.69	100.00			

Extraction Method: Principal Component Analysis.

Scree Plot**Component Matrix(a)**

	Component	
	1	2
RSE 6	.80	-.46
RSE 7	.79	.41
RSE 3	.78	.43
RSE 5	.78	-.43
RSE 10	.77	.45
RSE 8	.77	-.45
RSE 9	.77	-.49
RSE 4	.76	.48
RSE 2	.75	-.41
RSE 1	.65	.56

Extraction Method: Principal Component Analysis.

a 2 components extracted.

Appendix H(7)

(7) Secondary Control for Christians

Correlation Matrix

Correlation	Vicarious Control 1	Vicarious Control 2	Vicarious Control 3	Interpretive Control 4	Interpretive Control 5	Interpretive Control 6
Vicarious Control 1	1.00	.92	.85	.80	.80	.81
Vicarious Control 2	.92	1.00	.84	.79	.79	.80
Vicarious Control 3	.85	.84	1.00	.90	.83	.83
Interpretive Control 4	.80	.79	.90	1.00	.87	.83
Interpretive Control 5	.80	.79	.83	.87	1.00	.87
Interpretive Control 6	.81	.80	.83	.83	.87	1.00

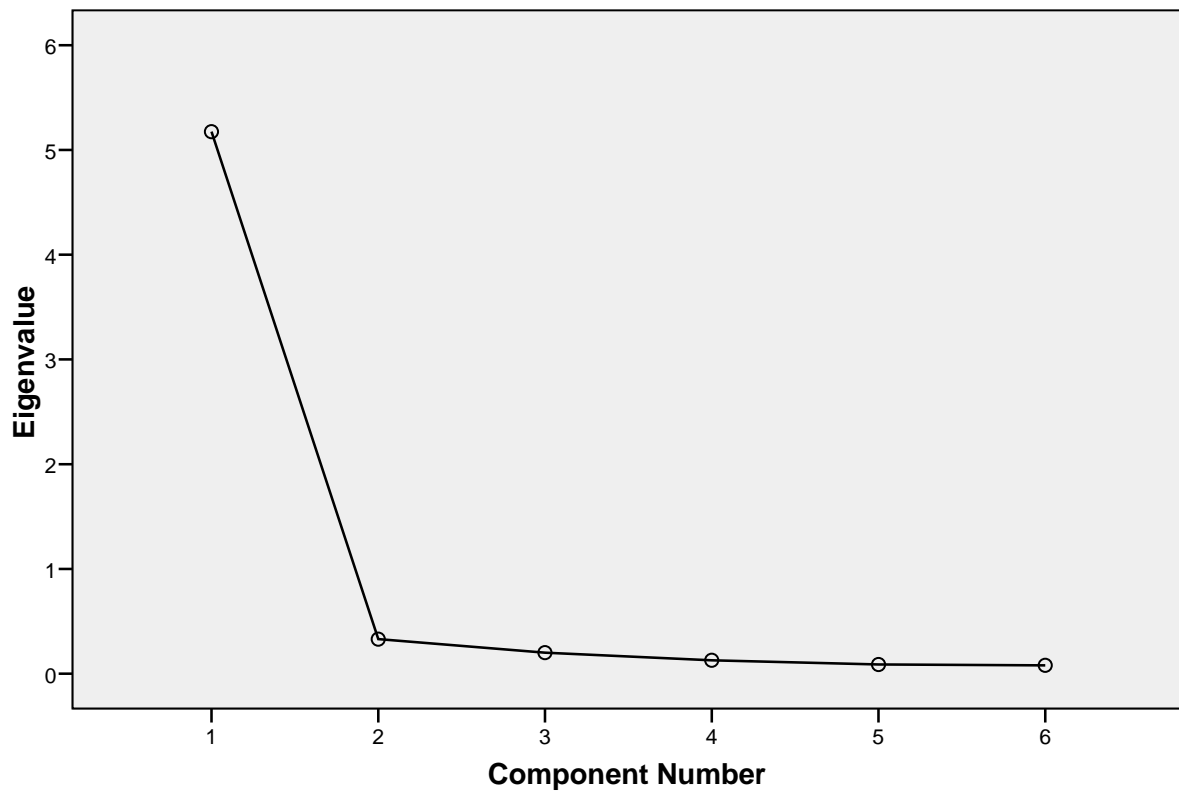
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.90
Bartlett's Test of Sphericity	Approx. Chi-Square df Sig.	5482.14 15 .000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.18	86.25	86.25	5.18	86.25	86.25
2	.33	5.49	91.74			
3	.20	3.34	95.08			
4	.13	2.13	97.21			
5	.09	1.46	98.67			
6	.08	1.33	100.00			

Extraction Method: Principal Component Analysis.

Scree Plot**Component Matrix(a)**

	Component
	1
Vicarious Control 3	.94
Interpretive Control 4	.93
Vicarious Control 1	.93
Interpretive Control 5	.93
Interpretive Control 6	.92
Vicarious Control 2	.92

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

(1) MANOVA Analyses on the 9 Affect Items for the Low Religiosity Christians and Non-Religious Group

Affect Items	Content			Excited			Happy			Alert			At Ease			Relaxed			Serene			Calm			Peaceful		
Groups	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Low Religiosity Christians	323	71.70	18.65	323	55.82	19.36	323	72.79	18.13	323	74.03	16.19	323	67.21	18.03	323	67.03	18.70	323	61.49	20.86	323	65.08	19.10	323	64.71	19.72
Non-Religious	209	74.40	18.57	209	55.89	19.28	209	74.69	18.00	209	76.32	16.06	209	70.81	16.72	209	69.19	18.60	209	64.26	21.07	209	66.84	20.18	209	66.70	20.10
MANOVA	Multivariate Test: F(9,522)=1.17, P=.310 Content: F(1,530)= 2.67, P=.103 Excited: F(1,530)= 0.001, P=.970 Happy: F(1,530)= 1.41, P=.236									Alert: F(1,530)= 2.56, P=.110 At Ease: F(1,530)= 5.35, P=.021 Relaxed: F(1,530)= 1.70, P=.193									Serene: F(1,530)= 2.22, P=.136 Calm: F(1,530)= 1.04, P=.309 Peaceful: F(1,530)= 1.28, P=.259								

(2) MANOVA Analyses on the 9 Affect Items for the Mixed Religious and Non-Religious Group

Affect Items	Content			Excited			Happy			Alert			At Ease			Relaxed			Serene			Calm			Peaceful		
Groups	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Mixed Religious	164	72.13	20.02	164	56.28	19.88	164	74.15	17.93	164	76.10	16.82	164	71.04	18.79	164	68.42	18.93	164	64.09	21.42	164	68.23	19.06	164	68.11	20.08
Non-Religious	209	74.40	18.57	209	55.89	19.28	209	74.69	18.00	209	76.32	16.06	209	70.81	16.72	209	69.19	18.60	209	64.26	21.07	209	66.84	20.18	209	66.70	20.10
MANOVA	Multivariate Test: F(9,363)=1.14, P=.336 Content: F(1,371)=1.28, P=.259 Excited: F(1,371)=0.04, P=.846 Happy: F(1,371)=0.08, P=.772									Alert: F(1,371)=0.02, P=.899 At Ease: F(1,371)=0.02, P=.904 Relaxed: F(1,371)=.16, P=.693									Serene: F(1,371)=0.01, P=.938 Calm: F(1,371)=0.46, P=.499 Peaceful: F(1,371)=0.45, P=.501								

Affect Items	Content			Excited			Happy			Alert			At Ease			Relaxed			Serene			Calm			Peaceful		
Groups	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
High Religiosity of Mixed Religious Group	56	70.36	22.32	56	58.57	19.20	56	73.75	19.60	56	75.54	17.05	56	71.25	20.01	56	68.39	20.16	56	67.50	20.11	56	69.64	19.26	56	71.61	18.07
Non-Religious	209	74.40	18.57	209	55.89	19.28	209	74.69	18.00	209	76.32	16.06	209	70.81	16.72	209	69.19	18.60	209	64.26	21.07	209	66.84	20.18	209	66.70	20.10
MANOVA	Multivariate Test: F(9,255)=2.29, P=.017 Content: F(1,263)= 1.92, P=.167 Excited: F(1,263)= 0.86, P=.355 Happy: F(1,263)= 0.12, P=.734									Alert: F(1,263)= 0.10, P=.750 At Ease: F(1,263)= 0.03, P=.868 Relaxed: F(1,263)= 0.08, P=.781									Serene: F(1,263)= 1.07, P=.303 Calm: F(1,263)= 0.87, P=.353 Peaceful: F(1,263)= 2.74, P=.099								

Appendix I(4)

(4) MANOVA Analyses on the 9 Affect Items for the Low Religiosity Individuals of the Mixed Religious Group and Non-Religious Group

Affect Items	Content			Excited			Happy			Alert			At Ease			Relaxed			Serene			Calm			Peaceful		
Groups	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Low Religiosity of Mixed Religious Group	101	73.07	19.12	101	54.55	20.57	101	74.26	17.46	101	76.44	17.12	101	70.59	18.32	101	67.82	18.36	101	62.28	21.02	101	66.93	18.75	101	65.64	20.66
Non-Religious	209	74.40	18.57	209	55.89	19.28	209	74.69	18.00	209	76.32	16.06	209	70.81	16.72	209	69.19	18.60	209	64.26	21.07	209	66.84	20.18	209	66.70	20.10
MANOVA	Multivariate Test: $F(9,300)=0.47$, $P=.895$ Content: $F(1,308)=0.34$, $P=.558$ Excited: $F(1,308)=0.31$, $P=.578$ Happy: $F(1,308)=0.04$, $P=.842$									Alert: $F(1,308)=0.004$, $P=.952$ At Ease: $F(1,308)=0.01$, $P=.917$ Relaxed: $F(1,308)=0.37$, $P=.544$									Serene: $F(1,308)=0.60$, $P=.438$ Calm: $F(1,308)=0.001$, $P=.970$ Peaceful: $F(1,308)=0.18$, $P=.668$								

Appendix I(5)

(5) MANOVA Analyses on the 9 Affect Items for the High/Low Religiosity Individuals of the Mixed Religious Group

Affect Items	Content			Excited			Happy			Alert			At Ease			Relaxed			Serene			Calm			Peaceful		
Groups	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
High Religiosity	56	70.36	22.32	56	58.57	19.20	56	73.75	19.60	56	75.54	17.05	56	71.25	20.01	56	68.39	20.16	56	67.50	20.11	56	69.64	19.26	56	71.61	18.07
Low Religiosity	101	73.07	19.12	101	54.55	20.57	101	74.26	17.46	101	76.44	17.12	101	70.59	18.32	101	67.82	18.36	101	62.28	21.02	101	66.93	18.75	101	65.64	20.66
MANOVA	Multivariate Test: F(9,147)=1.98, P=.046 Content: F(1,155)=0.64, P=.424 Excited: F(1,155)=1.44, P=.232 Happy: F(1,155)=0.03, P=.868									Alert: F(1,155)=0.10, P=.752 At Ease: F(1,155)=0.04, P=.836 Relaxed: F(1,155)=0.03, P=.857									Serene: F(1,155)=2.29, P=.132 Calm: F(1,155)=0.74, P=.391 Peaceful: F(1,155)=3.28, P=.072								

Appendix I(6)

(6) Regression Analyses for 9 Affective Predictors on SWB for Non-Religious Group

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²
Content	74.40	18.57	209	0.69***	0.16		0.60***
Excited	55.89	19.27	209	0.39***	0.08		
Happy	74.69	18.00	209	0.69***	0.23		
Alert	76.32	16.06	209	0.60***	0.21***	0.02	
At Ease	70.81	16.72	209	0.61***	0.18*	0.01	
Relaxed	69.19	18.60	209	0.55***	-0.27*	0.01	
Serene	64.26	21.07	209	0.54***	0.13		
Calm	66.84	20.18	209	0.60***	0.41**	0.02	
Peaceful	66.70	20.10	209	0.54***	-0.19		
(SWB: DV)	75.24	13.61	201				

Model: Unique variability = 0.06; shared variability = 0.54; *** $p < .001$. ** $p < .01$. * $p < .05$

Appendix I(7)

(7) Regression Analyses for 9 Affective Predictors on SWB for Christianity Group as A Whole

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²
Content	74.78	18.27	717	0.76***	0.25***	0.01	0.67***
Excited	57.80	19.02	713	0.49***	0.11***	0.01	
Happy	75.59	17.68	717	0.78***	0.35***	0.02	
Alert	76.56	15.35	717	0.61***	0.15***	0.01	
At Ease	70.29	17.48	716	0.63***	0.13**	0.004	
Relaxed	69.54	18.00	714	0.60***	-0.14**	0.004	
Serene	65.77	19.62	711	0.57***	0.004		
Calm	68.31	18.31	714	0.60***	0.12*	0.002	
Peaceful	69.20	19.35	715	0.59***	-0.01		
(SWB: DV)	74.88	14.30	631				

Model: Unique variability = 0.06; shared variability = 0.61; *** $p < .001$. ** $p < .01$. * $p < .05$

Appendix I(8)

(8) Regression Analyses for 9 Affective Predictors on SWB for High Religiosity Christians

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²
Content	77.14	17.72	378	0.74***	0.26**	0.01	0.61***
Excited	59.63	18.61	375	0.45***	0.12**	0.01	
Happy	77.67	17.19	378	0.75***	0.36***	0.02	
Alert	78.68	14.06	378	0.52***	0.08		
At Ease	72.75	16.51	378	0.58***	0.06		
Relaxed	71.65	16.93	377	0.57***	-0.03		
Serene	69.57	17.65	375	0.56***	-0.02		
Calm	71.09	17.13	376	0.55***	0.05		
Peaceful	72.94	18.10	378	0.57***	0.02		
(SWB: DV)	77.47	12.87	356				

Model: Unique variability = 0.04; shared variability = 0.57; *** $p < .001$. ** $p < .01$. * $p < .05$

Appendix I(9)

(9) Regression Analyses for 9 Affective Predictors on SWB for Low Religiosity Christians

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²
Content	71.84	18.59	327	0.79***	0.21**	0.01	0.74***
Excited	55.71	19.37	326	0.51***	0.08*	0.005	
Happy	72.91	18.08	327	0.82***	0.43***	0.03	
Alert	74.13	16.14	327	0.65***	0.18***	0.02	
At Ease	67.39	18.07	326	0.68***	0.22***	0.01	
Relaxed	67.20	18.77	325	0.62***	-0.23**	0.01	
Serene	61.57	20.89	324	0.55***	-0.02		
Calm	65.15	19.10	326	0.63***	0.23**	0.01	
Peaceful	64.94	19.80	326	0.57***	-0.13		
(SWB: DV)	70.98	14.76	258				

Model: Unique variability = 0.10; shared variability = 0.64; *** $p < .001$. ** $p < .01$. * $p < .05$

Appendix I(10)

(10) Regression Analyses for 9 Affective Predictors on SWB for Mixed Religious Group

Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>r</i>	β	<i>sr</i> ²	<i>R</i> ²
Content	77.53	19.85	170	0.84***	0.24*	0.01	0.82***
Excited	55.93	20.04	167	0.63***	0.18**	0.02	
Happy	74.41	17.77	170	0.86***	0.28*	0.01	
Alert	76.33	16.71	169	0.65***	0.08		
At Ease	71.36	18.71	169	0.77***	0.06		
Relaxed	68.75	18.90	168	0.75***	0.09		
Serene	64.29	21.38	168	0.61***	-0.07		
Calm	68.58	18.97	169	0.69***	0.02		
Peaceful	68.58	20.04	169	0.75***	0.16		
(SWB: DV)	73.71	15.46	91				

Model: Unique variability = 0.04; shared variability = 0.78; *** $p < .001$. ** $p < .01$. * $p < .05$