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ABSTRACT

The returned overseas-educated Chinese scholars are a driving force behind the rapid Chinese education and technology development. Despite the drastically increasing number of Chinese repatriate scholars, little is known about their experience of re-entry into China and how they readjust to the work and family life in a changed homeland. Their emphasis of pursuing world class scholarship and their traditional value of the family led to the design of the present study that involved both the individual, person within the family and the family level analysis of stress and coping upon re-entry. Study 1 through qualitative interviews explored their subjective multiculturalism and their perceived stressors and coping responses. Study 2 tested the effectiveness of various stress, coping styles/strategies and a hypothesized moderating effect of coping flexibility at the individual level. Study 3 focused on the family, and examined how perceived family resilience affected individual's coping efficacy and the collective stress and coping experiences with the family as a unit of analysis upon reentry. Results were discussed for policy input to further facilitate the repatriate scholars readjustment.

CHAPTER ONE INTRODUCTION

This study aimed to explore the repatriating experiences of Chinese repatriate scholars. Using the transactional stress-and-coping framework, the present study examined how these repatriate scholars perceived the challenges they faced upon re-entry, how they attempted to cope with the challenges and how they fared professionally and personally as a result. The working styles and values of Chinese repatriate scholars were westernized during their overseas stay. However, they still hold the key Chinese cultural values in their personal practices. The value of family to the individual and the society is the most central to Chinese culture (Wu & Tseng, 1985). Hence, this study not only focused on the repatriates' individual stress-and-coping process, but also took a family-centered approach by exploring repatriates' stress-and-coping within the family, and by investigated the family's stress-and-coping by regarding the family as a unit.

The transformation of civilizations has always resulted from cultural encounters (Bentley, 1996), whereby cultural synergy is created and new cultures formed. These dynamic evolutionary processes of culture are often spear-headed by agents or brokers, who traverse between cultures and either intentionally or inadvertently bring with them aspects of different cultures to their home culture and the cultures that they visited.

China historically had considered herself the well-spring of civilization to whom peoples of other cultures sent agents, often in the form of scholars, to learn the Chinese way (Shen & Wu, 1996). Times have changed though, and China woke up from the isolation of the "Great Cultural Revolution" to find herself lagging behind in science, technology and more recently in social sciences and other fields of scholarly disciplines (Zweig, Chen, & Rosen, 2004). The government of China decided to open her doors to

encourage scholarly exchange with other countries between universities and individual scholars alike. Since China's open-door policy began decades ago, tens of thousands of Chinese scholars have been studying overseas (Cao, 2008). Increasingly, many of them are returning to China. They are the repatriate Chinese scholars. The repatriates who have studied overseas are at the forefront of such societal advancement, and they play an increasingly significant role in the development of China (Gill, 2010; Zweig, 2006; Zweig et al., 2004).

China, India, Korea and some other Asian countries have been big senders of students to mostly Western countries. A substantial number of these Asian overseas graduates are now returning to their home countries. The pulling factors that draw repatriates include perceived better opportunities for professional development, increasing demand for their skills in their home countries, caring for aging parents, closeness to friends and higher social status compared with staying overseas (Wadhwa, Sxenian, Freeman, Gereffi, & Salkever, 2009).

On the home front, China's rapid development and her continuing economic success allows China to turn from a country of brain drain to a country of brain gain. The overall return rate of Chinese overseas students was around 24 percent of those who went overseas from 2000 to 2011 (Wang & Xu, 2012). The total number of returned foreign-educated Chinese students is estimated to be over one million by 2012 (Wang & Xu, 2012).

The repatriates are now making a dramatic impact on the home country's development, economically, socially and in research and education (Zweig et al., 2004). The returned overseas educated scholars who have acquired advanced knowledge and

skills, and more importantly, international qualifications, are regarded as the main driving force behind the rapid development of Chinese academia. They bring back the cutting edge knowledge and research technologies that propel the local universities to become members of world-class research intensive institutions (Namgung, 2009; Xu, 2009). Compared with their local-educated colleagues, foreign-educated scholars are more proficient in their knowledge and skills (Rosen & Zweig, 2005; Zweig et al., 2004). The knowledge of foreign languages is also suggested as one of the major outstanding advantages repatriate scholars possess. With better foreign language competence, repatriate scholars read world-class journals more often and publish more in overseas journals than local colleagues (Jonkers & Tijssen, 2008; Rosen & Zweig, 2005). The repatriates have also made significant and new contributions to the academic development of their universities and colleges. For instance, using their foreign-acquired knowledge and skills they create and teach advanced graduate courses, which bring more impacts to the new generation of Chinese scholars (Rosen & Zweig, 2005).

In terms of global linkages, scholars returned from overseas have much stronger international ties (Jonkers & Tijssen, 2008; Rosen & Zweig, 2005). They are much more likely than locals to provide links for international cooperation, introduce foreigners to their universities/research institutions, and translate foreign language materials. Repatriate scholars serve as a bridge for people to go overseas as well), with many repatriate scholars having experience in helping colleagues or students work and study overseas (Rosen & Zweig, 2005).

A number of repatriate scholars hold prominent positions in Chinese top research institutions/universities. According to the data compiled for 2003 (see Prevezer, 2008),

repatriates comprised more than 80% of academicians in the Chinese Academy of Engineering, more than 50% of academicians in the Chinese Academy of Sciences and more than 40% of Senior Experts in the Chinese Academy of Medical Sciences. A recent survey conducted in Beijing University showed that the majority of the academic leaders (i.e. important section level heads, deputy department heads, department heads, deputy bureau heads and bureau heads) in the university had experienced studying overseas (cited from Rosen & Zweig, 2005). With their key leadership positions, these repatriates can exercise strategic influence at the level of their institutions. These institutional changes might in turn influence the direction of higher education at the national level.

From the early 1990s, the Chinese government has realized the value of “transnational capital” and has been encouraging talented overseas scholars to return to China by providing them with attractive incentives (Zweig, 2006). It is challenging for the repatriate scholars to work in the highly authoritarian and archaic organizations after being exposed to the more streamlined and decentralized institutions with more democratic organizational cultures (Gama & Pederson, 1977; Namguang, 2009). Their home institutions are changing, but the change is painfully slow. From the perspective of repatriate scholars, the traditional Chinese authoritarian bureaucratic culture hinders their work productivity and stifles their creativity (Shi & Rao, 2010). In the life-domain, the repatriate scholars might encounter personal challenges in their daily lives due to their sojourning experiences overseas. Only if the repatriates successfully go through a process of adjustment could they effectively carry out the function as the agents of change and fulfill their personal aspirations. Therefore, it is critical to explore and learn from the

repatriate scholars, including what they see as obstacles and challenges, how they cope with them and how they fare in their repatriate experiences.

Using the transactional framework proposed by Lazarus and Folkman (1984), I proposed to study the stress-and-coping process among Chinese repatriate scholars as a way of understanding the larger issue of China's social cultural development and the dynamics behind the development. Stress-and-coping can be understood as a dynamic transaction process between the person and her environment (Lazarus & Folkman, 1984). Culture is the ubiquitous context (Bronfenbrenner, 1979) that includes both the individual and her daily life (Aldwin, 2007; Chun, Moos, & Cronkite, 2006; Wong, Wong, Scott, 2006). Cultural values and social norms and values give meanings to individuals' social encounters and shape the interpretation of situations they perceive as stressful or challenging (Aldwin, 2007; Chun et al., 2006; Wong, et al., 2006). At the same time, cultural paradigms define the appropriate coping behaviors (Aldwin, 2007; Chun et al., 2006; Wong et al., 2006). The coping behaviors that are emphasized in one culture might not be effective in another. The available coping resources for the individual are related to culture as well. For instance, in some cultures, the family is seen as the main coping resource and the possibility of seeking formal help, such as counseling and professional psychological intervention, is very rare.

Nearly every definition of culture (e.g., Hofstede, 1980; Triandis, 1972) suggests that at the societal level, it is the shared pattern of beliefs, attitudes, norms, role perceptions, and values among a group people that distinguishes them from other populations. The dimension of collectivism/individualism has been popularly used to represent the differences between the East and the West (Triandis, 1989). At the macro-

group level, individualism/collectivism is often applied as a one-dimensional construct with cultures situated at either the individualist end or the collectivist end of the continuum (Hofstede, 1980). At the individual level however, individualism and collectivism are seen as values and attitude tendencies that favor either the individual or the collective. It is generally believed that both individualism and collectivism tendencies co-exist in the same individual (Ho & Chiu, 1994; Triandis, 1995). People in collectivistic culture are more concerned about relationships, while those from individualistic societies put more emphasis on autonomy and self-assertiveness (Triandis, 1989).

However, neither culture nor individuals are static entities. It is not that each of us falls into some monolithic culture and our behaviors are only informed by this culture (Howard, 1991). Individuals form their “subjective culture” (Triandis, 1972), comprised of the internalized values and beliefs, during interactions with various cultural subgroups, such as particular gender, social economic and religious groups (Howard, 1991). Subjective culture is unique to the individual because each individual has different personal experiences. By definition, the repatriates have multiple cultural experiences and do not fall into any traditional cultural category. They construct their own subjective multiculturalism, taking into consideration the varied experiences in their personal development and overseas studies, which they integrate into their understanding and expectation of their lives/worldview. Individuals with multicultural knowledge may flexibly switch their frames of reference to tune into the cues of the social environment (Hong, Morris, Chiu, & Benet-Martinez, 2000).

Though it is difficult to separate their different domains of life experiences, initial interviews for the present study suggest that they are more acculturated to a modern/Western culture regarding their research work, but are relatively more traditional/Asian in terms of family values and personal practices. This can be seen in how they interpret their work and life experiences and how they cope with challenges in life and in work. This initial evidence suggests that the Chinese repatriate's world view might be a dynamic synthesis of different cultural elements.

The present study uses an ethnographic approach to understand the subjective culture of Chinese repatriate scholars and how they interpreted their current repatriating experiences in China. The description of individualism/collectivism and Chinese traditional philosophy serves as a guide to understand the psychological processes of Chinese repatriate scholars.

Individualism/collectivism has been used extensively to explain culture differences in coping styles (e.g., Chang, Chu, & Toh, 1997; Weisz, Rothbaum, & Blackburn, 1984). People in individualistic North American countries are more likely to employ *primary control coping* goals to modify the environment to fit into their own needs; individuals in collectivistic Asian countries are more likely to employ *secondary control coping* to change themselves to fit environmental constraints (Essau, 1992; Weisz et al., 1984; Trommsdorff & Essau, 1998).

Culture and self mutually constitute one another (Markus & Kitayama, 2001). In individualist cultures, people tend to have independent self-construal. By contrast, self is often viewed as interdependent in collectivistic cultures. In the Chinese context, the self is embedded in a complex web of relationships and is expected to fulfill role requirements

within the in-group (Chang & Lee, 2012; Su et al., 1999; Yang, 1991). As a person's role expectations changes across contexts and time, a fluid sense of self is necessary to attune to the specific requirements of the varied roles (Su et al., 1999). Modifying coping strategies according to situational demands, coping flexibility, is an important factor affecting coping strategies in this cultural context (Cheng, 2001). Such flexibility in coping has also been suggested to relate to the pragmatic values endorsed by the Chinese. Pragmatism has a significant impact in today's Chinese society, which can be demonstrated in the political and economic ideology of the politician and reformist leader Deng Xiaoping who does not care about the "colour of cat" as long as it catches "the mice" (Pye, 1986). There are no fixed rules for Chinese coping behaviors; the Chinese flexibly change their coping styles and strategies in the attempt to fit with the perceived situational demands (Chang & Lim, 2007).

A major coping resource in the Chinese community is social relations or *guanxi*. Confucians regard an individual as fundamentally a social or relational being (Yang, 1995). *Guanxi*, plays a central role in every person's daily social life in Chinese relation-centered society (Park & Luo, 2001). Chinese often draw from their existing social networks or to establish *guanxi* with strangers in the attempt to solve problems (Garbrenya & Hwang, 1996; Hwang, 1977; Wong, 2002; Wong & Kwok, 1997). *Guanxi* involves the reciprocal exchange of favors between the two parties involved. It is classified into three types of based on the perceived ties upon which the *guanxi* is built: family ties (kinship), familiar persons (e.g. former classmates and colleagues) and strangers (with or without shared demographic attributes) (Tsui & Farh, 1997). The different types of *guanxi* vary in terms of perceived intimacy to the self (Chang & Lee,

2012). *Guanxi* is seen as useful social capital that the individual can use at time of need (Tsui & Farh, 1997).

Among all the relationships for Chinese people, the family relationship is in the central position and serves as a prototype for other relationships (Lam, 1997). Chinese deeply believe that “blood is thicker than water” that is, kinship is the most important among various interpersonal relationships. Chinese have a strong sense of obligation for the well-being of their kin; they are obligated to provide support when family members are facing difficulty (Chang et al., 2006; Ho, 1981; Hsu, 1981; Wu & Tseng, 1985). In times of crisis, the Chinese family often copes as a team rather than as separate individuals encountering stressful events (Chang et al., 2006). This collective coping of the Chinese family is more than social support. The whole family takes each member’s concern as their own and works together to deal with it (Wong, 1993; Wong et al., 2006). In this cultural context, not only the personality characteristics of individuals afford them strength, but their families afford them resilience as well (Chang et al., 2006). Families that are more resilient often have members who are more resourceful in their coping with individual crises as well (Chang, et al., 2006).

This study adopted a cultural psychology approach by studying Chinese repatriate scholars within their home culture. The goal is not to compare cross-cultural differences. Instead, I explored the dynamic relationship between culture and psychology among a unique population - Chinese repatriate scholars. Having experienced successive immersions in different cultures, Chinese repatriate scholars provide the best platform to investigate the impact of culture on their definition of stress and coping responses in the stress-and-coping process.

This study had significant contribution both for scientific knowledge and for policy input. First, this study adds to the knowledge of the interplay of culture and psychological processes. A multi-stage approach (Chang, 2000) consisting of both anthropological/ethnographic interviews followed by quantitative analyses is suitable for this underexplored population. The ethnographic approach not only provides a contextualization of the participants' stress-and-coping but also gives insight to the subjective culture of study participants. The quantitative study adds validity to the qualitative study by affording more generalizable research findings. The quantitative and qualitative approaches validate and complement each other. An integration of both could give us more confidence in predicting and managing the behaviors of individuals in their cultural contexts (Chang, 2000).

Practical lessons can also be gained from the study of Chinese repatriate scholars. It is timely given the increasing number of this population and their important role in China's development. The results could be used to inform recommendations to policy makers and practitioners on how to promote the psychological well-being and facilitate the effectiveness of Chinese repatriate scholars. Knowledge about the stressors of Chinese repatriate scholars could help leaders of higher education provide better support to these global talents. The results of this study could also help the repatriate scholars cope with their stress in a more effective way. They can be even more effective change-agents in the transformation of Chinese academia and bring science and technology in China to an even higher level.

CHAPTER TWO LITERATURE REVIEW

Stress-and-Coping in the Context of Culture

Culture

Culture is a complicated and continually changing system of meaning that is learned, shared and evolving from one generation to another (Triandis, 1995). The collectively constructed shared practices, beliefs, norms and values are generally organized around cultural paradigms (Triandis, 1989), which guide the sense-making and decision making of individuals across multiple life domains (Harris, 1994; Lehman, Chiu, & Schaller, 2004).

A plethora cultural constructs have been identified to describe the culture (Lehman et al., 2004). The most commonly used cultural construct is individualism/collectivism (Triandis, 1989) despite the fact that cultural differences between individualism and collectivism are too broad (Oyserman, Coon, & Kemmelmeier, 2002) to be represented by one dimension. Individualism/collectivism has been widely used as a cultural indicator which signals a host of other cultural variables that are related to collectivism/individualism (Triandis, 1995). At the societal level, cultures that fall at the individualist end of the continuum emphasize values that promote individual goals and autonomy. Those at the collectivist end place more emphasis on interpersonal relationships, attending to others, fitting into the community and role relationships (Triandis, 1989). Asian cultures are seen as being more collectivist than Western cultures (Bond, 1988; Hsu 1981; Markus & Kitayama, 1991). Although the terms individualism and collectivism are often used to describe the cross-national cultural differences, the

conceptual distinction between individualism and collectivism is not to dichotomize the world (Lehman et al., 2004).

Another way to think about culture is from the individual level. Triandis and Suh (2002) pointed out that individualist and collectivist cognitive structures could co-exist within an individual. People who get into more individualist cognitive structures are more idiocentric while those with more collectivist cognitive structures are more allocentric (Triandis & Suh, 2002). Triandis (1972) also used the term “subjective culture” to refer to the way culture operates in an individual’s psychological world and is expressed through actions, that gives rise to the internalized beliefs, values, and norms. The macro culture does not affect every individual within it in the same way (Aldwin, 2007; Howard, 1991). There is significant variability within any macro culture in terms of the individual’s subscription to the cultural beliefs and norms: “The subjective culture of each of us is strongly influenced by the degree of contact we have with people and institutions that focus on (or see the world in terms of) their own subcultural perspective” (Howard, 1991, p. 192). In the present study, the participants are Chinese scholars who have multiple cultural experiences and have traversed different cultures. Their interactions with the “native” cultural holders influence the subjective culture of the scholars, adding to or modifying their existing cultural paradigms learned at their culture of origin. The scholars’ subjective culture is thus greatly enriched through their sojourning experiences; upon their return, they become cultural agents themselves, and through their active participation in the life in China they would influence and are influenced by the home culture they re-enter. The repatriates’ subjective culture is thus continuously evolving.

At the macro-level, culture is seen as the context in which behaviors occur (Bronfenbrenner, 1979). The influence of contextual factors partly depends upon the existing cognitive structure, the schemas and scripts of individuals who experience them (Moo, 2002). Harris (1994) suggested a schema-based perspective in understanding how internalized culture guides individuals' behaviors. Schema is a cognitive framework regarding specific concept, entities, and events that helps organize and interpret information (Markus, 1977). Individuals develop their own schemas from their personal experiences about how the world operates. Schemas of individuals' in the same subgroup may be similar as a result of shared experience and shared social construction of reality (Harris, 1994). Therefore, culture can be seen as the context of an individual's behaviors, which is guided by the perception and interpretation of the context by the existing scripts and schema of the "subjective culture" of the individual. At any given moment, how the person interacts with the current cultural context is guided by her past cultural experiences. In this reciprocal manner, culture and the person are "mutually constitutive" (Markus & Kitayama, 1991). This dynamic process is particularly evident in people with multiple cultural immersion experiences such as the repatriated Chinese scholars. Their subjective culture includes elements of the culture of origin prior to their sojourning experience and elements of their host culture. Furthermore, upon their return their culture of origin would have changed during their years abroad. The new home cultural context that they have to live in now provides challenges to them, testing the utility of the schema and scripts that they acquire in an older culture of origin and their host culture.

Increasingly, cultural scholars are viewing culture not as a monolithic entity, but as a mosaic made of different domains and elements. The cultural anthropologist A. F. C.

Wallace (1961) describes cultures in terms of “mazeways” - mental maps that join personalities with cultures. All the potential paths in the mazeway are the result of combinations of beliefs, values, behaviors and so forth that are constituted by different subcultural affiliations (Wallace, 1961). The various elements of culture such as language, gender, race, religion, place of residence and occupation exert a multiplicity of impacts upon our behaviors (Hofstede, 1991; Howard, 1991; Triandis, 1972). Therefore, culture at national level does not influence individuals in a uniform manner (Singlis & Brown, 1995). Factors at the individual level need to be considered in discussing cultural influence.

Cultures set the boundary of behaviors that are acceptable and rewardable in the cultural groups (Scarr, 1993). The process through which people acquire the values and beliefs of the culture is called socialization (Clausen, 1968). In the socialization process people change their standards, skills, motives, attitudes and behaviors to conform to make them more or less effective members in the particular society (Brim, 1966). Although the socialization process can continue throughout the life span (Arnett, 1995), the overarching values of individuals are usually developed before reaching adulthood (Mortimer & Simmons, 1978). The primary socialization experiences (Berger & Luckmann, 1966) in the early years of life inform their “basic” or “core” personality (Erikson, 1946).

Chinese family, peers, school, community, and media provided the socialization of repatriation scholars before they went overseas at adulthood. It is observed that they kept the core values of the Chinese culture (Chang, Wong, & Koh, 2003) that have withstood the test of time, especially in their personal practices. For instance, they emphasized the

importance of family and caring for elderly parents was one of the important reasons for their repatriation (Wadhwa et al., 2009).

The repatriation scholars interviewed here continued their adult socialization in overseas society. The socialization in adulthood mainly involves more overt and specific norms and behaviors, such as those pertaining to work roles (Mortimer & Simmons, 1978). During the course of their overseas academic training, Chinese overseas students/researchers were socialized into their professional fields via learning and interaction with faculty and peers. They not only acquired new knowledge to cope with academic demands, but also learned values and attitudes reflected among the professional practitioners (Weidman, Twale, & Stein, 2001). The professional socialization led to increased identification with their professional roles and the obligations to carry out the role expectations. Meanwhile, they had shared beliefs with overseas academics about how the institutions should facilitate their scholarly pursuits.

Socialization is a dynamic process; individuals are malleable throughout their whole life (Mortimer & Simmons, 1978). However, there was a reason to believe that their internalized professional norms and standards during their overseas stay serve as the core working values of repatriation scholars. They switched different cultural paradigms in response to different contexts (Hong et al., 2000). Chinese cultural values guided them more in their family life and personal practice, whereas Western cultural values were references when it came to their research work. With their rich multicultural experiences, the repatriate scholars had more resources in their cultural “tool kits” (Swidler, 1986) compared with monocultural counterparts (Lehman et al., 2004).

Stress

Lazarus and Folkman's (1984) transactional model defines stress as "a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being" (p. 19). With this definition, stress is not simply a demand of the environment or response of the individual but a dynamic interaction between the person and her environment. The stressful responses occur only when the individual perceives the demand as stressful. The cultural context can influence the ongoing stressors of individuals (Chun et al., 2006) and regulates the types of demands that an individual is likely to experience. Meanwhile, subjective culture, affects the appraisal of the stressfulness of a given event. Culture represents the behavioral norms and perceptions shared by individuals within one group that distinguish them from other people (Hofstede, 1980). As adult repatriates, the Chinese repatriate scholars had shared experiences with those who returned to other countries from the West. Meanwhile, as academics, these overseas-educated scholars might have shared experiences and values with their colleagues in mainstream academia. Repatriation stress and academic stress are reviewed in the following section.

Repatriation stress. Studies on repatriation indicate that the repatriates might experience reverse cultural shock after going back to their home country (e.g., Adler, 1981; Church, 1982; Gaw, 2000). After coming back home, the repatriates found that they themselves had changed as a result of the overseas stay. Correspondingly, during their absence, things and people in their home country had also changed. There were unmet expectations that had led to such feelings as alienation, disorientation, value confusion or anger (Mooradian, 2004). Martin and Harrell (2004) suggested that the

repatriation experiences varied with age or the developmental stage of the person.

Adolescent and young adult repatriates are more concerned with personal relationships that often affected during their sojourn overseas, whereas adult professional repatriates are more concerned about adjusting to their work. Namgung's (2009) study found that repatriate scholars to four Korean universities met with challenges due to the different academic cultures and working conditions at home and in their sojourning countries.

These differences included "excessive teaching," "rigid administrative systems" and "poor facilities" in their home countries. Similarly, Gama and Pederson (1977) reported that Brazilian repatriates from graduate programs in the United States had difficulty adjusting to the academic system, and in particular to their role as academics. "Lacking intellectual stimulation," "lacking facilities and materials," "excessive red tape" and "lacking opportunity and time to do research" were frequently reported problems by the Brazilian repatriates.

In addition, family issues such as the re-adaptation of spouses and children to daily life and schools were the main concerns of professional repatriates (Martin & Harrell, 2004). Children's school performance and language problems, as well as insufficient income to meet the needs for housing and better education, were also found to be important concerns for Korean repatriate scholars (Namgung, 2009). Gama and Pederson's (1977) study suggested that Brazilian repatriate scholars had conflicting values with extended family upon return. However, the major difficulties experienced by the repatriate scholars have been found to center on their professional work; the adjustments in some aspects of their family were considered secondary (Gama & Pederson, 1977; Martin & Harrell, 2004).

Academic stress. According to Gama and Pederson (1997), repatriate scholars' adjustment difficulty was intertwined with their occupational stress. As faculty members, some of the difficulties experienced by repatriate scholars were due to the nature of their profession. The profession-related stressors stood out to be the primary concern for academics in various studies (e.g., Gmelch, Wilke, & Lovrich, 1986). Studies conducted in North America (e.g., Smith, Anderson, & Lovrich, 1995; Thorsen, 1996), Australia (e.g., Winefield & Jarrett, 2001), Israel (Perlberg & Keinan, 1986) and Hong Kong (Leung, Siu, & Spector, 2000) generally found that academics in research intensive universities worldwide are facing stressful demands. They are expected to do well in all three professional areas – research, teaching and public services. However, professional rewards were mainly based on research productivity rather than being equally weighted across the three areas. As a result, academics reported that stress stemmed from conflicts between teaching, research work and service responsibilities (e.g., Perlberg & Keinan, 1986). The reputation of a research scholar is made on the basis of the number of publication, as a result, “preparing a manuscript for publication” was a common stressor among the academics (e.g., Thorsen, 1996). Moreover, academics often faced work overload and time constraint (e.g., Lease, 1999; Smith et al., 1995). In recent years, faculty members experienced increased stress from the high demand to secure research grants in a fiercely competitive arena (e.g., Winefield & Jarrett, 2001).

In addition to the above occupation-specific stressors, university teachers experienced stressors that were generic among other professional groups. Faculty members, especially those who were married, felt conflicts between their work and family roles (e.g., Lease, 1999). Organizational structure and climate (e.g., Bradley & Eachus,

1995), and relationships at work (e.g., Narayanan, Menon, & Spector, 1999) also had an impact.

Little is known about occupational stress in Chinese academia. Recent Chinese higher education policy has been focused on promoting internationally competitive institutions (Li, Whalley, Zhang, & Zhao, 2008). With this ambitious goal, the functions of faculty members in Chinese research-intensive universities are now experiencing a fate similar to those of their Western counterparts. Chinese faculty members not only need to teach, but also have to secure research grants and get their work published. Moreover, with the drastically increasing number of repatriate scholars, the standard of Chinese academics is on the rapid rise. The criteria for promotion through the academic ranks are becoming more and more stringent as a result. Given this circumstance, the job demand for Chinese academics are similar in nature to that faced by their Western counterparts and Chinese repatriate scholars encounter similar occupational stress as Western academics.

Variables related to academic stress. Some demographic variables are related to participants' stress level and psychological outcomes. Senior professors were less stressed in many dimensions of occupation than junior professors (Dua, 1994; Smith et al., 1995; Thorsen, 1996). Gender was another demographic variable accounting for differences in academic stress, but contradicting findings on differences between male and female faculty members were reported by different studies. Bradley and Eachus's (1995) study indicated that female faculty members in the West experienced greater pressure as a result of stress from relationships with other people and stress from perceived lack of opportunity for promotion. Smith et al. (1995) suggested that female experienced both

more role-based stress and task-based stress than male faculty members. On the contrary, some studies found no differences between men and women in academia (Abouserie, 1996; Winefield & Jarrett, 2001). These contradicting findings might be caused by the fact that the studies were conducted in different countries with different gender role expectations and organizational cultures.

Culture, eustress, and distress

Stress can be categorized into good stress and bad stress. Selye (1956, 1987) used *eustress* to refer to good stress and *distress* to refer to bad stress. According to Selye, distress occurs when the external demand is too much that the human body is unable to expend energy to maintain homeostasis. Too little stress could also be bad because it may not generate enough arousal for optimal performance. An optimal level of stress may result in eustress. The idea of an optimal level of stress arose from the Yerkes Dodson Law (Yerkes & Dodson, 1908), which suggests an inverted U-shaped relationship between stress and performance. As stress increases, performance also increases until the optimal level of stress is reached, after which increased stress will decrease performance (Benson & Allen, 1980). Selye (1987) observed that whether the stress is eustress or distress is determined by how individuals interpret the environmental demand and how to respond to the stress.

The appraisal of the meaning of stress is emphasized in the transaction stress-and-coping theory (Lazarus & Folkman, 1984). This theory maintains that environmental demands do not directly cause a response to stress; instead, it is the individual's appraisal of challenge or hindrance to the stressful encounters (i.e., threat) that regulates the stress response (Lazarus & Folkman, 1984; Skinner & Brewer, 2002; Webster, Beehr, & Love,

2011). Encounters perceived as having the potential for gain, mastery and growth are referred to as challenge appraisal, which are associated with delightful emotions such as eagerness, excitement and exhilaration (Lazarus & Folkman, 1984; Skinner & Brewer, 2002). By contrast, hindrance appraisal refers to encounters perceived as potential threats to the attainment of goals and development, and is related to unpleasant emotions such as fear, anxiety and anger (Lazarus & Folkman, 1984; Skinner & Brewer, 2002). The appraisal of stress is influenced by culture because a person's perception is guided by his/her internalized cultural values – the subjective culture.

For a long time, research has only focused on the psychological distress resulting from repeated exposure to stressful demands in the work place and daily life (e.g., Cohen, Tyrrell, & Smith, 1993). Only recently, a number of empirical studies on occupational stress reported that stress can have either good or bad effects on job performance and the resulting job satisfaction. For instance, Lu, Chang and Lai (2011) found that interpersonal conflicts and lack of autonomy are hindrances to the job satisfaction of Chinese employees, whereas work overload were perceived as an “energizer” and enhanced their job performance. Similarly, Webster et al. (2011) found that role conflict and role ambiguity among American employees were appraised as hindrances, which were associated with negative work- and health-related outcomes. In contrast, workload and responsibility were regarded as challenges and had no significant effect on outcomes (Webster et al., 2011).

Coping

Coping with stressful events involves a complex set of processes that intervenes with the stress and its reactions (Billings & Moos, 1981; Lazarus & Folkman, 1984;

Pearlin & Schooler, 1978; Thoits, 1995). The transactional stress-and-coping framework defines coping as the “changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person” (Lazarus & Folkman, 1984, p. 141). Four important ingredients should be considered with this conceptualization of coping (Lazarus & Folkman, 1984, p. 141-142):

(1) Coping is process-oriented rather than trait-oriented. The particular personal traits and situational variables work together to shape the coping. Thus it is important to explore the coping behaviors within the specific situational context.

(2) Coping is a purposeful effort that excludes automatic behaviors and thoughts that do not require conscious endeavoring.

(3) Coping is defined by the efforts instead of the outcomes, regardless of whether or not what the person does or thinks is workable or not.

(4) The word “manage” is used in the definition instead of “mastery”. Mastery involves overcoming and overriding the environmental demands, whereas managing not only includes the attempts to master the environment, but also include minimizing, avoiding, tolerating and accepting the stressful situations.

Culture defines certain coping behaviors as more appropriate than others. Wong et al. (2006) stated that “Coping schema is based on cultural knowledge, because it represents the accumulated and crystallized coping knowledge in a particular cultural knowledge” (p. 6). The available coping resources are also influenced by culture.

Control and coping. The transactional stress-and-coping framework differentiates two types of coping behaviors according to whether the coping behavior is aimed at mastering the problem or managing emotions: *problem-focused coping* refers to the

efforts to control or manage the source of the problem, such as negotiating a compromise or changing jobs; *emotion-focused coping* refers to acts taken to regulate psychological distress without actually changing the situation, such as the advice to “look on the bright side.” The different frequencies of using problem- and emotion-focused forms of coping are related to an individual’s appraisal of the situation (Lazarus & Folkman, 1984).

Problem-focused coping is used more frequently when the situation is appraised as changeable while emotion-focused coping is used more frequently when the demands are appraised as unchangeable. Furthermore, cultural values and norms may allow or prohibit particular forms of coping (Essau & Trommsdorff, 1996). Earlier findings on culture and coping proposed that people in individualistic cultures have been reported to have higher endorsement of problem-focused coping (e.g., self-action), but those in collectivistic cultures have higher endorsement of emotion-focused coping (e.g., acceptance) (Essau & Trommsdorff, 1996).

In general, problem-focused coping and emotion-focused coping differs on whether the aim is to control the situation or the individual’s own emotions. Control is a key concept in the psychology of mental health. Since Rotter’s (1966) seminal work on locus of control, many studies have investigated control and psychological adaptation. It is important to study coping goals because they stimulate coping efforts (Chun et al., 2006). Rothbaum, Weisz and Snyder (1982) proposed two goal-based types of control: *primary control coping*, which refers to coping aims to change the environment as to fit one’s need, and *secondary control coping*, which refers to coping aims at changing aspects of the self as to achieve a fit with the situation. The primary-secondary control coping model aligns nicely with the problem-focused and emotion-focused coping

dichotomy. In particular, problem-focused coping is similar to primary control coping and emotion-focused coping is akin to secondary control coping (Band & Weisz, 1988; Essau, 1992).

The control construct has a long history in Western psychology (Morling & Evered, 2006). Western psychologists traditionally believed that a subjective sense of control is of vital importance to psychological well-being (e.g., Rotter, 1966; Seligman, 1975). Locus of control, perhaps the most studied control-related variable, is the generalized belief that behavioral outcomes are under one's personal control (internal locus) rather than dependent upon outside forces like luck, fate or powerful others (external locus) (Rotter, 1966). Individuals with an internal locus of control are more able to actively cope with stress in life and at work, and are expected to show higher level of resilience when they encounter difficulties (e.g., Kahn & Byosiene, 1992; Kobasa, Maddi, & Kahn, 1982). Failure to exert control over essential goals is regarded as maladaptive or a sign of helplessness. Many researchers equate "inward behaviors" such as passivity, withdrawal, or submissiveness with relinquished control (e.g., Abramson & Martin, 1981; Seligman, 1975).

Rothbaum et al.'s (1982) two-process model of primary and secondary control provided a broader perspective of the control construct. They proposed that the essence of personal control was not limited only to the attempts to change the world. It also involved the attempts to fit with the world, which "afforded the individual control in the form of making the best of a situation that is perceived as difficult or impossible to alter" (p. 11). They used "secondary control" to refer to a broad range of these alternative paths. Examples of secondary control include attribution to limited ability that served to protect

individuals from disappointment (predictive control), aligning themselves with chance (illusory control), associating themselves with powerful others (vicarious control) and deriving meaning and understanding (interpretive control). In each case, the individual does not attempt to change reality, but aims to change the self to fit more effectively with the environment. Chang et al. (1997) suggested that the absence of attempts to change the external reality while maintaining an active “control” over the self was different from the sense of helplessness. Individuals responding with secondary control coping mechanism are not “helpless,” but are actively engaging in “self-protection.” While primary control may foster a sense of achievement, secondary control may lead to a sense of contentment and is associated with less extreme emotions than primary control. Minimizing negative psychological impacts and maximizing the potential satisfaction obtainable from a stressful event will lead to successful human development (Baltes, 1997; Chang et al., 1997). Research on wisdom (Baltes, 1997) reinforces the notion that knowing which goals are feasible and which goals need to be let go is a form of wisdom, and leads to a profoundly positive attitude towards life in general (Baltes, 1997; Brandtstadter & Rothermund, 2002; Rothermund & Brandtstadter, 2003). It is no coincidence that the same definition of wisdom knowing one’s competencies and incompetencies, has been attributed to Confucius as the true meaning of wisdom and has been subscribed to by the Chinese people for millennia.

Culture, sense of control and coping. Despite recognition of an alternative method of control, changing self to achieve person-environment fit, primary control and secondary control are not regarded as equal in most Western literature (see Morling & Evered, 2006, for a review). A major line of research asserts that the basic form of control

is to change the environment to fit the person. The terminology itself has the implicit assumption that the orientation of controlling the environment is somehow primary, and secondary control coping is less significant, which is suggested to be effective and more often used by vulnerable people (e.g., Heckhausen, 1997; Heckhausen & Schulz, 1995; Thompson, Collins, Newcomb, & Hunt, 1996).

However, cultural psychologists argue that the prevalence of the primary and secondary control is associated with cultural context. While the primacy of primary control may just apply to the Western context, secondary control is regarded as desirable, appropriate and valued in many non-Western cultures (e.g., Chang, 2003; Chang et al, 1997; Morling & Fiske, 1999; Trommsdorff & Essau, 1998; Yamaguchi, 2001).

In a classic article, Weisz, Rothbaum, and Blackburn (1984) compared some of the religious, organizational and socialization differences between America and Japan that led to different prominence of primary and secondary control. They found that the American culture was more oriented toward primary control coping, while the Japanese culture was more oriented toward secondary control coping. Azuma (1984) pointed out that in Japanese culture the ability to yield in good grace is valued whereas self-assertiveness is much less appreciated. Giving in was not considered as a sign of weakness; instead, it reflected the tolerance, self-control, flexibility and maturity of the individual in East Asian context (Azuma, 1984; Chang, 2003; Chang et al., 1997; Miyahara, 2004).

The two models of agency for controlling the world or controlling the self have been linked to the different models of self (Chun et al., 2006). Primary control is related to the independent self and secondary control is related to the interdependent self (Chun et al., 2006; Lam & Zane, 2004; Markus & Kitayama, 1991; Triandis, 1989). People in

North America and other individualist cultures are likely to develop an independent self-construal. In this self-construal, self is a bounded and autonomous entity, relatively independent of one's relationships or specific others (Geertz, 1973; Markus & Kitayama, 1991). The social environment for independent individuals serves the purpose of affirming the inner core of the self (Markus & Kitayama, 1991). The need for actualizing and expressing one's uniqueness often requires actions that (re)arrange the circumstances in order to reflect those personal attribute (Snibbe & Markus, 2005).

In contrast, Asian and other non-Western cultures promote interdependence among individuals (DeVos, 1985; Hsu, 1985; Markus & Kitayama, 1994). With the interdependent self-construal, the self is not a separate entity, but a part of the all-encompassing social relationships. Behaviors of the interdependent self are largely determined by what a person perceives about the thoughts, feelings and actions of others in a relationship (Markus & Kitayama, 1994). The self becomes most meaningful when embedded within the appropriate social relationships as the superordinate goal for the interdependent self is to strive for interconnectedness (Heine, 2001; Heine et al., 2001). In general, the interdependent self may endorse higher secondary control coping because adjusting oneself to accommodate the circumstances can evoke potential feelings of relatedness (Morling, Kitayama, & Miyamoto, 2002). For the independent self, self-esteem derives from the ability to express one's self and uphold internal attributes, whereas for the interdependent self, self-esteem rests in the ability to adjust, control the self, and maintain harmony within the social context (Markus & Kitayama, 1991).

Individualistic cultures tend to cultivate an independent self-construal, while collectivistic cultures tend to cultivate an interdependent self-construal (Markus &

Kitayama, 1991; Triandis, 1989). People from collectivist cultures are more concerned about the effects of their actions on their in-group members, feel interdependent with in-group members, conform to group authorities automatically and are willing to maintain the integrity of the in-group (Triandis, 1989). Harmony and conformity tend to govern interpersonal relationships in the collectivistic society, and members of these societies enjoy social and cultural approval (Hsu, 1981). As in-group harmony is emphasized in collectivistic cultures, people in these cultures are more willing to accept the reality, and attempt less to change the situation, especially in the high-power distance situations (Tweed, White, & Lehman, 2004). People from collectivistic cultures may experience great benefits from secondary control and fewer negative effects from a loss of primary control than people from individualist cultures (Sastry & Ross, 1998).

Interpersonal relationships are highly emphasized in the traditional Chinese culture (Fei, 1992). Self in the Confucian paradigm is defined by the intricate relationship network, which is often derived from the kinship network and is supported by cultural values such as filial piety, loyalty, dignity, and integrity (Hsu 1985; Tu, 1985). The central theme in Chinese socialization is the cultivation of the social skills to maintain harmony with others (Hsu, 1985; Tu, 1985). In this context, the Chinese develop a tendency to act according to external expectations and social norms instead of internal wishes (Yang, 1981). They are more ready to change the self in order to fit the nature of the particular social situation.

Chinese traditional beliefs and secondary control. The prevalence of secondary control coping among the Chinese can also find its roots in Confucianism, Taoism and Buddhism, from where most of the nation's philosophies and beliefs stem from.

Confucianism teaches that individuals can naturally fit well with the environment (Yamaguchi, 2001). Confucian ideas encourage people to control their emotions, to avoid competition and conflicts, and to maintain inner harmony (Ho, 1986). As discussed above, Confucianism places great weight on interpersonal harmony. Individuals who give priority to maintaining harmony tend to use indirect control as they are afraid that direct control may lead to interpersonal confrontation (Yamaguchi, 2001). Moreover, Confucianism teaches people to work on themselves in face of adversities (Wong, Heiby, Kameoka, & Dubanoski, 1999).

Buddhist-influenced beliefs within a culture increase the tendency of individuals to report control over the inner self (Chen, 2006; Tweed et al., 2004). In Buddhist teachings, craving and aversion are responsible for individuals' stress and suffering. The path to be free from suffering is found through the absence of desire (Chen, 2006) rather than through exerting efforts to reduce symptoms of stress or through the active efforts to solve problems. Buddhist teachings and practice thus give people a sense of serenity in the face of uncontrollable adversities. Buddhism has been appealing to the Chinese people who have experienced many hardships and adversities throughout the history.

Taoism-influenced beliefs within a culture may also increase the tendency for secondary control (Tweed, et al., 2004). Instead of trying to confront problems or conquer nature, Taoism teaches that people need to go with the flow as to live in harmony with the Way of Nature (Cheng, Barbara, & Choi, 2010). The master of Taoism-Lao-tzu used his favorite metaphor illustrate that going around the problem rather than controlling it can still lead to a fulfilling life, "The great rivers and seas are kings of all mountain streams because they skillfully stay below them" (Lao-tzu, Chapter 66).

Although these religious teachings may not overtly play a major role in the daily lives of Chinese people, they still influence the conscious and unconscious belief of the Chinese in choosing from a variety of coping strategies to manage their everyday lives (Tweed et al., 2004).

Empirical evidence for preference of secondary control coping among Asians.

The relationship between value orientations and control orientations has been supported by empirical studies. For instance, in cross-cultural studies (Trommsdorff & Essau, 1998; Trommsdorff & Friedlmeier, 1993) comparing socialization of German parents and that of the Japanese parents in relation to their children's belief in control, it has been found that German parental expectations reflected individualistic cultural values, while the Japanese parental expectations reflected collectivistic cultural thinking. German parents expected their children to be independent, express conflicts with parents and learn through imposed rules, whereas Japanese parents expected their children to be obedient, learn through imitation and maintain harmonious interactions with parents. Correspondingly, German children endorsed higher primary control beliefs and Japanese children endorsed higher secondary control beliefs.

A number of cross-cultural studies on control behaviors offer empirical support for the idea that people in collectivistic cultures endorse relatively more secondary control coping and those from individualist cultures endorse more primary control. Essau (1992) demonstrated that the North American and German college students were more engaged in primary control coping strategies than Malaysian students, whereas Malaysian were more engaged in secondary control coping than their Western counterparts. A cross-cultural study on the coping styles of Thai and American children and youths (McCarty et

al., 1999) indicated that Thai children were more likely to use secondary control coping strategies than Americans, especially in situations involving authority figures.

Consistently, Lam and Zane (2004) found that Asian Americans tended to use secondary control strategies, whereas white Americans tended to use primary control strategies in dealing with interpersonal stressors. Research has also provided support that secondary control coping was more endorsed than primary control coping by East Asians. For instance, a series of studies conducted among Chinese (Xiao & Chang, 2003) and Singaporean children (Chang, et al., 1997; A. Chua & Chang, 1997; W. Chua & Chang, 1997; Zaharim, 2006) indicated their preference for secondary control coping.

In this study, I hypothesized that Chinese repatriate scholars would employ more secondary control than primary control coping. I also hypothesized that secondary control coping would benefit their psychological adjustment. Even though the repatriates might have internalized some overseas cultural values, I expected that the core value of adult sojourners were still based on their home culture. Moreover, they now returned to Chinese society and coped in Chinese cultural context. To test this hypothesis, I adopted an ethnographic approach to carefully explore how multicultural experiences affected the coping styles of Chinese repatriate scholars.

Specific strategies and the effectiveness. In addition to examining broad coping styles, the current study also aimed to explore the coping effectiveness of specific coping strategies within each style. Coping strategies refer to the fine-grained ways of coping, whereas coping styles referred to the broad overarching categories of primary/problem-focused coping, secondary/emotion-focused coping and relinquished coping.

Folkman and Lazarus's (1980) Ways of Coping instrument described the content of various coping strategies under problem-focused and emotion-focused coping. The examples of problem-focused forms of coping included both aggressive personal or interpersonal efforts to alter situations, as well as cool, rational, deliberate efforts to solve problems. The forms of emotion-focused coping included distancing, self-control, seeking social support, escape-avoidance, accepting responsibility, and positive appraisal (Folkman & Lazarus, 1980, 1985, 1988). In a study on how children respond to stress, Band and Weisz (1988) offered ten categories of coping strategies nested under the three overarching coping styles of primary, secondary, and relinquished control coping. Directed problem solving and problem-focused aggression were examples of primary control. Social/spiritual support and cognitive avoidance were examples of secondary control coping.

Empirical studies have examined the relationship between coping strategies and psychological outcomes, and have generally found that coping strategies such as playful problem-solving and positive reinterpretation were associated with satisfactory outcomes, while disengagement and denying the reality and disengagement were often maladaptive (Carver, Scheiver, & Weintraub, 1989). However, it is important to measure the specific form of coping with reference to the specific situation in which it was used (Carver et al., 1989; Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). For example, although disengaging is usually considered maladaptive (Billings & Moos, 1984), it sometimes is associated with positive adjustment (e.g., Mill & Kaiser, 2001). The current study would examine the relationship between various coping strategies and the

psychological outcomes by carefully relating to the specific situations in which different coping strategies were used.

Furthermore, culture affects the choice of employing certain coping strategies (Phillips & Pearson, 1996). Problem-solving strategies are frequently used due to the pragmatic nature of Chinese people in dealing with stress (Wong, 2002). As *guanxi* is important in China, Chinese people actively utilize personal resources as well as seek social resources from others to solve problems (Garbrenya & Hwang, 1996; Hwang, 1977; Wong, 2002; Wong & Kwok, 1997). When encountering interpersonal conflicts, Chinese people often use strategies such as avoidance and compromise rather than confrontation (Garbrenya & Hwang, 1996).

There is no existing research that investigates the coping strategies employed by Chinese repatriates, but some studies have investigated the coping strategies among Chinese adult immigrants regarding resettlement difficulties. Zheng and Berry (1991) described three types of coping strategies that were often used by Chinese sojourners in Canada: less wishful thinking, self-blame and seeking information support. In a study on Mainland Chinese immigrants in Hong Kong, Wong (2002) revealed that immigrants frequently adopted problem-focused strategies such as asking friends for help in dealing with difficulties associated with finding a job. Chinese mainland immigrants also compromised and accepted certain unfair conditions in their work and social life (e.g. discrimination) without any complaints (Wong, 2002).

Coping flexibility moderates the stress-and-coping process. Individuals who flexibly use more and varied coping strategies might fare better than those who stick to a particular type of coping strategy. Westman and Shirom (1995) associated higher coping

flexibility with using a wider coping repertoire or larger number of different coping strategies. Empirical studies have suggested a positive relationship between one's coping repertoire and adjustment. For instance, 8- to 11- year-old children who demonstrated inappropriate persistence with primary control coping and repeated strategies over time more likely had problematic peer relations (D'Amico, 1995). Lam and McBride-Chang's (2007) study on Chinese young adults showed that those whose coping repertoires were extensive were less depressed. However, simply basing adjustment outcomes on the total number of coping strategies is problematic because particular strategies do not consistently lead to one type of outcomes. A comprehensive definition needs to include the capacity to match coping behaviors with situational demands.

Cheng (2001) defined coping flexibility as a good fit between the characteristics of coping strategies and the perceived nature of the demands. She proposed that coping flexibility included three aspects: "(a) variability in cognitive appraisal and coping patterns across stressful situations, (b) a good fit between the nature of coping strategies and situational demands, and (c) subjective evaluation of effectiveness in attaining the desired goals" (p. 816). This study corresponds with the definition of Chang and Lim (2007), which states that both the wider repertoire of coping strategies and the attempt to attain a good fit between coping and perceived controllability were important elements of coping flexibility. They proposed that coping flexibility in Asian contexts consisted of three dimensions: "delineating an efficacy for malleable self, a coping goal of achieving environmental fit and a repertoire of large number and varied coping skills" (p. 52).

This conceptualization of coping flexibility has its roots in the transactional theory of coping (Folkman & Lazarus, 1984). In the transactional theory of stress-and-coping,

coping is regarded as a process that occurs within the interface of changing persons and the situations (Folkman & Lazarus, 1980; Folkman et al., 1986; Lazarus & Folkman, 1984). As the environment is ever-changing, individuals vary their employment of coping strategies across situational demands. Cognitive appraisal plays an important role in the coping process. In the stressful situations that were appraised to be controllable, individuals used more problem-focused control coping; whereas they employed more emotional-focused coping in the situations where they perceived that little could be done to affect the outcome. The fit between the appraisal of controllability and coping is referred to as the goodness-of-fit hypothesis (Lazarus & Folkman, 1984). Presumably, individuals who employ coping strategies that match the perceived controllability would show better adjustment than those do not (Folkman & Moskowitz, 2004).

Moreover, coping flexibility is congruent with Chinese culture. Chinese culture is relatively flexible and adaptable, which is evident in Confucius's notion of *Zhong* and *Zhongyong* (the Doctrine of the Mean, moderation) (Tsai, 2005). The classic Confucian text, *Zhongyong* advocates the importance of applying moral rules with flexibility (Tsai, 2005). The traditional Chinese self is a flexible, fluid and connected being that is bounded to significant others (Chang & Lee, 2012; Lu, 2003; Yang, 2004). Confucian culture emphasizes different ethic rules for different role relationships. In order to adapt to different role expectations and situational demands, different selves are necessary for different situations in the Asian contexts (Heine, 2001). Rosenberg (1992) likened the malleability of the East Asian self to a tree. The seasonal change of the tree's appearance (e.g., color, shape) does not affect its essence. Similarly, changing behaviors according to the requirements of a given situation is regarded as natural for Asians (Suh, 2002).

Flexible behaviors of the Chinese people might be related to their pragmatic values as well. Confucianism is not a religion but a set of pragmatic rules for daily life (Hofstede & Bond, 1988). It is not concerned with abstract thinking but more concerned with results (Wong, 1998). According to Cheung, Fan and To (2008), practical mindedness is an indigenous personality factor of Chinese individuals. The pragmatic values are even more emphasized in modern Chinese people, which is reflected in the famous slogan of prominent politician Xiaoping Deng: "black cat or white cat, it is a good cat if it catches the mouse" (Pye, 1986). This pragmatism value enables the Chinese to modify their coping styles in relation to their efficacy.

In summary, coping flexibility is of paramount importance in the Chinese cultural context. A number of studies based on Asian samples have enumerated the benefits of flexibly switching coping styles according to the perceived controllability of situations. For instance, Cheng's (2003) study on the Chinese population provided evidence for a correlation between situation appropriate flexible coping strategies and higher quality of life. Also, Gan, Shang and Zhang (2007) found that coping flexibility (a goodness of fit) was associated with lower level of burnout among Chinese college students. The current study would explore the possibility of moderating effect of coping flexibility, which was measured both by a wide coping repertoire and a goodness of fit.

Family resilience moderates the stress-and-coping process. In the face of major stress, people often cope as a family rather than as separate individuals. This tendency is especially prevalent among Chinese people (Chang et al, 2006). Instead of focusing on individual traits, family researchers have begun to take a systemic view and explore the interactional processes that enable the family to thrive in the face of stress (Walsh, 1996).

The characteristics that enable successful coping of families during stressful events are described as *family resilience* (McCubbin & McCubbin, 1988; Walsh, 1993, 1996).

Although there is no universal list of key factors of family resilience, a review of recent research revealed that the following factors were crucial for family resilience in the West and in the East: family support, family communication, flexibility and positive emotions on display in the family (Bradbury & Karney, 2004; Chang et al., 2007; McCubbin & McCubbin, 1988; Olson, 2000; Reiss, 1981; Walsh, 1996). Two central aspects of family resilience factors that are included in most conceptualization are family support and positive outlook.

Family support. It is well established that social support protects people from the negative effects of stressful events (e.g., Cobb, 1976; Thoit, 1995). Family theorists (e.g., McCubbin & Patterson, 1982; Reiss, 1981) highlight the importance of family support and family cohesion in the coping process. Studies examining the buffering effect of the family environment yield mixed findings. Some studies found that family social support moderated the effects of stress on psychological well-being (e.g., Aryee, Luk, Leung, & Lo, 1999; Burt, Cohen, & Buorck, 1988; Farrell, Barness, & Banerjee, 1995; Holahan & Moos, 1985). Meanwhile, other studies (e.g., Christensen et al., 1992; White, Bruce, Ferrell, & Kliewer, 1998) only suggested the main effect of family support on adjustment. Nevertheless, the central role of the family to support and care for family members in stressful situations is well documented across cultures.

In collective cultures where the interdependent self is intertwined with in-group members, family support is of particular significance for the members within the family (Yeh & Wang, 2000). Chinese culture has been characterized as a culture of the family

(Ho, 1986). Confucian philosophy advises Chinese individuals to put their family or clan's needs first. It is an essential part of Confucius's teaching that one should love his family. The love for people outside one's family is an extension of love and obedience towards the immediate core family members. This feature of Chinese social networks is described as the differentiated social order (Fei, 1992), resembling ripples emanating from the individual. Family members are in the inner layers and have the strongest influence on the Chinese self.

Fei (1992, p. 14) said that, "Families in the West are organizations with distinct boundaries", but in China families are ambiguous, without exact boundaries. As expected, family connectedness was higher among Eastern sample than Western samples of participants (Lay et al., 1998). Likewise, Li (2001) found that the Chinese reported closer relationships with their family members than Canadians. As the Chinese make clear differentiation between insiders (inside in-group), and outsiders (outside the in-group), they tend to use coping strategies that emphasize talking with family members and friends rather than seeking professional help (Sue, 1994; Yeh & Wang, 2000). Chinese people cope with stress not as separated individuals, but as a collective (Chang et al., 2006; Wong, 1993; Zhang & Long, 2006). This collective coping emphasizes group effort and drawing strength from togetherness (Yeh, Arora, & Wu, 2006; Zhang & Long, 2006). Chinese have strong obligations to provide help to family members in need and make sacrifices for the whole family. As noted by Wong (1993), the family takes on the problems of its members as their own and works together to find a solution. Successful coping depends on not only the individual's effort to manage the stressful demands, but

also on strengthening relationships among family members (Chang et al., 2006; Wong, 1993; Zhang & Long, 2006).

Chinese not only received support from immediate family members but also from extended family members. The adult children in Western families are independent from their parents when they form their own nuclear families. However, Chinese families emphasize the continuity of relationships and foster their children's interdependence within the family of origin (Chao, 1995). Often, there is a reciprocal exchange of help between the elderly and their adult children even in the contemporary Chinese family. For instance, adult children are an importance source of elderly care, while elderly parents are an important source of daily help for adult children by doing housework and/or taking care of grandchildren (Sheng & Settles, 2006). The frequency of exchanging help between generations and family members is an indication of Chinese family solidarity (Lam, 1997).

Family resilience and coping flexibility. Family resilience and individual's coping flexibility are related. Positive emotions in the family could cultivate flexible thought and actions of family members (Fredrickson, 1998, 2001; Isen & Daubman, 1984). According to the broaden-and-build theory (Fredrickson, 1998, 2001), positive emotions broaden individual's repertoires of thought and action. The repeated experiences of a positive family environment allow the individuals a wider scope of thoughts and the flexibility to change their coping strategies to fit the situational demands.

Furthermore, in Confucian philosophy, the family is both a home and a learning ground, like a school that affords the teaching and nurturance for the development of a harmonious personhood (Hofstede & Bond, 1988). The multiplicity of differentiated social roles requires the individual to flexibly change her behaviors in order to adjust.

Only when a person learns how to navigate her various family roles is she able to know how to flexibly change her behaviors in social interactions. Individuals who achieve family harmony are thus more flexible and more likely to reach grand harmony by obtaining a person-environment fit.

Research Questions

The current research mainly aimed to explore the stressors of Chinese repatriate scholars, their ways of coping and how their stress-and-coping affected their psychological adjustment. The following major questions were proposed:

RQ 1: What were the stressors and the coping behaviors of individual repatriate scholars?

RQ 2: How did the stress-and-coping of individual repatriate scholars affect their psychological outcomes?

RQ 3: What was the stress-and-coping process of individual repatriate scholars in the family?

RQ 4: What was the stress-and-coping process of the repatriate scholars' families?

Three studies were conducted to address the above questions. Study 1 used an ethnographic approach to address the first research question on the stressors and the ways of coping among individual repatriate scholars. Study 2 used a quantitative approach to address the second research question. Study 3 consisted of both a family-related study that addressed the stress-and-coping of the individual in the family (RQ 3) and a family study which explored family as a unit of stress-and-coping (RQ4).

Overview of the Present Research and Hypotheses

The study adopted a multi-stage multi-method approach (Chang, 2000). First, an ethnographic approach was used. The open ended interviews solicited the perceptions of stress in the participants' life and how they coped the way they did. Their goals of coping responses and their reasons behind the coping strategies were obtained. The use of an ethnographic approach helped to identify culturally appropriate themes and achieve ecological validity of variables.

Next, I used "traditional" psychological methods to test the hypothesis coming from both the theory and the field study. Some of the variables were pre-rationalized and quantified by counting the frequency of response categories identified in the qualitative study. The other variables were measured by the standardized assessments that were constructed and validated in cultures that were similar to the participants' culture. The use of standardized measures constructed and validated in similar cultures ensured internal validity, logical coherence of the analyses and results. This type of comprehensive study is a more appropriate method for research into empirical issues in under-studied populations, including those outside North America and Western Europe (Chang, 2000).

Moreover, the current research focuses on both the individual and family levels in exploring the stress-and-coping of Chinese repatriates. The individual is usually regarded as the unit-of-analysis in psychological studies. However, family plays a vital role in the mental health of Chinese people (Wu & Tseng, 1985). Family -oriented collectivism is perhaps one of the most important characteristics of Chinese culture (Li, Lam, & Fu, 2000). Therefore, studying individuals' stress-and-coping within the family and exploring the family's stress-and-coping is meaningful and necessary.

CHAPTER THREE EMPIRICAL STUDY 1

Study 1 was primarily descriptive and sought to determine the major stressors experienced by the repatriate scholars, their way of coping and how their subjective culture shaped their stress-and-coping process.

An ethnographic approach was used, which included in-depth interview of the participants and non-intrusive observation. The ethnographic approach emphasizes investigating the nature of particular social phenomenon rather than testing hypotheses about them (Atkinson & Hammersley, 1994). The products are mainly presented in the form of verbal description and explanation, through which the meanings and functions of human actions can be interpreted (Atkinson & Hammersley, 1994).

Qualitative researchers bring their own perspectives into their studies. I had similar background as the participants, growing up in China, completing a Master's degree in the U.S., and returning to Singapore for my PhD. My background was beneficial for quickly building rapport with the participants and understanding their stories. Due to the familiarity with the population, I could observe Chinese repatriate scholars non-obstructively and was more rigorous during checking, coding and interpreting interview data.

Method

Participants

Eighty-two repatriate scholars (53 Male vs. 29 Female) were interviewed. Among the 82 participants, the majority (73%) were in their 30s. Professional ranks of the sample included Assistant Professor (n = 29, 37%), Associate Professor (n = 19, 27%), and Full Professor (n = 27, 25%). The majority of them were majoring in science (38%) or

engineering (31%), while the rest were majoring in business and economics (16%), and humanity and other social sciences (13%). The mean length that they had returned at the time of interviewing was 2.4 ($SD = 1.57$) years. They had completed at least undergraduate education in China before they left. Most of them were fresh PhD graduates or post doctors/senior researchers. Three of them were faculty members at overseas universities before repatriation. The mean length of overseas stay was 6.01 ($SD = 3.04$) years. Many of them (53%) returned from North America, 37% returned from other Asian countries, and the others returned from European countries. The majority of the participants (79%) were married, 14% of them were single and one participant was divorced. Over half of the sample (54%) had dependent children.

The repatriate scholars were recruited from the research intensive universities or research institutions in the following Chinese cities: Beijing, Shanghai, Guangzhou and Xiamen. Snowball sampling was used to locate participants. I first contacted a few Chinese repatriate scholars through personal networks. These initial participants were asked to nominate other repatriate scholars to take part in the study. In this study, I defined repatriation scholars as those who had their PhD degree training or post doctoral working experiences in overseas academia. Those who went overseas for short term academic exchange were visiting scholars, not repatriation scholars. In fact, in the Chinese academic system this is a common informal categorization. Moreover, this study targeted the newly returned scholars. I set six years as the criterion and just recruited those who had been back in Chinese academia for a period of less than 6 years. It was due to the dramatically increasing number of repatriates in China in recent years (Zweig, 2006). New repatriates on the whole are gradually losing their competitive edge because of their

large number. Fresh graduates repatriated from overseas could get attractive incentives years ago, but recent “talent policies” mainly target outstanding repatriates (Zhang, 2011). I expected that the fierce competition put extra pressure to the newly returned scholars.

Procedure

Prior to beginning data collection, the repatriate scholars read and signed an informed consent form approved by the ethics committee of Nanyang Technological University. They were informed that their participation was voluntary, there were no anticipated risks, and they could withdraw from the study at any time. Confidentiality was also assured. The research conducted the interviews in person. Each interview lasted half to one hour. The location of interviews was of their own choosing, and many chose their offices. The interviews were conducted in Chinese. They were recorded and transcribed in Chinese and later translated into English where needed for data analysis.

Interview

The interview guide (Appendix A) consisted of three background profile questions, followed by questions on stress-and-coping. The questions on stress-and-coping were developed through a review of previous studies on stress-and-coping (Band & Weisz, 1988; Xiao & Chang, 2003; Zaharim, 2006). These questions allowed the participants to share their experiences upon repatriation, their perceived stressors and feelings about their stressors. For each of the major stressors shared by the participants, I asked questions about the following topics according to the suggestions of Band and Weisz (1988): first, I asked the participants whether each of the major stressors they described was controllable or not. Second, I asked the participants about their thoughts and actions in response to each of the major demands. Third, in order to understand their underlying goals, each

coping strategy they illustrated was followed by a probe: “why did you do that or think this way.” Lastly, in order to understand the effectiveness of their coping styles/strategies, the participants were asked whether each of their coping behaviors made them feel better.

At the conclusion of each interview, participants were asked to talk about the positive things they had experienced upon repatriation. After the interviews, the participants were asked to answer demographic questions such as age, gender, marriage status, length of returning, sojourning countries and professional titles (Appendix B).

Data analysis

Qualitative data was analyzed with both a traditional grounded theory approach and in a “quasi-statistical analysis style” (Miller & Crabtree, 1992, p. 18). Narratives were used to illustrate and highlight the findings on stress and coping. Meanwhile, the main coping styles and strategies were quantitatively summarized (e.g., frequencies and means) with a well-defined coding paradigm for statistical analysis in study 2.

The grounded theory (Glaser & Strauss, 1967) approach was adopted to identify themes and patterns regarding the stressors and coping styles/strategies of Chinese repatriate scholars. The researcher and another rater coded the transcriptions and reached an agreement on the following main stressor categories: research stress, institutional stress, financial stress and family/interpersonal stress.

A well-defined coping paradigm was determined both deductively from the theoretical framework and inductively through a systematic content analysis of participants’ narratives (Fereday & Muir-Cochrane, 2006). The coping scheme was based on the transactional model (Folkman & Lazarus, 1984) and the primary-secondary control model (Band & Weisz, 1988; Weisz et al, 1984), and was expanded with themes that

emerged from the interviews. Participants' coping styles were broadly coded into three categories: primary, secondary and relinquished control coping according to their intention of coping. Coping behaviors were coded as *primary control coping* if the intention was to change the events according to one's wishes, *secondary control coping* if the intention was to change oneself as to fit into the environment and *relinquished control coping* if the respondents had no apparent goal or exerted minimal effort in managing stress.

Fifteen finer categories were identified, which fell into the broadly primary control, secondary control and relinquished control coping: (a) planful problem solving; (b) confrontive coping; and (c) seeking social support for instrumental reasons. Eleven additional categories were classified as secondary control coping strategies: (d) doing as the locals do; (e) maintaining a positive attitude; (f) changing expectations; (g) accepting the reality; (h) going with the flow; (i) exercise and entertainment; (j) spirituality/religion; (k) seeking social support for emotional reasons; (l) venting emotions; (m) Ah-Q mentality; (n) full-filling social expectations; and (o) emotional regulation. Table 1 presents descriptions and examples of these subcategories.

Interrater reliability was calculated for the coding scheme, with ratings made by the current researcher and other two raters, who both were competent bilingual readers with postgraduate training in psychology. The three raters independently examined 50 responses from 6 randomly selected participants based on descriptions of the 15 coping strategies. Interrater reliability for the 15 subcategories was considerably high, with $Kappa = 0.72$.

The raters also examined the 30 responses based only on the broad categories of primary, secondary and relinquished control coping. Since a single response could include components of more than one coping style, the raters made judgments based on which was more prominent. It was possible to double code the coping responses as both primary and secondary control coping. For instance, making *guanxi* to obtain more research resources satisfied both fitting into the environment and solving the problem. Therefore, it was double coded as primary control coping (planful problem solving) and secondary control coping (doing as locals do). Interrater reliability for the three coping styles was high, with Kappa = .85.

Table 1

Coding Scheme for Categorizing Coping Responses to Stressful Situations

Coping Style	Strategy	Description	Example
1) Primary control coping	a) Planful problem solving	Efforts to change stressful situations in an immediate way	Working hard to improve research progress
	b) Confrontive coping	Efforts to alter the situation by directly facing the problem (e.g. arguing, negotiating, requesting, protesting)	Negotiating with school leaders about publication quantity requirements
	c) Seeking social support for instrumental reasons	Efforts to reduce stress by getting instrumental help from others	Asking the students to help with some administrative work
2) Secondary control coping	d) Doing as the locals do	Efforts to reduce stress by adapting to local rules or games	Adopting local practices, such as pulling <i>guanxi</i> as to obtain more research resources
	e) Maintaining a positive attitude	Hope, optimism or focusing on the positive things	Believing that one's future financial situation will be better
	f) Changing expectations	Lowering expectations to make oneself feel better	Changing expectations during the promotion process
	g) Accepting the reality	Accepting or yielding to reality	"Accommodating to reality"
	h) Going with the flow	Reducing stress by following the current's movement	Not fighting with the current (<i>shun qi zi ran</i>)
	i) Exercise and entertainment	Reducing stress through exercise or entertaining activities	Jogging
	j) Spirituality/religion	Reducing stress through spiritual or religion means	Reading psychology books
	k) Seeking social support for emotional reasons	Seeking emotional support from others	Talking to others about stressful events to get comfort
	l) Venting emotions	Crying or getting angry to release feelings	Being angry, crying
	m) Ah-Q mentality	A form of rationalization to make one feel better	Playing down or devaluing an attainable goal
	n) Fulfilling social expectations	Doing what one is supposed to do in social roles	Doing what one is expected to do as not to feel guilty
3) Relinquished control coping	o) Emotional regulation	Regulating or controlling one's emotions	Trying to keep a peaceful mind and not compare with others
	p) Giving up control	Giving up or making no effort to deal with or reduce stress	Doing nothing because one believes there is no way to reduce stress

Results

Subjective culture of Chinese repatriate scholars

The ethnographic findings indicated multicultural values among repatriate scholars. They had integrated Western work values and ethics, and, as a result, they were stressed by the discrepancies between their expectations and the current situation in Chinese academia and society. During stress-and-coping interviews, they often described the different academic systems in the West and in China. Participants perceived that Western academics put great emphasis on research merit. Researchers in Western academia could conduct research based on their own interests and committed to long-term research work without yielding to demands for immediate results. Academics overseas received satisfactory administrative and financial support for their research work. By contrast, leaders in Chinese academia usually had little expert knowledge. They were thought to be myopic and tended to use superficial judgment. Participants also thought that administrative and financial support for research was always related to professional rank in China. Participants' narratives conveyed their hope that Chinese academia could emulate the Western model. They explicitly expressed that they would like to replicate in China their Western ways of conducting research and supervise their students that their overseas supervisors used to do. These responses portrayed the repatriates as modern research scholars who had internalized the ways of working in a modern Western organization. This expectation of modern culture and practice transposed on their home academic organizations became a source of frustration and stress.

However, the participants still followed Chinese cultural norms and values in their daily lives and personal practices. Their switching of cultural frames could be manifested

from their attitude towards *guanxi*. They disapproved of using *guanxi* for their work, such as to obtain research grants. On the other hand, they valued *guanxi* to a great extent in their personal life. Relationships and roles comprise the core of the self in Chinese culture (Hsu, 1971). The participants regarded caring for elderly parents and being closer with friends as important reasons for their return. Quite a few participants lived together with their elderly parents, providing care and receiving reciprocal help with child care. They also reported a close relationship with colleagues as one of the positive things about repatriation. Their preference for a Chinese way of living was expressed by a quote from a male participant:

I feel more used to Chinese culture. I like the way people get along with each other, the food, the entertainment, etc. I live in mainstream society since returning to China, whereas I always felt that I was a marginal person while living overseas. It is very hard to integrate into overseas culture if you go abroad during adulthood. Even if you have high foreign language proficiency, it is still hard for you to have a deep understanding of overseas culture.

Furthermore, the participants follow the Chinese tradition of valuing scholarship. Confucianism places scholars in a prominent and prestigious position (Chen, 2001). Scholar is the highest group in the Chinese historical four class system, “scholar-peasant-artisan-merchant.” Scholars are highly respected in this cultural context (Chen, 2001). The participants felt esteemed for being a scholar, and their families worked together to support their scholarly attainment, such as taking most family responsibilities so that they could focus on their research work.

As part of the upper class, the participants pursued the ultimate goals of Confucianism's "great tradition": attaining virtue (*lide*), rendering meritorious service (*ligong*) and scholarship (*liyan*) (Yu, 1996). During interviews, participants expressed their concern for the development of Chinese academic/society and the concern of being a virtuous person in a problematic system. Meanwhile, they were also concerned about social recognition and bettering the family's financial situation. These reflected the "little tradition" of ordinary Chinese people, that is, pursuing "economic achievement in the form of wealth, emolument, and reputation, plus biological achievement in the form of longevity and the prolongation of the family line" (Yu, 1996, p. 233). For instance, the following male professor who returned from the U.S. expressed that his reason for repatriation was for social recognition:

Everybody is equal in the U.S. Even if you have great achievement, others won't put you on a pedestal. But in China, people think highly of successful persons (defined by high status). I am highly respected after returning to China as a full professor. I enjoy this feeling and for me this sense of success is an important source of work motivation.

After providing a picture of the cultural values and belief among Chinese repatriate scholars, the following section presents their major stressors and their responses to these stressors in their multicultural contexts. There were four major categories of stressful encounters gleaned from the in-depth interview: (1) research stress, (2) institutional stress, (3) financial strains, and (4) family/interpersonal stress.

Research stress

When asked what kinds of stress they experienced after returning, most participants started to express that their stress mainly came from their work.

The repatriate scholars, especially those who were attracted by the coveted Chinese Talent Programs¹, were expected to show high quality productivity in research performance. A male repatriate with the title of Distinguished Professor described:

I am awarded a competitive package upon return. They spent a lot of money to hire me back. Of course, they expect me to contribute by doing excellent research. I feel that lots of eyes are staring at me. What I achieved is just the past and not to be dwelled in. People are realistic and I have to prove my research ability by current work.

Repatriate scholars in junior positions were also stressed by the pressure for quality research because research performance was one of the main criteria for promotion. As China is now moving rapidly towards world class research communities, Chinese research intensive universities are adopting Western academic evaluation practices. This productivity-and merit-based staff evaluation system, however, is embedded in a traditional hierarchical organizational structure and culture that is slow to change. Faculty members with few publications are unlikely to get promoted and even have difficulty in retaining their academic positions. Resources for facilitating research productivity are difficult to obtain for junior faculty members who found that research demands are particularly challenging.

¹ The Chinese government has launched fellowships or talent programs to encourage overseas Chinese professionals return to China since the 1990s (see Cao, 2004 for a review of the talent programs).

On the other hand, most participants expressed that their research stress stemmed from intrinsic motives to seek knowledge and produce excellent research products. A male professor described his deep commitment and pre-occupation with research work in the following words:

My research work is always in my mind, even during eating and sleeping.

Research is definitely one of my major sources of stress. But, I never attempt to lessen such stress. On the contrary, I regard research stress as a source of motivation. I always feel excited about my research. I have many fascinating research ideas that I want to conduct. The reason for my return is for better research opportunities. If I continue staying overseas as a research fellow, I can only carry out my supervisors' research projects. That job was routine and less stressful, but lacked the challenge that I want to have for myself.

Many participants, however, hold neutral or positive attitude towards research stress. The majority of them regarded research stress as the norm for academics –“it comes with the job.” A female assistant professor illustrated that she found that the level of research stress upon her return was optimal:

Research stress is normal among academics. We have experienced it since graduate school. The overseas training should enable me to deal with research stress. To tell you the truth, researchers in Western academic institutions experience even more severe research stress due to the more stringent peer review system.

Coping with research stress

Research stress was generally appraised as controllable by the participants. They employed more primary control coping ($M = 1.32$) than secondary control coping ($M = 0.71$) (Table 2). The most frequently reported coping strategy was planful problem solving. The participants stated that they were more devoted to their research work compared with their locally trained colleagues. For instance, a male professor described:

There is nothing else can be done to deal with research stress except hard work. Indeed I do work very hard. Not only me, all the famous professors in my research institution are like this. We all come to the office to work on weekends and school vacations. I often see my colleagues, repatriates also, in the offices during weekends. I met the head of the institution on the first day of Chinese Lunar New Year. I remember that it was 7 o'clock in the evening. I walked out of my office and wanted to go home for dinner. I met the head of institution in the lobby. He said that it was the best time to work as there was no disturbance and we could concentrate on our research work.

A male associated professor spoke in similar terms of the importance of hard work in dealing research stress:

Working hard is definitely helpful for reducing research stress. Anyway, we Chinese people believe that hard working can compensate for a lack of talents (*qin neng bu zhuo*). Even if the progress is very slow sometimes, I have peace of mind if I do my best.

Participants also noted collaborating with colleagues as a way of dealing with research stress. Quite a few repatriate scholars expressed that they collaborated with

overseas researchers to keep abreast with international academic trends. Meanwhile, they collaborated or exchanged research ideas with their colleagues at Chinese universities, particularly with those who were also repatriate scholars.

Stress related to institutional issues

Many participants talked in a neutral voice when they described research stress. However, when it came to institutional issues, the participants spoke in agitated tones. They expressed resentment towards institutional issues in Chinese academia and society.

First, participants expressed that Chinese academia focused too much on instant gratification. It was very hard to do ground-breaking research in Chinese academia. In the following quotation, a full associate professor returned from the U.S. described the stress from unscientific evaluation system in Chinese academy, which was a recurring theme in the interview:

The university expects us to publish every year. Because of the annual evaluation system, we have to focus on the number of publication. It is very hard to do ground-breaking research and seek significant scientific breakthrough under this system. The administrators certainly do not understand the nature of conducting research. It is not unusual to spend years in the lab collecting data before we obtain some significant findings. Furthermore, extra time is needed to write up the results for publication. You know in the U.S., it is acceptable for a professor to not publish for several years. As long as he has a breakthrough in his research, nobody will fault him ... Professors in China seldom conduct experiments in the lab by themselves [because of the current system]. They spend most of the time in front of their computers, writing grant proposals, preparing journal manuscripts of their

own, or revising the drafts of their students. They are like white collar workers in a company... It is really abnormal.

Another participant commented that the pursuit of instant success and fast gains could fundamentally erode the quality of Chinese higher education. As indicated in the previous quote, Chinese academia stresses both the number of publication and the amount of research grants. The following quote from a female associate professor further described the pressure from the insistent demand for secure research grants:

Applying for research grant is my top stressor. The university sees the ability to obtain grants as a very important criterion. Our principle investigator has said that 'If you can publish paper but not obtain funding, you are at most a second-rate scientist. A top-notch scientist can both publish paper and win research grants. For myself, I think it is sufficient to just have adequate funding, it is more important to conduct first class scientific research. However, universities are now compared and ranked annually, so they will shifts the pressure [of securing research grants] to faculty members. Furthermore, because we are repatriate scholars, the university expects us to secure larger grants [than local trained faculty members]. But the outcome is often the opposite. Because we are unfamiliar with the local evaluation system, and our local academic peers do not know about us. All these create additional pressure for us. On the one hand, much is expected from us, but in actual fact, we are unable to obtain the expected amount of grant.

Second, China is still a *guanxi* (interpersonal relationship)-based society (Luo, 1997). A male professor criticized China's unhealthy research culture:

Only the evaluation of the Natural Science Foundation of China (NSFC) is relatively fair. But the chance of getting NSFC is low – just around twenty percent. Grants at the provincial level and megaprojects from government funding agencies are mainly controlled by a small group of bureaucrats and their favorite scientists. Research merit is not as important as ‘knowing’ these powerful people.

Many participants expressed that they were in a disadvantageous situation in terms of *guanxi* as they had been overseas for years. It was hard for them to rebuild *guanxi* and a number of participants expressed that they felt uncomfortable about building *guanxi* after they had been living abroad for years. Moreover, the process of pulling *guanxi* always involved the exchange of gifts, favors and banquets. Some participants even considered *guanxi* as academic corruption. A male repatriate professor, however, opined that:

There are many opportunities in Chinese academia. The prestigious titles such as ‘Distinguished Young Scientist’ could bring you large research grants. But the opportunity is really competitive and your professional strength (merits) does not necessarily determine the outcome. You need to have *guanxi* to enhance your chance of success. As a researcher, I feel very reluctant to spend time doing things irrelevant to my professional work, such as having banquets with the officials. But I have to do this so as to build my *guanxi*. There is indeed no fair competition within the Chinese academic management system. China is still a society ruled by people, especially those who have great power, rather than laws.

Third, most participants felt frustrated with the red tape and poor administrative service over the course of resettlement back in China. The repatriates needed to restore their previous *hukou* (household registration, like an internal passport) upon returning

permanently, as those who travel overseas for more than a year must cancel their *hukou* in accordance with the Chinese census policy. Because *hukou* is required for employment, children's education and processing mortgage loans, its registration is crucial for the returnees. However, the participants described that a tedious process was involved in *hukou* application. It even took one or two years to meander through the cumbersome maze of red tape. The process was always stuck if they were lacking a certain certificate or notification. For instance, several participants described their difficulty of getting certificates from their former employers in China. A male associate professor expressed his anger:

I have left my former working place for a long time. Moreover, the research institute I worked at before going overseas has merged with another one. It is very hard to find my residence file to process *hukou*. The administrative staff in charge of *hukou* processing is very arrogant and bossy. In fact, the administrative staff in China is all like this. They act like superiors instead of civil servants providing services. I feel very frustrated whenever I approach them for administration issues.

Another respondent, whose daughter could not be enrolled in the local public schools because his *hukou* was still being processed, stated:

I was so worried and was close to tears. My daughter's primary school education was nearly delayed because of my return! I couldn't believe that the *hukou* application could be so frustrating!

Lastly, the participants complained a lot about having too many "chores" – bureaucratic assignments. The participants expressed that their research was always disrupted by excessive meetings, paper work and services.

Coping with institutional issues

The participants generally regarded institutional issues in Chinese academia and society as being uncontrollable. This was best illustrated through comments made by some participants:

(A male associate professor) In the Chinese authoritarian society, we, as individuals, cannot do anything about institutional issues. For the ordinary person, complaining to the authorities is ineffective because only the people in power have the power to change regulations. But they are usually unwilling to do so as it might affect their own interests.

(A male full professor) The current issues in Chinese academia, such as corruption, and, the pursuit of instant gain, are rooted in the Chinese social system. If any change needs to be made, it should start from the foundation level of the system. However, the central government is reluctant to make such changes to the system because it would require a complete overhaul.

Primary control coping. As the institutional issues in Chinese academia were generally perceived as beyond the control of individual, the participants employed higher secondary control ($M = 2.05$) than primary control ($M = 1.38$) (Table 2). They endorsed primary control coping in some cases. For instance, quite a few participants expressed that even though there was a lack of fair competition in Chinese academia, they still tried to better themselves academically so that they would have more chance to succeed. A male associate professor stated that doing good research was essential even though cultivating relationships provided more advantages for promotion:

As long as I have first class research products, I will be acknowledged sooner or later even if I haven't strong *guanxi* with the authorities. My way of coping with stress related to promotion is conducting good research.

Similarly, a male professor advocated that funding applicants should put more efforts toward their research rather than pulling *guanxi*:

Some of my locally trained colleagues do not try hard in preparing a research proposal. They always think of pulling relationship with reviewers. I cannot agree with their behaviors. As for me, I usually make every effort to write a good research proposal. I think it is necessary to do the best for what I am supposed to do. I do my part and strive to meet my responsibilities. The other things [such as *guanxi*] are beyond my control and there is nothing much I can do about it.

The repatriate scholars seldom confronted authorities regarding institutional issues as they thought it was useless to do so. However, they initially attempted to negotiate in the face of poor administrative service and red tape. A male professor expressed that he had to fight for his office after returning to China:

The management system in Chinese universities is completely immature. If you are a professor with a special title, such as Changjiang Scholar, the university will do everything for you. As for me, I even did not have my own office after I returned. I negotiated with the authorities for my own office. After getting it, I had to fight again for a working space for my graduate students. I am a new comer and don't know whether I will offend authorities by fighting for these interests. But I have to do so.

In most instances, the initial negotiation was not successful. Participants reported that they chose to put up with the institutional issues or make a compromise when the negotiation was not effective.

Secondary control coping. The participants often employed secondary control coping in dealing with stress related to institutional issues. They changed their cognition, affect and behaviors toward institutional issues in order to obtain a good fit with the environment. Many repatriate scholars expressed that there was a need to abide by the local rules of academic games. A male professor described that he had to curry favor with powerful people for his career advancement:

Although I dislike it, I still speak flattering words to the authorities and try to build close relationship with them. I wouldn't do this while I stayed overseas, but this is China. The competition is not just based on professional ability. *Guanxi* is important for achieving success. Since I have been back to China, I need to accommodate to the environment.

Several participants indicated that they had to do research that would bring quick results, or even churn out papers to deal with the pressure due to China's quantity-oriented academic evaluation system. A male professor said:

Chinese academia just focuses on short term rather than long term benefit. It is difficult to do ground-breaking innovative research in such atmosphere. We will have low chances to obtain research funding if our proposals are mainly based on research interests. I need to refer to the guidelines issued by the funding agencies every year that outline the 'Agenda of National Needs.' These 'hot topics' are more likely to bring about economic benefits.

This was echoed by a female assistant professor:

I have to quicken the pace of publication so that I can be promoted soon. I can't wait to submit the manuscripts once I write up the drafts. If I spend more time on editing or revising the study, I will produce a higher quality paper. But I can't do that with time constraint. Sometimes I even start collecting data before having thoroughly thought out the whole study. I have to speed up and compromise the quality since I have urgent need to be promoted from an assistant to associate professor. Faculty members with low professional status have much lower income and fewer chances to locate funding.

In the face of poor administrative service and red tape in China, most participants expressed that they had to endure the situation rather than confronting the authorities. A male professor commented:

The administrators do not do their job. They made me a lot of promises, such as helping arrange schooling for my children; but they kept few of them. I was so frustrated during the relocation. Talking to my friends is helpful to release my anger. I complained to them and cursed about the management problems in Chinese academia and in the whole society. I could rationally plan the next step after venting to my friends. My friends would also provide me some suggestions. A few of them urge me to fight for my own interests. But the majority of them suggest that I let it go, to forgive and forget (*xi shi ning ren*). They told me that we could do nothing to change such institutional issues. Since I have returned to China, I need to accommodate to the situation. I believe most people in China

have the similar thought with the latter: going with the flow rather than adopting aggressive behaviors.

Relinquished coping. Several participants expressed their helplessness in face of Chinese institutional issues. For instance, a male associate professor stated that he couldn't do anything while being stuck in the bureaucratic maze during his relocation:

I feel that I am like a puppet being played by the administrators. I nearly went to all kinds of governmental sectors in order to obtain all the required documents for processing residence registration – *hukou*. From time to time, I was stuck in the process of obtaining certain notarization. At the beginning, I felt very angry. Later on, I learned that I had to bear with it. There is nothing I can do about Chinese bureaucracy. There is no room for negotiation. I cannot even express my anger toward their poor service. Otherwise, they would refuse to process the documents. I really feel like I am the meat on their chopping board. They are trampling upon my dignity as a human being.

Financial strains

Among the various difficulties in daily life, the most frequently and commonly experienced by the repatriates were financial strains and child care/education. There were significant income disparities among repatriate scholars. The recently launched talent programs mainly target established overseas scholars. Those who returned with fellowships (e.g., Changjiang Scholar, One Hundred Talent, and Distinguished Professor) were offered generous packages, including large start-up research funding, high salaries and sufficient housing subsidies. However, junior repatriates were provided little start-up funding and housing subsidies. Their salaries were equal or less than average salary of the

local people. Furthermore, senior repatriates were more likely to locate more and larger research grants because of their senior professional titles, whereas it was not easy to obtain large grants with a junior professional title (Xu, 2009). Part of the research funding was used for personal expenditure in a discreet way. Therefore, repatriates with professorship, and especially those with special talent titles, led comparatively comfortable lives. In contrast, many repatriates with middle or low professional ranks complained about financial hardship. A female assistant professor expressed her frustration when considering the fact that her friends who had never been abroad fared financially better than she:

I have thought that a university teacher should lead a decent life. But my current salary is even lower than my oversea PhD scholarship. I nearly use up all my monthly salary for basic needs. My former classmates who have never been overseas already have cars, apartments and children. I have none of these. Sometimes I feel as if my efforts in pursuing an overseas PhD degree were worthless.

High property price was also an important reason for the financial strains among repatriates. A male associated professor expressed:

We have no children yet. I do not mind renting an apartment. But once we have a child, we need to consider having our own apartment. Owning a house is psychologically very important for Chinese because it provides a sense of security. But the current housing prices in big cities in China are so high, even much higher than those overseas. We cannot afford an apartment with our current salary. I feel so frustrated every time I think of the housing issue.

Coping with financial strains

The frequency of employing secondary control coping ($M = 0.48$) was higher than that of primary control coping ($M = 0.30$) among the participants (Table 2).

Primary control coping. Quite a few participants reported that they coped with financial stress by working to increase their income. Having better research performance was regarded as an effective way to boost income by the repatriate scholars. Participants often described that they would have better opportunities to locate research funding once they had academic achievements. Meanwhile, the participants expressed that they needed to learn how to legally and discreetly use research funding to support their personal lives. The following quote from a male professor illustrated this theme:

I almost spent all my monthly salary at the beginning of my return. It made me feel stressful. Later I found relieving financial stress mainly depended on whether we could obtain research grants soon after returning. Thus, I began to apply for more research funding right after settling down. Furthermore, we need to learn how to use research grants intelligently. Actually, I had considerable start-up funding, but I didn't know how to make use of it in a good way initially. We couldn't even survive with the official way of using research funding in the country where I studied. It is necessary to spend part of the grants for personal expenses in a 'legal' way. I will be stressed by financial issues if I don't even claim taxi fees (funds for personal use) like what the researchers do in that country.

Research funding was an important way to relieve financial stress for those who had sufficient grants. Yet, junior faculty members only have small start-up grants and it may not be easy for them to obtain more grants in the short-term because of their low

professional ranks. Instead of resting hope on the grants from research agencies, several junior faculty members who were conducting applied research stated that providing technological services to industry was a quicker way to increase their income. Giving public lectures was reported as another way to earn pocket money. But according to the participants, providing services to industry and giving public lectures could just temporarily relieve their financial burdens. They regarded getting promotion and obtaining more research funding as critical in the long run.

Secondary control coping. On the other hand, some repatriate scholars expressed that they had to respect their financial situations as they were because they had no means to make improvements. Instead of improving their financial situations they gave up their ideal plans and tried to live within their means. For instance, several repatriate scholars expressed that they did not stick to the “traditional” idea of purchasing an apartment due to the skyrocketing real estate prices in China. Instead, they began to accept long term apartment rental. A young male professor described:

We can't afford an apartment right now. Also, it is useless to worry about the housing issue. Now the housing price is too high. It might be more cost-effective to rent a house. Anyway, we lived in a rented house as well when we stayed overseas ... I am very thankful to my wife about this. She always looks on the bright side of things and does not give me any pressure to purchase a house. Generally speaking, the wife is more anxious about owning a living place than the husband. But in my family, it is the opposite. I am more anxious than my wife. It is not a big deal, anyway. I believe that I can afford an apartment when I am over 40. Housing won't be an issue for me several years later.

Meanwhile, the following male assistant professor coped with his financial strains by maintaining a positive attitude and with downward comparison:

I do worry about financial issues sometimes, but I don't have high expectations for living standards. It might be because I was brought up in the village. You know, my siblings are still working as peasants in my hometown. My life is so much better than theirs ... I definitely experience financial pressure when it comes to raising my child and paying for the mortgage in Shanghai. But, I don't have to be calculative about every penny I spend. This is already good enough.

Relinquished coping. Three participants (4%) felt helpless with their financial difficulties. They were frustrated with their current situations and thought about changing their jobs. A young female assistant professor who majored in social sciences stated:

My current salary is even much lower than my overseas PhD scholarship. I see no hope for the improvement of my financial status. I have no way to earn extra money. As I don't have *guanxi*, I have no idea when I could be promoted to be an associate professor either. On the other hand, it is hard to reduce many of my household expenses, because they are necessary. For instance, I need to purchase formula for my baby and I should save money for his future education. I really feel very stressful. To tell you the truth, I am thinking of changing my job or going overseas again. But it is hard to make such decisions. Anyway, a faculty job is very secure in China. If you don't withdraw from it, you can keep the position for life.

Family/interpersonal stress

Many participants experienced family stressors including child care/education, balancing work and family, and caring for elderly parents. Child care/education was the most frequently reported family stressor. Most participants' children were dependent. Quite a few repatriates felt that it was hard to strike a balance between time spent on tutoring/caring for their children and time spent on work. A female assistant professor expressed:

I have two boys who are both in kindergarten. I see other moms spend a lot of time caring for their children, and I feel guilty that I am not doing the same. On the other hand, I also feel bad because I cannot spend as much time on my research as my colleagues who have no children.

Grandparents are important sources of child care in Chinese families. Dual career parents can better balance work and family with the support of grandparents. However, the different opinions of grandparents concerning child rearing could be a source of stress. A male assistant professor who lived together with his in-laws described that the differences in parenting practices were a recurring theme in his family:

Grandparents tend to spoil children. They try to meet whatever desires the grandchildren have whether they are reasonable or not. As a parent, I want to set boundaries for my child. Discipline is necessary for his future development. I am in a dilemma right now. I need their help with child care. It is hard to find a helper as reliable as grandparents. But, I really dislike the way they are raising my children.

The repatriates were also concerned about their children's education. Chinese parents value their children's education more than anything else (Chao, 1995). They invest a major portion of their resources into their children's education and set high expectations for their children's success at school. The repatriated scholars shared similar concerns with the locals about their children's education, such as how to send their children to top local primary/high schools, and how to improve their children's school performance. Additionally, several respondents experienced frustration because their children who grew up overseas had problems with the Chinese language and had difficulty adjusting to the local education system after returning. Some repatriates were also concerned about the future of their children's education, for instance, whether or not they needed to send their children for overseas study.

A few participants experienced unique stressors in their daily lives. Several repatriates, usually those with senior professional titles, were experiencing geographic separation from spouses and children. They returned to China for better career opportunities, but their spouses (usually wives) and children continued staying overseas for perceived better education for the children. A male respondent with the title of Distinguished Professor described that geographical separation from loved ones was a pain for him:

I don't know when we can be reunited. I am reluctant to give up my career in China. The incentive package for professorship is attractive. I cannot find such a position in the U.S. It is also impossible for my wife and children to return to China. My children are used to school and education in the U.S. They went back to the U.S. after staying in China for one semester. They had great difficulty

adjusting to the Chinese education system. Besides, my wife has a stable job in the U.S. It is hard for her to find a job in China at her age. A family reunion seems to be very unlikely in the near future. I always feel guilty for not fulfilling my role as a father.

Finding a marital partner was another unique stressor for those who were single. Some repatriate scholars postponed their marriages to pursue postgraduate education. After they settled down to work, they wished that they could have gotten married earlier. Meanwhile, they felt pressure from their parents, friends and the community to start a family. Single female repatriates encountered greater stress on this issue than male counterparts because Chinese men are reluctant to marry women who are better educated than they are.

Coping with family/interpersonal issues

The participants employed higher primary control coping ($M = 0.67$) than secondary control coping ($M = 0.55$) in dealing with family/interpersonal issues (Table 2).

Primary control coping. The participants directly solved the problems and/or sought support from family members for some family/interpersonal issues. For instance, quite a few repatriate scholars expressed that they asked their elderly parents for help with child care. Live-in nannies are comparatively affordable in China, so some participants also hired helpers to share household and child care responsibilities. A female associate professor with a four years old son described:

I have a good social support system. My parents and my husband are very supportive of my work. My parents live with us. They cook for the whole family

and take care of my son's daily life. My husband takes my son out to play when I am busy with my work. We also have an hourly helper to do house cleaning.

Participants who were separated from their loved ones described how they tried to get together with their families more often and how they tried their best to fulfill family responsibilities. A male Distinguished Professor lived separately from his wife and children because he had great career opportunity in China and his children could not get used to the Chinese education system. He stated:

I visit my wife and children in the U.S. every summer and winter vacation, and I seize the opportunity to attend conferences in the U.S. or take sabbatical leave to join my family. I also email my child every day, trying to help him with his science and to improve his English writing skills.

Secondary control coping. Quite a few participants expressed that they had to accommodate reality for some family issues. A male assistant professor who had disagreements with in-laws over child rearing described:

My parents-in-laws are pampering my child. I talked to them and attempted to change their ways of bringing up the child, but it doesn't work. They cannot help spoiling their grandchild even though they know it is not good to do so. As long as I need their help with child care, I have to relinquish my opinions and accommodate my in-laws.

Several participants delayed their marriages because of tertiary education. They expressed that there was nothing much they could do to change their single status. A single female assistant professor described:

My parents urge me to get married soon. I personally worry about marriage as well. After all, I don't want to be single for my whole life. However, finding a marriage partner is different from doing research. I could publish papers if I put in enough effort towards research. Yet, marriage involves elements of luck. This cannot be rushed. What I can do right now is follow the current.

Specific coping strategies and their effectiveness

In addition to focusing on the broad categories of coping styles, I also coded the fine-grained coping strategies that emerged from interviews. The summary of the mean frequency of each coping strategy and the standard deviation are presented in Table 3. Effort/problem solving, accepting reality, seeking social support and maintaining a positive attitude were frequently employed coping strategies.

Effort/problem solving. Effort/problem solving was the most frequently used coping strategy reported by the participants. During interviews, the majority of participants expressed hard work as an important way for them to reduce stress and fare better in Chinese academia/society.

Accepting reality. The participants also frequently discussed accepting reality as a way of coping with stressors associated with their work and daily lives. Typical statements included:

(A male associate professor) I try to solve the problem when I feel stressed. If I can't manage the situation, then I have to accommodate reality.

(A female assistant professor) As I can't change the environment, I need to learn how to accept it.

The repatriates expressed mixed feelings towards “accepting reality” during their interviews. Some repatriates, such as this female professor, described their willingness to accept reality.

Since I have been back to China, I need to go native. It would be beneficial for me to try to understand the current situation in China - so that I can learn to accept it and be more optimistic about its improvements.

On the contrary, several repatriates, including this male associate professor, described their reluctance to accept reality.

Repatriates acquired a lot of advanced values from overseas. However, we find it is hard to implement these values in Chinese society. We have no means to change the society; instead, we are blended into a problematic society upon return. It is not good for us - and not beneficial to Chinese society - either.

Moreover, a male assistant professor commented:

I am not powerful enough to change the system. I have no choice but to accommodate it. I can't tell the authorities that you should do things this or that way. That is very ridiculous. It is the authorities' job to change the system, not mine. What I can do is try my best with what I have, such as training my graduate students to have a good research attitude. However, I really wish that more people, especially those with power, would feel the same way in wanting to reform the Chinese system.

Generally speaking, the ambivalent feelings toward accepting reality in contemporary Chinese society distressed the repatriates. They felt that they, as privileged intellectuals, had the obligation to change Chinese academic organizations and the society

for the better. However, they chose to evade the responsibility and to accommodate the situation, because they felt that it was beyond an individual's ability to change the system. Quite a few repatriates expressed that accepting reality just reduced their stress temporarily; it did not produce long term satisfaction. They achieved a person-and-environment fit by avoiding conflicts. But in the long run, they still felt stressed by the institutional issues.

Seeking social support. Participants commonly used social support from family members, friends and colleagues when dealing stressors.

Family members are major resources for social support. Compared with male participants, female repatriate scholars were more likely to turn to their families for advice and comfort. A female assistant professor described:

I always pour out my worries to my husband. He is always there to support me.

Sometimes I feel that my work stress is too much for me to handle. For instance, I complained to my husband that I couldn't meet the university's requirement for promotion. My husband would cheer me up by saying that he could support the family even if I quit my job. I know I won't do that, but his comfort made me feel much better.

Although males were less likely to share their worries with family members, the male participants indicated that they drew strength from their loved ones. A male professor described that playing with his child was a good outlet for stress:

When I am much stressed from my work, I just go home earlier and play with my daughter. I feel much more relaxed when being with my family.

In addition to nuclear family members, extended family members were an important source of social support for the participants. As mentioned earlier, elderly parents helped some participants with their childcare and housework. The repatriates expressed that enjoying the companionship of extended family was one of the greatest attractions for their return. They also felt good about their reunion with old friends. A male associate professor described the importance of talking to old friends when encountering stress:

My old friends have always stayed in China, so they have better ideas about how Chinese society works compared to me. Often, they give me suggestions on how to deal with interpersonal issues, and they tell me to give in to some issues so as to survive in Chinese society. These old friends are very important to me. I am happy when I am together with them. You know, it is quite different from relations that concern interest. They don't expect me to do anything for them.

The participants also discussed support from colleagues, especially those who were repatriates themselves. A female assistant professor reported:

I have good relationship with my colleagues. We usually have lunch together. We talk about research and teaching. Moreover, we complain to each other about institutional issues. As most of us have overseas experiences, we are able to understand each other's stress and therefore relate better to each other ... It is much easier to build relationships with colleagues in China than in Western countries. Colleagues in the West are independent and their relationship is kind of professional. This is not so in China. Colleagues can often be your good friends.

Positive attitude. Positive attitude was another frequently used coping strategy.

Although they experienced various stress, many participants had hope for opportunities for future career development. A male professor who returned from the UK stated:

I just returned from the UK. I think things will be much better in the future when I get on the right track. Now, I have to make a lot of phone calls and fill in various forms. Things will get better as time goes by. I could spend more time on my research after becoming familiar with administrative work. I am confident about my career advancement in the near future...

Some participants held positive attitudes toward the Chinese system. Even though they felt uncomfortable about the problems in Chinese academia and in society, they still believed that China was moving in a positive direction. Typical statements included:

(A female professor) Chinese universities are learning from their overseas counterparts. They are making improvements although there are still many problems. This is understandable. After all, we have different cultures and historical backgrounds than those in Western countries. It will take time for Chinese academic management to catch up with the Western standards. But I am sure it would be much better after one or two generations.

Focusing on the positive things in life was also described as a way to cope with stress. A female assistant professor expressed that she valued the little delights even if she experienced various stressors:

I am a person who is easily contented. I gain happiness from the little things in my life, such as small progress in my research work, a thank you note from the

students and being together with my friends. I try to make myself happy every day. Life will be pretty clotted if I always focus on the dark side of the situation.

Fulfilling social obligations. The repatriate scholars had a strong sense of responsibility, to their country and profession. They were obligated to fulfill multiple roles in their workplaces and personal lives, such as being a researcher, course instructor, parent, daughter/son, and so on. A female assistant professor stated:

I have never worked in industry, so it is challenging to teach my MBA students who get first-hand experience within industry. I will not regret if I have tried my best to prepare lecture notes but fail to satisfy the students.

Similarly, a female associate professor who was stressed by her son's academic performance expressed that she felt much better as long as she tried her best to provide guidance to him.

Spirituality and religion. Spirituality and religion were coded as one category in this study. However, most participants (80%) had no identified religion. Participants generally did not regard spirituality as the same as religion. Several participants reported that spiritual life was an important outlet during times of stress. They described spiritual life (*jing shen sheng huo*) as thoughts or activities that transcend purely materialist needs and endeavors in the world, such as philosophical and literary reading, art appreciation and thinking and participation in discussions about the meaning of life. The following quote from a female assistant professor was typical:

Spiritual life is very important for me. When I am stressed by the reality of life, I like to devote myself to a spiritual world through reading literature. For instance, I

like reading Yang Jiang's (a contemporary Chinese writer) biography *We Three*. I am deeply touched by the peaceful living attitude of her family.

Several participants also reported reading psychological books when they felt stressed. A female professor expressed:

I read psychological self-help books to learn how to cope with stress. I think people living in modern society need to learn some psychology. I benefit a lot from reading psychological books, like learning how to regulate emotions.

Several participants mentioned religion as their way of coping with stress. Seven participants were Christian and four were Buddhist. They mostly became believers while staying overseas. A Buddhist returnee described:

When I felt much stressed, I would think the material things (fame, house, etc.) were just transient. I want to transcend these mundane things and achieve a peaceful state of mind.

Meanwhile, a Christian repatriate scholar expressed that he thought everything was in God's hand when he was in a stressful situation. However, spirituality and religion was found to have no significant effect empirically on the participants' well-being.

Ah-Q mentality. Ah-Q mentality, sarcastically referred to as "spiritual victory", is based on a character in a popular Chinese novel, *The Story of Ah-Q* (Lushun, 1920). It consists of a pattern of defense mechanisms that include self-protective rationalization, externalization of blame and belittling of others' achievements (Matsumoto & Juang, 2013). Ah-Q mentality was more likely to be used among Chinese disadvantaged group. It was seldom used among Chinese repatriate scholars.

Discussion

Study 1 explored the stressors among Chinese repatriate scholars upon repatriation and their ways of dealing with these stressful demands. The results indicated that their stress was centered on their work. Their work stress mainly came from their motivation for career success, and the differences between Western and Chinese organizational culture. One of the important reasons for their return was the potential for a more rewarding life. Having experienced Western organization culture, the repatriate scholars expected that Chinese institutions would facilitate their research work as well. However, the current Chinese institutional system failed to meet their expectations. Their life stressors were more related to family obligations rooted in Chinese cultural values, such as caring for elderly parents and emphasizing children's education. Study 1 showed different effects of various stress. For instance, research stress appeared to be eustress, whereas institutional issues were distress. Study 2 statistically tests the effects of different stressors.

The results of Study 1 also showed that Chinese repatriate scholars flexibly changed their coping styles according to perceived controllability, which was consistent with the transactional stress-and-coping framework (Lazarus & Folkman, 1984) that emphasized coping as a dynamic interaction between person and environment (Folkman & Moskowitz, 2004). The broad categories of primary and secondary control coping served as a guide to classify the coping responses of Chinese repatriate scholars. The study showed that the repatriate scholars employed more secondary than primary control coping when dealing with institutional issues and financial strains, whereas they used more primary than secondary control coping when dealing with research stress and

family/interpersonal issues. Study 2 tested whether the differences were statistically significant. Meanwhile, it should be noted that the primary-secondary coding scheme did not fit the data perfectly. The participants had mixed coping goals for some coping behaviors, such as drawing *guanxi*. One theme emerging from the qualitative study was that the participants flexibly changed their coping styles to find a best fit with the environment. Being sensitive to the environment is a cultural script of Chinese people. Study 2 further explores the relationship between individual differences in coping flexibility and psychological outcomes.

Table 2

Mean Frequency and Standard Deviation of Primary, Secondary and Relinquished

Control Coping across Scenarios

	<i>M (SD)</i>		
	Primary	Secondary	Relinquished
Situations			
Research	1.32 (1.28)	0.71 (1.02)	0.01 (0.12)
Institutional Issues	1.38 (1.41)	2.05 (1.94)	0.19 (0.64)
Family/Interpersonal Issues	0.67 (0.90)	0.55 (0.78)	0.04 (0.26)
Financial Strains	0.30 (0.72)	0.48 (0.97)	0.11 (0.39)
Others	0.23 (0.51)	0.53 (1.08)	0.05 (0.47)
Total	3.67 (2.20)	4.31 (2.51)	0.41 (0.96)

Table 3

Means and Standard Deviations of Major Coping Strategies among Chinese repatriate scholars

	<i>M</i>	<i>SD</i>
Coping strategies		
Effort/problem solving	2.34	1.54
Accepting reality	1.16	1.14
Seeking social support for instrumental reasons	1.03	1.15
Maintaining Positive attitude	0.74	0.98
Seeking social support for emotional reasons	0.66	0.75
Exercise and entertainment	0.38	0.68
Relinquished control	0.37	0.86
Confrontative negotiation	0.29	0.7
Do as the locals do	0.26	0.55
Changing expectation	0.23	0.54
Fulfilling social obligations	0.18	0.45
Emotional regulation	0.16	0.41
Social comparison	0.16	0.53
Religion and spirituality	0.15	0.49
Ah-Q mentality	0.08	0.32

CHAPTER FOUR STUDY 2

The qualitative approach in Study 1 and the quantitative approach in Study 2 were two different methods that explored the same question – the stress and coping of Chinese repatriation scholars. Study 1 was mainly for illustration purpose. The narrative of participants painted a nice picture of their stress-and-coping phenomenon. Qualitative data contain rich information, which show the meaning of the experience (Fielding & Schreier, 2001). Such illustration function of qualitative data is akin to putting “meat on the bones” of dry quantitative data (Brayman, 2006). However, qualitative research lacks precision in that it cannot test the relationship among different concepts. Quantitative methods were used in Study 2 in order to verify the patterns and correlate stress-and-coping with psychological outcomes. The qualitative and quantitative results enhance the validity of the findings through triangulation (Denzin, 1978). The mixed methods gained a more comprehensive understanding of the stress-and-coping among Chinese repatriation scholars.

The hypotheses in Study 2 were developed from the central themes emerged from literature and the results in Study 1. Literature suggests that culture is a fundamental context for the stress-and-coping process (Chun et al., 2006). Study 1 indicated that Chinese repatriate scholars still kept the core values of Chinese culture. However, they were socialized into overseas work norms and values. Like their colleagues in Western academia who are devoted into research, repatriate scholars regarded research stress as not unexpected, and to an extent, obligatory in their profession. They expressed that research stress facilitated their motivation of pursuing academic excellence and they had positive perceptions towards such stress.

Having experienced an efficient system in overseas universities, the repatriates expected support from local institution for their scholarly pursuit. They also expected financial rewards for their academic devotion. Chinese intuitional issues and faculty members' comparatively low income made the repatriate scholars feel frustrated. I expected that research stress was eustress (Selye, 1982), whereas institutional stress and financial stress were distress for the repatriate scholars. Study 2 statistically tested the effects of various stressors with the following hypotheses:

Hypothesis 1a: Chinese repatriate scholars' research stress positively impacted their psychological adjustment.

Hypothesis 1b: Institutional stress negatively influenced their psychological outcomes.

Hypothesis 1c: Financial stress negatively impacted their psychological outcomes.

Previous research on faculty stress suggested that senior professors experienced less stress in many occupational domains than their junior counterpart. In Study 1, the participants expressed that senior repatriate scholars had more resources upon repatriation than junior repatriates, such as generous housing subsidy and large start-up research funding. Moreover, senior faculty members were more likely to obtain more resources in Chinese hierarchical society. Thus, I expected that senior repatriate scholars were less stressful, and more satisfied with their work and life compared to junior repatriates scholars. Research on faculty stress has also explored the gender difference in stress level and psychological adjustment. The results are mixed, with some research showing female have more role-based and task-based stress than male faculty members (Smith et al., 1995) and no gender difference in other studies (Abouserie, 1996; Winefield & Jarrett, 2001). In

Study 1, the female respondents expressed that they could better balance work and family upon repatriation with the support from elderly parents and paid helpers. They also felt satisfied with their respected and stable job positions. On the other hand, male repatriate scholars exerted higher expectation on their academic performance and financial rewards than female colleagues as male was the primary bread earner in Chinese family. Male repatriate scholars seemed to have higher level of stress and lower level of life satisfaction.

Study 2 tested the effects of demographic variables with the following hypotheses:

Hypothesis 2a: Professional rank had a main effect on stress levels. Specifically, full professors had lower stress levels than assistant professors.

Hypothesis 2b: Professional rank had a main effect on psychological outcomes. Specifically, full professors fared better than assistant professors.

Hypothesis 2c: Gender had a main effect on stress levels. Specifically, female were less stressful than male faculty members.

Hypothesis 2d: Gender had a main effect on stress levels. Specifically, female were more satisfied with their job and life.

Culture influences the way of coping. In a more collectivistic cultural context, individuals endorsed more secondary control coping than primary control coping and they tended to flexibly change their coping styles according to the perceived controllability. Secondary control coping and coping flexibility were congruent with the cultural values, therefore, were expected to benefit the repatriate scholars.

Collectivistic cultures encourage the interdependence of self and significant others, such as family and friends (Markus & Kitayama, 1991). Through controlling the self, individuals achieve harmonious relationship with the environment. Giving in is

considered as a symbol of mature in Asia. At the same time, due to the limited resources in Asian society, it is beneficial to hold a modest belief in the individual's efficacy in control over environment (Chang, 2003). During the interview, most of the participants expressed their desire to accommodate to the reality. Their family and friends had also suggested that they should accept the situations over which they had medium or low level of control. I expected that study 2 would quantitatively show the higher endorsement of secondary control coping among Chinese repatriate scholars and the adaptiveness of secondary control.

Furthermore, a malleable self is associated with the process of adjusting oneself to the environment. Although maintaining a consistent self is considered as crucial in Western cultures, changing oneself across situations is inevitable manifestations of a complex selfhood in Asian cultures (Suh, 2002). Individuals with interdependent self-construal view their behavior in relation to other's thoughts, attitudes, feelings and actions; they have an inclination to be sensitive to contextual cues from the environment (Kitayama & Markus, 1999). A highly situational variability in coping behaviors is observed among East Asians, which is considered as a resilient factor in the culture context (Chang, 2003). In Study 1, Chinese repatriate scholars adopted primary control to deal with research stress as it was perceived as under their control. In contrast, they tended to use secondary control to manage institutional issues as these were perceived as out of their control. Chinese culture is considered to be "tight" (Triandis, 1995). Confronting the institutional issues would be regarded as behaviors going against social norms and would lead to criticism. I expected that coping flexibility would benefit the mental health of Chinese repatriate scholars. Hypotheses regarding their coping styles are as following:

Hypothesis 3: Chinese repatriate scholars adopted more secondary control coping than primary control coping.

Hypothesis 4: Secondary control coping positively predicted psychological outcomes.

Hypothesis 5a: Coping flexibility had positive effects on job satisfaction and life satisfaction. Specifically, high coping flexibility led to high job satisfaction and high life satisfaction.

Hypothesis 5b: Coping flexibility would moderate the relationship between stress and psychological outcomes.

In addition to the exploration of the general coping styles among Chinese repatriate scholars, Study 2 examined the effectiveness of each specific coping responses as well. Coping is defined independently of its outcome (Lazarus & Folkman, 1984). Some coping strategies could successfully manage demands, whereas the others might imply failure. For instance, Study 1 indicated that participants who coped with a positive attitude were more content with their life. In contrast, those who coped with Ah-Q mentality appeared to be distressed. Therefore, I came up with the following hypothesis to test the effects of specific coping strategies:

Hypothesis 6: There were predictive relationships among specific coping strategies and psychological outcomes.

Method

Participants and procedures

The sample in Study 2 was identical to Study 1². After the in-depth interviews for Study 1 I asked participants to fill out the questionnaire designed for Study 2, which was written in Chinese.

Measurements

The participants filled in a questionnaire that queried the following: stress level, coping flexibility, job satisfaction, life satisfaction and demographic information.

Stress level. I developed the survey questions on stress level based on a pilot study on Chinese repatriate scholars (Appendix C). The pilot study consisted of twenty phone interviews with Chinese repatriate scholars who returned to China in the past six years. The participants in the pilot study were asked to describe the things that made them feel stressful upon return. Their responses were recorded verbatim. A content analysis was conducted and fifteen events were identified to be common stressors among repatriates. Examples of work related stressors included conducting research, securing research grants and poor administrative service. Life stressors included financial strains, child care/education, work/family conflict, and so on. Respondents in the main study were asked to indicate whether they were stressed by each demand on the list. If the event was not one of their stressors, the participants were instructed to leave it blank. If the event was one of their stressors, the participants were asked to rate the stress level from 1 (slightly feel stressed) to 5 (very stressed). An open-ended option was added at the end of

² There were five couples among the eighty-two participants. Correlations analyses were run to check the independency of these couples in terms of study variables. The results did show the independency, as a result, they were treated as independent subjects at the individual level analysis.

the scale so that respondents could indicate any other sources of stress as well as ratings. The Cronbach's alpha coefficient was 0.88.

Coping styles. The scores of primary, secondary and relinquished control coping were recorded from Study 1 by counting the frequency of participants' responses according to the coping scheme (Table 1).

Coping strategies. Similarly, the scores for each specific coping strategy were obtained from Study 1 by counting the frequency of their responses according to the coping scheme (Table 1).

Coping flexibility. Coping flexibility was measured by the Coping Flexibility Scale developed by Hong and Chang (2001) (Appendix E). Sample items included "When I am in a stressful but controllable situation, I try to gather more information so that I can change it" and "I will appraise the situation before I decide on how to cope with it." Participants were asked to rate on a five point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Cronbach's alpha coefficient was 0.81.

Job satisfaction. Both the overall job satisfaction scale and satisfaction with specific job facets instrument were used to measure job satisfaction of participants (Appendix G). Overall job satisfaction was assessed by the single item scale "How satisfied are you with your job in general?" The respondents were asked to rate their overall job satisfaction level from 1 (very dissatisfied) to 7 (very satisfied) (Scarpello & Campbell, 1983). Meta-analysis has shown the validity of the single job satisfaction scale (Wanous, Reichers, & Hudy, 1997).

Satisfaction with specific job facets was assessed by the Job Preference Scale, which was originally designed by Jurgensen (1978), and was modified by Rozelle, Jones

and Chang (1990) in a study of job preference in China. The factors related to participants' job preferences were appropriate to be used to assess their job satisfaction. The locally reconstructed scale measured twelve facets that included benefit, organizations (working in a unit to be proud of), co-workers (having colleagues who are easy to get along with), flexible working hours, appropriate number of working hours, stability, leaders (having a good leader), the job itself, social prestige and working environment. The scale required participants to indicate the extent to which they were satisfied with each facet on a seven-point scale ranging from 1 (very dissatisfied) to 7 (very satisfied). The Cronbach's alpha coefficient of the satisfaction with specific job facets scale was 0.86. When the one-item overall job satisfaction scale was added, the Cronbach's alpha increased to 0.88.

Life satisfaction. Life satisfaction was measured by Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) (Appendix H). The global measurement for life satisfaction included five items: "In most ways my life is close to my idea", "The conditions of my life are excellent", "I am satisfied with my life", "So far I have gotten the important things I want in my life" and "If I could live my life over, I would change almost nothing." Participants were asked to rate each item on a five-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). The SWLS has been demonstrated as a reliable and stable measure (Pavot & Diener, 1993). The Cronbach's alpha coefficient for this study was .91.

Results

The ranking of stressful events by intensity is presented in Table 4. The three most stressful events were all work-related, including research work, securing research funding and achieving promotions. These were followed by child care/education for those who

had children and finding a marital partner for those who were single. The most commonly experienced stressors, experienced by more than 70 percent of participants, were research, securing research funding, promotion, financial strains, burdensome chores and supervising graduate students. All these frequently experienced stressors were work-related except financial strains.

Table 4

Stressful Events among Chinese Repatriate Scholars Listed by Intensity

Stressor	<i>N</i> (%)	<i>M</i> (Intensity)	<i>SD</i>
Research	75 (91%)	3.95	0.99
Securing research funding	74 (90%)	3.62	1.18
Achieving promotion	60 (73%)	3.53	1.32
Child care/education	42 (51%)	3.21	1.26
Finding a marital partner	11 (13%)	3.09	1.51
Financial strains	60 (73%)	3.03	1.39
Burdensome chores to do	73 (89%)	3.03	1.39
Supervising graduate students	61 (74%)	2.98	1.07
Poor administrative service	55 (67%)	2.98	1.23
Work/family balance	53 (65%)	2.62	0.97
Teaching	50 (61%)	2.56	0.99
Caring for elderly parents	48 (59%)	2.46	1.17
Personal relationships in the work place	50 (61%)	2.40	0.99
Separation from family members	12 (15%)	2.20	1.37
Adjusting to problems in new living environments (such as pollution, traffic jam)	46 (56%)	1.78	1.11

Note. *N* refers to the number and percentage of Chinese returnees reporting stressors.

M refers to mean intensity of each stressor.

Hypothesis 1a: Chinese repatriate scholars' research stress positively impacted their psychological adjustment.

Hypothesis 1b: Institutional stress negatively influenced their psychological outcomes.

Hypothesis 1c: Financial stress negatively impacted their psychological outcomes.

Table 5 shows the means, standard deviations and correlations among different stress and outcomes. Consistent with hypotheses, institutional issues correlated negatively with job satisfaction, $r(80) = -.31, p < .01$, and life satisfaction, $r(80) = -.29, p < .01$; financial strains was negatively related with job satisfaction, $r(80) = -.38, p < .01$, and life satisfaction, $r(80) = -.44, p < .01$. Research stress and family/interpersonal stress showed slightly positive correlations with psychological outcomes, but the correlations were not significant. Institutional issues and financial strains yielded positive correlations, $r(80) = .37, p < .01$. Participants with high financial strains had greater pressure from achieving promotions and securing research funding compared to those with better financial status.

To determine whether any of the stressful dimensions explained unique variance in psychological outcomes, two hierarchical regression analyses were undertaken, with job satisfaction and life satisfaction as the dependent variables. Demographic variables (age, gender and professional ranks) were entered in the first step. Stress variables were entered in the second step. Prior to the analysis, gender was dummy coded. Male was coded 0 and female was coded 1. The results of the multiple regression analysis are shown in Table 6.

After controlling for demographic variables, four stress constructs explained a significant variance in job satisfaction, $R^2_{\text{change}} = .08, p < .05$, and life satisfaction, $R^2_{\text{change}} = .10, p < .05$. Institutional issues had a unique contribution in predicting life dissatisfaction, $\beta = -.28, t(74) = -2.81, p < .05$. Financial strains was a strong predictor for

job dissatisfaction, $\beta = -.33$, $t(74) = -2.95$, $p < .05$, and life dissatisfaction, $\beta = -.25$, $t(74) = -2.73$, $p < .05$. Research stress had no significant effect on job satisfaction, $\beta = .05$, $t(74) = .37$, *ns*, and life satisfaction, $\beta = .07$, $t(74) = .45$, *ns*. Family/interpersonal stress did not predict job satisfaction, $\beta = .09$, $t(74) = .67$, *ns*, and life satisfaction, $\beta = .04$, $t(74) = .36$, *ns*.

Table 5

Means, Standard Deviations and Correlations among Variables

	1	2	3	4	5	6
1. Research Stress	1					
2. Institutional Issues	.28*	1				
3. Financial Strains	-.18	.37**	1			
4. Family/Interpersonal Stress	.09	.26*	.27*	1		
5. Job Satisfaction	.05	-.31**	-.38**	.08	1	
6. Life Satisfaction	.04	-.29**	-.44**	.09	.64**	1
<i>M</i>	2.91	2.86	2.46	2.46	4.98	3.19
<i>SD</i>	1.29	.89	1.28	1.28	.83	.87

Note. $N = 82$. * $p < .05$, ** $p < .01$

Table 6

Hierarchical Regression Analysis: Job Satisfaction and Life Satisfaction by Demographics, Research Stress, Institutional Stress, Financial Strains and Family/Interpersonal Stress

	Model 1		Model 2	
	Job Satisfaction		Life Satisfaction	
	Step 1	Step 2	Step 1	Step 2
	β	β	β	β
Age	-.20	-.07	.04	-.02
Gender	.21	.23*	.54**	.49**
Title	.42**	.34**	.34**	.25*
Research Stress		.05		.07
Institutional Stress		-.17		-.28*
Financial Strains		-.33*		-.25*
Family/Interpersonal Stress		.09		.04
R^2	.17**	.25*	.32**	.45**
R^2_{change}		.08*		.10*

Note. $N = 82$. * $p < .05$, ** $p < .01$

Hypothesis 2: Demographic variables had effects on stress levels and psychological outcomes.

Hypothesis 2a: Professional rank had a main effect on stress levels. Specifically, full professors had lower stress levels than assistant professors.

Hypothesis 2b: Professional rank had a main effect on psychological outcomes. Specifically, full professors fared better than assistant professors.

Hypothesis 2c: Gender had a main effect on stress levels and psychological outcomes.

Based on the qualitative results in Study 1, the fifteen stressors in the survey questions were reduced to four stressful domains: research stress, institutional issues, financial strains and family/interpersonal relationships. The research stress domain included research stress and supervising graduate students. Securing research funding, achieving promotion, burdensome chores needed to do, personal relationships in work place and poor administrative service were classified as institutional issues. Child care/education, finding a marital partner, work/family balance, caring for elderly parents, and separation with family members were combined as family/interpersonal stress. Teaching and adjusting to new living environments could not be classified into any of the above domains and they had weak associations with psychological outcomes. Thus these two stressors were not included in further statistical analysis.

An ANOVA test was used to investigate the differences among various professional ranks. No statistically significant differences were found on either their research stress or family/interpersonal stress. However, the main effect of professional ranks on institutional stress was significant, $F(2, 79) = 3.83, p < .05$. Post-hoc Tukey's test showed that

Assistant Professors ($M = 3.01$, $SD = 0.69$) experienced greater institutional stress than full professors ($M = 2.43$, $SD = 0.98$), $t(81) = 2.41$, $p < .05$. The results also showed the main effect of professional title on financial strains. Tukey's post-hoc tests indicated greater financial strains among Assistant Professors ($M = 2.86$, $SD = 1.77$) than among full professors ($M = 1.84$, $SD = 1.70$), $t(81) = 2.57$, $p < .05$. An ANOVA test was run to test the main effect of professional title on the combined stress score as well. The result was not significant, $F(2, 79) = 1.45$, *ns*.

Independent t-tests were performed to examine gender differences in four stress domains and the overall stress level. No gender difference was found in terms of stress in specific areas and their overall stress.

The repatriate scholars' responses to the job satisfaction scale (satisfaction to specific domains and overall satisfaction are shown in Table 7. Satisfaction within specific domains was ranked in order, from 1 (very dissatisfied) to 7 (very satisfied). Mean scores greater than 4 indicated varying levels of satisfaction, and mean scores lower than 4 suggested varying levels of dissatisfaction. Participants were satisfied with their flexible work schedules and with work itself. They also enjoyed their closer relationships with colleagues in China and were content with their job stability. Although Chinese universities, especially top universities, are now experimenting with the tenure system by assessing research productivity, faculty positions are still stable. Participants indicated that one of the reasons for their return was that their positions in overseas academia were not permanent. They were least satisfied with their pay, which echoed the above finding that financial strains was one of the top stressors.

The mean score of satisfaction within specific job domains was 4.98 ($SD = 0.83$), which was only slightly lower than responses to the one-item overall job satisfaction scale ($M = 5.05$, $SD = 1.22$). Average satisfaction within specific job domains was highly correlated with overall job satisfaction, $r(80) = .70$, thus I combined these two scales for the calculation of job satisfaction score for further statistical analysis.

An ANOVA test was run to compare job satisfaction with various professional ranks. The results indicated a significant main effect of professional rank on job satisfaction, $F(2, 79) = 3.83$, $p < .05$. Post hoc analyses using Tukey's HSD showed that Full Professors ($M = 5.37$, $SD = 1.08$) were more satisfied with their job than Assistant Professors ($M = 4.64$, $SD = 1.08$), $p < .05$. An independent sample t-test was run to examine gender differences on job satisfaction. Male ($M = 4.92$, $SD = 0.81$) and female repatriate scholars ($M = 5.10$, $SD = 0.86$) did not differ in their job satisfaction, $t(81) = -0.89$, *ns*.

Generally speaking, the participants were moderately satisfied with their lives ($M = 3.20$, $SD = 0.87$; ratings were on a 1-5 scale). The ANOVA test did not show the main effect of professional rank on life satisfaction, $F(2, 79) = 1.5$, *ns*. An independent sample t-test was used to test the gender difference on life satisfaction. The result indicated that female repatriate scholars ($M = 3.71$, $SD = 0.82$) had significantly higher life satisfaction than their male counterparts ($M = 2.91$, $SD = 0.76$), $t(81) = 2.89$, $p < .05$.

Table 7

Responses to Job Satisfaction

Job satisfaction items	<i>M</i>	<i>SD</i>
Flexible work schedule	6.06	0.92
Job itself	5.82	1.14
Job stability	5.56	1.33
Relationship with colleagues	5.51	1.01
Social prestige	4.96	1.19
Working hours	4.87	1.59
Working environment (comfortable, clean, etc.)	4.86	1.32
Proud of the place where you work	4.83	1.36
Leaders (having a good, considerate leader)	4.81	1.31
Promotion opportunities	4.45	1.27
Benefits (vacations, sick leave with pay, etc.)	3.99	1.58
Salary/income	3.94	1.67
*How satisfied are you with your job in general?	5.05	1.22

Note. Scores ranged from 1 (very dissatisfied) to 7 (very satisfied).

*This item does not form part of the scale. $N = 82$.

Hypothesis 3: Chinese repatriate scholars adopted more secondary control coping than primary control coping.

The coping responses of participants in Study 1 were classified into primary control, secondary control and relinquished control coping according to the coding scheme. The frequency of each category was counted, and then mean and standard deviation were calculated. A one-way repeated measures ANOVA with coping as a repeated measures factor was carried out on the participants' mean coping responses for each stressful event. The ANOVA results (Table 8) revealed that the usage of three coping styles with research stress among the participants varied, $F(2, 79) = 38.78, p < 0.001$; the usage of three coping styles with institutional issues differed significantly from one another, $F(2, 79) = 36.65, p < 0.001$; the endorsement of three coping styles were not equal when they coped with family/interpersonal stress, $F(2, 79) = 16.92, p < 0.001$, and financial strains, $F(2, 79) = 4.76, p < 0.05$. Overall, there was variability for the three coping styles among the participants, $F(2, 79) = 110, p < 0.001$.

A series of Paired Samples T-tests were completed to further analyze whether the differences between any two coping styles for each stressful scenario reached statistical significance. Bonferroni correction was used to control for familywise error rate (alpha level was set to $0.05/3 = 0.0167$ for a conclusion of significance at the 0.05 level). The results for the analyses are listed in Table 9. In total, the endorsement of primary and secondary control coping among the participants did not differ significantly, $t(81) = -1.87, p = 0.04, ns$. There was no sufficient support for hypothesis 3. However, their usage of primary control coping was significantly higher than secondary control coping when dealing with research stress, $t(81) = 4.07, p < .001$. By contrast, they employed more

secondary control coping than primary control coping dealing with institutional issues, $t(81) = -2.96, p = .01, ns$. Generally speaking, the participants used significantly more primary and secondary control coping than relinquished control coping.

Independent sample T-tests were run to test gender difference in terms of using three types of coping styles. The results indicated that male and female repatriate scholars did not differ in employing primary control coping, $t(80) = .37, ns$, secondary control coping, $t(80) = .51, ns$, and relinquished control coping, $t(80) = 1.20, ns$. ANOVA tests were used to determine the effect of professional rank on the deployment of coping styles. The results suggested that professional rank had a significant main effect on the usage of primary control coping, $F(2, 79) = 4.19, p < .05$. Post hoc analysis using a Tukey test indicated that Associate Professors used significantly higher level of primary control coping ($M = 4.89, SD = 2.1$) coping than Assistant Professors ($M = 3.07, SD = 2.27$) did, $t(81) = -2.88, p < .05$.

The usage of primary control coping by Full Professors ($M = 3.7, SD = 1.9$) was marginally higher than that of Assistant Professors, but the difference did not reach significant level, $t(81) = 1.95, ns$. The repatriate scholars with different professional ranks did not differ in the usage of secondary control coping, $F(2, 79) = 0.01, ns$, and relinquished control coping, $F(2, 79) = 1.21, ns$.

Table 8

Different Coping Styles across Situations

Stressful Situations	Coping Styles			F-value
	Primary	Secondary	Relinquished	
Research	1.32	0.71	0.01	38.78**
Institutional Issues	1.38	1.96	0.19	36.65**
Family/Interpersonal	0.67	0.55	0.04	19.62**
Financial Strains	0.3	0.48	0.11	4.76*
Others	0.11	0.49	0.05	5.17**
Total	3.78	4.19	0.81	110**

Note. Scores on each coping style were the mean frequency of the coping responses.

$N = 82$. * $p < .05$, ** $p < .01$

Table 9

Paired Samples T-tests Comparing Mean Differences between Primary Control Coping and Secondary Control Coping, Primary Control Coping and Relinquished Coping, and Secondary Control Coping and Relinquished Coping across Scenarios

	<i>t</i>		
	Primary- Secondary	Primary- Relinquished	Secondary- Relinquished
Situations			
Research	4.07*	8.56*	5.94*
Institutional Issues	- 2.96*	6.60*	7.87*
Family/Interpersonal	1.16	5.58*	5.08*
Financial Strains	- 0.13	1.9	2.91*
Others	- 2.26	2.13	3.41*
Total	- 1.87	11.96**	11.81*

Note. $N = 82$. * $p < .0167$

Hypothesis 4: Secondary control coping positively predicted psychological outcomes.

Table 10 presents a correlation matrix of primary control, secondary control, relinquished coping, job satisfaction and life satisfaction. Primary control coping was significantly correlated with life satisfaction, $r(80) = .23, p < .01$. Secondary control coping had a weak negative relationship to job satisfaction $r(80) = - 1.50, ns$, and life satisfaction, $r(80) = - 1.55, ns$. Relinquished coping was negatively correlated with job satisfaction, $r(80) = - .37, p < .01$, and life satisfaction, $r(80) = - .34, p < .01$.

Hierarchical linear regressions were conducted to determine whether primary control and secondary control were related to psychological outcomes. Job satisfaction was regressed over demographic variables in the first step. Primary control, secondary control and relinquished control coping were added as predictors in the next step. The results are shown in Table 11.

After controlling for demographic variables, various control coping styles explained significant variances in job satisfaction, $R^2_{\text{change}} = .13, p < .05$, and life satisfaction, $R^2_{\text{change}} = .17, p < .05$. Primary control coping contributed to life satisfaction, $\beta = .13, t(75) = 2.23, p < .05$, but did not predict job satisfaction, $\beta = .11, t(75) = 1.58, ns$. Secondary control coping showed a marginal negative relationship to job satisfaction, $\beta = - .21, t(75) = - 2.21, ns$, and life satisfaction $\beta = - .18, t(75) = - 1.96, ns$. Relinquished control coping was a strong predictor of job dissatisfaction, $\beta = - .31, t(75) = -2.84, p < .01$, and life dissatisfaction, $\beta = - .21, t(75) = -2.17, p < .05$.

Table 10

Means, Standard Deviations and Correlations between Primary Control, Secondary Control, Relinquished Coping and Life Satisfaction

	1	2	3	4	5
1. Primary Control	1				
2. Secondary Control	.06	1			
3. Relinquished	-.05	-.18	1		
4. JS	.1	-.12	-.37**	1	
5. SWLS	.23*	-.15	-.34**	.64**	1
<i>M</i>	3.66	4.41	0.37	4.98	3.19
<i>SD</i>	2.18	2.67	0.86	0.83	0.87

Note. JS = Job Satisfaction; SWLS = Life Satisfaction. $N = 82$. * $p < .05$, ** $p < .01$

Table 11

*Hierarchical Regression Analysis: Job Satisfaction and Life Satisfaction by
Demographics, Primary Control, Secondary Control and Relinquished Coping*

	Model 1		Model 2	
	Job Satisfaction		Life Satisfaction	
	Step 1	Step 2	Step 1	Step 2
	β	β	β	β
Age	-.20	-.07	.04	-.02
Gender	.21	.14	.54**	.49**
Title	.42**	.35	.34**	.29*
Primary Control		.11		.21*
Second Control		-.21		-.18
Relinquished Coping		-.31**		-.21*
R^2	.17**	.29*	0.32**	.42**
R^2_{Change}		.13*		.10*

Note. $N = 82$. * $p < .05$, ** $p < .01$

Hypothesis 5a: Coping flexibility had positive effects on job satisfaction and life satisfaction. Specifically, high coping flexibility led to high job satisfaction and high life satisfaction.

Hypothesis 5b: Coping flexibility would moderate the relationship between stress and psychological outcomes.

As four types of stress were correlated (see Table 5), they were combined as one stress variable in the analyses of the main and moderation effects of coping flexibility. The means, standard deviations and inter-correlations of stress, coping flexibility and psychological outcomes are shown in Table 12. The results provided initial support for the main effect of coping flexibility on the outcome variables. Coping flexibility was significant associated with job satisfaction, $r(80) = .34, p < .01$, and life satisfaction, $r(80) = .29, p < .01$.

To evaluate whether or not coping flexibility would buffer the effect of stress, separate hierarchical multiple regression analyses were conducted for job satisfaction and life satisfaction. Prior to being entered into regression equations, the means of independent and moderator variables were centered according to the suggestion of Aiken and West (1991). Demographics were entered in the first step of the regression equation. In the second step (main effect model), the mean-centered stress and coping flexibility were included. Finally, the interaction term, formed by multiplying centered stress and coping flexibility, was entered in the third step. The complete analyses are presented in Table 13. Demographics contributed to the explanation of variance in job satisfaction, $R^2_{\text{change}} = .17, p < .01$, and life satisfaction, $R^2_{\text{change}} = .32, p < .01$. The main effect model was significant for job satisfaction, $R^2_{\text{change}} = .12, p < .01$, and life satisfaction, R^2_{change}

= .14, $p < .01$. As hypothesized, coping flexibility had a main effect on job satisfaction, $\beta = .22$, $t(76) = 2.75$, $p < .01$, and life satisfaction, $\beta = .25$, $t(76) = 3.22$, $p < .01$. However, there was no evidence for the moderation effect of coping flexibility. The results showed that the interaction between stress and coping flexibility did not predict job satisfaction, $\beta = -.03$, $t(76) = 0.26$, ns , and life satisfaction, $\beta = .01$, $t(76) = 0.21$, ns . This suggested that coping flexibility did not moderate the relations between stress and psychological outcomes.

Table 12

Mean, Standard Deviations and Inter-correlations of Stress, Coping Flexibility, Job Satisfaction and Life Satisfaction

Variable	<i>M</i>	<i>SD</i>	1	2	3	4
1. Stress	2.78	0.99	1			
2. Coping Flexibility	3.75	0.42	-.02	1		
3. Job Satisfaction	4.98	0.83	-.37**	.34**	1	
4. Life Satisfaction	3.19	0.87	-.43**	.29**	.64**	1

Note. $N = 82$. * $p < .05$, ** $p < .01$

Table 13

Hierarchical Regression: Predicting Job Satisfaction and Life Satisfaction from Stress, Coping Flexibility and the Interaction of Stress and Coping Flexibility

Step/Variables	Job Satisfaction		Life Satisfaction	
	β	ΔR^2	β	ΔR^2
Step 1				
Age	-.02	.17**	.07	.32**
Gender	.25*		.55**	
Title	.42**		.33**	
Step 2				
Stress	-.29**	.12**	-.29**	.14**
Coping Flexibility	.22**		.25**	
Step 3				
Stress \times Coping Flexibility	-.03	.00	.01	.00

Note. $N = 82$. * $p < .05$, ** $p < .01$

Hypothesis 6: There were predictive relationships between various specific coping strategies and psychological outcomes.

Pearson correlations were computed to determine relationships between various coping strategies and psychological outcomes. The results are shown in Table 14. The coping strategies of effort/problem solving, $r(80) = .65, p < .01$, seeking social support for instrumental reasons, $r(80) = .25, p < .05$, and maintaining a positive attitude, $r(80) = .24, p < .05$, positively correlated with life satisfaction. Accepting reality, $r(80) = -.24, p < .05$, relinquished coping, $r(80) = -.35, p < .01$, and Ah-Q mentality, were negatively associated with life satisfaction.

Table 14

Correlations between Coping Strategies and Job Satisfaction/ Life Satisfaction

	Correlations	
	Job Satisfaction	Life Satisfaction
Coping strategies		
Effort/problem solving	.23	.65**
Accepting reality	-.19	-.24*
Seeking social support for instrumental reasons	.10	.25*
Maintaining a positive attitude	.08	.24*
Seeking social support for emotional reasons	-.15	-.09
Exercise and entertainment	-.09	-.03
Relinquished	-.38**	-.35**
Confrontive/negotiation	-.24*	-.09
Do as the locals do	.04	.05
Changing expectations	.05	.04
Fulfilling social obligations	.19	.11
Emotional regulation	-.11	-.13
Social comparison	.07	.01
Religion and spirituality	-.01	-.13
Ah-Q mentality	-.32**	-.26*

Note. $N = 82$. * $p < .05$, ** $p < .01$

Discussion

Stressors of Chinese repatriate scholars

The results of Studies 1 and 2 both indicated that Chinese repatriate scholars' lives were centered on their work. Chinese people have high work centrality orientation (Westwood & Lok, 2003) and Chinese scholars even regarded work as a more important aspect in their lives than common people did. Scholarship is always regarded as the highest virtue in Chinese society (Hess, Chang, & McDevitt, 1987). Chinese people place great emphasis on education, as it is the most effective way to achieve social and economic advancement and to become a moral person (Stevenson & Lee, 1996). The prominence of scholarship is illustrated in an old saying: "All human endeavors are of low values; only scholarly pursuits are at the highest level of human achievement (*wan ban jie xia pin, wei you du shu gao*)."

The repatriate scholars chose to stay in academia partly because faculty positions were prestigious in China. For the repatriate scholars who received Western academic training, the value of scholarship was reflected in the pursuit of research excellence. Their devotion to research work was illustrated by the following quote from a female associate professor: "I have developed a sense of affection towards research work with so many years of engagement."

At the same time, and to a lesser extent, the repatriate scholars were motivated by extrinsic factors including wealth, fame and respect, and glorification of family or ancestors (Yu, 1996). Quite a few participants expressed that they should have stayed overseas if they wanted to live a stable life. But, they chose to return for social recognition of personal value. Not only that, Chinese people consider the fulfillment of one's obligation of the "familial self" as the ultimate goal and concern (Yu, 1996). The ideal life

of a Chinese scholar is twofold: to achieve scholarship and to establish a good family life. Their career success is a main source of happiness, pride and property to the whole family (Chiu, 1990, as cited in Chiu & Kosoinski, 1995).

Positive and negative stress

Research stress facilitated the repatriate scholars' pursuit of scholarship excellence and their aspirations for success. Therefore, it was perceived as positive stress or eustress by Chinese repatriate scholars. Research stress was a "challenge" (Lazarus & Folkman, 1984) that provided them the opportunity for growth. They reported being capable of managing this stress because of their overseas academic training. They felt alert, energized and purposeful toward their research work as if on the level of "optimal arousal" (Selye, 1974; Yerkes & Dodson, 1908). The possible positive effect of work stress echoed previous findings of the eustress of workload (Bradley & Eachus, 1995; Lu et al., 2010; Lu et al., 2011) and work-engagement (Little, Simmons, & Nelson, 2007).

By contrast, institutional issues and financial strains were perceived as barriers to achieve their life goals. The repatriate scholars thought that institutional issues prevented them from achieving academic success as efficiently as they would in the West. The repatriate scholars had Chinese achievement motivations (Yu, 1996), but they had Western expectations when it came to work efficiency. Having experienced a more democratic and efficient overseas academic system, the repatriate scholars expected the organizational culture in their home country to be streamlined, fast-paced and conducive to their work. The finding on the distress caused by institutional issues was consistent with previous studies on Korean repatriate scholars (Namguang, 2009) and Brazilian repatriates (Gama & Pederson, 1977). These studies indicated that repatriate scholars'

major stressors were due to the differences between their home and host countries' organizational cultures. This finding was also consistent with Martin and Harrell's (2004) recognition that adapting to the work environment in one's home country was perceived to be more stressful than adjusting to daily life for adult repatriates.

Financial strains were "hindrances" for their actualization of their family selves. Financial strains and work stress were highly interrelated. The financial status of repatriate scholars largely depended on their professional status.

Demographic variables and repatriate adjustment

The results of the Studies 1 and 2 both revealed that professional rank and gender were related to stress and psychological outcomes.

Full professors were less stressed by institutional issues and financial strain than assistant professors. Correspondingly, full professors had higher job satisfaction and life satisfaction than assistant professors. The result that faculty members of higher rank fared better provides support to previous findings (e.g., Leung, et al., 2000; Thorsen, 1996). Getting higher pay was an important factor leading to lower financial stress and higher job satisfaction. High ranking people obtain more privilege and respect due to the hierarchical nature of Chinese organizations (Farh, Earley, & Lin, 1997). Confucianism's five cardinal relations ("wu lun") promote the idea that social interaction should follow the rule of obeying superiors. Chinese show respect to authority and believe in the unequal distribution of power among people (Hofstede, 1980). Senior professors are given advantages in Chinese hierarchical society. Therefore, they might be less distressed by institutional issues, and in turn, have higher job satisfaction compared with junior professors.

Gender differences in stress levels were not revealed in the present study. However, female repatriate scholars had higher life satisfaction than their male counterparts, and were highly respected in Chinese society. As previously discussed, scholarship is highly valued in Chinese society. Faculty positions for females are particularly prestigious for female because female faculty members are comparatively rare. Moreover, the Chinese generally have lower expectations of women in terms of career achievements. Therefore, female faculty members, regardless of whether they are in junior or senior positions, tend to receive a higher level of regard or respect than women who are not in academia. Chinese women are not supposed to be the main breadwinner in their family although they are expected to participate in the labor force. In contrast, because of the higher career expectations for men in Chinese society, in addition to the high expectations that men have of themselves, male faculty members in different positions receive varying degrees of respect and job satisfaction. The comparatively low incomes for junior faculty members would not affect female repatriate scholars as it did their male counterparts.

Another important reason for female repatriate scholars' higher job satisfaction and life satisfaction was that they were less burdened by household chores and child care responsibilities after returning. Support from hired help and/or grandparents is more available in China compared to overseas. The flexible working hours in Chinese higher education institutions also enabled them to fulfill both family and work roles.

The endorsement of primary and secondary control coping

I expected that Chinese repatriate scholars would use significantly higher secondary control coping than primary control coping. On the contrary, the results showed

that Chinese repatriate scholars did not use significantly different proportion of primary control and secondary control coping. However, the results indicated that the repatriate scholars employed significantly more secondary control coping than primary control coping in response to institutional issues, which involved interactions with authority figures. This finding was in close harmony with the literature reviewed earlier. In East Asian cultures that have been described as collectivistic, individuals focus on relationship maintenance (Markus & Kitayama, 1991). The experience of harmonious relationship with others is strongly related to subjective well-being in collectivistic cultures (Kitayama, Markus, & Kurokawa, 2000).

The predominance of secondary control coping for dealing with institutional stress was also related to the low levels of perceived control (Lazarus & Folkman, 1984; Sastry & Ross, 1998). Institutional issues were regarded to be beyond their control due to the hierarchical structure of Chinese society. Secondary control coping was generally considered to be adaptive in uncontrollable situation (Lazarus & Folkman, 1984; Weisz et al., 1984). In Chinese society, with its limited resources and highly dense population, it is rational to work with the environment rather than attempt to control it (Chang et al., 1997). Some repatriate scholars expressed that even though they disliked the organizational culture and/or felt dissatisfied with their payment; they would not change their jobs because the suitable job opportunities for them in China were very limited.

Furthermore, their usage of secondary coping in dealing institutional issues and other stressors had its root in Chinese philosophies. The teachings of Confucianism, Daoism and Buddhism all encourage individuals to accept the situation in the face of adversity. Although the repatriates encountered various difficulties in their work and daily

lives after coming back to China, many of them accepted the reality with serenity. Forbearance is an emerging theme in numerous studies on Asians (Chen, 2006; Yip, 2004). Wong et al. (2006) used “transformational coping” to refer to methods of transcending adversities into acceptance. Participants in this study had expressed that they accepted the situations which they had little or no control and let go of the attempt to control – a coping response rooted in Daoism. At the same time, several repatriates used a Buddhist transformational approach to coping. They freed themselves from suffering by modifying their expectations and aversions.

Meanwhile, the participants also adopted high level of primary control, especially in dealing with the stress related to their work per se. With overseas academic training, Chinese repatriate scholars had professional competence. Stress related to the job itself, that is, research and teaching, was perceived as under their control. Taken together, the coping styles of Chinese repatriate scholars were influenced by their multicultural experience. They perceived and responded to stress differently depending on where the stress was from. They regarded that stress related to work per se was controllable and therefore used more primary control to deal with this stress; they perceived institutional stress as beyond control and responded with more secondary control. As both work stress and the institutional stress were central to their life, the level of their primary control and secondary control coping were comparable.

The effectiveness of coping styles

Consistent with the hypotheses, primary control coping contributed to psychological adjustment. The beneficial effects of primary control coping were both found in research conducted in Western (e.g., Wrosch, Heckhausen, & Lachman, 2000)

and Asian samples (e.g., Chang et al., 1997). Humans have the fundamental needs of both independence and interdependence (Lu & Gilmour, 2006). A sense of self-determination with autonomous control is essential to psychological well-being (Ryan & Deci, 2000). Chinese repatriate scholars might have integrated independent selves due to Chinese modernization and their overseas stay. As suggested by Lu (2003), modern Chinese people formed a hybrid of “bicultural self” by incorporating the Western construct of the “independent and autonomous self” into the traditional Chinese construct of “self-in-relation.” In sum, primary control was beneficial for Chinese repatriate scholars.

Contrary to the hypothesis, secondary control coping was not adaptive for Chinese repatriate scholars. This could be due to their multicultural experiences. They sometimes adopted some Western coping styles during their sojourns overseas, and needed to re-deploy common local coping styles in order to readjust to Chinese society. Shifting coping styles was not a pleasant experience for the repatriate scholars. For instance, a few participants recalled how they attempted to alter intuitional issues via negotiation or confronting authorities right after their return. They seemed to be frustrated at every turn in such attempts, and were forced to employ secondary control coping. The sense of being forced to accommodate brought them discomfort. Therefore, secondary control that is supposed to be beneficial for Chinese sometimes had negative effects on the wellbeing of repatriates.

On the other hand, the participants had a strong obligation as scholars to reform the institutions as scholars. Being held in high esteem, Chinese intellectuals aspire to callings beyond the individual, the family and the mundane. In both ancient and modern China, Chinese intellectuals aspire to the mission to act as the political and social

conscience (Confucius, circa 500 BC, Yu, 1997). This social obligation is embodied by the saying “Take the world as one’s own duty” (*yi tian xia wei ji ren*), from a great Song Dynasty Chinese scholar Fan Zhongyan. Having lived overseas, the repatriates had a clear idea of the problems in Chinese academia and society as compared to their overseas countries. They had opinions on Chinese reform based on their experiences living abroad. However, at the same time, Chinese intellectuals lack the courage to confront political authority (Yu, 1997). In conflict situations, individuals in Western societies were strongly oriented towards achieving justice, but individuals from collectivistic societies were primarily concerned with maintaining relationship with others (Ohbuchi, Fukushima, & Tedeschi, 1999). In order to maintain a harmonious relationship, Chinese repatriate scholars yielded to the authorities/system when encountering institutional issues. The contradiction between the social conscience of reforming society and the cultural norms of accommodating others had a negative effect on the psychological well-being of Chinese repatriates.

Moreover, giving up control over important elements in their lives was detrimental. Institutional issues and financial strains hindered the actualization of their life goals. Even though they gave in to the environment when encountering these issues, they were actually reluctant to do so. This study’s findings suggested that it is imprudent to jump to the conclusion that aligning with the environment is beneficial to the psychological wellbeing of Chinese or Asian people. We need to take a look at individuals’ subjective cultural and their interpretations in order to draw a conclusion. These results supported Wallace’s (1966) view of culture as a maze because all individuals from a given culture cannot be expected to cope in a particular way; rather, there are complex

culture-situation interactions. The findings also upheld Harris's (1994) schema perspective of taking an individual's personal experiences into consideration while examining cultural influence.

Both Studies 1 and 2 showed that the participants almost adopted either primary control coping or secondary control coping. They seldom relinquished their control when encountering stressful situations. But still participants often felt helpless when facing institutional issues or financial strains. They could not master the environment, and nor did they want to change themselves to accommodate the situation. Consistent with previous research (e.g., Haynes, Heckhausen, Chipperfield, Perry, & Newall, 2009), relinquished coping was maladaptive to Chinese repatriates. Future studies could further explore the relationship between relinquished coping and depression among this population.

The effectiveness of specific coping strategies

Aside from exploring the tendency of employing broad coping styles and their effectiveness, Study 2 also investigated the effects of specific coping strategies under the umbrella categories. The results could be interpreted by the qualitative findings in Study 1.

Effort/problem solving was found to be adaptive for the respondents. It was also the most frequently used coping strategy among the participants. This coping strategy was mainly employed to deal with their research and teaching stress. As discussed, Chinese repatriate scholars embraced Chinese as well as Western cultural values. They needed both independence and interdependence. Their pursuit of career success was more guided by Western cultural scripts. The sense of mastering their work demands directly satisfied the needs for competence and personal growth (Lu & Gilmour, 2006; Ryan & Deci, 2000).

They experienced an ongoing sense of well-being or “eudemonia” with the realization of their true potential (Ryan & Deci, 2000; Ryff & Singer, 1998).

In addition, Chinese repatriate scholars often managed their work demands by working hard. Compared to North Americans, East Asians more strongly believe that effort determines success (Heine et al., 2001; Stevenson, Chen, & Lee, 1993). Confucius taught that men were alike by nature; it was through learning and practice that people became differentiated (Analects 17: 2). Confucianism emphasized the process of self-cultivation (Tu, 1985). The belief in the utility of effort accounted partly for the academic success of Asian students/professionals (Heine et al., 2001). Chinese repatriate scholars held hope for academic achievements because of their strong belief in that effort led to success.

This study also indicated that instrumental social support (Cohen & Wills, 1985) benefited the psychological well-being of Chinese repatriate scholars, whereas emotional social support had no significant association with their adjustment. These findings again reflected the practical mind of Chinese people (Cheung et al., 2008). Chinese practically use *guanxi* to solve their problems. Guanxi operates in concentric circles, with *jia-ren* (family members) at the core, and *shou-ren* (familiar persons such as relatives, friends, colleagues, neighbor or classmates) and *sheng-ren* (mere acquaintances or strangers) on the periphery, arranged according to the relationship's degree of closeness (Fei, 1992; Yang, 1993). Family members attend to each other's needs with little expectation of reciprocity (Tsui & Farh, 1997). The repatriate scholars received great emotional and instrumental support from their family members. Exchanging favors or reciprocity is essential in maintaining relationships with *shou-ren* (Hwang, 1987). The participants

reported instrumental support from their friends, colleagues and former supervisors as well. Particularly, several repatriates expressed that their former supervisors who were now important persons in Chinese academia were *kao shan* (strong pillars) for their career development. Lastly, quite a few participants expressed that they pulled relationship with influential acquaintances to get instrumental support from them. Because of the top-down flow of resources in mainland China in recent decades, the strategy of pulling *guanxi* is widely used in order to obtain favors from authorities who control scarce resources (Luo, 1997). In summary, *guanxi* can be used to achieve desired results when individuals encounter situations beyond their capacity (Redding & Ng, 1982).

Maintaining a positive attitude was another adaptive coping strategy for the participants. Previous research (e.g., Peterson, 2000; Scheier & Carver, 1992) has provided considerable support for the assertion that optimism benefits psychological well-being. Optimists were more fully engaged in their lives and made the best of them; pessimists were more inclined to give up and felt resigned when encountering stressors (Scheier & Carver, 1992). Optimistic Chinese repatriates had faith in the improvement of Chinese social system and their own lives. They believed that the phenomenon of professional repatriation would be beneficial to the development of the Chinese academia and society. Social problems in Chinese society and the difficulties they encountered upon repatriation were temporary. Such positive expectations enabled individuals to continue to strive for desirable outcomes even when progress was slow or difficult, and benefited their well-being as a result (Scheier & Carver, 1993).

Surprisingly, the coping strategy of “accepting reality” was negatively related to life satisfaction in this study. Participants’ narratives revealed the differences between

behaviorally and emotionally accepting the reality. The repatriates tried to work with the environment for the purpose of survival. However, emotionally it was hard for some of the repatriates to accept reality because they could not identify with current social/institutional systems in China. Hence, some of them experienced “cognitive dissonance” (Festinger, 1957), the inconsistencies between their attitudes and behaviors. It might not be that the coping strategy of “accepting reality” was maladaptive, but instead, it was the cognitive dissonance that led to their psychological discomfort (Elliot & Devine, 1994; Festinger, 1957). Meanwhile, although Confucianism emphasizes harmony, it also approves moral autonomy (Matzger, 1988). A man with moral autonomy could autonomously commit to his inner moral judgment, the Right Way, even if it was opposed by the authorities. Passively accepting the existing problems in Chinese academia and the society was against the moral principles of some Chinese repatriate scholars, and was thus detrimental to their psychological well-being.

Main and moderating effects of coping flexibility

A prominent theme that emerged in Study 1 was that Chinese repatriate scholars were flexible and pragmatic in their coping behaviors. Generally speaking, the repatriates flexibly adopted different coping strategies based on their pragmatic assessments of the situation and of results of their previous coping behaviors. When they encountered controllable events, they tended to use primary control and when they encountered uncontrollable events, they used more secondary control coping. The quantitative study in Study 2 tested the individual differences on coping flexibility and the effects on psychological adjustment. Participants who flexibly matched coping styles to perceived controllability fared better than those who used the same coping style across situations.

This result was consistent with previous studies conducted on Asian populations (e.g., Cheng & Cheung, 2005; Gan, Shang, & Zhang, 2007). The association between coping flexibility and adaptive coping outcomes suggested that coping adaptiveness might not depend simply on the level of perceived control or the particular coping strategy used, but largely on whether the perceived controllability and coping behaviors matched the actual demand of the situation (Cheng, 2001). However, the hypothesis that coping flexibility served as a moderator between stress and psychological outcomes did not garner statistically significant support.

The adaptive nature of coping flexibility finds its roots in the transactional approach to coping, which suggests that individuals constantly adjust their thoughts and behaviors in response to their appraisal of controllability of the stressful situations. Moreover, coping flexibility is congruent with Chinese culture. Chinese people are socialized to be sensitive to social context (Ji, Peng, & Nisbett, 2000; Markus & Kitayama, 1991; Suh, 2002; Yang, 1981) and are generally inclined to achieve a good-fit between themselves and the perceived situation. Unlike their Western counterparts who tend to generalize the same rule to everyone they interact with, the Chinese respond differently during social interactions according to the levels of intimacy, the status of the persons involved, and the particular context (Chang & Lee, 2012). Therefore, coping inflexibility by insisting upon a rigid approach to any problem is particularly maladaptive in Chinese society.

Additionally, the qualitative data in Study 1 indicated that the coping styles of participants were not only flexible, but pragmatic. A few repatriates adjusted their coping behaviors through a process of trial-and-error. For example, they first tried to negotiate

with authority for institutional issues. If such attempts led to successful results, they would continue to do so in the future when facing similar circumstances; if the negotiations failed, they adopted secondary control coping. Practical mindedness is a Chinese personality characteristic (Cheung et al., 2008). Future research may further explore the pragmatic coping style of Chinese people. It might also be meaningful to investigate whether or not the coping flexibility of Chinese people contains a practical mindedness component.

In summary, the qualitative results in Study 1 and quantitative results in Study 2 complement each other. Together, they provide a picture of the stress-and-coping of Chinese repatriate scholars, and show how both the wider culture and individuals' subjective culture influence the whole process.

CHAPTER FIVE STUDY 3

Study 1 aimed at demonstrating the collectivistic coping styles among Chinese repatriate scholars, which included the orientation towards secondary control coping, flexibly changing coping styles according to environmental cues and coping together with family members. Study 2 quantitatively showed the higher endorsement of secondary than primary control coping among repatriate scholars and the benefit of coping flexibility in the stress-and-coping process. Study 3 quantitatively investigated the role of the family in the stress-and-coping process. It consisted of Family Study 1, which tested the contribution of family function to individual's resilience, and Family Study 2, which explored the repatriates' family as a unit-of-analysis in the stress-and-coping process.

Individuals within collectivistic cultures are prone to cope as a group and expect help from group members (Kuo, Roysircar, & Newby-Clark, 2006; Yang, 1986; Zhang & Long, 2006). Idioms such as "traveling in the same boat," "sharing a common destiny," and "brotherhood in adversity" are often used in Chinese community. These suggest that Chinese tend to cope as a group rather than as separate individuals. Family is the most important collective unit to the Chinese. Chinese family members usually take each other's problems as their own and work together to find a way out (Wong, 1993). In the face of stress, East Asians used family and social relations as their important coping resources rather than professionals such as counselors (Yeh & Wang, 2000). The narratives of the interviewees in Study 1 also showed that Chinese coped with stress not as separate individuals but as a team formed on the base of the family.

Family Study 1 Individuals in the Family

Family researchers have investigated the functional and structural characteristics of the family that enable it bounce back from adversity. Walsh (1993) used the term “family resilience” to describe the key processes that enable the family to cope with stress effectively. There are some cultural differences on the identified family resilience factors. For instance, a balanced level of family cohesion is regarded to be healthy in Western families; family members are expected to respect each other’s boundary (Olson, 2000). In contrast, mutual sacrifice, accommodation, care and interdependence are heavily emphasized in Asian families (Chang et al., 2006).

There are more similarities than differences comparing the resilience factors of Asian families and their Western counterparts (Chang et al., 2006). Family support is universally regarded as an important resilience factor. Meanwhile, a nurturing context could encourage a positive outlook of the family members, who could assist each other in forming positive beliefs and making meaning in life’s challenges (Seligman, 1991). Positive belief systems are regarded as another important family resilience factor (Antonovsky, 1987; Chang et al., 2003; McCubbin & McCubbin, 1993; Patterson, 2002; Walsh, 1998). A family’s adaptation while under stress is influenced by whether its members evaluate the situation with a positive, optimistic outlook.

McCubbin and McCubbin (1993) used the concept of family schema to describe the shared values, goals, priorities, and expectations of family members. Families with healthy schemas have more realistic coping responses and they are more confident that they could overcome difficulty as a family. A concept similar to family schema is Antonovsky’s (1987) sense of coherence (SOC). Families with high SOC perceive life as

comprehensible, manageable, and meaningful, and as a result are more likely to be adaptive when encountering stressful situations (Antonovsky & Sourani, 1988).

All in all, individuals from a more resilient family receive more family support and are more likely to hold a positive outlook in the face of difficulty. Therefore, they were more likely to bounce back from adversity. In Family Study 1, I explored the impact of family resilience on the stress-and-coping process of individuals. The family resilience measurement was locally constructed, which included the factors of family solidarity, collective emotion regulation and meaning-making. I expected that individuals from a more resilient family were less vulnerable to stress. Moreover, resilient families tend to employ realistic coping behaviors to deal with stress (Antonovsky & Sourani, 1998). I expected that in the Asian context family resilience would cultivate coping flexibility.

Hypotheses

Hypothesis 1: Family resilience assessed by individual Chinese repatriate scholars had a positive effect on their psychological outcomes.

Hypothesis 2: Family resilience evaluated by individual Chinese repatriate scholars would moderate the relationship between stress and psychological outcomes.

Hypothesis 3: Family resilience assessed by individual Chinese repatriate scholars would interact with individual coping flexibility in predicting their psychological outcomes.

Method

Participants and procedure. The sample of Family Study 1 was the same as that of Studies 1 and 2. Eighty-two repatriate scholars (53 Male vs. 29 Female) participated in

the study. The procedure was also the same as Study 2: the participants signed a consent form and then answered the questionnaire.

Measures. The participants answered the survey questions described in Study 2. They also rated the Family Resilience Scale, developed by Chang et al. (2006) (Appendix F). It consisted of three subscales: family cooperation, positive attitude and managing negative feelings. Example items for family cooperation included: “We make sacrifices for one another” and “The love we have for one another makes us strong.” Example items for positive attitude contained “We adopt a positive attitude” and “We make the situation as normal as possible.” Example items for managing negative feelings included “We control negative emotions” and “We create a lighter mood in the family.” Each of the fourteen items was scored along a five point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Cronbach’s alpha coefficient of the scale with the current sample was .92.

The participants were instructed to define the family based on their actual daily life experiences. Some married participants included elderly parents into their definition of the family because these extended family members were closely involved into their daily life, whereas other married participants perceived that family only referred to nuclear family members. For single participants, family generally included parents and siblings.

Results

Table 15 demonstrates the means, standard deviations and correlations among stress, family resilience, coping flexibility and psychological outcomes. There was a

significant relationship between family resilience and job satisfaction, $r(80) = .40, p < .01$, and family resilience and life satisfaction, $r(80) = .48, p < .01$.

Moderating effect of family resilience on stress and its impact on adjustment outcomes. Summarized results of regression analyses testing for moderating effects of family resilience on the relationship between stress and psychological outcomes are presented in Table 15. I first examined the hypothesis that family resilience was a moderator for the relationship between stress and job satisfaction. At step 1, gender, age and professional title were entered into the model and contributed to the explanation of job satisfaction, $R^2_{\text{change}} = .17, p < .01$. At step 2, a main effect model was constructed consisting of stress and family resilience, which was significant for the prediction of job satisfaction, $R^2_{\text{change}} = .13, p < .01$. Family resilience was related to high job satisfaction, $\beta = .23, t(80) = 2.89, p < .05$. In the third step, the interaction term between stress and family resilience was added to the models. A significant interaction effect was found with respect to job satisfaction, $R^2_{\text{change}} = .05, p < .05$.

The significant interaction is shown in Figure 1, where the relationship between stress and job satisfaction is plotted for high family resilience and low family resilience (defined as + 1 and - 1 standard deviation from the mean, respectively, Aiken & West, 1991). Furthermore, a simple slope analysis was conducted (Aiken & West, 1991). The results revealed that the relationship between stress and job satisfaction was strong and negative at low levels of family resilience, simple slope = $-.79, t(80) = -3.30, p < 0.01$. With high family resilience, the relationship between stress and job satisfaction was nonsignificant, simple slope = $.29, t(80) = 1.13, ns$.

The same pattern was found with life satisfaction as the dependent variable (Table 16 and Figure 2). Main effect models explained significant portions of variance for life satisfaction after controlling demographic variables, $R^2_{\text{change}} = .2, p < .01$. Family resilience significantly predicted high life satisfaction, $\beta = .37, t(80) = 3.12, p < .01$. There was a significant interaction effect of Stress \times Family Resilience for job satisfaction, $R^2_{\text{change}} = .03, p < .05$. The interaction effect is presented in Figure 2. For respondents who had low family resilience, stress was negatively related to their life satisfaction, simple slope = $-.59, t(80) = -3.24, p < .01$. For respondents who had high family resilience, stress had no significant effect on their life satisfaction, simple slope = $.11, t(80) = 0.57, p < .01$. Meanwhile, the figures indicated the effect of family resilience differed in low and high stress situations. Family resilience was particularly important when the encountered stress level was high, which buffered the deleterious influence of stress. In the low stress situation, the influence of family resilience was not significant.

Interaction effect between individual family resilience and coping flexibility. The coping resources of family resilience and coping flexibility of individual repatriate scholars were significantly related (Table 15). Those reporting high family resilience also showed high coping flexibility, $r(80) = .56, p < 0.01$. To determine the interaction effect between coping flexibility and family resilience, separate hierarchical multiple regression analyses were conducted. The centered stress score was entered in the first step. Centered coping resources variables were entered in the next step. Lastly, the interaction term for coping flexibility and family resilience was entered. The results in Table 17 suggested that there was no interaction effect between coping flexibility and family resilience. Family

resilience and coping flexibility of individual repatriate scholars independently predicted their psychological outcomes.

Discussion

Family Study 1 found that family resilience had positive effects on the individual's well-being above and beyond individual coping resources, such as coping flexibility. Echoing the view of Chang and her colleagues (Chang et al., 2006), this study found that Chinese repatriates did not only cope with stress as individuals, but as families. Family resilience factors in the Chinese context protected individuals against daily stressors.

The contextual factor (Bronfenbrenner, 1979) of family resilience was closely related to the individual personality factor of coping flexibility. A resilient family cultivates the coping flexibility of its members, which was statistically demonstrated in Family Study 1. This relationship corresponded to evidence from the narratives in Study 1. For instance, one female participant expressed that her loving parents always encouraged her to take it easy when she encountered institutional stress. They advised her to appreciate the things she already had in her life. This female faculty member gradually let go of her unhappy feelings over institutional issues and derived contentment from her research work and family life.

All in all, the family is of vital importance in the stress-and-coping of Chinese people; the family not only provides support in times of difficulty, but also through its strength inspires and cultivates flexible coping reactions and shared positive outlooks that enable the individual to cope more effectively with her life. Therefore, when viewed as individuals in the family, the repatriate scholars drew from not only their personal

strengths and competencies to cope with repatriation but were also buoyed by the perceived resilience of the family to better adjust to the challenges of repatriation.

Table 15

Mean, Standard Deviations and Inter-correlations of Stress, Coping Flexibility, Family Resilience, Job Satisfaction and Life Satisfaction

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Stress	2.78	.99	1				
2. Coping Flexibility	3.75	.42	-.02	1			
3. Family Resilience	3.98	.46	-.10	.56**	1		
4. Job Satisfaction	4.98	.83	-.37**	.34**	.40**	1	
5. Life Satisfaction	3.19	.87	-.43**	.29**	.48**	.64**	1

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

Table 16

Hierarchical Regression: Predicting Job Satisfaction and Life Satisfaction from Stress, Family Resilience and the Interaction of Stress and Family Resilience

Step/Variables	Job Satisfaction		Life Satisfaction	
	β	ΔR^2	β	ΔR^2
Step 1				
Age	-.02	.17**	.07	.32**
Gender	.25*		.55**	
Title	.42**		.33**	
Step 2				
Stress	-.29**	.13**	-.29**	.20**
Family Resilience	.23*		.37**	
Step 3				
Stress \times Family Resilience	.24*	.05*	.17*	.03*

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

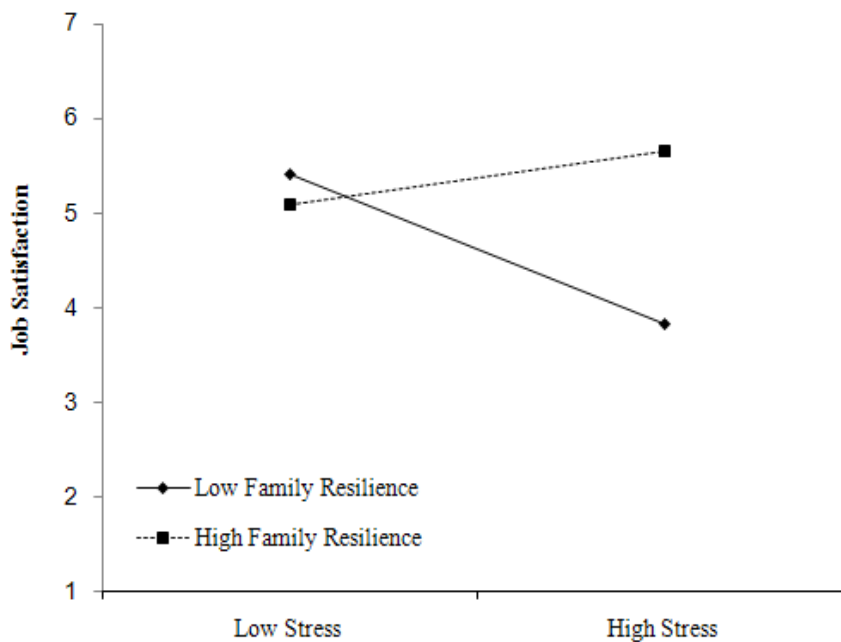


Figure 1. Family Resilience as Moderator of the Relationship between Stress and Job Satisfaction.

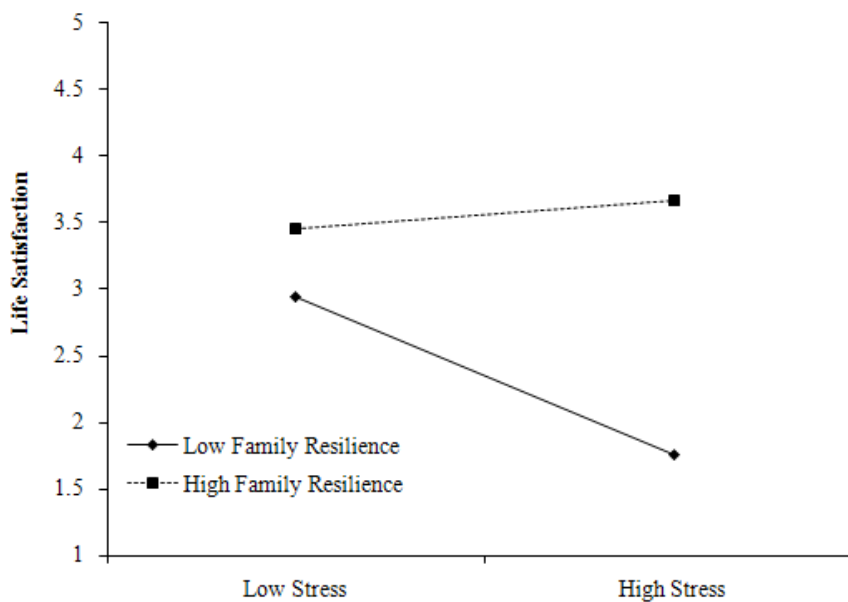


Figure 2. Family Resilience as Moderator of the Relationship between Stress and Life Satisfaction.

Table 17

Hierarchical Regression: Predicting Job Satisfaction and Life Satisfaction from Stress, Coping Flexibility, Family Resilience, and the Interaction of Coping Flexibility and Family Resilience

Step/Variables	Job Satisfaction		Life Satisfaction	
	β	ΔR^2	β	ΔR^2
Step 1				
Stress	-.37	.14**	-.43	.18**
Step 2				
Coping Flexibility	.19	.16**	.06	.19**
Family Resilience	.26*		.41**	
Step 3				
Coping Flexibility x Family Resilience	.15	.02	.15	.02

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

Family Study 2 Family as a Unit of Analysis

In Family Study 2, I collected data from both the repatriate scholars and their spouses and studied the couple as a unit. Family is often regarded as a system. A fundamental point of the systematic view is that the whole is greater than, or different from, the sum of its parts (Walsh, 1993).

It is important to use multi-person assessment in order to learn how the family copes as a unit (Rayens & Svavasdottir, 2003). Assessment of multiple family members could provide a more complete picture of how family members perceive the system and the challenges they are facing and the level of agreement or disagreement between them. Reiss and Oliveri (1980) proposed that the shared family values and beliefs were a major resource in the success of the family coping with stressful demands. Similarly, Hobfoll and Spielberger (1992) suggested that shared common perceptions of family members who experienced the stressor were preeminent, especially when the stressful event was important.

How to summarize the combined experience of family members is a challenging issue (Rungreangkulkij & Gilliss, 2000; Sagy & Antonovsky, 1994). It is a common approach to average the ratings of family members (e.g., Ransom, Fisher, Phillips, Kokes, & Weiss, 1990; Sagy & Antonovsky, 1994). When the perceptions of family members are consistent, it is a good way to describe the characteristics of the family with average scores (Antonovsky & Sourani, 1988). However, family members may hold different degree of agreement with each other in describing their family system (Olson, 1999). The use of average scores risks the danger of losing the effect of within family variability. Being mindful to the differences between family members could address the issue of

within family variability. Family with strong solidarity would have smaller differences among family members on their perceptions towards internal family function and external world. There is evidence from Antonovsky and Sourani's (1988) study that the smaller differences between reported SOC of husbands and wives; the more satisfied they were with their lives. Therefore, in Family Study 2 I expected the differences of their evaluation on family resilience were negatively associated with their better psychological well-being.

No previous research explored the impact of different stress level between the husbands and wives. I expected that the smaller differences of their stress level, the more likely the couples could understand each other and provide sufficient spousal support. Similarly, I expected the differences of coping flexibility between husbands and wives were negatively related to their psychological outcomes.

Taken together, in Family Study 2 both the average scores and differences were used to explore how the repatriate scholars and their spouses coped with stress as a unit.

Hypotheses

Hypothesis 1: The average stress level of the husband and wife in a family had a positive effect on their average psychological outcomes.

Hypothesis 2a: The average coping flexibility had a positive effect on their average psychological outcomes.

Hypothesis 2b: The average coping flexibility would moderate the mean stress and the average psychological outcomes.

Hypothesis 3a: Family members' evaluation of family resilience had a main effect on their average psychological outcomes.

Hypothesis 3b: Family members' average evaluation of family resilience would moderate their average stress and average psychological outcomes.

Hypothesis 4: Family members' averaged family resilience and averaged coping flexibility would interact in predicting their psychological outcomes.

Hypothesis 5: The difference of stress level between the husband and wife was negatively related to their psychological outcomes.

Hypothesis 6: The difference of coping flexibility was negatively related to their psychological outcomes.

Hypothesis 7: The difference of family resilience was negatively related to their psychological outcomes.

Method

Participants. Convenient sampling was used to locate participants in Family Study 2. We asked the repatriate scholars in Family Study 1 whether it was possible for their spouses to fill in a questionnaire. Altogether, twenty-two couples participated in the study. Among the twenty-two couples, both the husbands and wives in five were repatriate scholars. Altogether, eighteen husbands and nine wives were repatriate scholars. The characteristics of study participants are presented in Table 18.

Measurement. The repatriate scholars were given a questionnaire containing the scales of stress, coping flexibility, family resilience, psychological outcomes and demographic variables. The scale was described in Studies 2 and 3. The questionnaire given to the spouses was almost the same as the one given to the repatriate scholars. The only differences lied in the stress scale. Instead of tapping specific work stressors related to faculty functions, the stress scale for the spouses (Appendix D) generally asked their

stress levels on “the job itself.” The other stress items were identical to those in the repatriate scholars’ stress scale.

Results

Table 19 represents the means, standard deviations and inter-correlations of the average scores between husbands and wives. As predicted, their average stress level had a main effect on average job satisfaction, $r(80) = -.30, p < .05$, and average life satisfaction, $r(80) = -.51, p < .01$. Average coping flexibility had a main effect on average job satisfaction, $r(80) = .56, p < .01$, and average life satisfaction, $r(80) = .41, p < .01$. Average family resilience evaluated by the husband and wife in a family had a strong correlation with their average job satisfaction, $r(80) = .51, p < .01$, and average life satisfaction, $r(80) = .52, p < .01$.

Hierarchical linear regression analyses were conducted to evaluate whether or not average coping flexibility moderated average stress and average psychological outcomes. All variables were centered before entered into the regression model. The results are shown in Table 20. In the first step, average stress and average coping flexibility explained significant variance in average job satisfaction, $R^2_{\text{change}} = .34, p < .05$, and average life satisfaction, $R^2_{\text{change}} = .34, p < .05$. Average coping flexibility had a significant effect on average job satisfaction, $\beta = .51, t(19) = 3.92, p < .05$, and average stress had a significant effect on couple’s average life satisfaction, $\beta = -.43, t(19) = -3.65, p < .05$. In the next step, the interaction term between average stress and average coping flexibility was entered. It had no impact on couple’s average job satisfaction, $\beta = .03, t(19) = 0.57, ns$, and life satisfaction, $\beta = .05, t(19) = 0.66, ns$. Therefore, average coping

flexibility and average family resilience of the couple acted independently of each other in producing effects on the outcomes.

The moderating effect of average family resilience was also tested. The results (Table 21) showed that average stress and average family resilience of the husband and wife in a family explained significant variance in their average job satisfaction, $R^2_{\text{change}} = .28, p < .05$, and average life satisfaction, $R^2_{\text{change}} = .46, p < .01$. There was no interaction effect between average stress and average family resilience.

Furthermore, I tested the interaction effect between average coping flexibility and average family resilience. The results are presented in Table 22. In the first step, average stress was entered in the hierarchical regression model. It explained significant variance only in average life satisfaction, $R^2_{\text{change}} = .26, p < .01$. In the next step, the addition of average coping flexibility and average family resilience explained significant variance in average job satisfaction, $R^2_{\text{change}} = .31, p < .05$, and average life satisfaction, $R^2_{\text{change}} = .22, p < .05$. In the last step, the interaction between average coping flexibility and average family resilience had significant effect on average life satisfaction, $R^2_{\text{change}} = .17, p < .05$.

Aside from average scores between the husband and wife in a family, I also used the absolute differences of their scores as a way of measuring family level variables. The means, standard deviations and inter-correlations of differences scores between the husbands and wives are presented in Table 23. As expected, the results of a multiple regression analysis (Table 24) suggested that the different score on family resilience reported by the husband and wife was a negative predictor of family job satisfaction, $\beta = -.44, t(19) = -2.1, p < .05$, and marginally predicted life satisfaction, $\beta = -.38, t(19) = -1.88, ns$. Inconsistent with hypotheses, the multiple regression analysis results indicated

that the difference scores on stress did not predict job satisfaction, $\beta = .04$, $t(19) = 0.16$, *ns*, and life satisfaction, $\beta = .31$, $t(19) = 1.43$, *ns*, at the family level. Also difference score on coping flexibility was not a predictor of job satisfaction, $\beta = -.22$, $t(19) = -0.95$, *ns*, and life satisfaction at the family level, $\beta = -.10$, $t(19) = -0.41$, *ns*.

Generally speaking, Family Study 2 indicated that family functioned as a unit in the stress-and-coping process. The stress and protective factors at the family level affected family adjustment. The study was preliminary and the sample size was small. Future research should further explore family stress-and-coping with a larger sample size. Future study could also use multilevel data and/or dyadic analyses to investigate the stress-and-coping at the family level.

Discussion

Family Study 2 explored the repatriate scholars' family stress-and-coping. Family stress research generally focuses on the stress that impacts family system, such as divorce, family member's disease, etc. Family Study 2 served as a bridge between studies on individuals and traditional family studies. Instead of concentrating on the common stressors among family members, current research took both husband's and wife's various kinds of stress into consideration. Some of the stressors, such as repatriation equally influenced the husband and the wife, whereas some stressors, such as research stress influenced repatriate scholars more than their non-repatriate spouses. Family cohesion is highly emphasized even in the contemporary Chinese culture (Chang et al., 2006). Chinese are socialized to cope as a unit under stressful circumstances. Furthermore, individual family members are constantly reminded that their personal and individual stress may influence their family members (Wong et al., 2006).

With the usage of the average scores, family is treated as a unit. I measured family level variables by taking the mean of husband's and wife's evaluations. Family level analysis was conceptually very different from individual analyses. Family differences were explored through the analyses with variables at the family level. In general, family adaptability was predicted by lower level of family stress, higher level of family resilience perceived by family members and higher level of family coping flexibility.

Averaging minimized the effect of within-family variability. Family scholars postulate that the shared family beliefs and practice is a crucial resource in face of stress (e.g., Patterson, 2002; Walsh, 1996). The consistent perceptions of family function among family members indicate family solidarity that will lead to family's successful coping in face of stress. Therefore, in addition to using average scores, current research used the couple's different scores as the family level variables. The results indicated that the less difference between the husband and the wife on the evaluations on family resilience, the more adaptive was the family. Furthermore, previous research on family stress seldom took into account the personality traits of family members (Hobfoll & Spielberger, 1992). Current study explored the relationship between coping flexibility and family adaptability at the family level. Coping flexibility as a personality variable is considerably stable, but it was still variable across individuals. In an adaptive Chinese family, the husband and the wife would coach each other and both reach a high level of coping flexibility. The results of Family Study 2 indeed showed that the mean of husbands' and wives' score on coping flexibility contributed to family adaptability.

Table 18

Demographic Characteristics of Study Participants

	Age		Length of marriage	No.& age of children	Years of Overseas Stay		Years of Repatriation		Employment in China	
	W	H			W	H	W	H	W	H
Couple 1	in late 30s	in late 30s	12	1 (3 years)	8	8	3	3	Asso Prof	Full Prof
Couple 2	in late 30s	in late 30s	11	None	8	8	2	2	Asso Prof	Full Prof
Couple 3	in late 20s	in early 30s	1	None	3	NIL	1	NIL	Assistant Prof	Assistant Prof
Couple 4	in early 30s	in late 30s	6	1 (5 years)	0	3	5	5	University admin staff	Asso Prof
Couple 5	in early 40s	in early 40s	17	2 (5 years and 15 years)	7	7	3	3	University admin staff	Full Prof
Couple 6	in early 30s	in early 30s	10	1 (5 years)	6	6	3	3	Asso Prof	Full Prof
Couple 7	in late 30s	in late 30s	16	1 (14 years)	7	7	1	1	HR in a firm	Assistant Prof
Couple 8	in early 30s	in early 30s	10	2 (3 years and 5years)	6	6	3	3	University admin staff	Full Prof
Couple 9	in early 40s	in early 40s	16	1 (3 years)	8	NIL	3	NIL	Asso Prof	Asso Prof
Couple 10	in late 30s	in early 40s	13	1 (11 years)	3	7	5	5	University admin staff	Full Prof
Couple 11	in late 30s	in late 30s	13	2 (2 years and 12 years)	3	4	1	1	University admin staff	Asso Prof
Couple 12	in late 30s	in early 30s	11	1 (10 years)	8	8	2	2	Staff in a firm	Asso Prof

Couple 13	in late 40s	in late 40s	16	None	11	10	4	4	Asso Prof	Full Prof
Couple 14	in late 20s	in late 30s	2	1 (1 year)	NIL	7	NIL	4	House maker	Assistant Prof
Couple 15	in early 30s	in early 30s	4	1 (2 years)	3	4	1	1	Graduate student	Asso Prof
Couple 16	in early 30s	in early 30s	6	1 (1 year)	11	12	1	1	Full Prof	Full Prof
Couple 17	in late 30s	in early 40s	13	1 (1 year)	3	5	5	5	Civil servant	Full Prof
Couple 18	in late 20s	in early 30s	2	None	3	NIL	1	NIL	Assistant Prof	Engineer in IT company
Couple 19	in late 30s	in early 40s	10	1 (5 years)	4	NIL	5	NIL	Asso Prof	Engineer in Tele company
Couple 20	in early 30s	in early 30s	1	None	4	4	1	1	Accountant	Asso Prof
Couple 21	in early 40s	in late 40s	19	2 (4 years and 12 years)	17	17	Stay overseas	1	Middle school teacher	Full Prof
Couple 22	in early 30s	in late 30s	6	1 (3 years)	4	4	3	3	Assistant Prof	Full Prof

Table 19

Means, Standard Deviations and Inter-correlations of Average Scores of the Husband and Wife on Stress, Coping Flexibility, Family Resilience, Job Satisfaction and Life Satisfaction

	1	2	3	4	5
1. Average Stress	1				
2. Average CF	-.24	1			
3. Average FR	-.36*	.44**	1		
4. Average JS	-.30*	.56**	.51**	1	
5. Average SWLS	-.51**	.41**	.52**	.79**	1
<i>M</i>	2.81	3.74	3.89	4.96	3.34
<i>SD</i>	0.62	0.22	0.32	0.64	0.74

Note. CF = Coping Flexibility; FR = Family Resilience; JS = Job Satisfaction; SWLS = Satisfaction with Life Scale. $N = 22$. * $p < .05$, ** $p < .01$

Table 20

Hierarchical Regression: Predicting Average Job Satisfaction and Average Life Satisfaction from Average Stress, Average Coping Flexibility and the Interaction of Average Stress and Average Coping Flexibility

Step/Variables	Average JS		Average SWLS	
	β	ΔR^2	β	ΔR^2
Step 1				
Average Stress	-.18	.34*	-.43*	.34*
Average CF	.51*		.30	
Step 2				
Average Stress \times Average CF	.03	.01	.05	.01

Note. CF = Coping Flexibility; JS = Job Satisfaction; SWLS = Satisfaction with Life

Scale. $N = 22$. * $p < .05$, ** $p < .01$

Table 21

Hierarchical Regression: Predicting Average Job Satisfaction and Average Life Satisfaction from Average Family Stress, Average Family Resilience and the Interaction of Average Stress and Average Family Resilience

Step/Variables	Average JS		Average SWLS	
	β	ΔR^2	β	ΔR^2
Step 1				
Average Stress	-.14	.28*	-.33	.46**
Average FR	.46*		.48*	
Step 2				
Average Stress \times Average FR	.07	.01	.16	.02

Note. FR = Family Resilience; JS = Job Satisfaction; SWLS = Satisfaction with Life Scale.

$N = 22$. * $p < 0.05$, ** $p < 0.01$

Table 22

Hierarchical Regression: Predicting Average Job Satisfaction and Average Life Satisfaction from Average Stress, Average Coping Flexibility, Average Family Resilience, and the Interaction of Average Coping Flexibility and Average Family Resilience

Step/Variables	Average JS		Average SWLS	
	β	ΔR^2	β	ΔR^2
Step 1				
Average Stress	-.30	.09	-.51*	.26**
Step 2				
Average CF	.30	.31*	.14	.22*
Average FR	.40*		.43*	
Step 3				
Average CF x Average FR	-.30	.09	-.41*	.17*

Note. CF = Coping Flexibility; FR = Family Resilience. $N = 22$. * $p < .05$, ** $p < .01$

Table 23

Means, Standard Deviations and Inter-correlations of Husband and Wife's Different Scores on Stress, Coping Flexibility, Family Resilience and Their Psychological Outcomes

	1	2	3	4	5
1. Differences stress	1				
2. Differences CF	-.14	1			
3. Differences FR	-.11	.36*	1		
4. Average JS	.10	-.38	-.51*	1	
5. Average SWLS	.35	-.24	-.37	.79**	1
<i>M</i>	.91	.39	.25	4.96	3.34
<i>SD</i>	.59	.38	.30	.64	.74

Note. CF = Coping Flexibility; FR = Family Resilience. $N = 22$. * $p < .05$, ** $p < .01$

Table 24

Predicting Family Psychological Outcomes from the Differences between the Husband and Wife

Variables	Average JS		Average SWLS	
	β	ΔR^2	β	ΔR^2
Differences Stress	.04	.14	.30	.19
Differences CF	-.22		-.09	
Differences FR	-.44*		-.30	

Note. CF = Coping Flexibility; FR = Family Resilience; JS = Job Satisfaction; SWLS =

Satisfaction with Life Scale. $N = 22$. * $p < .05$, ** $p < .01$

CHAPTER SIX GENERAL DISCUSSION

The purpose of this series of studies was to further extend our understanding of the stress-and-coping of Chinese repatriate scholars. As mentioned in the introduction, the Chinese often manage major life transitions not as individuals but as a family. Therefore, the current study investigated the Chinese repatriate scholars' stress-and-coping in the repatriation process at both the individual and family levels. At the family level, I studied the stress-and-coping of repatriation by investigating how the perceived family resilience affected the individuals' stress-and-coping and how the family could be used as a unit of analysis in the repatriation process. Studies 1 and 2 were individual studies and Study 3 was a family study.

Study 1 (qualitative study) and Study 2 (quantitative) complemented each other and provided a comprehensive picture of the stress-and-coping among individual repatriate scholars. Study 1 yielded contextually rich data, which enabled us to better understand their repatriation experiences and how their multiculturalism informed their stress-and-coping. Study 2 tested the hypotheses based on the literature and the emerged themes in Study 1. Taken together, the studies showed that the perceptions of stress among Chinese repatriate scholars were influenced by their overseas experiences. The instructional issues in their work place had primary effect and their family stress was secondary. Moreover, their coping responses were context dependent. Having received overseas academic training, the repatriate scholars were competent at research work. They tended to use primary control coping in dealing with stress related to the work per se, whereas they mainly used secondary control coping in response to institutional issues that often involved interactions with authority figures. Chinese culture emphasizes the

maintenance of social harmony. The repatriate scholars followed Chinese social norms and attempted to accommodate to the situation. Study 2 showed that coping flexibility — changing what could be changed while accepting situations beyond their control — was adaptive for the repatriate scholars. However, it was interesting to find that secondary control coping did not contribute to their job and life satisfaction. Although submitting to authority or accommodating to the situations might reduce their stress, it did not make the repatriate scholars happier. With a clear understanding of the differences between Chinese academic system and the Western model, Chinese repatriate scholars had a strong obligation to change Chinese academia and society for the better. The dilemma of accommodation and reforming Chinese institutional system, negatively affected their psychological well-being.

Study 3 explored the importance of family by focusing both on individuals' stress-and-coping within the family and family as a unit in stress-and-coping. The results showing the protecting effect of family resilience on the individual added more knowledge about the importance of family for Chinese mental health (e.g., Chang et al., 2006; Yeh & Wang, 2000). Mutual support among family members and a positive worldview enabled the individuals to bounce back in the face of adversities. Meanwhile, a resilient family would cultivate flexible coping behaviors of its members, which in turn benefitted their psychological well-being.

Family is the fundamental unit of Chinese society (Wu & Tseng, 1985). Using family as the unit of analysis, Study 3 found that family well-being was influenced by family stress and family resources (family resilience perceived by its members and coping flexibility of its members). This was consistent with a growing body of family resilience

literature (e.g., McCubbin & McCubbin, 1996; Patterson, 1996) that shows how family stress interacts with family resilience factors in predicting family adjustment.

The following is a bulleted summary of the major findings of the current studies,

- Chinese repatriate scholars were multicultural. They were socialized into overseas professional values, but they still maintained Chinese core cultural values. Their multiculturalism informed their stress-and-coping process.
- Their adjustment issues were centered on their work and their life stress were secondary.
- Research stress was their top stress and it was perceived as an “energizer” that enhanced their job performance. Intuitional stress and financial stress, another two major stressors of repatriate scholars, were perceived as negative stress that led to emotional distress.
- Senior repatriate scholars had more resources and were less vulnerable to stress compared to junior repatriate scholars.
- Female repatriate scholars were more satisfied with their life than male counterpart.
- Chinese repatriate scholars changed coping styles according to environmental cues. They mainly used primary control coping in dealing with stress related to the work per se and they used more secondary control coping in response to institutional issues. In general, they were equally likely to use primary and secondary control coping.
- Repatriate scholars with senior professional titles used higher level of primary control coping compared to their repatriation colleagues with junior professional title.
- Individuals with higher level of coping flexibility fared better than those with lower level of coping flexibility.

- Family support played an important role in the stress-and-coping of Chinese repatriate scholars. The repatriates from more resilient family were more satisfied with their life and less vulnerable to stress compared with those from less resilient family.
- Stress, coping flexibility and family resilience at the family level had an impact on psychological outcomes at the family level.
- The more similar the family resilience scores reported by the husband and wife at the repatriate's family, the better adjustment their family had.

Strengths

There were multiple strengths of the current research. First, the present study used both the individual and the family as the unit of analysis. Although the results on the family level analysis were preliminary and the sample size was small, the findings greatly added to our understanding of how Chinese cope with major life events. The results showed that not only did family resilience have a major effect on the collective well-being of the family, but it enabled the individual through promoting coping flexibility in the individual, a major coping strength of the Chinese.

Second, the current study also provided insightful information of individuals' subjective multiculturalism that went beyond the findings of traditional sojourner or acculturation studies. Cross-cultural research generally treats culture as a uniform ethos and exclusive entity that follows traditional cultural boundaries. Individuals are classified into one pre-designed group or another (see Wallace, 1961, for a discussion). The current study indicated multicultural perspectives of the Chinese repatriate scholars that were applied in different domains of their lives. They seemed to be more independent in their work and interdependent in their personal practices. The present study suggested that

culture is not a static entity; a dynamic and multi-domain and mosaic view of how culture, life experiences and individuals constitute each other is necessary for both cultural and cross-culture studies (Benet-Martinez, Leu, Lee, & Morris, 2002).

Third, the present study used a multi-stage multi-method approach that included ethnography and a series of quantitative analyses to understand how their different cultural value systems were integrated and guided their stress-and-coping. Culture can be understood as a set of tools acquired by individuals through their personal experiences. The internalized cultural beliefs are called “subjective culture” (Triandis, 1972). By understanding the “subjective culture” of participants, this study is translating culture from an anthropological concept to a psychological and individual-level concept (Ho, 1995). This multi-stage multi-method approach is appropriate for studying seldom explored populations (Chang, 2000).

Theoretical Implications and Recommendations for Future Research

The current research has implications for theoretical perspectives in the areas of stress-and-coping research, intercultural studies and family studies. Using a culturally sensitive approach, current studies indicated the prevalent usage of collective-oriented coping styles (Kuo, 2004) among Chinese repatriate scholars. Their collectivistic coping included having a tendency to employ secondary control coping, flexibly changing coping strategies based on environmental cues and dealing with stress as a family. People with interdependent self-construal (Markus & Kitayama, 1991) are more likely to adopt collectivistic coping strategies, which serve to reinforce in-group reliance and solidarity (Wester, Kuo, & Vogel, 2006). The qualitative data showed that Chinese repatriate scholars had acquired some independent values such as pursuing individual success;

however, they maintained core Chinese values, including maintaining social harmony and valuing family interdependence. Future research should explicitly test the cultural variables, such as individualism/collectivism, Chinese belief and acculturation to overseas culture. Future researchers might consider developing a collectivistic coping measurement that contains all the emergent themes on coping in the current research.

The current studies contribute to the understanding of repatriation experience as well. Previous research on repatriation generally argued that repatriates would experience reverse cultural shock, which was associated with alienation, value confusion and other negative emotions (e.g., Gaw, 2000). However, my research showed that the reverse “cultural shock” is fine grained and domain specific. With appropriate coping strategies, overseas experience benefited the growth of individuals. Furthermore, in areas where they might experience “culture shock” they are in a position to bring growth to their home country.

Chinese repatriate scholars obtained their professional competence through overseas academic training, which made them a driving force of Chinese academic advancement. Meanwhile, their overseas stay enriched their cultural toolkit (Swidler, 1986). They used some of the acquired toolkit upon repatriation, such as socializing graduate students to academic profession and suggesting ways to improve Chinese academic system. Because reentry is a longitudinal process, future research might explore whether and to which extent repatriates keep the cultural tools learned from another culture as time goes on.

The interviewees also expressed that they had gains joining their family and friends in their home country, and they felt more comfortable with local food and

language context upon repatriation. Future research could employ Hobfoll's (1989) Conservation of Resources (COR) theory on stress-and-coping and explore how the gains and losses of repatriate scholars influence their psychological adjustment. COR regards that individuals seek to obtain, retain and foster resources, which are valuable things perceived by the individuals. Resource losses are suggested to be critical in predicting emotional distress, whereas resource gains act as a buffer after the loss has occurred (Hobfoll, 2001; Hobfoll & Lilly, 1993; Wells, Hobfoll, & Lavin, 1999).

Lastly, most stress-and-coping research focuses on individuals. But in reality, in collectivistic society, people often cope with their family. My research not only examined the repatriate scholars' stress-and-coping at the individual level, but also explored their family stress-and-coping. Although the results were preliminary, they suggested the importance of studying family in the stress-and-coping process. My family studies served to bridge individual stress theory (Lazarus & Folkman, 1984) and family stress theory (e.g., McCubbin & Patterson, 1982). The current research both explored the stress-and-coping of family members as a unit and examined the impact of within-family variance. Different from family stress theory, which mainly focuses on family function and the shared stress; my studies took family members' respective stress and their personality factors into consideration. Future research will benefit from this type of multilevel analyses that combine both variables at the individual and family levels. Dyadic data analysis could also be used to explore how the spouses affected each other's stress-and-coping process. Family function, such as family coordination, family's flexibility in the face of new information (Reiss, 1981), may vary among different types of family. Future research on repatriates' family stress-and-coping may benefit from comparing the families

in which only the husbands were professionals, only the wives were professionals and both were professionals.

Implications for Practice

Several recommendations from the findings of this study can serve to inform policy makers and professional practice. Based on the results of this study, institutional issues are considered as “hindrance” to Chinese repatriate scholars. Chinese academia and society are urged to address some of these institutional issues. Micro-managing stifles the efficiency of research work and the current evaluation criteria have no relationship with creativity. As proposed by some respondents, using the content experts to give evaluation rather than following a mechanical and rigid system can improve research productivity and creativity.

The paper work upon repatriation is tedious. Chinese government can quicken the processing of related documents upon their return so that the repatriate scholars could settle down smoothly and be concentrated on their research. Financial strains is another serious concern for the repatriate scholars, especially the junior repatriates. In fact, the Chinese government offers attractive package to lure overseas talent back. However, the recently launched talent programs just target top-class researchers (See China Daily 2009 for One Thousand Talent Program); junior repatriates are provided very little support in recent years. Policy makers need to consider providing benefits to junior repatriates, such as reasonable amounts of start-up funding and relocation allowances. The government needs to meet their basic needs, and they will be more motivated at work.

The findings also provide leaders of higher education and psychological counselors a ground-level understanding of stressors and effective coping styles/strategies

for repatriate scholars, which can lead to appropriate support that targeted to this group. For instance, group training programs could be provided to the newly returned scholars with a debriefing of possible challenges and effective coping strategies. Anticipation of the stressful demands and knowing how to respond could help the repatriates have a better adjustment upon return.

It is recommended that psychologists provide advice on culturally sensitive coping strategies for the repatriate scholars. An important finding of this study was the significance of coping flexibility. Those who had high coping flexibility had a wider repertoire of coping strategies and flexibly matched their coping behaviors to situational demands. The fit between the endorsement of coping styles and the controllability of the situation led to better psychological adjustment. Practitioners should encourage inflexible repatriates to widen their coping choices and change their coping styles based on the nature of the situation.

Moreover, this study indicated the importance of family resilience for the psychological well-being of Chinese repatriates. Participants with higher family resilience were more satisfied with their jobs and with life in general. Stress was less likely to have negative effects on those with high family resilience. Therefore, culturally competent interventions that promote family resilience and the development of more supportive family environments will benefit Chinese repatriates.

Positive thinking was one of the beneficial coping strategies for the repatriate scholars. Although optimism is generally regarded as a personality trait (Scheier & Carver, 1993), intervention services could be designed to cultivate an attitude of looking on the bright side of life. For instance, the repatriate scholars should be encouraged to transform

the pessimistic perspectives of Chinese institutional issues to a more balance view with the reorganization of their moving towards a healthy direction.

It is important to note that Chinese people are reluctant to seek counseling services (Leong & Lau, 2001; Yeh & Wang, 2000). However, this study indicated that Chinese repatriate scholars were looking to improve their life satisfaction through self-help such as reading psychological books and attending psychological lectures. Promoting sensitive coping strategies through publications (pamphlets, books, magazine, etc.) and seminars may be effective for Chinese professionals.

In general, the present study demonstrated that with the exception of very few cases, most Chinese repatriate scholars showed a good adjustment upon repatriation. Self-cultivation is a central and vital theme of Confucianism. The repatriate scholars continued developing themselves and adjusting their coping styles/strategies to reach best fit with the environment. Finally, policy makers should be pleased to know that Chinese repatriate scholars had a strong obligation to serve the country. By integrating of the essences of Eastern and Western cultures, the repatriate scholars will bring Chinese development to a new stage. The country should continue their talent policy to attract overseas scholars back.

Limitations

Several limitations of this study need to be taken account. One concerns the utilization of purposive and snowball sampling to locate Chinese repatriate scholar participants. As this study was not based on a random sample, generalization of the results is limited. A larger and more representative sample will be needed for more generalizable conclusions. For instance, the participants in the current study lived in the coastal cities of

China. As part of the increasing number of Chinese repatriates living in large coastal cities, they are not as valued or competitive. Some repatriates are now venturing into Chinese inland cities, which provide them more favorable conditions. On the other hand, the inland cities of China are more bureaucratic. Findings based on a sample in the coastal regions might not be generalizable to the inner areas.

The study sample comprised young scholars, the majority being in their 30s. It did not include the professionals who return to retire. The young repatriates might hold different perspectives on bureaucracy than their older and more established counterparts. The participants of this study were also new repatriates. Some of their stressors were related to resettlement, such as processing *hukou* and enrolling their children in local public schools. Since reentry is a longitudinal process, the current cross-sectional study cannot capture the stress patterns of the repatriates in different stages of settling into Chinese life. A future study looking at reentry from a longitudinal perspective will produce more comprehensive data.

Conclusion

The absence in current research literature of systematically documented personal perceptions of Chinese repatriate scholars upon re-entry underscores the significance of the current study, which utilized a comprehensive mixed method that included ethnography. Personal perceptions of Chinese repatriate scholars are important additions to the field of knowledge about the impact of culture on the stress-and-coping process. The focus on family both as a contextual factor and as a study unit lends significance to this study. The results of the present research serve to help leaders of Chinese higher education to develop new support programs to fit the needs of repatriate scholars. The

results also suggest effective ways for Chinese repatriate scholars to cope. Their professional and personal well-being will in turn benefit Chinese educational and technological development.

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Appendices

Appendix A Interview Guideline

1. Why did you returned to China?
2. What was your expectation for your repatriation life?
3. What were the discrepancy between your repatriation life and your expectation?
4. What were the things that made you feel stressed since you returned to China?
5. For each of the stressors of the participants, the following questions are asked:
 - 5a. Usually when this happened, to what extent did you think you could change the situation?
 - 5b. What did you do or think when this happened?
 - 5c. For each of the thing that you did or thought, why did you do or think that way?
 - 5d. After doing and/or thinking about what you have said above, to what extent did you feel relieved?
6. What were your positive and negative experiences upon return?

Appendix B Demographic Questions

Please answer the following question.

1. What is your age?

A. 25-29

B. 30-34

C. 35-39

D. 40–44

E. 45 and above

2. What is your gender?

A. Male

B. Female

3. What is your title?

A. Assistant professor

B. Associate professor

C. Full professor

(Please indicate your special title if you have)

D. Others

4. What is your major?

A. Natural Science

B. Engineering

- C. Business and management
 - D. Humanities and social sciences
 - E. Others
5. Which country have you returned from?
- A. North America (the USA or Canada)
 - B. Asian countries and regions (Japan, Korea, Singapore, Hong Kong)
 - C. Europe
 - D. Others _____ (Please indicate)
6. How long have you ever studied and/or worked overseas?
- _____
7. How long have you returned to China? _____
8. What is your marriage status?
- A. Single
 - B. Married
 - C. Single
 - D. Others

(Skip questions 9, 10, 11 if you are single. Skip question 11 if you do not have child.)

9. How long have you been married? _____

10. Do you have child (children)?

A. Yes _____

(Please indicate the age of your child or children)

B. No

11. Who are taking care of your children?

A. Elder parents

B. Nanny

C. Other helper _____ (Please indicate)

D. No helper. We take care of our child (children) by me and my spouse.

12. What is your religion belief?

A. I have no religion belief.

B. I am a Christian.

C. I am a Buddhist.

D. I am a Taoist.

E. Others _____ (Please indicate)

Appendix C Repatriate Scholars Stress Scale

The following items may be your sources of stress. Please rate intensity of these stressors with the following scale. Skip the items that are not your stressors. If your stressors are not in the list, please list out your own stressors in the blank.

How much you feel stressed by the event over the past three months?

1----- 2 ----- 3 ----- 4 ----- 5

Slightly stressed

Very stressed

1. Teaching	1	2	3	4	5
2. Securing research funding	1	2	3	4	5
3. Research	1	2	3	4	5
4. Supervising graduate students	1	2	3	4	5
5. Many chores to do	1	2	3	4	5
6. Promotion	1	2	3	4	5
7. Poor administration service	1	2	3	4	5
8. Personal relationship in workplace	1	2	3	4	5
9. Financial strains	1	2	3	4	5
10. Work/family balance	1	2	3	4	5
11. Child care or education	1	2	3	4	5
12. Caring elderly parents	1	2	3	4	5
13. Separation with family members	1	2	3	4	5
14. Finding a marital partner	1	2	3	4	5

- | | | | | | |
|---|---|---|---|---|---|
| 15. Adjusting to new living environment (such
as pollution, traffic jam) | 1 | 2 | 3 | 4 | 5 |
| 16. _____ | 1 | 2 | 3 | 4 | 5 |
| 17. _____ | 1 | 2 | 3 | 4 | 5 |
| 18. _____ | 1 | 2 | 3 | 4 | 5 |

Appendix D Spouses Stress Scale

The following items may be your sources of stress. Please rate intensity of these stressors with the following scale. Skip the items that are not your stressors. If your stressors are not in the list, please list out your own stressors in the blank.

How much you feel stressed by the event over the past three months?

1----- 2 ----- 3 ----- 4 ----- 5

Slightly stressed

Very stressed

1. Job itself	1	2	3	4	5
2. Many chores to do	1	2	3	4	5
3. Promotion	1	2	3	4	5
4. Poor administration service	1	2	3	4	5
5. Personal relationship in workplace	1	2	3	4	5
6. Financial strains	1	2	3	4	5
7. Work/family balance	1	2	3	4	5
8. Child care or education	1	2	3	4	5
9. Caring elderly parents	1	2	3	4	5
10. Separation with family members	1	2	3	4	5
11. Adjusting to new living environment (such as pollution, traffic jam)	1	2	3	4	5
12. _____	1	2	3	4	5
13. _____	1	2	3	4	5

Appendix E Coping Flexibility Scale

Read the statements below and indicate the extent to which you agree with them in general, using the following scale. Circle your answers.

1 = Strongly Disagree

2 = Disagree

3 = Neutral

4 = Agree

5 = Strongly Agree

- | | | | | | | |
|----|--|---|---|---|---|---|
| 1. | When frustrated, I tell myself “Hurdles and failures in life are mere human experience I can learn from to become a matured and wiser person.” | 1 | 2 | 3 | 4 | 5 |
| 2. | When I am faced with any setback, I tell myself “This, too, shall pass”. | 1 | 2 | 3 | 4 | 5 |
| 3. | When I find myself worrying, I work on myself to reduce the worries. | 1 | 2 | 3 | 4 | 5 |
| 4. | I am responsible for my long-term well-being | 1 | 2 | 3 | 4 | 5 |
| 5. | I am aware to which situations I am able to exercise control and which situations I am not. | 1 | 2 | 3 | 4 | 5 |
| 6. | I will appraise the situation before I decide on how to cope with it. | 1 | 2 | 3 | 4 | 5 |
| 7. | I think of various ways or strategies (both behaviorally and emotionally) to address a difficult situations. | 1 | 2 | 3 | 4 | 5 |

- | | | | | | |
|--|---|---|---|---|---|
| 8. I tend to cope well in novel situations. | 1 | 2 | 3 | 4 | 5 |
| 9. I am flexible in coping with different kinds of stressful events. | 1 | 2 | 3 | 4 | 5 |
| 10. If I can change the stressful situations, I will change the situations. | 1 | 2 | 3 | 4 | 5 |
| 11. I tell myself that though I cannot control the situation, I can still control the impact it has on me. | 1 | 2 | 3 | 4 | 5 |
| 12. If I can't change the stressful situations, I will change myself to accommodate to the situations. | 1 | 2 | 3 | 4 | 5 |
| 13. If I can change a stressful situation, I will come up with plans and strategies to alter it. | 1 | 2 | 3 | 4 | 5 |

Appendix F Family Resilience Scale

Read the statements below and indicate the extent to which you agree with them in general, using the following scale. Circle your answers.

1 = Strongly Disagree

2 = Disagree

3 = Neutral

4 = Agree

5 = Strongly Agree

- | | | | | | |
|--|---|---|---|---|---|
| 1. We make sacrifices for one another. | 1 | 2 | 3 | 4 | 5 |
| 2. We accommodate to one another's needs. | 1 | 2 | 3 | 4 | 5 |
| 3. Everyone in the family is cooperative. | 1 | 2 | 3 | 4 | 5 |
| 4. We have a good communication within the family. | 1 | 2 | 3 | 4 | 5 |
| 5. We are united. | 1 | 2 | 3 | 4 | 5 |
| 6. The love we have for one another makes us strong. | 1 | 2 | 3 | 4 | 5 |
| 7. We are proactive in dealing with the situation. | 1 | 2 | 3 | 4 | 5 |
| 8. We make the situation as normal as possible. | 1 | 2 | 3 | 4 | 5 |
| 9. We come to a shared understanding of the situation. | 1 | 2 | 3 | 4 | 5 |
| 10. We prepare for what might come. | 1 | 2 | 3 | 4 | 5 |
| 11. We adopt a positive attitude. | 1 | 2 | 3 | 4 | 5 |
| 12. We control negative emotions. | 1 | 2 | 3 | 4 | 5 |
| 13. We create a lighter mood in the family. | 1 | 2 | 3 | 4 | 5 |
| 14. We accept the situation. | 1 | 2 | 3 | 4 | 5 |

6. Working hours	1	2	3	4	5	6	7
7. Promotion	1	2	3	4	5	6	7
8. Stability	1	2	3	4	5	6	7
9. Leader (having a good, considerate leader)	1	2	3	4	5	6	7
10. Type of work (the type of work that you like)	1	2	3	4	5	6	7
11. Work environment (comfortable, clean, etc.)	1	2	3	4	5	6	7
12. Prestigious	1	2	3	4	5	6	7

Appendix H Life Satisfaction Scale

Read the statements below and indicate the extent to which you agree with them in general, using the following scale. Circle your answers.

1 = Strongly Disagree

2 = Disagree

3 = Neutral

4 = Agree

5 = Strongly Agree

- | | | | | | |
|---|---|---|---|---|---|
| 1. In most ways, my life is close to my ideal. | 1 | 2 | 3 | 4 | 5 |
| 2. The conditions of my life are excellent. | 1 | 2 | 3 | 4 | 5 |
| 3. I am satisfied with my life. | 1 | 2 | 3 | 4 | 5 |
| 4. So far I have gotten the important things I want in life. | 1 | 2 | 3 | 4 | 5 |
| 5. If I could live my life over, I would change almost nothing. | 1 | 2 | 3 | 4 | 5 |