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# Cross Generational Personality Variables and Stress Coping Resources among Mainland Chinese

Yuehong Chen Foley

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## ACCEPTANCE

This dissertation, CROSS GENERATIONAL INVESTIGATION OF PERSONALITY VARIABLES AND STRESS COPING RESOURCES AMONG MAINLAND CHINESE, by YUEHONG CHEN FOLEY, was prepared under the direction of the candidate's Dissertation Advisory Committee. It is accepted by the committee members in partial fulfillment of the requirements for the degree Doctor of Philosophy in the College of Education, Georgia State University.

The Dissertation Advisory Committee and the student's Department Chair, as representatives of the faculty, certify that this dissertation has met all standards of excellence and scholarship as determined by the faculty. The Dean of the College of Education concurs.

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## ABSTRACT

### CROSS GENERATIONAL INVESTIGATION OF PERSONALITY VARIABLES AND STRESS COPING RESOURCES AMONG MAINLAND CHINESE

by  
Yuehong Chen Foley

Mainland China has undergone drastic social and economic changes in the last century. Rapid social changes often transform individual values and family structures, which directly affect the personality development process and life quality of human beings. The review of English and Chinese-language publications will enhance the readers' understanding of the Mainland Chinese personality features, coping resources and social changes. The research assessed the impact of social changes on the patterns of personality traits, stress coping resources, and life satisfaction of 2359 people in Mainland China. Participants completed three surveys: 1) the Coping Resources Inventory for Stress (CRIS) (Matheny, Curlette, Aycock, Pugh, & Taylor, 1987), 2) Satisfaction with Life Scale (Diener, Emmons, Larson, & Griffin, 1985), and 3) Basic Adlerian Scales of Interpersonal Success-Adult Inventory (Wheeler, Kern, & Curlette, 1995). Pearson Correlations, Univariate analysis of variance, Multivariate analysis of variance, and Multiple regression analyses were used to examine the relationship between personality types, stress coping resources, and life satisfaction for three generations. Income and gender factors were considered in analysis.

The three generations do not have significant difference in personality as measured by BASIS-A. Females scored higher than males on Entitlement, Financial

Freedom, and Satisfaction with Life. High income group scored significantly higher than middle and low income groups on Belonging-Social Interest, Softness, Taking Charge, and Wanting Recognition, Self Disclosure, Social Support, Financial Freedom, Physical Health, and Physical Fitness. Old generation scored significantly higher than the middle and young generations on Structuring and Satisfaction with Life. Old generation with low income scored significantly higher on Satisfaction with Life than young generation with high income. Within the young generation, middle income group perceived more Financial Freedom and Satisfaction with Life than the high and low income groups. Females with high income perceived less Physical Fitness than females with low and medium income. Entitlement, Financial Freedom, Coping Resource Effectiveness, age, and Belonging-Social Interest are found to be predictors of Satisfaction with Life among Chinese people. Findings of this study have important implications for the design of training programs aimed at assisting Chinese individuals and families to cope more healthfully with distressing circumstances and events. The results should also be useful in developing cross-cultural mental health tests.

CROSS GENERATIONAL INVESTIGATION OF PERSONALITY VARIABLES  
AND STRESS COPING RESOURCES AMONG MAINLAND CHINESE

by  
Yuehong Chen Foley

A Dissertation

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Doctor of Philosophy  
in  
Counselor Education and Practice  
in  
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in  
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## ABBREVIATIONS

BASIS-A	Basic Adlerian Skills of Interpersonal Success-Adult Form
CRIS	Coping Resources Inventory of Stress
SWLS	Satisfaction with Life Scale

## CHAPTER 1

### PERSONALITY, STRESS, AND COPING RESOURCES IN MAINLAND CHINA

#### Introduction

Personality and subjective well-being are the two of the most frequently studied topics in social psychology (Bond, 1996), and researchers have been studying the relationship between them. However, most studies are done within Western cultures. Studies of Eastern cultures, such as China's, would add to understanding between Western and Eastern cultures. This understanding is important because China is rapidly becoming a major partner with other countries economically, socially, and politically. According to a special report in *Newsweek* (Zakaria, 2005), in the last 25 years, China has peacefully gone through drastic societal transformations that moved 300 million citizens out of poverty while consistently building friendships around the world. Mainland China is now the world's fastest growing economy, the second largest foreign currency holder, and the most populated country with 1.3 billion people. This historic achievement is a result of the Chinese government's policies and Chinese people's consistent efforts to plan and manage the transformation process.

How the Chinese people manage their stress in the internal transformations may portray how they would manage future challenges from the world. Consequently, it is in the best interests of Chinese government and corporate leaders to understand the Chinese people's personality and coping resources as to best utilize and manage human resources in the country. It is also beneficial for the U.S. government and corporate leaders around

the world to understand better the Chinese character and the manner in which Chinese individuals typically cope with challenging events. This review of the literature, making use of English and Chinese-language publications, will contribute to a better understanding of personality features and coping resources of Chinese people within Mainland China. The review should be useful in guiding future social science research in China and in supporting communication between the Chinese and the world. The review would guide the readers to an understanding of personality development, what personality variables were found to be stressors or stress coping resources, how personality and coping resources are related to subjective well-being, why is it important to conduct research of personality and stress coping in Mainland China, and a brief introduction of the Chinese culture, societal events, and mental health issues.

## Review

### *Personality Development*

Personality is a cluster of consistent traits that account for the individual's unique and consistent ways of thinking, feeling, and behaving (Adler, 1927/1954; Ansbacher & Ansbacher, 1967; Erikson, 1959). Personality traits are found to be long-lasting throughout the human life period although individuals may alter behavioral responses to accommodate the changing demands of work, friendship, and love (Adler; Sweeney, 1998). Unless he or she experiences psychotherapy, powerful life experiences, or the impact of brain injury or drugs, the individual's personality will not change (Adler).

An individual's search for self-identity, meaning of life, empowerment, and sense of belonging in the community and in intimate relationships starts from the connection to the living systems within the family environment (Bitter & Corey, 1996). Children



initially acquire traits and values from their parents and then adopt traits from teachers and other adults. Among these experiences with prior generations, children learn the behavioral traits that are closely associated with rewards and punishments and develop prosocial traits that reproduce the reward structure of the society (Bowles & Gintis, 1986a/1986b). An individual's consistent traits in responding to life demands reflect the values held by the social system within the family, which inevitably maintains and transmits the values and behaviors of the accepted culture (Rudowicz & Yue, 2002; Yang & Bond, 1990). It is in this sense that an individual's personality development is culture-bound and is inseparable from the social, historical, and cultural environments experienced during his or her childhood years. The intergenerational family systems theorists, Boszormenyi-Nagy (Boszormenyi-Nagy & Krasner, 1986; Boszormenyi-Nagy & Spark, 1984; Boszormenyi-Nagy & Ulrich, 1981) and Stierlin (1974) claim that the psychological dynamic of the current nuclear family (parents and children) is related to the characteristics of the families of origin where parents spent their childhood.

Personality appears to be affected not only by biological and psychological factors, but also by social and cultural factors (Tseng & Wu, 1985). The influential effect of personality is a function of its interaction with contextual factors (Barber, 1992), such as gender, socioeconomic status, age, and culture. Men and women are found to have differences in developmental and socialization patterns (Emery, 1982; Gilligan, 1982), and family economic status can shape the process of personality development (Bowles & Gintis, 1986a/1986b). Using five factors of conscientiousness, extroversion, neuroticism, openness to experience, and agreeableness, gerontologists found personality differences among different age groups but there is no evidence to distinguish whether they are

influenced by cultural demands, generational effects, or genetic factors (Costa & McCrae, 1990). Further research is needed to identify factors that influence personalities.

Life event stress, which is likely to intensify the family interaction, may reinforce the established interpersonal patterns of the family members across generations (Bowen, 1978; Constantine, 1987). Because families reflect the societal values and naturally develop resources to cope with stress resulting from social changes, research on interpersonal characteristics and stress coping resources across the generations may lead to an understanding of how a society progresses. However, life event stress remains under-researched in cross-generational studies (Constantine). Direct evidence is needed to study whether life events have a different impact on interpersonal characteristics of different generations.

#### *Personality Variables, Stress, and Stress Coping Resources*

Biofeedback research and its application in stress management has consistently indicated that mind and body are interrelated and interdependent: What one thinks can produce physiological symptoms, and what one's body is feeling can direct one's thinking (Witmer, 1985). The perception that one's resources for coping are inadequate for the demands triggers a cascading set of physiological changes that, if chronically experienced, may lead to appreciable mental, physical, and emotional pain. Stress coping refers to cognitive and behavioral efforts to eliminate stressors, reduce the intensity of stressors, or reduce the emotional costs of dealing with stressors (Folkman & Lazarus, 1980).

Although individuals are essentially self-determining, purposive, and creative in responding to stressful life events, researchers have found relatively stable individual

differences in stress coping. Personality traits constitute one category of such stable factors (Carver, Scheier, & Weintraub, 1989; Terry, 1994) that individuals draw upon in dealing with stressful situations (Parkes, 1986). People tend to select ways of coping that accord with their personality (Folkman & Lazarus, 1980), the specific problems with which they are dealing (Folkman & Lazarus, 1985), and the contexts within which the problems occur. Fleishman (1984), Costa and McCrae (1990), Houtman (1990) and Krohne (1990) reported that certain personality types directly affect one's coping resources. Heikkinen (1986) and Lazarus (1993) acknowledge that some personality traits might lead to dysfunctional stress coping. Matheny and McCarthy (2000) summarized a series of research studies that indicated that personality factors often mediate the relationship between stress and illness, and the duration of a stressor has a greater effect on one's health than the intensity of the stressor. It is, thus, not difficult to understand that due to the enduring nature of personality traits, they either may be the source of stress in a person's life or a buffer against stressful reactions.

Personality types are related to more or less stress. Research findings suggest that coronary-prone personalities leading to Type A behaviors, if accompanied by a cynical distrust of others and the tendency to inhibit one's hostility, may increase the tendency toward heart disease (Dembroski, MacDougall, Williams, Haney, & Blumenthal, 1985), and persons with an anxious-reactive personality are prone to the development of chronic psychosomatic disorders because of their tendency to process and reprocess threatening and potentially threatening events long after the event is gone (Girdano, Everly, & Dusek, 1997). Using a meta-analytic method, Friedman, Howard, and Booth-Kewley (1987) found certain emotions (anger/hostility, depression/ anxiety/ repression) to play a causal

role in the development of diseases (i.e., chronic heart disease, asthma, ulcers, arthritis, and headaches).

While some personality traits were found to be disease-prone, other traits were found to be coping resources that reduce stress. Witmer, Rich, Barcikowski, and Mague (1983) studied psychosocial characteristics and stress responses of 363 nonclinical adults aged 18 to 63 and found that optimism (the belief that good things are likely to happen and when bad things happen they are likely only to be temporary) was the common characteristic of healthy copers. Under the same stressors, healthy copers had less anxiety and fewer physiological symptoms than poor copers. Studying life events, health, and personality on 670 people, Kobasa (1979) found that people who were able to preserve good health amidst strong adversity and stress showed a stronger commitment to healthy life, a positive attitude toward the environment, a sense of meaningfulness, and a sense of internal control. She found the “three C’s” (challenge, commitment, and internal locus of control) accurately predicted well-being regardless of exercise and family medical history. Kobasa, Maddi, and Kahn (1982) studied the same population for over 5 years and found that psychological hardiness (perseverance and endurance) is related to the three Cs and decreased the likelihood of illness symptom onset.

The studies above indicate that positive personality features such as a firm sense of self, the belief that one’s life is meaningful, and a sense of internal control buffered the effects of stressful events and reinstated resilience. It is noteworthy that all these positive personality traits are to some extent connected to the Adlerian concept of social interest (Adler, 1927/1954), which refers to the feelings of belonging to the community, self-respect, and altruistic services to others. Using the BASIS-A and CRIS on 173 female

college students aged 17 to 55, Kern, Gfroerer, Summers, Curlette, and Matheny (1996) found that some personality variables, such as social interest and softness (positive view of life experiences), are positively related to most coping resources while other personality traits that are opposite of social interest, such as taking charge (being dominant and controlling in interpersonal relationships) and harshness are associated with inadequate coping resources.

Social interest has been identified as a moderator of life stress (Crandall, 1984), an indicator of one's mental health (Sweeney, 1998), and the key component of a healthy personality (Dreikurs & Soltz, 1964). Research in U.S. adult populations has found social interest to be positively correlated with self-efficacy (Dinter, 2000), coping resources (Kern et al., 1996), internal locus of control and perceiving good in others (Leak & Williams, 1991), life satisfaction and psychological well-being (Rodd, 1994), and high expectations for success and satisfaction with one's work and interpersonal relationships (Edwards & Kern, 1995). Low social interest is associated with depression and anxiety (Fish & Mozdierz, 1991), narcissism (Joubert, 1998), feelings of alienation and loneliness (Miller, Denton, & Tobacyk, 1986), external locus of control (Wheeler & White, 1991), and substance abuse (Keene & Wheeler, 1994).

Social interest as a personality variable, then, is associated with good mental health and superior coping resources. The tendency to dominate or control others, which is an indication of lack of social interest, however, is associated with illness and lack of coping resources. The results of subjective well-being research, discussed below, are in agreement with the empirical research regarding this Adlerian construct. Social interest, thus, would seem to be a significant attribute to subjective well-being.

*Personality, Coping Resources, and Subjective Well-being*

Diener (1984) suggested that the structure of subjective well-being is determined by two components: the affective/emotional component, which is related to personality and stress coping, and the life satisfaction component, which is a cognitive/judgmental component. Life satisfaction refers to the overall evaluation of life and to a global assessment of the quality of life according to the individual's chosen criteria (Shin & Johnson, 1978). The subjective appraisal of life quality is more accurate and more closely related to subjective well-being than an externally-imposed evaluation (Diener, Emmons, Larsen, & Griffin, 1985). Ryff and Keyes (1995) suggested that at a minimum, a comprehensive understanding of subjective well-being needs to consider purpose in life, the actualization of given potential, the quality of relationships to others, and a sense of control in one's life. These components are inseparable from personality and stress coping resources.

Summarizing longevity studies of European and U.S. populations over a 30-year period, Pelletier (1981) found that the most accurate predictors of longevity are life style features such as an enduring sense of the meaning and purpose in life, work satisfaction, happiness and overall life satisfaction, and productive involvement in family and community affairs. Comparing the subjective well-being of young (18-29), midlife (30-64), and old-aged (65 years old or older) participants in 1989 and 1991, Ryff (1991) found incremental age profiles for environmental mastery and autonomy, decremental age profiles for purpose in life and personal growth (particularly from midlife to old age), and no age differences for self-acceptance and positive relations with others. In both investigations, women scored significantly higher than men on positive relations with

others and personal growth with subsequent studies replicating these sex differences (Ryff, Lee, Essex, & Schmutte, 1994). Roberts (1990) found that parents with adult children show higher well-being than parents with children under 18 years of age, and adult children are likely to enjoy less closeness with a parent as they themselves age beyond young adulthood. He also found that intrapsychic processes and individual personality traits may have served as coping strategies to buffer the influence of social experiences on both self-evaluations and well-being. The empirical research above suggests that age and gender play a significant role in the differences of subjective well-being; thus, such factors cannot be overlooked in future well-being research.

Diener, Oishi, and Lucas (2003) found that personality and cultural factors can explain a significant amount of the variability in subjective well-being. Schimmack, Radhakrishnan, Oishi, Dzokoto, and Ahadi (2002) examined the effects of personality and cultural factors in the prediction of subjective well-being in the United States, Germany, Japan, Mexico, and Ghana. They found that hedonic balance, which refers to the balance between pleasurable and non-pleasurable emotions, is a major mediator between personality and life satisfaction. Extraversion and neuroticism influenced hedonic balance to the same degree in individualistic and collectivistic cultures, but the influence of extraversion and neuroticism on life satisfaction was largely mediated by hedonic balance. Their results suggest that the influence of personality on the emotional component of well-being is pancultural, and the influence of personality on the cognitive component of well-being is moderated by culture.

To improve subjective well-being, it is important to find out what personality traits serve as coping resources to buffer stress and which ones result in lower coping

resources that offer less protection against stress (Kern et al., 1996). Human beings are holistic social beings (Adler, 1927); therefore, in order to identify personality factors that make individuals more resourceful and resilient, or more vulnerable to stress symptoms and diseases, it is important to view them from a socially-embedded perspective, that is, to understand the individual personality in individual, familial, and cultural contexts.

*Cultural or Universal: A Call for Cross-Cultural Research*

A given culture may encourage and reward certain resources for its members to cope with the environmental demands, so it is theoretically possible to investigate the coping resources profile of people from a certain culture (Hwang, 1977). The measurement of personality and stress coping resources of individuals from a variety of social contexts would contribute to the validity and generalizability of research findings (Costa & McCrae, 1990). Psychology, as a major component of social science, has been largely based on data from the 6% of the world's population that lives in Europe and North America, yet more than 20% (1.3 billion out of the world population approximately 7 billion) of all humans are Chinese. If the Western research findings about human body and mind are universal, such results should be found in cultures that significantly differ from that of the West. Because Chinese culture has a long enough history and a significant difference from the West, it has the foundation to test the validity of any Western presumptions and findings that contain universality (Bond, 1996).

A new era urges the researchers from Mainland China and the world to explore the components of subjective well-being and test the generalizability of these findings in Chinese culture.

Chinese culture has the necessary age, coherence, and difference from Western traditions to provide a litmus test to the presumptions of



universality that tend to characterize psychology done in the mainstream. If a construct or process is universal, then Chinese human beings should give evidence of its validity. Such generalizing research must be done to ground our discipline on firmer bedrock. (Bond, 1996, p. xix)

An understanding of the basics of the Chinese culture and personality would be helpful for future cross-cultural research. The following section gives a general description of the traditional culture and personality in Mainland China.

#### *Traditional Chinese Culture, Personality Traits, and Stress Coping*

Numerous scholars of various backgrounds have studied the nature of Chinese culture and found that it is largely influenced by Taoism, which emphasizes pervasive harmony and consciousness, Confucianism, which emphasizes social order and education, and Buddhism, which emphasizes morality and tolerance (Hsu, 1953; Wilson, 1974; Yang, 1981, 1986). Confucianism was probably the most influential philosophy in China (Moore, 1974). A society's values are transmitted to the young generations through parenting, schooling, and community interactions (Bowles & Gintis, 2003; Yang, 1986). It is possible that Confucian values have been transmitted during the socialization process from generation to generation. Based on Confucian values, the Chinese child-rearing practice emphasizes diligence and achievement, moderation and self-control, interdependence and harmony in social and physical environments, respect for authority and the elderly, and obedience and conformation to one's prescribed relational role (Li & Yang, 1974; Tseng & Wu, 1985). Confucianism made it honorable for families to have many children: more children, more man power, and more fortune. On the other hand, it is a shame for a couple or family to be childless because that is linked to predetermined sin and punishment.

Mok (1984) found several Confucian guidelines that directly address mental health: self-monitoring your own motive, attaining equilibrium and harmony, behaving within your role, bearing loyalty and forgiveness, and achieving the three virtues of wisdom, benevolence, and courage. These guidelines foster self-reliance and self-control while other doctrines, such as *li* (politeness), *lian* (efficient and saving), *ren* (benevolence), *yi* (faithfulness), *zhong* (loyalty), and *xiao* (filial piety), breed the altruistic characteristics. These guidelines underscore the importance of interpersonal relationships in Chinese social life.

Confucius seems to have associated desirable personality qualities with coping resources such as cognitive abilities, social ease, and self-confidence: The wise will not be confused, the benevolent will not be worried, and the courageous will not fear (Cheung, 1986). The importance of these qualities is supported by empirical evidence associating coping strategies with psychological well-being and functioning (Folkman & Lazarus, 1986; Lazarus & Folkman, 1984). The virtue of wisdom contributes to cognitive restructuring and problem solving, benevolence is strongly associated with self-efficacy and harmony in interpersonal relationships, and courage in practice is linked to self-control, emotional balance, and optimism. These virtues have been constantly cited as buffers and resistors to stress and mental illness (Cheung).

Tseng & Wu (1985) described the prototypes of Chinese people: emphasis on family and personal network, harmony in social and physical environments, value of education and achievement, respect of aging, and tolerance. This Chinese personality pattern has been further validated by Yang (1986) who reported that studies of Chinese psychological traits in different modalities all found the same patterns of national Chinese

characteristics such as social harmoniousness, group-mindedness, mutual dependency, interpersonal equilibrium, relationship-centeredness, authoritarian syndrome, external control belief, heterocentric orientation, self-suppression, social introversion, practical realism, and holistic eclecticism. These characteristics portray the Chinese as a highly social, practical, and eclectic people with a strong collectivistic orientation.

The Chinese personality pattern has been conceptualized by Hsu (1953, 1963) as situation-centered and by Yang (1981) as social oriented. Following the standards in Western psychology, Cheung and her associates (2003) developed the Chinese Personality Assessment Inventory (CPAI) based on research results from Western instruments and standardized the items and scales based on a preliminary study with 1800 adults in China and Hong Kong. This CPAI derived four normal personality scales: Dependability, Interpersonal Relatedness, Social Potency, and Accommodation. The Interpersonal Relatedness factor is highly visible to Chinese culture because it is associated with harmony, concern for social reciprocity, and traditionalism in Chinese social relationships. The Interpersonal Relatedness factor predicts various aspects of social relationships in Chinese culture, including filial piety, general trust, assertiveness, and communication styles (Cheung, 2004). This indicates that interpersonal relationship is a significant and rather unique characteristic of the Chinese personality; consequently, it should not be overlooked in any future Chinese personality research.

However, this Interpersonal Relatedness factor is absent in all other western personality instruments, such as the Minnesota Multiple Personality Inventory (MMPI) and its revisions, the Eysenck Personality Questionnaire (EPQ), the State-Trait Anxiety Inventory (STAI), the revised NEO Personality Inventory (NEO-PI-R), and Multi-Trait

Personality Inventory. Numerous researchers using CPAI in Asian and Western countries found that Interpersonal Relatedness factor is missing in most of the Western personality models. This raises doubts about the completeness of the Five Factor Model (conscientiousness, extroversion, neuroticism, openness to experience, and agreeableness) as being a universal model (Cheung, 2004).

Human beings are holistic relational beings (Adler, 1927/1954; Sweeney, 1998), and Chinese society strongly emphasizes the importance of interpersonal relationships, of social obligations and social aims. Consequently, interrupted interpersonal relationships occasion a major stressor for the Chinese. Using the Chinese Life Event Scale nationwide, some researchers (Zhang, Fan, Cai, Chi, Wu, & Jin, 1987) found that the major stressors for Chinese respondents are family problems: arguments between parents and children, anxiety about children's academic achievement, and conflicts with in-laws—virtually all being interpersonal in nature. This finding is supported by another study done by Zheng and Young in 1990. Using a self-designed questionnaire for a 47-item stressful life events rating scale, Zheng and Young investigated 4,050 people aged 16 years or over in 6 areas of Mainland China who are not in need of medical treatment. They found the most stressful event is loss/death of spouse or major family member, and the least stressful events include arguments about trivial daily activities, fines due to violating rules, and reduction in bonus. The most frequently recurring stressors include being misunderstood or wronged, parenting difficulties, noises around living environment, family member's sickness or disease, family financial difficulties, and difficulties at work. In general, then, it seems that interpersonal conflicts and environmental problems are the major stressors for Chinese people.

A series of major political and social events, which have not been seen in other countries for centuries, occurred in China in the last century (Bond, 1996; Livingston & Lowinger, 1983; Yang, 1986). These societal changes may have influenced the personality and stress coping resources of Chinese people. Although Mainland China underwent catastrophic changes throughout the 20<sup>th</sup> century that are discussed in the next section, because of the suppression of psychology and social science, there was very limited empirical research regarding the effects of these societal changes on personality and stress coping (Cheung, 1986), or life satisfaction.

*Life Event Stress in Mainland China: Societal Changes*

According to the national Chinese history textbook for college students edited by Jiang Yihua and Jia Zongrong (1999), Mainland China was ruled by a succession of dynasties until 1911, when Dr Sun Yat-sen established the first republic of China. However, warlords continued to rule over various regions while foreign powers invaded China and expanded imperial subjugation. In 1919, the May Fourth Patriotic Movement organized by students, workers, and farmers nationwide protested against the warlords' decision to sign the subjugation contracts. Soon after that, proletariat Marxism was introduced to China by Communist Party members along with a series of Western concepts such as democracy and science, which strongly challenged the traditional feudalism and warlord governments. At Dr Sun Yat-sen's death in 1925, Jiang Kai-shek became China's ruler and started a series of massacres of the Communist Party members. Mao Zedong assumed leadership of Chinese Communist Party and fought Jiang Kai-shek until 1949. In addition, China was invaded by Japan in 1937, and the Chinese-Japanese war continued until 1945.

In 1949 the People's Republic of China was established. In order to establish social equality among the citizens, especially between the landlords and peasants, the Chinese Communist government launched the Agrarian Law and Land Reform in 1950 to redistribute land from landlords to the peasants and completed this task nationwide by 1953 (<http://www-chaos.umd.edu/history/toc.html>). At the same time the government carried out social reform through the new Marriage Law to reduce the distinctions within the family system. The Marriage Law gave women full equality with men in matters of marriage, divorce, and property ownership, and it gave children power to denounce parents who failed to support the Communist government. Believing that old ideas and customs could restrain people from fully developing equality in the family and society, the Chinese Communist government carried out a massive Thought Reform throughout the 1950s to change the national psychology. The Thought Reform aimed to eliminate corruption, waste, and bureaucracy in government administration, discourage investment in religions, and eradicate feudalistic ideas, habits, customs, and cultural aspects. In 1953, the government started to organize people, land, and farms into collective farms and cooperative teams and coordinated the production, price, and outcome distribution among team members. By 1956, almost all the land, peasants, and industries were under government management.

To accelerate the economic development, the Chinese leaders launched the Great Leap Forward in 1958. With a rationale that the use of spirit and manpower of people would increase productivity, the Chinese government organized all the citizens into 26,000 communes with each composed of about 5,000 households. Every citizen was required to work on the same project in a team and all teams followed the procedures

defined by the government. Group work was prioritized and domestic life complied to the group spirit. Equality in possessions among households was encouraged, and individuals with above average wealth were alienated as bureaucrats and criticized for lack of contribution to group welfare. All families were expected to share their wealth with the group and all the metal appliances were burned for steel production. By 1959 the declined productivity and devastated domestic life in homes indicated the failure of the Great Leap Forward movement. In 1960 the government stopped the Great Leap Forward; however, the natural disasters of flood and drought from 1959 to 1961 resulted in a severe food shortage and famine all over the country. In 1961, the government adjusted leadership to stabilize the economy and allowed the communes to decide their own economic planning and administrative matters. From 1961 to 1965, China was focused on economic development.

In 1966, Mao Zedong started the Great Proletarian Cultural Revolution, which encouraged the youth and the workers to break the rigidity of hierarchy in the country. It was intense for two years, lingered on until 1969, and was officially ended in 1977. Traditional philosophies like Confucianism and Taoism and leaders and professors at all levels were attacked. Group meetings were held by every commune for criticism and self-criticism over daily matters. Almost all schools and research institutes were closed, industries were slowed, and international relations were stopped. From 1971 to 1977, the Gang of Four ruled China, and periodically created more chaos in the country. Schools were gradually reopened in 1969 and the universities resumed in 1970.

In 1973, the Chinese government announced the leadership focus on economic development to achieve the Four Modernizations of agriculture, industry, national

defense, and science and technology by year 2000. The government envisioned that population expansion would hinder the realization of the Four Modernizations; therefore, resources for a nationwide birth control campaign were located and administered in all rural and urban areas, and China was in slow recovery from the Cultural Revolution. (retrieved on August 29, 2005 from [http://www.photius.com/countries/china/society/china\\_society\\_population.html](http://www.photius.com/countries/china/society/china_society_population.html)).

In 1977, Deng Xiaoping became the Chairman soon after three top leaders (Zhou Enlai, Zhu De, and Mao Zedong) passed away in 9 months. He placed great stress on the Four Modernizations with laws to loosen governmental control by allowing farm families to lease land and manage agricultural production at will, providing freedoms and incentives for business organizations to negotiate with their counterparts, and encouraging research to develop technology and economy. Foreign specialists and investors were invited to assist the economic development of China. Increasing numbers of Chinese scholars and students were sponsored by the government to pursue advanced studies in scientific and technical fields. A large portion of state budgets was directed to the application of modern technology and scientific research. In 1979, Deng Xiaoping carried out the One-Child-Per-Couple policy with a goal of keeping the total population within 1.2 billion through the year 2000. Committees, headquarters, and official networks were established in rural and urban areas to oversee birth control activities. Government officials, psychiatrists, and non-degreed community doctors (barefoot doctors) routinely provided birth-control education sessions and contraceptives to the communes and enterprises. Couples with only one child were given a “one-child certificate” and awarded with cash bonuses, longer maternity leave, better child care, and preferential housing



assignments. Couples with more than one child were urged to use contraception or undergo sterilization. Women with an unauthorized pregnancy were encouraged to go for abortion. Young people were encouraged to delay marriage and pregnancy (retrieved on August 29, 2005 from [http://www.photius.com/countries/china/society/china\\_society\\_population.html](http://www.photius.com/countries/china/society/china_society_population.html)).

Since 1978, the open-door policy to develop modernization, industrialization, decentralization and reliance on market forces resulted in the replacement of the traditional Chinese social organizations. The Chinese economy increased 9% annually in the last 25 years (Zakaria, 2005), which is the fastest growth rate for a major economy in history. As a result of impressive economic reforms, the massive expansion of employment opportunities in urban areas influenced young adults to leave rural homes and migrate to urban areas for better paid jobs. Migration led to urbanization and substantial increase in the urban population, which caused housing shortages in urban areas and high-density living in nuclear family households (Chen & Silverstein, 2000).

The rapid social changes alluded to above not only changed gender roles and transformed family structures, but also caused income disparity in the society. These changes may require the Mainland Chinese people to make substantial adjustments in cultural beliefs, social behaviors, and lifestyles. This adjustment process has inevitably created life demands and stress for Chinese families and affected their interactions across the generations (Chen & Silverstein, 2000; Ying & Zhang, 1992; Zheng & Young, 1990).

#### *Current Mental Health Issues in Mainland China*

The rapid migration increased the geographic separation of the middle generation and their elderly parents and children, and many grandparents now have to parent their

grandchildren, who are left behind by their job-seeking parents. This may increase contact between the grandparents and grandchildren. Because of child-care arrangements, this also increases contact between grandparents and their adult children. For most families, this increased generational contact constitutes a major resource for the family as a whole and for its individual members (Taylor, Chatters, & Jackson, 1993), but it is a major source of stress and conflict as well (Zheng & Young, 1990). Interpersonal stress between the grandparents and middle generation may increase due to their different parenting values, social roles, work demands, and lifestyles (Chen & Silverstein, 2000). The middle generation not only has to face the increasing challenges in their careers but also has to meet the needs of the elderly and the single child, which may cause stress in balancing their dual roles as a parent and adult child (Clarke, 1996). This may have reduced both the willingness and the capacity of the middle generation to care for their family members, heightened the emotional and financial stress of the older generation who retained traditional family values, and diminished the quality of care to young children who are unattended by their parents (Chen & Silverstein).

Modernization and urbanization usually result in more competition, more use of technology, and more social isolation (Matheny & McCarthy, 2000; Ying & Zhang, 1992). With the development of technology and adoption of the new economic policies, a large part of the labor force was laid off during the restructuring and breakdown of the State-owned enterprises, which immediately increased the financial pressure on the work force, especially those who have elder-care and child-care responsibilities. Out of traditional favor to boys, who are expected to be the main elder-care resource, the current male and female ratio is 1.19:1 in China, which is much higher than the normal rate of

1.06:1 based on world birth rate (online report in June 2004 <http://www.stats.gov.cn/english/>). This severe imbalance between male Chinese and female Chinese could make it more difficult for men to find life partners and jobs while empowering women to be more important and independent in the household, employment, and social world. Competition diminishes social interest and belonging, and increases antisocial characteristics and mental health problems in people (Zheng & Young, 1990). Zheng and Young investigated the stressful life events of 4,050 Chinese people over 16 years of age and found a spectrum of increased stress symptoms related to the economic changes: increased depression and suicides, alcohol and drug use, higher divorce and crime rates (Clay, 2002).

The fifth Chinese census in 2005 showed that 107 million people, or 8.5% of the national population, had reached age 65 or older (<http://www.stats.gov.cn/english/>). Apparently, this elderly population needs family support. However, the one-child-per-couple policy in place since 1978 resulted in a sharp decline in births and extended family units, which may have placed the family support system under additional stress because there are fewer family members and family units to share elderly support duties (Chen & Silverstein, 2000). This may have increased the pressure for those adults without social benefits or retirement pensions to establish bonding with the single child who would become the emotional and financial provider for their elderly years. As a result, the child may be pampered on one hand but pressured on the other hand for academic achievement because education is the most important method to get a satisfactory job to afford the family expenses (Chang, 1987; Yeh, 1985). The pressure for

academic excellence has become a major stressor for Chinese students, parents, and families (Law, 1978).

Because changes in family structure and values often lag behind rapid social changes, the personality and stress coping resources of the older generations and younger generations may differ with their different social experiences and cultural environments (Bengtson, 1975). Ying and Zhang (1992) examined the person orientation and value orientation of 595 old and young, rural and urban men and women in Mainland China. They found old and female respondents to be most traditional (most internal and norm-abiding) in personality structure, and the urban, young, and male respondents to be least traditional (most external and norm-questioning). Rudowicz and Yue (2002) investigated the compatibility between the traditional Chinese personality and creative personality on 451 undergraduate students. They found that the traditional Chinese traits such as self-discipline and dutifulness are of prime importance to the respondents, while other traditional traits such as obedience and social acceptance lost significance for the young generation.

Analyzing data from a multi-center, cross-sectional study ( $n = 299$ ) and two longitudinal studies ( $n = 129$ ), Phillips (1993) assessed coping in families of patients with schizophrenia and found family members play the major roles in the assessment, management, and treatment of the illness-related problems. Confucian emphasis on familial obligations made family members feel obliged to use all available resources for the welfare of the ill member but the new societal emphasis on productivity increased the difficulty for family members to balance family and employment demands. Thus, the

Chinese family's coping strategies are strongly influenced by cultural and socio-economic factors (Bond, 1996).

*A Call for Mental Health Research in Mainland China*

How the enormous political, economic, and social changes to which the Chinese people were exposed throughout the 20<sup>th</sup> Century affected the mental health of the Chinese people has been an interesting topic for many clinicians and scholars (Cheng, 1989; Yeh, 1985). According to stress theory, these societal changes would not have been appraised as stressors unless they had been perceived as exceeding one's personal coping resources. The strong family ties, so typical of Chinese culture, may have tempered the negative impact of these changes. Cross-generational families may be resilient in dealing with societal stress: They not only produce conflict, competition and disagreement but also generate order, cooperation and stability (Clarke, 1996). Because they promote resilience, measures of coping resources are better predictors of stress symptoms than measures of environmental demands (Hobfoll, 1988; Kern et al., 1996). Early stress theorists often measured the stress created by life events but ignored the respondents' appraisal of demands and resources for coping (Matheny, Aycock, Curlette, & Junker, 1996). Unfortunately, the focus of the available research in Mainland China has been on the mere measurement of the frequency of life demands, psychiatric and psychosomatic illness (Bond, 1996; Yang, 1991; Zhang, Song, Yao, & Xia, 1992) without considering the respondent's subjective appraisal of them. It is important to find out what is working right in the Chinese families, instead of focusing solely on the problems. Therefore, future research needs to focus on the coping resources of Chinese people rather than stressors.

Age, gender, and income factors influence personality, stress coping resources, and satisfaction with life and allow for individual differences within the same culture. Interpersonal relatedness is highly valued in Chinese culture, and consequently failed interpersonal relationships constitute major stressors. Interpersonal skills and social support from families and friends serve as significant stress coping resources. Future research of subjective well-being needs to take these factors into consideration.

Stress is common in human life in both Eastern and Western cultures, and it is moderated by coping resources in any cultural contexts. It is in this sense that Eastern and Western cultures have similarity in generating stress and providing stress-coping resources. However, because of the Eastern and Western cultural difference in interpersonal relationships and different emphasis on interpersonal skills, there may be unique stress and stress coping resources that exist in certain cultures which affect life satisfaction and subjective well-being. Future research needs to explore the culture-bound stress, stress coping resources, and life satisfaction.

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## CHAPTER 2

### CROSS GENERATIONAL INVESTIGATION OF PERSONALITY VARIABLES AND STRESS COPING RESOURCES AMONG MAINLAND CHINESE

#### Introduction

An individual's life is the result of a process in which one defines oneself while responding to demands from the social and physical environments (Adler, 1927/1954; Bowles & Gintis, 1986b/2003). The ability to cope effectively with stress is a major determinant of one's physical and mental well-being, and the personality variables are said by some to be the most important influences in appraising stress and coping methods (Diener, Oishi, & Lucas, 2003; Kobasa, 1979; Matheny & McCarthy, 2000). Susan Folkman and Richard Lazarus (1980), however, found that the influence of stressful situations overpowers the influence of personality traits in processing life demands.

Each culture tends to emphasize certain coping strategies over others, and individuals commonly adopt some institutionally endorsed coping strategies through vertical learning from their prior generations and oblique experience with people in the socio-cultural environment (Bowles & Gintis, 2003). This provides a theoretical base for social research (Hwang, 1977). Because social science is reflective of individual and group subjective appraisals, the use of self-report measures is usually considered to be a valid means of investigation (Bond, 1996; Diener, Emmons, Larsen, & Griffin, 1985; Hwang). Culture has a significant influence on the individual's development of personality, stress coping resources, and life satisfaction; therefore, it is critical to take

culture into consideration when conducting social research. Currently, the basic structure and dimensions of well-being are still being explored and cross-cultural evidence is needed for the understanding of the multidimensionality of the wellness domain (Ryff & Keyes, 1995).

In the last 20 years, psychological research results in Western countries consistently indicated that certain personality traits were strongly associated with the strength of one's stress coping resources (Costa & McCrae, 1990; Fleishman, 1984; Hwang, 1977; Kern, Gfroerer, Summers, Curlette, & Matheny, 1996; Matheny & McCarthy, 2000) and life satisfaction (Diener, 1984; Diener et al., 1985; George, 1978; Kobasa, 1979). People with high social interest and a positive attitude towards life are found to have greater coping resources (Kern et al., 1996) and higher level of life satisfaction even in stressful working environments (Kobasa, 1979). People with low social interest and a negative attitude toward life are found to be lacking in coping resources and are more prone to diseases (Ryff, 1991). Coronary-prone personalities leading to Type A behaviors, if accompanied by a cynical distrust of others and the tendency to inhibit one's hostility, may increase the tendency toward heart disease (Dembroski, MacDougall, Williams, Haney, & Blumenthal, 1985), and persons with an anxious-reactive personality are prone to the development of chronic psychosomatic disorders because of their tendency to process and reprocess threatening and potentially threatening events, long after the event is gone (Girdano, Everly, & Dusek, 1997). Previous research in the United States indicated that satisfaction with life varies with personality traits (Diener et al., 1985) and coping resource availability (Hamarat et al., 2001). Age, gender, and income factors influence personality, stress coping resources,

and satisfaction with life and allow for individual differences within the same culture (Bowles & Gintis, 1986a/1986b; Ryff & Keyes, 1995).

Whether the Western findings regarding coping resources, personality variables, and views of personal life satisfaction are universal need further exploration. To test the universality of these Western findings, research in a country that has the historical and cultural background of Eastern nations, such as China (Bond, 1996), would provide evidence of the validity and reliability.

A major influence on Chinese culture, Chinese personality, and interpersonal relationships is Confucianism (Bond, 1986; Cheung, 1986; Yang, 1986). The Confucian guidelines emphasize self-monitoring motive, attaining equilibrium and harmony, behaving within the prescribed social role, bearing loyalty and forgiveness, and achieving the three virtues: wisdom, benevolence, and courage (Livingston & Lowinger, 1983; Mok, 1984). Following these guidelines, Chinese child-rearing emphasized parental patience and love, child obedience and diligence, achievement, and community involvement. The traditional Chinese family has the common characteristics of shared property, strict pooling of income, collective planning and structured spending for the best welfare of the family (Yan, 2003). At the same time, Chinese individuals are encouraged to strive for achievement. This emphasis on achievement grew in the 1980s when the country was focused intensely on economic development (Yan).

The traditional values and culture in Mainland China have been challenged by a series of political, social, and economic transformations that have not been experienced by any other country over the last century (Bond, 1986; Yang, 1986; Zheng & Young, 1990). Five major transformations occurred in Mainland China in the last 40 years: the

Land Reform, new Marriage Law, and Great Leap Forward in the 1950s; the Proletariat Cultural Revolution (1966-1976); the Four Modernizations (1976-2000); population control through execution of the One-Child-Per-Couple policy (1978-present); and the Economic Reform (1979-present).

The Land Reform redistributed the landlords' properties to farmers and reduced the social class distinction. With a goal to improve gender equality, the Marriage Law empowered women in family decisions and in the work force and enabled children to oppose their parents, who were against the socialist reform. The Great Leap Forward organized the citizens into 26,000 communes, each consisting of 5000 households, to work in groups. Conformation to group purpose and obedience to Chinese Community Party's guidelines took precedence over individual aspirations. Group meetings were regularly held for speaking out against the bitter past and for self-criticism. Based upon a rationale that held that unified manpower would increase productivity, the government organized the citizens to work as teams to produce iron and steel. By 1959, declined productivity, low quality steel products, and decreased family cohesion indicated the failure of the Great Leap Forward, so it was officially stopped. However, three years of continuous drought and flood (1959-1961) caused severe food shortages and resulted in country-wide famine. The notion of equality and increased productivity in unified team work concealed broad inequalities between genders and generations as well as leaders and subordinates. In 1966, Mao Zedong started the Proletariat Cultural Revolution with an aim to overthrow existing hierarchies and traditional systems. It was intense until 1970 and officially ended in 1976 (<http://www-chaos.umd.edu/history/toc.html>). Traditional religions and philosophies, such as Taoism and Confucianism, were overthrown. Existing

social hierarchies and family systems were attacked. People were categorized into different classes based on historical background. Proletariat education focused on class struggles by way of criticism and self-criticism during group meetings and commune gatherings. Schools were closed and social research was forbidden. Many intellectuals and leaders were sent to farms while farmers and the less educated people were promoted to superior leadership positions. Millions of people were persecuted or jailed for holding viewpoints unpopular with the majority and the followers of the Gang of Four (Yan, 2003).

In 1976 China lost three top leaders and soon afterwards Deng Xiaoping became the leader of the country. In 1978 the Chinese government carried out a series of laws and policies to speed economic development. Envisioning that the rapidly expanding population would hinder the economic improvement, the One-Child-Per-Couple policy was enacted. Headquarters were established in every community and trained cadres persuaded couples to have only one child and encouraged young people to delay marriage and pregnancy. This policy successfully controlled population growth, however, it drastically changed the family structure and interpersonal dynamics (Chen & Silverstein, 2000). The transformations have caused considerable stress (Zheng & Young, 1990) and pervasive changes in the Chinese personality (Zheng, 1990) and family life (Bond, 1988, 1996; Yang, 1986).

Because social and psychological research has been suppressed in Mainland China until recent times, there is little known as to how the internal transformations affected the psychological development of different generations of Chinese people. It is important for the Chinese to understand how their personality characteristics and stress

coping resources are affecting their satisfaction with life. This understanding would help the Chinese to maintain and improve mental and physical health. As China gradually becomes a major partner with other countries economically, socially, and politically, it is also important for the world to understand the Chinese personality profiles and stress coping styles so as to improve multinational cooperation and collaboration.

### *Research Questions*

This research assessed the impact of social changes on the patterns of personality traits, stress coping resources, and life satisfaction of three generations in Mainland China. Specifically, I investigated the relationships among personality, stress coping resources and global life satisfaction, asking the following questions:

1. How do personality styles, stress coping resources, and life satisfaction differ among the three generations of Mainland Chinese males and females with low, medium, and high income?
2. What is the relationship between personality style, stress coping resources, and life satisfaction among Mainland Chinese people?
3. To what extent are personality traits and coping resources predictive of perceived life satisfaction?

### *Independent Research Variables*

*Age* is a distinctive indicator of differential social experiences. In this study, the old generation refers to people who are now over 35 years of age. This generation experienced the intense Cultural Revolution, and a series of economic reforms and social transformations. The middle generation refers to people who are now between 25 and 34 years of age. This generation was born at the end of the Cultural Revolution and

experienced the full spectrum of economic reforms (urbanization, modernization) and social transformations (one child policy). The young generation refers to people who are now 24 years of age or younger. This generation was born during the one-child policy time 1978-1988 when the social and economical environment was stable.

*Gender* is another important variable. Gender difference is found by many empirical studies to remain consistent over the life course (Roberts, 1990)..

*Family income*, which to a large extent determines the living conditions and welfare of the family, is another important variable to consider in personality development, stress coping, and life satisfaction. Research has consistently shown that poverty is a major stressor for adults and children (Bowles & Gintis, 1986a/1986b). I used the income index from the National Bureau of Statistics of China (Retrieved June 18, 2005, from <http://www.stats.gov.cn/english/>) as reference to define low, middle, and high income. Currently, the poverty line of China is defined as RMB635 (approximately \$80 U.S.) annual total income per capita. As of April 2005, the national average yearly income per capita in Mainland China is RMB866.92 (approximately \$100). This study defined low income as below RMB 1000 (approximately \$120) per month, middle income as RMB 1001-2000 (approximately \$121-\$240) per month, and high income as RMB 2001 (approximately \$241) and above. The research participants' annual income is above poverty line in China.

The majority of investigations about the Chinese people or culture were based on responses of urban university students (Bond, 1996; Yang, 1986), which limits the generalizability of outcomes. This limitation can be overcome by recruiting participants from all social settings, such as families, communities, and industries.

### *Rationale of Research Instrument Selection*

Chinese society strongly emphasizes the importance of social harmony (Bond, 1996), which requires an individual to acquire interpersonal skills. Because personality is developed through interpersonal reciprocity in the family of origin in early childhood years (Adler, 1927/1954; Bowles & Gintis, 2003; Stierlin, 1974) and the interpersonal relationship is identified as the major resource and stressor in Chinese society (Bond, 1996; Cheung, 1986; Yang, 1986; Zheng & Young, 1990), it is important to identify a personality test that directly addresses childhood interpersonal skills for this study. An instrument that emphasizes the interpersonal success and holistic dynamics would be a best fit to test Chinese personality. Thus, I chose the BASIS-A Inventory (Wheeler, Kern, & Curlette, 1993), which was derived from a holistic personality theory and focuses on early childhood interpersonal experiences inside and outside the family.

Coping resources not only are strongly associated with the problem context, such as family and cultural environment, but also with personality, psychological well-being, and functioning (Folkman & Lazarus, 1985, 1986; Lazarus & Folkman, 1984). Because Chinese culture emphasizes harmony between mind and body and the people of China have experienced multiple facets of stress which required tremendous coping resources, I needed an instrument that measures multiple aspects of stress coping. The Coping Resources Inventory for Stress (CRIS; Matheny, Curlette, Aycock, Pugh, & Taylor, 1987), which asks about multidimensional resources for stress coping, well served this requirement.

A holistic investigation about a human being's resourcefulness cannot neglect his or her subjective evaluation of life functioning (Diener, 1985) and there is a need for



research to examine the relationship between global and specific measures of subjective well-being (George, 1978, 1979; Stacey, 1987). Life satisfaction, which indicates a long-term affective and cognitive perspective of the overall conditions of life, as derived from a comparison of one's aspirations to one's actual achievements (Stacey), would well evaluate the life functioning. Thus, I selected the Satisfaction With Life Scale (SWLS, Diener et al., 1985) for this study.

### *Research Hypotheses*

Rapid social changes often transform individual values and family structures, which directly affect the personality development process and life quality of human beings. I hypothesized that the drastic social changes that have occurred within Mainland China will have had differential effects on the personality development and growth of stress coping resources of older and younger generations. Because the younger generation has had greater exposure to Western values, to industrialized environments, and to more diverse lifestyle models, I expected that their personalities and coping resources would have been affected by such exposure. To explore how the rapid social changes in Mainland China transformed individual values and affected the personality development process, stress coping styles, and life quality among three generations, I developed the following null hypotheses:

H<sub>1</sub>: There are no personality differences among Mainland Chinese people based on age, gender, and income, as measured by the BASIS-A Inventory.

H<sub>1A</sub>: There are no personality differences among old, middle, and young generations of Mainland Chinese people as measured by the BASIS-A Inventory.

- H<sub>1B</sub>: There are no personality differences between male Chinese people and female Chinese people, as measured by the BASIS-A Inventory.
- H<sub>1C</sub>: There are no personality differences among the low, medium, and high income groups of Mainland Chinese people, as measured by the BASIS-A Inventory.
- H<sub>1D</sub>: There are no personality differences among the Mainland Chinese people based on the interaction effects among age, gender, and income factors, as measured by the BASIS-A Inventory.
- H<sub>2</sub>: There are no coping resources differences among Mainland Chinese people based on age, gender, and income, as measured by the CRIS.
- H<sub>2A</sub>: There are no coping resources differences among the old, middle, and young generations of Mainland Chinese people, as measured by the CRIS.
- H<sub>2B</sub>: There are no coping resources differences between male Chinese people and female Chinese people, as measured by the CRIS.
- H<sub>2C</sub>: There are no coping resources differences among the low, medium, and high income groups of Mainland Chinese people, as measured by the CRIS.
- H<sub>2D</sub>: There are no coping resource differences among Mainland Chinese people based on interaction effects among age, gender, and income factors, as measured by the CRIS.

- H<sub>3</sub>: There is no difference in life satisfaction among the Mainland Chinese people based on age, gender, and income, as measured by the SWLS.
- H<sub>3A</sub>: There is no difference in life satisfaction among the old, middle, and young generations of Mainland Chinese people, as measured by SWLS.
- H<sub>3B</sub>: There is no difference in life satisfaction between male Chinese people and female Chinese people, as measured by the SWLS.
- H<sub>3C</sub>: There is no difference in life satisfaction among the low, medium, and high income groups of Mainland Chinese people, as measured by the SWLS.
- H<sub>3D</sub>: There is no difference in life satisfaction among Mainland Chinese people based on interaction effects among age, gender, and income factors, as measured by the SWLS.
- H<sub>4</sub>: There is no relationship between personality style, coping resources, and life satisfaction as measured by the BASIS-A Inventory, the CRIS, and the SWLS.
- H<sub>4A</sub>: There is no correlation between personality style, coping resources, and life satisfaction as measured by the BASIS-A Inventory, the CRIS, and the SWLS.
- H<sub>4B</sub>: Personality styles are not predictive of life satisfaction as measured by the BASIS-A Inventory and the SWLS.
- H<sub>4C</sub>: Coping resources are not predictive of life satisfaction as measured by the CRIS and the SWLS.
- H<sub>4D</sub>: The combination of personality styles, coping resources, age, gender, and income factors is not predictive of life satisfaction as measured by the

BASIS-A Inventory, CRE (CRIS), age, gender, and income, and the SWLS.

In summary, I aimed to examine the similarities and differences of cross-generational personality variables, stress coping resources, and life satisfaction. I explored whether life satisfaction of Mainland Chinese people is affected by personality and/or stress coping and what specific personality traits and coping resources are most predictive of life satisfaction. Income and gender affect personality development and coping resources; therefore, these two factors were taken into consideration in this research.

## Methods

### *Participants*

For this study, I recruited participants from business organizations and residential communities in rural and urban areas of Mainland China. After a series of screening tests described in the Data Management section, 2,359 participants entered the final analysis of this study with an age range from 12 to 70, ( $M = 26.2$ ,  $SD = 7.07$ ), monthly income range from RMB 500 to RMB 2000 and above (approximately USD60.53 to USD241 and above), and an education range from primary school to middle school. Among these participants, 1,466 were male and 893 were female; 278 participants were aged 35 or older (old generation), 917 participants were between the ages of 25 and 34 (middle generation), and 1164 participants were aged 24 or below (young generation). Based on income level, there were 1208 participants in the low income group with a monthly income of less than \$120, 598 participants in the medium income group with a monthly

income of \$121-240, and 553 participants in the high income group with a monthly income of \$241 or above.

### *Instruments*

*Demographic information sheet.* This sheet asked respondents to fill out the specific age, birth place, and circle the monthly income and educational level that best fit them. Income 1 = below RMB500, income 2 = RMB 501-1000, income 3 = RMB 1001-2000, and income 4 = RMB2001 and above. Education level 1 = primary school, education level 2 = middle school, education level 3 = high school, education 4 = college, and education 5 = graduate school.

*The BASIS-A Inventory.* The BASIS-A Inventory (Wheeler et al., 1993) is an objective personality test based on more than 20 years of research. Based on the respondent's early recollections of 65 items of interpersonal experiences, it measures five primary lifestyle themes and five additional secondary themes identified as the HELPS scales to facilitate primary theme interpretation. The five primary personality themes are Belonging/Social Interest (BSI, indicates sense of belonging), Going Along (GA, relates to rule-directed behavior), Taking Charge (TC, reflects preference for dominance), Wanting Recognition (WR, reveals approval-seeking and achievement-orientation), and Being Cautious (BC, indicates the climate of family of origin as compassionate or hurtful). The five secondary scales are Harshness (H, identifies overly evaluated harshness of childhood), Entitlement (E, provides insights on how much attention a person needs to feel accepted), Liked by All (L, identifies an individual's need to please others), Striving for Perfection (P, identifies a person's high standards and sensitivity to mistakes), and Softness (S, indicates an individual's positive attitude toward childhood

experience). Using North American samples, internal consistency estimates on the five major scales yield alpha coefficients ranging from .82 to .87. Test-retest coefficients based on a 1- to 4-week interval yielded coefficients of .81 to .90. The coefficient of agreement on the HELPS scales ranges from .92 to 1.00. Numerous studies in the United States have found the BASIS-A Inventory a valid and reliable personality measurement in clinical and professional fields. The Cronbach alphas of the 5 primary BASIS-A scales in this study ranged from .63 to .73. The Cronbach alphas of each scale are in the brackets: BC (.7261), TC (.7034), WR (.6710), GA (.6703), and BSI (.6335).

*Coping Resources Inventory of Stress (CRIS)*. The CRIS (Matheny et al., 1987) is a 280-item inventory of stress coping resources with 12 primary scales and 3 composite scales to evaluate an individual's 15 specific coping resources. It contains 16 wellness inhibiting items and 5 validity scales. The 15 measurement scales of CRIS are self-disclosure (SD, freely disclose own feelings and thoughts), self-directedness (SDI, respects one's own judgment), Confidence (CN, ability to cope successfully), Acceptance (AC, self-acceptance of shortcomings and mistakes), Social Support (SS, availability of social network), Financial Freedom (FF, financial resources), Physical Health (PH, overall health condition), Physical Fitness (PF, personal health practices), Stress Monitoring (MN, awareness of tension build-up), Tension Control (TC, lower arousal through relaxation), Structuring (ST, ability to organize and manage resources, such as time and energy), Problem Solving (PS, ability to resolve personal problems), Cognitive Restructuring (CR, perception to change stressful thinking), Functional Beliefs (FB, helpful beliefs in lowering stress), and Social Ease (SE, perception of level of ease being with others).

Using North American samples, the internal consistency reliabilities for the 15 scales range from .84 to .97, and test-retest reliabilities range from .76 to .95. Validity studies have consistently found CRIS to be significantly related to real life situations, such as emotional distress, drug dependency, personality type, occupational choice, life satisfaction, and evidences of psychopathology. The Cronbach alpha of reliability coefficient of the 12 primary scales of CRIS is found to be .86, and .89 for the 12 primary scales and 3 composite scales.

*Satisfaction with Life Scale (SWLS)*. The Satisfaction with Life Scale (SWLS) (Diener et al., 1985) contains 5 items asking about general perceptions of one's own life experience with a focus on global life satisfaction. It has favorable psychometric properties, including high internal consistency and high temporal reliability. The item-total correlations for the five SWLS items based on North American samples were .81, .63, .61, .75, and .66. The SWLS has been found to be suitable for use with different age groups and the total score of its five items was found to correlate moderately or highly with other measures of subjective well-being, and correlate predictably with specific personality characteristics (Diener et al., p. 71). The Cronbach alpha of the five items in Satisfaction with Life Scale in this study is .68 .

#### *Test Adaptation Procedures*

Although there may be cross-cultural similarities in personality traits, stress coping resources, and life satisfaction, the culture-specific contexts may produce differences in these aspects (Chang, Hays, & Tatar, 2005). When assessing personality traits and coping resources cross-culturally, the test adaptation process should follow adequate procedures to maintain the validity and reliability of the measures. Hambleton

and Bollwark (1991) pointed out four major challenges in test translation: (1) cultural differences between the source and target populations that may affect examinee performance, (2) the appropriate language for testing target population examinees, (3) finding equivalent words or phrases, and (4) finding competent translators. To overcome these challenges, the International Test Commission recommended the following steps: literal translation, forward and backward translations, consensus to reconcile differences, and field testing (Chang et al., 2005; Hambleton, 2001; Van de Vijver & Hambleton, 1996). Hambleton and Patsula (1998) identified five major errors in technical designs and methods that can affect the validity of adapted tests: (1) the test itself, (2) selection and training of translators, (3) the translation process, (4) judgmental designs for adapting tests, and (5) empirical analyses for establishing equivalence.

The following steps were adopted in the test adaptation process of this study to avoid the common errors in test adaptation and, thereby, to increase the validity of the measures:

1. A review of the research literature of the three instruments used on Western populations, and social research on Chinese populations led me to believe that the basic constructs are similar and exist in both Western culture and Chinese culture.

The multiple-choice format of the test is common in China.

2. Competent translation requires not only bilingual language proficiency but also bicultural experiences and subject knowledge (Hambleton & Patsula, 1998). I have been an English-Chinese translator for 10 years. I lived in China for 27 years and have worked in Western cultural environments for 8 years. I have advanced training in test construction. I became familiar with the BASIS-A Inventory and the CRIS during my



doctoral studies in counseling, and I consulted with U.S. colleagues and the authors of these tests in the forward translation process. The two additional translators have the same qualifications as follows: (a) lived in China for 25 years and in US for over 8 years with an American spouse, (b) received 20 years of education in China, and Master's degrees from a U.S. university, (c) worked in China for at least 5 years and worked in the United States for at least 7 years, (d) had published translation and conducted interpretation for conferences in China and the United States, (e) actively involved in both the U.S. and Chinese communities, and are in touch with U.S. culture and Chinese culture, and (f) had knowledge about test construction, personality, stress coping, and general psychology. My familiarity with the tests and consultation with the test authors ensured the appropriate choice of tests to fit my research topic, and the translators' cultural and linguistic qualifications presented as highly desirable strengths in competent translation.

3. The use of a single translator often results in biases and a translator without training in test construction may create more difficulty in the test unknowingly, which may reduce the validity of the test in the target population (Hambelton & Patsula, 1998). I translated the tests first and consulted with the authors of the tests for clarification of some items. To minimize researcher bias and increase the validity of the translated test, I invited two other professionals to translate the English tests into Chinese (Mandarin) without consulting each other. However, they were encouraged to consult with their U.S. spouses and colleagues about cultural terms in the tests and to consult with their Chinese colleagues about current Chinese words and phrasing of certain expressions. Because the written form of Chinese Mandarin is formal/official across the

country, dialects are unlikely to be used in written Chinese. The two additional translators were encouraged to use easy formal Mandarin without local dialects or slang. After the translations were finished, I reviewed the three versions and marked the commonalities and differences in the translations. The three translations were found to be in 99% agreement. Only two items were translated differently: One item was due to one translator's oversight, and the other was due to differential understanding of the sentence. The principal researcher sought clarification from the first author of the test item and resolved the issue. The researcher had a 3-hour meeting with the two additional translators to refine the wording without compromising the accuracy to the original. They examined the equivalence in the meaning of words (semantic equivalence), idioms and colloquialisms of words (idiomatic equivalence), experiential equivalence, and conceptual equivalence. The three translators reviewed the English original and translated versions of the tests, consulted with their American spouses for cultural clarification of certain expressions, resolved the cultural discrepancies between the English and Chinese versions, and reached consensus about the accuracy and best equivalency of words in translation. They made efforts to use language that is easy for the less educated participants to understand.

4. To ensure test equivalence, I adopted forward translation design.

Forward translation designs provide stronger evidence of test equivalence because both the source and target language versions of the test are scrutinized. That a test can be back-translated correctly (backward translation design) is not a guarantee of the validity of the target language version of the test. Unfortunately, backward translation designs are popular and yet fundamental errors are associated with this approach" (Hambleton & Patsula, 1998, p. 161).

5. Holland and Wainer (1993) recommended item analysis, factor analysis, structural equation modeling, and item bias detection (sometimes called "DIF" studies) to

detect non-equivalence of multilanguage versions of a test. Hambleton (1994) recommended a sample size of about 200 per population for the Mantel-Haenszel (MH) and Logistic Regression (LR) procedures to test the equivalence of the tests. Because of the restriction of resources, this research study did not conduct empirical analysis for establishing equivalence between the original test and translation.

#### *Data Collector Training*

The data collectors were trained by the researcher via videoconferencing and telephone conversations about the purpose of the research, the purpose and development history of the instruments, the methods to protect the human rights of the participants and the confidentiality of data, and the researcher's intention to provide feedback to the participants upon completion of the study. Before recruitment of study participants, each data collector was coached to explain verbally to the potential participants the purpose of the study, the rights of the research participants, and the contact information of the researcher.

#### *Data Collection Procedures*

Data collectors verbally shared with the communities the purpose of this study and gave the interested participants (a) an informed consent letter for adults or an assent form plus a parent permission letter for participants under age 18, (b) the demographic sheet with answer sheets (Scantron), (c) the Coping Resources Inventory for Stress, (d) the Satisfaction with Life Scale, and (e) the BASIS-A Inventory. Participants were told that all information provided would be confidential, that scoring would be based on subject numbers, and that the research reports would be in group form. Participants also were informed that they would not benefit from the research personally; however, the

research results would be used to assist mental health program development for Mainland Chinese people. All of the instruments were self-administered and the data collectors assisted some older participants to record answers upon request. No incentives were provided. Participants voluntarily completed the instruments and submitted their responses to the data collectors. Data collectors then mailed the completed surveys to me.

#### *Data Management Procedures*

The CRIS generates three types of scores: percent correct scores, percentile ranks, and T-scores. The percent correct score is obtained by adding the number of items answered in the keyed direction and dividing by the total number of responses from that respondent. This scoring method adjusts for missing data by assigning mean substitution to the missing responses (Curlette, Aycok, Matheny, Pugh, & Taylor, 1992). A percentile score is defined by the percentage of scores below the respondent's score, which shows how the respondent stands in comparison to the norm group. This study followed the test authors' suggestion to use percent correct scores of CRIS. The mean scores of SWLS and of each subscale of the BASIS-A Inventory were used in this research because this method has an advantage of automatically assigning mean substitution to the missing responses (William L. Curlette, personal communication, June 1, 2005).

Data validity is critical to the accuracy of research results, and data screening is a necessary step (William L. Curlette, personal communication, June 1, 2005). Because there is not a Chinese norm or standard for data validity screening, I adopted the typical U.S. standards for screening based on one of the test's authors' suggestions (Curlette). The following validity scales provide information concerning the interpretability of the

scores generated by the CRIS: social desirability, infrequency, omitted items, and random response indicators (Curllette et al., 1992). Social desirability measures the tendency to respond to items in the socially desirably manner. A high social desirability score indicates the respondent's conscious and unconscious effort to appear virtuous and make a good impression on others. A low score on this scale suggests more candid responding. At the suggestion of Curllette (personal communication, June 2, 2005), I eliminated the cases with a social desirability score of over 95%.

Omitted items on scales can affect the validity of the score on that scale. When a scale has more than 10% of its items missing, less confidence should be placed in the accuracy of the score. Based on this criterion, the cases that omitted 10% of items on any subscale of the CRIS (16 subscales), the BASIS-A Inventory (10 subscales), or SWLS were eliminated. In addition, the cases that failed to fill in age, gender, or income data, or missed 15% or more of items on the overall survey were eliminated from analyses.

Random guessing introduces errors or measurement which will likely lower the reliability and validity of the research results (Curllette et al., 1992). The random response indicators of CRIS measure the consistency in responses and assess whether a respondent is guessing at the items throughout the CRIS. The accuracy of random response indicators is 99.7%. A score of 88% on random response indicators is a strong sign of random guessing. To improve the accuracy of research results, cases with a score of 88% or higher on random response indicators were eliminated from analyses. After this systematic screening, 2359 participants entered the final analyses for this study.

### *Statistical Techniques*

To address the first research question, “How do personality styles, stress coping resources, and life satisfaction differ among the three generations of Mainland Chinese men and women with low, medium, and high income?” I performed a MANOVA on the BASIS-A Inventory and CRIS scores and a univariate ANOVA on the SWLS scores. All analyses used a significance level of  $\alpha = .01$  and used age, gender, and income factors as independent variables.

To address the second research question, “What is the relationship between personality style, stress coping resources, and life satisfaction among Mainland Chinese people?” I assessed the pairwise relationships among the 12 coping resources, 10 scores from the BASIS-A Inventory, and one total score of Satisfaction with Life Scale with Pearson correlations. Pearson correlations analyses were conducted with  $\alpha$  set at .001.

To address the third research question, “To what extent are personality traits and coping resources predictive of perceived life satisfaction?” I used forward stepwise multiple regression analyses. Tabachnick and Fidell (1983, as cited in Brack, Gay, & Matheny, 1993) recommended a forward stepwise multiple regression approach to such data when the research aims at model building and/or when the order of entry of the variables cannot be determined *a priori*. I adopted the forward stepwise multiple regression approach in three steps with  $\alpha$  to enter at .01 and  $\alpha$  to delete at .05. First, the 10 BASIS-A Inventory scales were used as independent variables to predict SWLS; second, the 12 primary scales of CRIS were used as the independent variables to predict SWLS; and third, a combination of 10 BASIS-A Inventory scales, Coping

Resource Effectiveness (CRE), three age groups, two gender groups, and three income groups were used as the independent variables to predict SWLS.

## Results

### *Analysis of BASIS-A*

*H<sub>1</sub>*: *There is no personality difference among Mainland Chinese people based on age, gender, and income, as measured by the BASIS-A Inventory.* A three-way MANOVA was computed on the 10 scales of BASIS-A across age group by gender and by income level. No interaction effect was significant. The specific findings are as follows:

*H<sub>1A</sub>*: *There are no personality differences among old, middle, and young generations of Mainland Chinese people as measured by the BASIS-A Inventory.* There was no significance in the age main effect. This suggests the three generations do not have significant differences in personality as measured by the BASIS-A Inventory.

*H<sub>1B</sub>*: *There are no personality differences between the male Chinese people and female Chinese people as measured by the BASIS-A Inventory.* Significant main effects were demonstrated for gender (*Pillai's Trace* = .027),  $F(10, 2331) = 6.50, p = .000$ . Tests of between-subjects effects found that male participants' scores significantly differed from female participants' scores on Entitlement,  $F(1, 2358) = 26.767, p = .000$ . Female participants ( $M = 2.8633, SD = .60145$ ) scored higher than male participants ( $M = 2.7193, SD = .59834$ ), indicating that female participants seem to expect more attention from others to feel accepted.

*H<sub>1C</sub>*: *There is no personality difference among the low, medium, and high income groups of Mainland Chinese people, as measured by the BASIS-A Inventory.* Significant

main effects were demonstrated for the income factor (*Pillai's Trace* = .031),  $F(20, 4664) = 3.637, p = .000$ . Income groups significantly differed on Belonging/Social Interest,  $F(2, 2357) = 6.743, p = .001$ ; Taking Charge,  $F(2, 2357) = 10.87, p = .000$ ; Wanting Recognition,  $F(2, 2357) = 8.185, p = .000$ ; and *Softness*,  $F(2, 2357) = 4.62, p = .010$ . The data suggest that the higher income level is positively associated with the personality traits of BSI, TC, WR, and S. For detailed information about income group differences on the BASIS-A Inventory scales, please see Appendix A.

Significant contrasts for BSI was the low income group ( $M = 3.4878, SD = .53169$ ) versus the high income group ( $M = 3.6133, SD = .53569$ ). The *mean difference* was  $-.1255 (SE = .027, p = .000)$ . This suggests that the high income group felt a stronger sense of belonging than the low income group. Significant contrasts for TC are low ( $M = 2.5215, SD = .58899$ ) versus high income group ( $M = 2.680, SD = .62628$ ). The *mean difference* was  $-.1585 (SE = .03054, p = .000)$  and medium income group ( $M = 2.5663, SD = .58661$ ) versus high income group (*mean difference* =  $-.1154, SE = .03510, p = .003$ ). This suggests that persons with a high income have a stronger preference for being dominant or in charge. Significant contrasts for WR are the low ( $M = 3.4227, SD = .46861$ ) versus the high income group ( $M = 3.5198, SD = .47522$ ). The *mean difference* was  $-.0971 (SE = .02395, p = .000)$  and the medium ( $M = 3.4375, SD = .45405$ ) versus the high income group (*mean difference* =  $-.0822, SE = .02753, p = .008$ ). This suggests the high income group has a stronger need for recognition. The significant contrast for *Softness* is the low ( $M = 3.7082, SD = .57122$ ) versus the high income group ( $M = 3.8227, SD = .57581$ ). The *mean difference* was  $-.1145 (SE = .02902,$



$p = .000$ ). This indicates that the high income group perceived their childhood experiences as more favorable than the low income group.

*H<sub>1D</sub>: There are no personality differences among the Mainland Chinese people based on the interaction effects among age, gender, and income factors, as measured by the BASIS-A Inventory. No significance was found in interaction effects.*

#### *Analyses of CRIS*

*H<sub>2</sub>: There is no coping resources difference among the Mainland Chinese based on age, gender, and income as measured by CRIS.* All main effects were found significant: age group, gender (*Pillai's Trace* = .044,  $F(12, 2330) = 9.028$ ,  $p = .000$ ), and income factors (*Pillai's Trace* = .062,  $F(24, 4662) = 6.265$ ,  $p = .000$ ). Significant effects were also found on age and income interaction and on gender and income interaction.

*H<sub>2A</sub>: There are no coping resources differences among the old, middle, and young generations of Mainland Chinese people, as measured by the CRIS.* Significant main effects were demonstrated for the age factor (*Pillai's Trace* = .037),  $F(24, 4662) = 3.706$ ,  $p = .000$  on Acceptance ( $F(2, 2357) = 5.956$ ,  $p = .003$ ) and Structuring ( $F(2, 2357) = 6.454$ ,  $p = .002$ ).

Significant contrasts for Acceptance are old generation versus middle generation ( $M = 51.45$ ,  $SD = 14.666$ ; *mean difference* = -3.27,  $SE = .973$ ,  $p = .002$ ) and old generation ( $M = 48.18$ ,  $SD = 13.595$ ) versus young generation ( $M = 51.12$ ,  $SD = 14.080$ ; *mean difference* = -2.94,  $SE = .949$ ,  $p = .006$ ). This suggests that the old generation is least accepting of their own mistakes and may be most critical and negative towards themselves under imperfect life circumstances. Significant contrasts for Structuring are

young generation ( $M = 69.90$ ,  $SD = 18.953$ ) versus old generation ( $M = 75.42$ ,  $SD = 18.399$ ; *mean difference* =  $-5.52$ ,  $SE = 1.258$ ,  $p = .000$ ), and young generation versus middle generation ( $M = 73.26$ ,  $SD = 18.889$ ; *mean difference* =  $-3.36$ ,  $SE = .832$ ,  $p = .000$ ). This indicates that the young generation perceived themselves to have significantly lower ability than the middle and old generations to organize and manage resources such as time and energy.

*H<sub>2B</sub>: There are no coping resources differences between male Chinese people and female Chinese people as measured by the CRIS.* Significant main effects for gender groups (*Pillai's Trace* =  $.044$ ,  $F(12, 2330) = 9.028$ ,  $p = .000$ ) were on Confidence ( $F(1, 2358) = 24.088$ ,  $p = .000$ ), Acceptance ( $F(1, 2358) = 8.080$ ,  $p = .005$ ), Financial Freedom ( $F(1, 2358) = 11.430$ ,  $p = .001$ ), Physical Fitness ( $F(1, 2358) = 33.039$ ,  $p = .000$ ), Stress Monitoring ( $F(1, 2358) = 14.732$ ,  $p = .000$ ), and Problem Solving ( $F(1, 2358) = 13.538$ ,  $p = .000$ ).

Male participants scored higher than female participants on Confidence, Acceptance, Physical Fitness, Stress Monitoring, and Problem Solving. Male participants scored lower on Financial Freedom. This may be a result of women's increasing importance in the family, labor force, and social systems. Please see Appendix B for the specific gender differences in CRIS scales.

*H<sub>2C</sub>: There are no coping resources differences among the low, medium, and high income groups of Mainland Chinese people as measured by CRIS.* Significant main effects for the income factor (*Pillai's Trace* =  $.062$ ,  $F(24, 4662) = 6.265$ ,  $p = .000$ ) were on Self Disclosure ( $F(2, 2357) = 11.314$ ,  $p = .000$ ), Self Directedness ( $F(2, 2357) = 23.353$ ,  $p = .000$ ), Social Support ( $F(2, 2357) = 8.154$ ,  $p = .000$ ), Financial Freedom

( $F(2, 2357) = 22.193, p = .000$ ), Physical Health ( $F(2, 2357) = 9.181, p = .000$ ), and Physical Fitness ( $F(2, 2357) = 7.066, p = .001$ ).

The high income group scored significantly higher than the middle income and low income group on Self Disclosure, Self Directedness, Financial Freedom, and Physical Health. The high income group scored significantly higher than the low income group on Social Support, and Physical Fitness. Please see Appendix C about specific income group differences on CRIS scales.

*H<sub>2D</sub>: There are no coping resources differences among Mainland Chinese people based on interaction effects among age, gender, and income factors as measured by the CRIS.* I found no gender-by-age or gender-by-age-by-income effects. With age by income, there is a significant interaction effect (*Pillai's Trace* = .036,  $F(48, 9332) = 1.776, p = .001$ ) for Financial Freedom ( $F(4, 2355) = 4.466, p = .001$ ). A gender-by-income interaction was significant (*Pillai's Trace* = .023,  $F(24, 4662) = 2.239, p = .000$ ) for Physical Fitness ( $F(2, 2357) = 9.125, p = .000$ ).

In examining the estimated marginal means plot of Financial Freedom over age and income, I found that within the old generation, the high income group ( $M = 57.60, SD = 20.004$ ) scored higher than the medium income ( $M = 52.07, SD = 17.861$ ) and low income groups ( $M = 45.38, SD = 18.146$ ). Within the middle generation, the high income group ( $M = 55.13, SD = 19.264$ ) scored higher than the medium income group ( $M = 47.15, SD = 19.601$ ) and the low income group ( $M = 45.08, SD = 18.266$ ). This suggests that within the old and middle generations, the higher the income, the more financial freedom is perceived. In the young generation, the middle income group ( $M = 50.27, SD = 18.804$ ) scored higher than the high income group ( $M = 49.35,$

$SD = 19.625$ ) and the low income group ( $M = 47.24$ ,  $SD = 18.372$ ). This indicates that the middle income group perceived more financial freedom than the high and low income groups.

In examining the estimated marginal means plot of Financial Freedom over income and age, I found that within the low income group, the young generation ( $M = 47.24$ ,  $SD = 18.372$ ) scored higher than the old ( $M = 45.38$ ,  $SD = 18.164$ ) and middle generation ( $M = 45.08$ ,  $SD = 18.266$ ). This indicates that the young generation perceived more financial freedom and less financial stress than the old and middle generations did. Within the middle income group, old generation ( $M = 52.07$ ,  $SD = 17.861$ ) scored highest on Financial Freedom, followed by young ( $M = 50.27$ ,  $SD = 18.804$ ) and middle generation ( $M = 47.15$ ,  $SD = 19.601$ ). This indicates that in the middle income group, the middle generation perceived more financial stress than the old and young. Within the high income group, the old generation ( $M = 57.60$ ,  $SD = 20.004$ ) perceived more Financial Freedom than the middle ( $M = 55.13$ ,  $SD = 19.264$ ) and young generation ( $M = 49.35$ ,  $SD = 19.625$ ). Please see Appendix D for detailed information about age and income interaction effects on Financial Freedom scale of CRIS.

In examining the estimated marginal means plots of Physical Fitness over gender and income, I found that male participants scored higher than female participants on Physical Fitness in all income groups. This means that compared to female participants, male participants are more physically active and more motivated to use exercise as a means to reduce stress. Within the male group, the middle income participants ( $M = 55.37$ ,  $SD = 23.530$ ) scored slightly lower than the low ( $M = 57.98$ ,  $SD = 22.035$ ) and high income participants ( $M = 56.91$ ,  $SD = 22.928$ ). This indicates the middle income

men perceived lower physical fitness than male participants the other two groups. Female participants in the low income group ( $M = 53.21$ ,  $SD = 20.239$ ) and middle group ( $M = 51.44$ ,  $SD = 21.802$ ) scored much higher than females in the high income group ( $M = 42.71$ ,  $SD = 21.632$ ), suggesting that lower income is associated with higher physical fitness, and the high income women perceived themselves as least physically fit.

#### *Analysis of SWLS*

*H<sub>3</sub>: There is no difference in life satisfaction among the Mainland Chinese people based on age, gender, and income as measured by SWLS.* A three-way analysis of variance was computed on the SWLS. There was a significant interaction effect between age and income ( $F(4, 2355) = 3.987$ ,  $p = .003$ ), and in age main effects ( $F(2, 2357) = 21.926$ ,  $p = .0007$ ), and gender main effects ( $F(1, 2358) = 24.443$ ,  $p = .000$ ).

*H<sub>3A</sub>: There is no difference in life satisfaction among the old, middle, and young generation of Mainland Chinese people as measured by SWLS.* There were significant age main effects ( $F(2, 2357) = 21.926$ ,  $p = .0007$ ). Significant contrasts are the old generation ( $M = 4.0771$ ,  $SD = 1.30373$ ) versus the middle generation ( $M = 3.7398$ ,  $SD = 1.24010$ ; *mean difference* = .3373, *SE* = .08226,  $p = .000$ ), old generation versus young generation (*mean difference* = .5283, *SE* = .08020,  $p = .000$ ), and middle generation versus young generation ( $M = 3.5488$ ,  $SD = 1.16857$ ; *mean difference* = .1910, *SE* = .05305,  $p = .000$ ). This indicates that older Chinese people are more satisfied with life than younger ones.

*H<sub>3B</sub>: There is no difference in life satisfaction among the male Chinese people and female Chinese people as measured by SWLS.* There were significant gender main effects ( $F(1, 2358) = 24.443$ ,  $p = .000$ ). Female participants ( $M = 3.8598$ ,  $SD = 1.22314$ ) scored

higher than male participants ( $M = 3.5790$ ,  $SD = 1.21327$ ) on life satisfaction. This suggests that compared to male participants, female participants are more satisfied with their living conditions, more positive about their lifestyles, and more willing to repeat their lives if they had the opportunity.

*H<sub>3C</sub>: There is no difference in life satisfaction among the low, medium, and high income groups of Mainland Chinese people as measured by SWLS. There is no significance on income main effect ( $p > .05$ ).*

*H<sub>3D</sub>: There is no difference in life satisfaction among Mainland Chinese people based on interaction effects among age, gender, and income factors as measured by SWLS. There was a significant interaction effect between age and income ( $F(4, 2355) = 3.987$ ,  $p = .003$ ). In examining the estimated marginal means plot of life satisfaction over age and income, I found that within the old generation, the low income group ( $M = 4.3164$ ,  $SD = 1.25379$ ) scored higher than the high income group ( $M = 4.0240$ ,  $SD = 1.38789$ ) and the medium income group ( $M = 3.9683$ ,  $SD = 1.15482$ ). This indicates that within the old generation, the low income group perceives more life satisfaction than the other two income groups. Within the middle generation, the high income group ( $M = 3.9418$ ,  $SD = 1.26408$ ) scored somewhat higher than the middle ( $M = 3.6504$ ,  $SD = 1.25836$ ) and low income group ( $M = 3.6603$ ,  $SD = 1.19835$ ). This suggests that within the middle generation, individuals with a high income are more satisfied with life. Within the young generation, the middle income group scored highest ( $M = 3.6560$ ,  $SD = 1.17870$ ), followed by the low income group ( $M = 3.5256$ ,  $SD = 1.16514$ ), and the high income group ( $M = 3.4655$ ,  $SD = 1.16184$ ). However, within the high income group, old ( $M = 4.0240$ ,  $SD = 1.38789$ ) and middle ( $M = 3.9418$ ,  $SD =$*

1.26408) generations scored similarly while the young generation ( $M = 3.4655$ ,  $SD = 1.16184$ ) scored much lower. This indicates that the old generation with either low income or middle income is more satisfied with life than the other two generations. Please see Appendix E for specific information about age and income interaction effects on SWLS.

#### *Regression Analysis*

*H<sub>4</sub>: There is no relationship among personality style, coping resources, and life satisfaction as measured by the BASIS-A Inventory, the CRIS, and the SWLS.*

*H<sub>4A</sub>: There is no correlation among personality style, coping resources, and life satisfaction as measured by the BASIS-A Inventory, the CRIS, and the SWLS.* Pearson correlations analyses were conducted on 10 BASIS-A scales, 16 CRIS scales and CRE, and SWLS. The Pearson correlations were almost all significant at alpha of .001, and in looking at r-values above .50, the following variables are significantly correlated. Social Desirability and Coping Resource Effectiveness had a correlation of -.653, suggesting that the more an individual fakes good, the less effective his or her coping resources tend to be. For detailed results about correlation analysis, please see Appendix F.

Four multiple regression analyses were conducted to predict life satisfaction. First, 10 BASIS-A scales were used to predict life satisfaction; second, 12 primary scales of CRIS were used to predict life satisfaction; third, a combination of 10 BASIS-A scales, Coping Resource Effectiveness, age group variable, gender variable, and income variable was used as independent variables to predict life satisfaction; and lastly, 10 BASIS-A scales, 12 CRIS primary scales, 3 age groups, 2 gender groups, and 3 income groups were used as independent variables to predict life satisfaction.

*H<sub>4B</sub>: Personality styles are not predictive of life satisfaction as measured by the BASIS-A Inventory and the SWLS.* In a forward and stepwise regression analysis, 10 BASIS-A Inventory scales were used as predictors for SWLS. Five of the BASIS-A Inventory scales were retained in the model. Using the adjusted R-squared, 11.7% of the variability of SWLS is explained by Entitlement, Belonging/Social Interest, Going Along, Striving for Perfection, and Wanting Recognition. This model has a multiple R of .344 ( $F = 8.938$ ). The order of importance of these variables for explaining variability in the SWLS is, from the most to least, the following: Entitlement ( $Beta = .239, p = .000$ ), Belonging/Social Interest ( $Beta = .176, p = .000$ ), Going Along ( $Beta = .079, p = .000$ ), Striving for Perfection ( $Beta = .089, p = .000$ ), and Wanting Recognition ( $Beta = -.067, p = .003$ ). This regression analysis indicates that people with a higher score on Entitlement, Belonging/Social Interest, Going Along, and Striving for Perfection may experience more satisfaction, while people with a high score on Wanting Recognition may experience less satisfaction. Please see Appendix G for detailed results.

*H<sub>4C</sub>: Coping resources are not predictive of life satisfaction as measured by the CRIS and the SWLS.* Twelve primary scales of the CRIS were used to predict the SWLS. Using the adjusted R-squared, 14.1% of the variability in the SWLS score is explained by three scales (Financial Freedom, Social Support, Confidence) that are retained in the forward stepwise regression. This model has a multiple-R of .375 ( $F = 19.604, p = .000$ ). The order of the importance of the predictors with *Beta* weights in parenthesis, from most to the least, is the following: Financial Freedom (.259,  $p = .000$ ), Social Support (.122,  $p = .000$ ), and Confidence (.098,  $p = .000$ ). Please see Appendix H.



*H<sub>4D</sub>*: The combination of personality styles, coping resources, age, gender, and income factors is not predictive of life satisfaction as measured by the BASIS-A Inventory, CRE (CRIS), age, gender, income, and the SWLS. Forward stepwise regression analysis was conducted to investigate the usefulness of the BASIS-A Inventory, Coping Resource Effectiveness, age, gender, and income as predictors of Satisfaction with Life Scale score. The retained prominent predictors for life satisfaction, ranked from the most important to the least important, are Coping Resource Effectiveness ( $Beta = .267, p = .000$ ), Entitlement ( $Beta = .203, p = .000$ ), age ( $Beta = -.125, p = .000$ ), gender ( $Beta = .119, p = .000$ ), and Belonging/Social Interest ( $Beta = .094, p = .000$ ). These five variables explained 18.4% of variability in SWLS score, with CRE accounting for 9.5% and Entitlement accounting for 5.4% of the total variability. This model has a multiple-R of .430 ( $F = 21.346, p = .000$ ). The standard errors of the *Beta* weights of the variables above are .002, .039, .033, .048, .048, respectively. Please see Appendix I.

An additional forward stepwise multiple regression with dummy variables was conducted on a combination of 10 BASIS-A Inventory scales, 12 CRIS primary scales, 3 age variables, 2 gender variables, and 3 income variables. This regression retained 12 variables, which explained 22.2% of the variance in life satisfaction (see Appendix J). The predictors, from the most important to the least important, are Financial Freedom ( $Beta = .209, p = .000$ ), Entitlement ( $Beta = .185, p = .000$ ), Belonging/Social Interest ( $Beta = .130, p = .000$ ), Social Support ( $Beta = .072, p = .000$ ), young age ( $Beta = -.083, p = .000$ ), Social Desirability ( $Beta = -.079, p = .000$ ), male ( $Beta = -.098, p = .000$ ), old age ( $Beta = .061, p = .002$ ), Physical Fitness ( $Beta = .045, p = .033$ ), Being Cautious ( $Beta = .067, p = .002$ ), Going Along ( $Beta = .051, p = .016$ ), and Physical Health

( $Beta = .043$ ,  $p = .040$ ). Financial Freedom appears to be the most influential factor in life satisfaction for Chinese.

### *Cross-Cultural Comparisons*

A comparison of means of BASIS-A Inventory scores between 2,359 participants from Mainland China and 1,083 participants from North America is shown in the Appendix K. A comparison of means of CRIS scores between 2,359 participants from Mainland China and about 1,800 North Americans is shown in the Appendix L.

North Americans scored slightly higher than Mainland Chinese on BSI, GA, WR, BC, and slightly lower on TC. The CRIS comparison indicates that the mean of Mainland Chinese is significantly higher than that of North Americans on Tension Control (*mean difference* = 10.54), Cognitive Restructuring (*mean difference* = 8.11), Physical Fitness (*mean difference* = 6.08), and Physical Health (*mean difference* = 4.68). The mean for North Americans is significantly lower than that for Mainland Chinese on Social Desirability (*mean difference* = 20.08), Financial Freedom (*mean difference* = 18.99), Self Disclosure (*mean difference* = 7.1), Stress Monitoring (*mean difference* = 5.29), Self Directedness (*mean difference* = 4.55), and Acceptance (*mean difference* = 3.7).

## Discussion

### *Age Factor*

*BASIS-A results.* Because the main effect for age on the BASIS-A scales was nonsignificant, the three generations do not appear to differ significantly in regard to those personality variables measured by the BASIS-A. This result is somewhat surprising inasmuch as the drastic social and economic changes occurring in China over the last half-century reasonably would be expected to have impacted the dispositions, personality traits, of the generations differently. Perhaps the strength of traditional, largely

Confucian, family values buffered the differential impact of these political and economical changes on the three generations. Some family researchers have noted that life event stress intensifies family interaction and reinforces the established interpersonal patterns of family members across generations (Bowen, 1978; Constantine, 1987). Perhaps increased cohesiveness within Chinese families as a response to such drastic changes reinforced the family interaction process, and, thus, preserved similarities in personality traits across the generations. The results seem to be in agreement with Bond (1988) and Lew (1979) who hypothesized that although some superficial values may have discontinued in the transformations, the basic Chinese values and personality traits continued. Another possibility is that the BASIS-A is not sensitive enough to measure Chinese personality traits that are in the process of changing.

The lack of personality differences among the generations in this study seems contrary to the findings of some earlier studies. Ying and Zhang (1992) studied value orientation among 595 Mainland Chinese and found that older participants and female participants held more traditional values than the young, urban, and male participants. Rudowicz and Yue (2002) studied 451 undergraduate Chinese students and found that some traditional traits lost significance for the young generation.

*CRIS results.* The generations differed somewhat on certain coping resources. The older generation scored significantly lower on Acceptance than the middle and young generations. The Acceptance scale measures an individual's self-acceptance of shortcomings and mistakes. The traditional Chinese culture emphasizes self-reflection and self-monitoring (Mok, 1994), and a series of the societal reforms and events such as the Land Reform and the Cultural Revolution, encouraged self-criticism, and promoted

overthrowing traditional values and existing systems (Livingston & Lowinger, 1983; Yang, 1986). Non-acceptance of self or others, thus, was actually an important coping resource during this period. The old generation who lived through this period may have adopted self-criticism as a core belief. The middle and younger generations were born in peaceful and relatively more affluent times during which self-criticism was replaced by economic development. Many members of these generations received more attention and acceptance from adults as a result of the one child national policy. The additional attention and prizing which these members experienced likely would have fostered greater self-acceptance.

The old and middle generation scored significantly higher on structuring than the young generation. Structuring measures an individual's ability to organize and manage resources such as time and energy to cope with stress (Matheny, et. al., 1987). Having been exposed to stressfulness of constant societal and economic transformations, the older and middle generations may have learned better to manage their resources more carefully. There likely would have been less need for such structuring of resources among members of the younger generation as they experiences less scarcity of resources.

*SWLS results.* This scale measures an individual's life satisfaction and is sometimes referred to as a measure of overall happiness in life. Overall happiness is found to be fairly stable over time (Diener, 1984). The older reported the most and the younger generation reported the least life satisfaction. Satisfaction undoubtedly is related to expectations. The harsher living conditions experienced by the older and middle generation may have created relatively low expectations and may have positioned them to be more grateful for the rather startling economic progress of the country over the last 25

years. The standard of living for many Chinese has quadrupled over this time, moving 300 million citizens out of poverty (Zakaria, 2005). In contrast, the younger generation was reared in a relatively stable and affluent period, a condition which very well may have led them to higher expectations for their lives and less life satisfaction. Perhaps their lower reported life satisfaction was influenced by their lower ability to organize and manage their resources as reported above. Since 1978, China has been developing a market economy and increased consumerism, which led to increased aspirations for financial success. Recent research has found that pursuing and achieving financial success has negative psychological impact such as distress and dissatisfaction with life (Richins & Dawson, 1992; Nickerson, Schwarz, Diener, & Kahneman, 2003). Humanistic psychologists such as Fromm (1976), Maslow (1970), and Rogers (1961) suggested that pursuing goals of “having” instead of “being” would restrict the individual from fully experiencing the meaning of life, and therefore, lead to psychological distress. Perhaps the higher aspirations of “having” than “being” led the young generation to lower satisfaction with life but the older generations’ lower desire of “having” contributed to higher life satisfaction.

In summary, the younger generation has higher self-acceptance, lower structuring ability, and lower life satisfaction than the old and middle generations. The coexistence of high self-acceptance and low life satisfaction in young generation seems to be contradictory. Numerous scholars found that people with a more positive sense of self show higher life satisfaction (Adler, 1927; Kobasa, 1979; Pelletier, 1981). Chen and Silverstein (2000) found that the One-Child-per-Couple policy resulted in less family members taking care of the elderly. This could have resulted in the increased pressure for

adults, by all means, to establish bonding with the single child who will be their financial provider in the elderly years and to pressure them for academic achievement to insure their future financial success (Yeh, 1985; Chang, 1987). The pressure for academic excellence has become a major stress for Chinese youth and parents ([www.cinfo.org.cn](http://www.cinfo.org.cn)). Most of the young participants in this research had a middle or high school education, which resulted in their relatively low income. This could be one reason why the young participants scored low on life satisfaction. Another reason could be that they just started their career and encountered some challenges that they were not prepared to deal with. Further research is needed to explore the specific reason behind this contradiction, and how the low life satisfaction is affecting their behavior in the society.

#### *Gender Factor*

*BASIS-A results.* Within each generation and each income group, females scored significantly higher than males on Entitlement. High scorers on Entitlement may have been only or youngest children who were overly protected by their older siblings or other adults, and low scorers may have perceived that their family was not supportive enough and that other children in the family were favored at their expense (Kern, Wheeler, & Curlette, 1997). High scorers may feel entitled to having their needs met and may become resentful if others do not meet their expectations. Low scorers on Entitlement do not expect too much from others but may respond with resentment to demands. Compared to males, females hold higher expectations of getting their own needs met, and may become impatient more quickly if they are not treated in the expected way. The gender difference on entitlement may be related to the socialization process in China where parents tend to be more overprotective with girls but more strict with boys. The Marriage Law and

societal efforts since 1950 have emphasized the importance of females and continuous efforts were on improving female status. In addition, Chinese parents favored boys over girls at birth due to the traditional expectation for boys to carry on family line and provide for the elderly. Now there is a female and male ratio imbalance 1:1.19, which is much higher than the normal ratio 1:1.06 (<http://www.stats.gov.cn/english/>). This severe imbalance may have empowered women in the household and social world and resulted in their higher score of entitlement.

*CRIS results.* Compared to females, males view themselves as having more mastery over their environments and more control over their emotions when coping with stress. They can more easily accept shortcomings in themselves and others. They are more motivated to exercise for physical fitness, more aware of personal tension build-up, and are better able to control tension before it escalates seriously. They tend to be more capable in defining problems, obtaining information, finding solutions, determining consequences of the alternative solutions, and timelier in taking appropriate action.

However, females scored higher on Financial Freedom, indicating that they perceive themselves to be less limited by their incomes in realizing their goals. It is interesting that males perceive themselves to have more mastery over the environment but less financial freedom than women. Perhaps because of their greater confidence Chinese men hold higher expectations for gaining wealth. Perhaps Chinese men have more financial obligations than women but feel less capable in managing their finances. Perhaps Chinese women have less confidence in their ability to gain wealth, and, therefore, have learned superior skills in managing their limited financial resources. Another possibility is that some cultural bias within the CRIS led to this result.

*SWLS results.* Women scored significantly higher on life satisfaction than males. The Chinese government's continuous efforts to improve the family and social status of women may have contributed to their greater life satisfaction. Since the execution of the Marriage Law in 1950, comprehensive child care and social support facilities allowed most women to return to work outside the home after an eight-week maternity leave at full pay. Women participate in every sphere of work and decisions at home, and husbands are encouraged to share household responsibilities (Livingston & Lowinger, 1983). The current imbalance between males and females (ratio 1.19: 1) in China may have made it more difficult for men to find life partners and jobs while increasing the independence and prominence of women (<http://www.stats.gov.cn/english/>).

#### *Income Factor*

*BASIS-A Inventory results.* The high income group scored significantly higher than the low income group on Belonging/Social Interest and Softness. Compared to the low income group, the high income group may be more extroverted, cooperative, more tactful in interpersonal relationships, and more positive towards their life experiences. The high income group scored significantly higher on Taking Charge and Wanting Recognition than both the medium and low income groups. People with high incomes may be more controlling, more success-oriented, achievement-focused, and approval-seeking than those who have medium or low incomes. This in a sense reveals the power disparity between high income and lower income groups which may lead to disharmony in the society.

The middle and low income groups are similar to each other on BSI, TC, WR, and Softness. This means they have a similar perception of childhood experience and current



sense of belonging/social interest, and they may have a similar need of domination and recognition.

It is interesting that there were personality differences associated with varying incomes but not with age. The greater role of economic status over age is in accordance with Bowles and Gintis (2001), who found the family income factor to be a stronger than age predictor of an individual's personality, educational achievement, and career success. The high income group scored higher than other groups on the four major personality traits, BSI, TC, WR, and Softness as measured by BASIS-A. Although high scores on BSI are normally associated with low score on TC among Western populations (Curlette, Wheeler, & Kern, 1997), this relationship did not hold up with this Chinese sample. More studies need to be conducted to explore the cultural compatibility of the major constructs in the BASIS-A Inventory.

*CRIS results.* The high income group scored higher than other income groups on five coping resources (Self Disclosure, Self Directedness, Social Support, Financial Freedom, and Physical Health). Thus, it appears that income is a major determinant of coping resources for Mainland Chinese.

*SWLS Results.* Although income has played a role in personality difference and coping resource difference, there is no significant main effect of income on life satisfaction. Why does income difference not lead to varied life satisfaction? Is it a testing bias in the measurement or a sampling error? This is an interesting point for future exploration of the test development, and the effect of income on life satisfaction.

*Age and Income Interaction*

*CRIS results.* Within the older generation and middle generation, more income is associated with more perceived Financial Freedom. However, in the young generation, the high income group perceived less Financial Freedom than the middle income group. Because of the fast economic growth and expanded consuming opportunities, the high income young group seem to have a greater desire for consumption. Moreover, because the Financial Freedom scale also measures the perceived ability to manage one's resources, the younger group may not have been forced, as likely were older and middle generations, to develop resource management from experience with significant scarcity.

Within the low income group, the old and middle generations perceived more financial difficulties, and worried more about financial matters than the young generation. This may be related to the societal transformation process. The old and middle generations experienced more poverty, more stressful social events (e.g. Cultural Revolution, Great Leap Forward), and received less adequate education than the young generation, and, therefore, had less capability to generate high income and create financial freedom. During the modernization process and economic reforms in the 1980s, a large number of the work force was laid off because of the adoption of new technology, state-wise restructuring of organizations, and new economic policies (Clay, 2002), and the laid off population were either parents or grandparents (i.e., middle and old generation as categorized in this study). The old and middle generations probably spent most of their money on meeting the needs of the only child, and such children probably learned to manage their limited resources, therefore, they developed superior financial management abilities. This may be why within the low income group, the young generation perceived more Financial Freedom than the other two generations regardless

of the low income reality. The younger generation in high income group may not have been forced to manage their resources, thus, their lack of financial management capability led to a perception of less financial freedom.

The reason that the middle generation with middle income perceived less Financial Freedom may be that they are providers for the elderly and the young and are stressed in job competition. Within the high income group, the young generation perceived much less Financial Freedom than the older generations. This may be because the old and middle generations are more content with what they have while the young generation has higher expectations and consumption desires beyond their income.

*SWLS results.* Within each income group, the old and middle generations are much more satisfied with life than the young generation. The old generation with low income scored significantly higher on life satisfaction than young generation with any income. Within the old generation, the low income group is more satisfied with life than the other two income groups. This may be because the old and middle generations have experienced more difficulty and hardships in their early years and perceive the current society as truly satisfactory. The social transformations moved 300 million people out of poverty and improved living conditions for the majority of people. This could be why the low income group is grateful and satisfied with the current life situation.

Within the middle generation, the high income group is more satisfied than the other two groups, probably because the middle generation has to provide for the elderly and young, and income is truly a major determinant of individual satisfaction. Within the young generation, the high income group scored lowest on life satisfaction and the middle income group scored highest. From 1980s to 1990s, under the One-Child-per-

Couple policy, parents gradually became more financially capable and they had been providing daily luxuries to children, which may have developed a strong sense of entitlement in the young (Yan, 2003).

The middle income young group may have had a balanced childhood with just adequate family income and emotional support to meet their needs, which probably helped them to hold more realistic desires and manage their income accordingly, therefore, they are more satisfied with life than other groups. The reason that the high income group members is least as satisfied with their lives may be because they were given more resources but less opportunity to organize resources in their childhood than the other two groups. They probably were more reliant on resources or services given to them than on self-reliance and, therefore, are less capable of finding life satisfaction based on their own efforts and are more ready to share discontentment than other groups.

The lowest life satisfaction among young people with high income poses two questions to the Chinese society: What values should the society promote so as to increase life satisfaction while encouraging financial achievement? Knowing that most young people are the only children, what should the schools provide so as to increase self-efficacy of the only children? According to CNN.com/World, BBC News (March 8, 2002), researchers from the Suicide Research and Prevention Center at the Beijing Hui Long Guan Hospital estimated suicides to be roughly 287,000 per year from 1995 to 1999. Suicides accounted for 19% of deaths among Chinese people aged 15 to 34. A reported increase in the drug use of youth (750,000 youth drug users in 2001) along with an increase in mental health problems as reflected in the drastic increase of youth suicides suggests an urgent need for addressing the psychological needs of youth.

### *Gender and Income Interaction Effects*

*CRIS results.* Across all income levels, male participants perceived themselves more physically fit than female participants. This may be because males are more active in physical exercises and are expected to do more physical work than females despite income level. It is interesting that within male groups, physical fitness was not significantly different across income groups, however, within female groups, higher income is associated with lower physical fitness. Higher income females are often mind workers who engage in minimal physical work or exercise, are more focused on body image than production, and engage in a lifestyle that involves increased spending and less physical exercise, which in return, reduces their physical fitness (Livingston & Lowinger, 1983). Low income receivers are often physical workers who engage in more physical labor which serves as physical exercise that reduces physical problems and increases physical fitness.

### *Regression Results*

*BASIS-A Inventory predicts SWLS.* Numerous Western researchers found Belonging-Social Interest to be the strongest predictor of life satisfaction among BASIS-A variables (Dixon et al., 1986; Edwards & Kern, 1995), however, it did not appear as the strongest predictor in this study. Entitlement appeared to be the leading predictor of life satisfaction, and BSI is the second most important predictor. This raises the question of why Entitlement was a stronger predictor of life satisfaction than Belonging/Social Interest in this sample. It is possible that the concept of Entitlement is viewed positively among the Chinese and negatively among North Americans. The Chinese and American concepts and standards of BSI may have been different, but the test items on this

construct may have not included salient Chinese values. Further empirical research regarding this BSI concept in China would help to address this question.

Perceived entitlement is a very stable variable with high reliability on the BASIS-A Inventory and it is related to the belief that one is special (Curlette et al., 1997). The majority of the participants in this study were born during the drastic societal transformations when family members had to spend energy on adaptation, which may have reduced their opportunity to receive care from adults. For children, self interest is more important than social interest because children have a natural need to get their basic needs (attention) met before they can help others (Ellis, 1973). According to Adlerian theory, of the four mistaken goals of behavior, attention-seeking is associated with the least amount of discouragement, and people who received attention are more likely to feel encouraged (Adler, 1927/1954) and more satisfied with life. Living in a highly interpersonal cultural environment, such as China, the amount of attention and support children received from the adults and peers would be a major determinant in their life satisfaction and world view development. Children develop coping strategies and lifestyles based on biased perceptions of the early childhood experiences and carry such characteristics throughout the life span, which would affect his or her life satisfaction. Entitlement as a stable personality variable stems from childhood and continues throughout adulthood. It is thus not difficult to understand why Entitlement is the strongest predictor of Chinese life satisfaction.

The Confucian emphasis on wisdom, benevolence, and courage in interpersonal process may have fostered some cross-generational personality traits like Belonging-Social Interest and Going Along. The highly interpersonal environment may have

fostered and normalized individuals' abilities in sharing, cooperating, and reducing self-involvement. This in a way may have increased Chinese people's social interest which served as stress coping resources. The amount of entitlement a child felt is related to the amount of attention or support received, which would reveal whether needs were met and whether there was enough modeling and environment for Belonging/Social Interest. An environment with abundant social interest may better meet a child's needs and lead to the child's sense of Entitlement and Belonging-Social Interest, which affects his or her life satisfaction. This may be why Entitlement and Belonging-Social Interest are the two leading predictors of life satisfaction in Mainland China.

The traditional Chinese culture highly emphasized social hierarchy and achievement at the same time, which may have encouraged people to strive for respect, seek recognition and acceptance by others. Consequently, the achievement of perfection and recognition may lead to a sense of being accepted and important (i.e., Entitlement, Belonging/Social Interest). The recent Chinese policies continue to encourage respect for the elderly, kindness to the young, and respect for achievers (Yan, 2003). The single child families may have reinforced the sense of entitlement of the young by providing daily luxuries. Such a social dynamic awards the adults with life satisfaction because of their capability in providing for the child, and it leads the child to satisfaction because of the special attention received. Entitlement thus has a positive effect on life satisfaction.

*CRIS predicts SWLS.* Financial Freedom, Social Support, and Confidence accounted for 14.1% of variance in life satisfaction. Financial Freedom alone explained 11.1% of the total 14.1%. The poverty line in the United States in 2004 is \$9,827.00 per capita (<http://www.census.gov/hhes/www/poverty/threshld/thresh04.html>), and the

international poverty line is \$365.00 per capita. Currently, China's per capita income is \$800.00, which is the lower level of a moderate income in a medium developed country (<http://www.stats.gov.cn/english/>). However, 64% of the Chinese population (i.e., 90 million people) live with an annual income below \$99.64 (<http://www.stats.gov.cn/english/>). Compared to the income levels in the United States listed above, Chinese income is inadequate. Although grateful for the economic development and social progress they have made in the last 40 years, Chinese people seem to want a better standard of living and expect more Financial Freedom for life satisfaction, as indicated by the research results.

The highly interpersonal and harmony-focused culture may have fostered social support resources which improved confidence of individuals and communities for stress coping. Despite poverty, China has a lower rate of crime and mental illnesses than the United States (Livingston & Lowinger, 1983; Yan, 2003). The generational similarity in personality and the family cohesion may have made it easy to produce social support resources and confidence in handling poverty and stressful transformations. Therefore, social support and confidence may have been traditional strengths and coping resources and building blocks of life satisfaction for the Chinese people. Efforts in building social support resources in communities may help the Chinese to achieve financial freedom and societal harmony.

*A combination of BASIS-A Inventory, CRE, age, gender, and income predicts SWLS.* The multiple regression model derived from a combination of the 10 BASIS-A Inventory scales, CRE, age, gender, and income included Coping Resource Effectiveness, Entitlement, age group, and Belonging/Social Interest in that order of entry into the



model. It seems then that Chinese participants who perceive themselves to have effective coping resources and a strong sense of entitlement and belonging and social are more satisfied with their lives. The negative *Beta* weight on age factor ( $-.125, p = .000$ ) shows that in conjunction with the other variables, the younger the age, the lower the life satisfaction tends to be. Another multiple regression using the 10 BASIS-A scales and 15 CRIS scales retained Financial Freedom as the strongest predictor of life satisfaction, followed by Entitlement, Belonging/Social Interest, Social Support, young age, Social Desirability, and other variables.

*Cronbach Alphas and Means of BASIS-A, CRIS, and SWLS*

North American samples for the BASIS-A, CRIS, and SWLS are mostly middle class with relatively sufficient income, whereas the majority of the Chinese sample in this study has relatively low or inadequate income. This could be one reason the BASIS-A Inventory and the SWLS had moderate reliability with Chinese samples but high reliability with North American samples.

The BASIS-A Inventory means indicated that the North American sample scored slightly higher than Mainland Chinese on BSI, GA, WR, BC, and slightly lower on TC. This means the personality traits between the North Americans are not very different from those of the Chinese. This poses a question why the cultural differences between North America and Mainland China led to similar personality traits.

North American culture emphasizes independence, while Chinese culture stresses interdependence. Perhaps this would explain why North Americans scored higher on Self-Directedness, Self-Disclosure, and Self-Acceptance than Mainland Chinese. Mainland Chinese scored higher on Physical Fitness and Physical Health than North

Americans. Perhaps Mainland Chinese samples have lower income than North Americans but may engage in more physical work and activities, which led them to a lifestyle that is more physically fit and healthier than the North American participants.

It is noteworthy that Chinese participants scored significantly lower on Social Desirability and Financial Freedom than North American participants. The Social Desirability scale on the CRIS measures impression management. The lower scores of Chinese respondents may suggest that they are less likely to fake good and perhaps more likely to realistically view themselves. The Chinese cultural emphasis on self-reflection may have led to self-awareness and thought control to lower stress but U.S. culture has focused more on technological development for human welfare; therefore, Chinese scored higher on internal Tension Control and Americans scored higher on Stress Monitoring. Either through internal or external control, the stress is handled.

Most of the mean scores between Chinese and North American samples are similar, and the few differences all make sense because they to a large extent reflected the cultural value differences. This in a sense proved that the translation was accurate. Despite the differences listed above, the means of Coping Resource Effectiveness of both populations suggest no difference. Eastern and Western cultures provided unique stressors for their people and equipped their people with certain personality traits and resources to cope with stress. The satisfactory Cronbach Alpha of CRIS in research using North American samples and Mainland Chinese samples indicate that the scales in this instrument are highly reliable and thus contain universality.

Despite several differences reported above, the majority of results suggest that Mainland Chinese and North American samples have similar personality traits as

measured by the BASIS-A Inventory, and similar coping resource effectiveness as measured by CRIS. This means that personality influences emotional well-being everywhere, but personality variables are not the same across cultures. This supports the conclusion made by Schimmack, Radhakrishnan, Oishi, Dzikoto, and Ahad (2002) that the influence of personality on the emotional well-being is pancultural.

#### Limitations of This Study

The demographic information regarding income used categorical variables and specified the lower end and higher end for low and medium income groups, but it did not specify the upper limit of high income group. This makes it difficult to determine the midpoint of the high income group and thus creates a minor problem for regression analysis. Future research needs to overcome this shortcoming.

The researcher used the international guidelines to translate the western instruments but did not conduct a pilot research to test the validity of the translation. Although the similarity in mean scores of most scales on Chinese and North American samples indicated a valid translation, future cross-cultural research needs to add culturally salient constructs to the instruments, to identify culturally incompatible items, and to conduct a pilot study of the test before delivering it to the participants. The moderate Cronbach alpha of the SWLS and the separate scales of BASIS-A Inventory on the Chinese sample may be due to cultural biases in the test.

This study adopted the validity key, social desirability, and missing data criterion derived from CRIS research on North American population. This screening excluded 2,361 Chinese participants out of 4,720 from analyses. There may have been cultural issues in the validity key and in the social desirability scale that are invalid for the

Chinese population. To make the analyses more useful for the participants and the population they represent, it is critical to establish Chinese local norms, culturally sensitive validity criteria and social desirability screening standards based on data from the Chinese population. The screening based on Chinese local profile may provide a more valid and reliable data set for analysis.

The research relied on quantitative research methods without further exploration into the participants' responses. Mixed methods such as documentation, observation, interviews, and focus groups would make the research more useful for practical decision-making about test development, and policy improvement.

#### Implications for Further Research

Further research is needed to explore why the Chinese personality did not exhibit generational differences in this study, whether there is truly no difference or whether the BASIS-A is not sensitive enough to reveal the differences. No studies have used BASIS-A to test generational personality differences. A qualitative study of the participants who completed the BASIS-A Inventory in China may provide reasons to this finding. The family is the first and foremost social system to influence an individual's personality development and foundation for stress coping (Adler, 1927/1954; Sweeney, 1998). Testing the personality traits of the multigenerational family as an entity may offer valuable information to answer this question. The family economic status affects an individual's personality development, therefore, it is a significant factor to consider in personality research. Future research may recruit multigenerational family units with varied income levels to participate in the research and analyze the individual personality

traits in each generation. Such analysis results may reveal if there is truly no personality difference across the generations.

The puzzle regarding Entitlement being the strongest predictor and Belonging-Social Interest being the second predictor of life satisfaction could be addressed by an examination of the relevant items on the instrument, and interviews of Chinese participants who scored high on this scale to identify the cultural factors embedded and to adapt the items to match the cultural settings. An empirical research of the adapted test would help to determine the cross-cultural difference in concepts of Entitlement and Belonging/Social Interest.

Personality varied across gender and income while the weight of stress coping resources greatly varied across the boundaries of age, gender, and income. This gives evidence for educators and mental health practitioners to design training programs for low scorers based on age, gender, and income levels and to group individuals accordingly. The training can focus on improving the specific coping resources that a group needs to acquire. The educational efforts and systematic changes to improve Coping Resource Effectiveness, a way to get one's needs met through appropriate behaviors, and a sense of Belonging/Social Interest, may lead Chinese people to higher life satisfaction. Because Financial Freedom is the strongest predictor of life satisfaction in regression analysis with CRIS, training programs and systematic changes that lead to income increase would improve the Chinese life satisfaction. The middle and old generations may benefit from career training to increase income, stress management training to increase self-efficacy, and parenting programs to increase child efficacy. The training programs can be carried

out for male participants and female participants separately and focus on their specific inadequacy in coping resources.

The young generation scored significantly lower on life satisfaction than the old and middle generations. Qualitative research methods may provide important information to understand the reasons behind this result. One way to understand this result is that the families are still adjusting to the dynamics under One-Child-per-Couple policy and are not educated about parenting the only child. The parenting task has become more difficult because parents are raising children under social conditions decidedly different from those of their childhood (White & Mullis, 1996). The Chinese parents may not be aware of the special needs of their only children and need education how to best utilize material and mental resources to support their children to fit in the society.

The association between the young generation's high score on entitlement and low score on life satisfaction may have resulted from being pampered at home. Personality traits are acquired in early childhood and parents can help the children to acquire traits that would serve as coping resources. Personality is related to stress and stress coping, therefore, parenting training programs to improve the family harmony and social dynamic may increase the possibility for the young to acquire traits for future success. Such training can focus on increasing family members' feelings of significance and belonging, and willingness to get along with and help others.

A major stress for the youth is pressure for academic excellence (Chen & Silverstein, 2004) and low education may lead to low income. This may be another reason the young generation scored lowest on life satisfaction in this study. Academic excellence is important for future jobs which lead to Financial Freedom, however,

Entitlement and Belonging-Social Interest are also strong predictors of life satisfaction. The mental health needs of the youth seem to be downplayed because the main emphasis of child-rearing and schooling has been on academic achievement. Character education in school systems may promote altruistic behaviors while striving for academic perfection and economic achievement. Families and schools may collaborate in encouraging the youth to be more involved in social services. To reduce the children's urge of wanting recognition, training programs aimed to increase self-acceptance, confidence, self-directedness, and social skills may be helpful.

Practitioners may use different approaches in treating Chinese clients. They can purchase one instrument for use with a client, or use a combination of instruments, depending on the client's needs and ability to pay. When interpreting the scores of Entitlement, the practitioner needs to bear in mind that an individual can achieve Entitlement through both useful and pampered actions. Although a high score on Entitlement has been found to be associated with the least possibility of pathology (Curllette et al., 1997) and may predict life satisfaction for Mainland Chinese, it may move an individual towards socially acceptable behaviors or in a selfish direction that will cause difficulties in life. Practitioners need to explore further with the client what the Entitlement score means and how that affects the client in family relationships, work, and social life.

It is noteworthy that the variance of life satisfaction of Mainland Chinese explained by CRIS and BASIS-A separately or in combination is significantly lower than that found in Western populations (Kenneth B. Matheny, personal communication, June 20, 2005). The North American cultural values within which the BASIS-A

Inventory and the CRIS were developed are significantly different from the basic Chinese values such as Confucianism, Taoism, and Buddhism; therefore, some of the salient personality traits and important coping resources in Chinese culture that have varied life satisfaction may have not been included in the tests. This may be why the BASIS-A Inventory and the CRIS have low predictability of Chinese life satisfaction even though they are found to be highly valid and reliable in U.S. culture. To increase universality of the instruments, more efforts are needed to incorporate cross-cultural constructs in personality tests and coping resource inventories. Item response analysis, qualitative studies, and pilot studies of the scales that incorporated Chinese cultural values may lead to higher validity and reliability of the tests, thus increasing the universality.

Based on the test manuals of the BASIS-A Inventory and the CRIS, the test development process relied on North American samples who at least could afford medical insurance, and most of them were college students. There is a possibility that low income minority and less educated populations were excluded from participation in the test development process. The tests may fit middle and upper class White people more than lower income minority populations. Whether these instruments were a good match for the Mainland Chinese population with low income and disadvantaged education needs to be further explored. Future research needs to explore more how to adapt such instruments to the socioeconomic contexts and make it a fit for the lower income population.

Eighty percent of Chinese population consists of peasants and rural residents. To contribute in the construction of a stronger country, researchers need to make efforts to consider the needs of the poor, the less educated, the rural, and the farmers. Education



needs to benefit the majority of the population, and research needs to be useful for the majority areas of the country. This research is just one initial step towards meeting the needs of the majority in Mainland China. Group training, school education, and policy improvement are necessary methods to improve the Chinese life satisfaction. More research is needed to explore avenues and potential policies to increase life satisfaction of the poor. The research results could be helpful reference for the government to make decisions on educational reform, human management enhancement, and societal transformation guidelines.

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Appendixes

APPENDIX A

SIGNIFICANT INCOME DIFFERENCES ON BASIS-A SCALES

Variables	Low ( $N = 1,208$ )		High ( $N = 553$ )	
	M	SD	M	SD
Belonging/Social	3.4878	0.53169	3.6133	0.53569
Interest				
Taking Charge	2.5215	0.58899	2.6800	0.62628
Wanting Recognition	3.4227	0.46861	3.5189	0.47522
Softness	3.7082	0.57122	3.8227	0.57581

*Note.* Pillai's Trace = .031,  $F(20, 4664) = 3.637$ ,  $p = .000$ .

## APPENDIX B

### SIGNIFICANT GENDER DIFFERENCES ON CRIS SCALES

Variable	Male ( <i>N</i> = 1,466)			Female ( <i>N</i> = 893)			Total ( <i>N</i> = 2,359)		
	M	SD	SE	M	SD	SE	M	SD	SE
Confidence	69.98	19.760	.516	64.04	20.978	.702	67.73	20.429	.421
Acceptance	51.77	14.235	.372	49.47	14.259	.477	50.90	14.285	.294
Financial	47.83	19.591	.512	50.82	18.193	.609	48.96	19.125	.394
Freedom									
Physical	57.02	22.673	.592	50.63	21.282	.712	54.60	22.368	.461
Fitness									
Stress	65.76	18.043	.471	63.12	18.164	.608	64.76	18.130	.373
Monitoring									
Problem	75.70	18.523	.484	72.75	18.895	.632	74.58	18.715	.385
Solving									

*Note.* Pillai's Trace = .044,  $F(12, 2330) = 9.028$ .  $p = .000$ .

## APPENDIX C

### SIGNIFICANT INCOME DIFFERENCES ON CRIS SCALES

Variable	Low ( <i>N</i> = 1,208)			Medium ( <i>N</i> = 598)			Total ( <i>N</i> = 553)		
	M	SD	SE	M	SD	SE	M	SD	SE
Self	54.24	18.007	.518	56.05	18.696	.765	59.37	20.388	.867
Disclosure									
Self	51.18	12.841	.369	52.40	13.099	.536	56.54	14.346	.610
Directedness									
Social	76.99	16.948	.488	78.78	16.662	.681	80.20	16.665	.709
Support									
Financial	46.44	18.339	.528	49.15	19.097	.781	54.28	19.755	.840
Freedom									
Physical	79.24	15.745	.453	79.80	16.087	.658	83.28	15.698	.668
Health									
Physical	56.01	21.433	.617	53.98	22.994	.940	52.19	23.461	.998
Fitness									

*Note.* Pillai's Trace = .062,  $F(24, 4662) = 6.265, p = .000$ .

APPENDIX D

SIGNIFICANT AGE AND INCOME INTERACTION ON FINANCIAL FREEDOM

SCALE OF THE CRIS

Generation	Income Group	N	M	SD	SE
Old	Low	64	45.38	18.146	2.27
	Medium	71	52.07	17.861	2.12
	High	143	57.60	20.004	1.67
Middle	Low	394	45.08	18.266	0.92
	Medium	255	47.15	19.601	1.23
	High	268	55.13	19.264	1.18
Young	Low	750	47.24	18.372	0.67
	Medium	272	50.27	18.804	1.14
	High	142	49.35	19.625	1.65

APPENDIX E

SIGNIFICANT AGE AND INCOME INTERACTION DIFFERENCES ON SWLS

Generation	Income Group	N	M	SD	SE
Old	Low	64	4.3164	1.254	0.157
	Medium	71	3.9683	1.155	0.137
	High	143	4.0240	1.388	0.116
Middle	Low	394	3.6603	1.198	0.060
	Medium	255	3.6504	1.258	0.079
	High	268	3.9418	1.264	0.077
Young	Low	750	3.5256	1.165	0.042
	Medium	272	3.6560	1.179	0.071
	High	142	3.4655	1.162	0.097

APPENDIX F

SIGNIFICANT PEARSON CORRELATIONS OF BASIS-A, CRIS, SWLS--R  $\geq .05$ ,

P  $\leq .001$

	BC	L	CRE	CF	CR	SE	PS	MN	ST	TC	AC
S	-.550										
WR		.856									
SS			.635								
DI						.516					
FB											.826
SD			.503			.760					
MN			.657	.532	.627		.569		.546	.507	
TC			.693	.522	.836		.522		.507		
DES			-.653	-.597			-.501				
ST			.744	.655	.629		.702				
PS			.781	.712	.689						
SE			.712	.548							
CR			.792	.723							
CF			.812								
FF			.546								
PH			.585								
PF			.609								

*Note.* AC = Acceptance; BC= Being Cautious; CF = Confidence; CR = Cognitive Restructuring; CRE = Coping Resource Effectiveness; DES = Social Desirability; DI = Self-Directedness, FB = Functional Beliefs; FF = Financial Freedom; L = Liked by All; MN = Stress Monitoring; PF = Physical Fitness; PH = Physical Health; PS = Problem Solving; S = Softness; SD = Self-Disclosure; SE = Social Ease; SS = Social Support; ST = Structuring; TC = Tension Control; WR = Wanting Recognition.

APPENDIX G

STEPWISE REGRESSION ANALYSIS SUMMARY FOR BASIS-A INVENTORY  
 SCALES PREDICTING LIFE SATISFACTION ( $N = 2,359$ )

Hierarchical Step	Variable	Beta	Standardized		
			SE	t	p
1	Entitlement	.239	.041	11.712	.000
2	Belonging/Social Interest	.176	.055	7.479	.000
3	Going Along	.079	.044	3.756	.000
4	Striving for Perfection	.089	.051	3.912	.000
5	Wanting Recognition	-.067	.058	-2.990	.003

*Note.* Model was significant  $F(1, 2352) = 8.938$ ;  $p = .003$ , adjusted  $R^2 = .117$ ,  $R^2 = .118$ ,

$R = .344$ .



APPENDIX H

STEPWISE REGRESSION ANALYSIS SUMMARY FOR CRIS SCALES

PREDICTING LIFE SATISFACTION ( $N = 2359$ )

Hierarchical Step	Variable	Beta	Standardized		
			SE	t	p
1	Financial Freedom	.259	.001	12.318	.000
2	Social Support	.122	.002	5.666	.000
3	Confidence	.098	.001	4.428	.000

*Note.* Model was significant  $F(1, 2355) = 9.604, p = .000$ , adjusted  $R^2 = .140, R^2 = .141$ ,  $R = .375$ .

APPENDIX I

STEPWISE REGRESSION ANALYSIS SUMMARY FOR AGE, GENDER, INCOME,

COPING RESOURCE EFFECTIVENESS, BASIS-A INVENTORY SCALES

PREDICTING LIFE SATISFACTION ( $N = 2,359$ )

Hierarchical Step	Variable	Beta	Standardized		
			SE	t	p
1	Coping Resource Effectiveness	.267	.002	13.391	.000
2	Entitlement	.203	.039	10.630	.000
3	Age	-.125	.033	-6.664	.000
4	Gender	.119	.048	6.298	.000
5	Belonging/Social Interest	.094	.048	4.620	.000

*Note.* Model was significant  $F(1, 2352) = 21.346, p = .000$ , adjusted  $R^2 = .184, R^2 = .185$ ,

$R = .430$ .

APPENDIX J

STEPWISE REGRESSION ANALYSIS SUMMARY FOR BASIS-A, CRIS, AGE,  
GENDER, AND INCOME DUMMY VARIABLES PREDICTING LIFE  
SATISFACTION ( $N = 2,359$ )

Hierarchical Step	Variable	Beta	Standardized		
			SE	t	p
1	Financial Freedom	.111	.209	10.075	.000
2	Entitlement	.185	.040	9.463	.000
3	Belonging/Social Interest	.130	.048	6.406	.000
4	Social Support	.073	.002	3.263	.001
5	Young age	-.083	.048	-4.241	.000
6	Social Desirability	-.079	.002	-3.479	.001
7	Male	-.098	.048	-5.167	.000
8	Old age	.062	.075	3.093	.002
9	Physical Fitness	.045	.001	2.133	.033
10	Being Cautious	.067	.040	3.101	.002
11	Going Along	.051	.044	2.412	.016
12	Physical Health	.043	.002	2.053	.040

Notes: Model was significant  $F(1, 2345) = 4.214$ ,  $p = .040$ , adjusted  $R^2 = .222$ ,  $R^2 = .226$ ,

$R = .476$

## APPENDIX K

### COMPARISON OF MEANS OF BASIS-A INVENTORY SCORES BETWEEN MAINLAND CHINESE SAMPLE AND NORTH AMERICAN SAMPLE

Variables	Chinese Sample ( <i>N</i> = 2,359)		North American Sample ( <i>N</i> = 1,802)	
	M	SD	M	SD
Belonging/Social Interest	3.5291	0.52259	3.70	0.683
Going Along	3.4095	0.58335	3.63	0.718
Taking Charge	2.5700	0.60047	2.51	0.748
Wanting Recognition	3.4492	0.46801	3.97	0.484
Being Cautious	2.1527	0.66315	2.24	0.819
Harshness	2.4517	0.51680	n/a	n/a
Entitlement	2.7738	0.60344	n/a	n/a
Liked by All	3.4519	0.53719	n/a	n/a
Strive for Perfection	3.6231	0.54085	n/a	n/a
Softness	3.7482	0.56863	n/a	n/a

APPENDIX L

COMPARISON OF MEANS OF CRIS SCORES BETWEEN MAINLAND CHINESE  
SAMPLE AND NORTH AMERICAN SAMPLE

Variable	China ( <i>N</i> = 2,359)			United States ( <i>N</i> = 1,800)	
	M	SD	SE	M	SD
Self Disclosure	55.90	18.868	.39	63.00	30.10
Self Directedness	52.75	13.442	.28	57.30	25.85
Confidence	67.73	20.429	.42	67.20	27.40
Acceptance	50.90	14.285	.29	54.60	23.80
Social Support	78.19	16.856	.35	75.65	23.20
Financial Freedom	48.96	19.125	.39	67.95	28.60
Physical Health	80.33	15.900	.33	75.65	20.00
Stress Monitoring	64.76	18.130	.37	70.05	27.15
Tension Control	66.69	17.933	.37	56.15	26.00
Structuring	71.86	18.966	.39	69.85	22.90
Problem Solving	74.58	18.715	.39	72.05	23.25
Cognitive Restructuring	70.68	17.609	.36	62.57	24.57
Functional Beliefs	51.65	14.087	.29	55.23	24.82
Social Ease	63.87	17.719	.36	66.15	26.20
Social Desirability	49.07	16.693	.34	69.15	17.00
Coping Resource	65.19	11.076	.23	65.99	15.85
Effectiveness					