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WHAT COLLEGE STUDENTS KNOW ABOUT OLDER ADULTS: A CROSS-CULTURAL QUALITATIVE STUDY

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A total of 227 college students from Joliet, Illinois in the USA and Shanghai in the People's Republic of China (PRC) answered open-ended questions on their perception of being old. Topics also included participant's knowledge about older adults' regular activities, social policies and benefits for senior citizens, the happiest and the most fearful things to older adults, and the things about older adults that they were able to understand the best or the least. More negative ideas of aging and older adults were observed in the PRC data than in the USA data. The USA students' responses displayed individualistic characteristics, whereas the PRC students' answers exhibited collectivistic interconnectedness. These findings gave support to the revised modernization theory and fit well into the theoretical framework of individualistic and collectivistic cultures.

Due to different experiences as different cohorts and being at different points of time in their lifespan, it is questionable that different generations truly understand each other's values, needs, concerns, thoughts, and feelings. Many ideas of older adults held by younger people, and vice versa, reflect the influences of sociohistorical circumstances, cultural values, and personal experiences/or lack of such experiences due to age-graded institutional practice and developmental differences along the life course (Hagestad & Uhlenberg, 2005;

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Mosher-Ashley & Ball, 1999). Several lines of theoretical works, though with different assumptions and angles, can be jointly used to raise the suspicion of true intergenerational understanding. The life span development model and the life course theory (Baltes, Featherman, & Lerner, 1986; Seltzer, Krauss, & Janicki, 1994); the human ecology and family theories (Bengtson, 2005; Boss, 1993; Bubolz & Sontag, 1993); and the ecological systems theory (Vasta, 1989); all point to one common premise: An individual's development is the product of complex processes that take place in dynamic, multi-dimensional contexts involving various forces. These forces are present at the micro levels (e.g., heredity and personal experiences); the intermediate levels (e.g., social interactions and intersystem interactions); the macro levels (e.g., sociopolitical structure, culture); and the chronological levels (e.g., age-related abilities, needs, concerns, abilities, experiences). Different generations, by definition, are born in different historical times and have been exposed to different historical events or the same events but at different developmental points. Furthermore, the age grading nature of the institutions in society has created age segregation resulting in reduced intergenerational contact and interaction (Hagestad & Uhlenberg, 2005).

All people, young and old, are living on the same planet and, therefore, are sharing the resources together. According to the life course theory, the temporal variations across the life course place "the individual's life course embedded in relationships with others" (Bradley & Longino, 2001, p. 17). Thus, younger cohorts' perception of the older cohorts has significant implications for the older adults. As life proceeds, older adults will eventually need care and support, and it is usually the younger generations who are performing such tasks. Quality care service and healthy, loving relationships with senior adults will be out of the question if younger people's views of older adults are negative or if they misunderstand the needs and preferences of the elderly. To help foster intergenerational understanding, the very first step is to find out what mutual knowledge exists across generations.

To measure the knowledge of, and attitudes toward, aging and older people, the most widely used instrument is the Facts on Aging Quiz developed by Palmore (1977, 1988) and its revised or adapted versions (e.g., Harris, Changas, & Palmore, 1996; Haughty, Walls, Laney, Leavell, & Stuzen, 1999; Kline, Scialfa, Stier, & Babbitt, 1990). Other instruments include the Aging Semantic Differential (Rosencranz & McNevin, 1969) and its revised variations (e.g., Intrieri & Von Eye, 1995). A lot of effort has been spent on validating and improving the instruments using a choice

format (true/false or multiple choices) or a scale format. The information obtained via these instruments is, of course, very important. However, we have to acknowledge that provided statements, words, and choices will unfortunately produce possible framing, anchoring, restricting, or contrasting effects on the participants' interpretations and responses (Smith & Davis, 2007). A complimentary method to quantitative research is using a qualitative approach to obtain people's own ideas. As an explorative attempt, I included a substantial proportion of open-ended questions in a questionnaire survey to solicit free answers from undergraduate students. This article reports the analysis outcomes of the qualitative portion of the data pertaining college students' knowledge of aging and older adults' lives.

Within the students' populations (early adolescents to undergraduates), the accuracy of the knowledge about aging (mean percent correct) was roughly in the range of 49 to 60% (Gellis, Sherman, & Lawrance, 2003; Haughey et al., 1999; Knapp, Beaver, & Reed, 2002; O'Hanlon & Camp, 1993). Undergraduate students usually had a good knowledge of general aging in the areas of sensation, speed, memory, activity, religion, and happiness. But they showed lack of knowledge or misinformation and negative biases about older adults' financial status, learning/working abilities, adaptability, biological functioning, and social policies/programs (Damron-Rodriguez, Funderburk, Lee, & Solomon, 2004; Gellis et al., 2003). However, studies that addressed how sociocultural forces at the macro level would have influenced students' perception of being old and their knowledge of older adults are not many. Cross-cultural studies to examine sociocultural influences on young people's knowledge and affect regarding older people and old age are needed. The current study is one such attempt.

The United States has often been cited as an antiaging society that adores youthfulness and downplays aging (Harris & Dollinger, 2001). Older adults are expected to be positioned at a lower level and valued less as compared with younger people (Van Langenhove & Harré, 1994). For example, Hawkins (1996) used 20 adjectives to examine college students' attitudes toward the men and women in the "young old," "old," and "old old" age groups. Hawkins found that the response scores were moving toward the negative end when the target person's age was older. As a group, college student's views of people aged 65 years and older were only around the neutral point but not on the positive side. Data from National Council on Aging (Albert, 2004) indicated that young respondents considered the start of old age to be much earlier than did older respondents.

Countries in the east, such as China, have long been described as having positive stereotypes of the elderly. In Western cultures, the label of “old people” is replaced by “senior citizens,” “old age” by “later adulthood,” “65 years old” by “65 years young,” etc. We know that euphemistic expressions are needed only in cases associated with negative feelings and stigma. In contrast, the Chinese directly call people in mature ages *lao ren* (old people). If one places “lao” (old) before a surname, this is to show respect, indicating the addressee’s seniority in social order. Nowadays, the reversed pattern, or surname plus “lao,” is even better (Hwa, 2004). This custom is out of the cultural value of elder respect, which is closely related to the moral principles in Confucianism. Filial piety, one of the core values in Confucianism that has permeated into philosophy, religion, education, relationships, and family structure, is highly valued in China (Tan, Zhang, & Fan, 2004). Not necessarily in the strict sense of Confucius doctrine, filial piety is closely attached to personal psychology and inter-generational relationships (Lee, 1993). Filial piety is usually interpreted by the parents as an indicator of successful parenting, comfort, and family pride; it is seen by the child as responsibility/obligation, high morality, and care in return for parental upbringing. Even at the time when filial piety was under severe fire during the Cultural Revolution (1966–1976), the cultural value of elder respect remained intact (Ho, 1994).

In post-Mao years, policies for the elderly people were urgently needed due to the consequential implications of the economic reform and population change (Gu, Zhu, Chen, & Liang, 1995). According to Olson’s detailed review (1988), the formation of the China National Committee on Aging and the increasingly publicized and institutionalized concerns for eldercare and elder wellbeing in the 1980s have brought about amendments of the constitution. These amendments addressed social security, reemphasis on parent–child mutual obligations of support and care, emergence of organizations for the elderly at various administrative levels, publications for senior citizens, academic/professional journals devoted to the study of aging, innovative retirement and pension plans, welfare for childless elderly, continued education programs designed for senior adults (known as “university for the elderly:” *laonian daxue*), various sports-/entertainment/traveling activities for senior citizens, specific benefits and policies in social service, designated senior citizen’s days, and many Web sites for the elderly. In 1996, the Law on Protection of the Rights and Interests of the Elderly was passed in August. With the traditional cultural value of elder respect and government-controlled policies and regulations to protect the elderly, it would

be reasonable to expect more positive perception of the elderly in China than in the United States. This hypothesis received some empirical support from the semantic differential ratings of 20 items by 199 Chinese college students: The Chinese held more positive attitudes toward the elderly in comparison with similar studies conducted in the United States (Tan et al., 2004).

Conversely, in societies where respect for individualism and egalitarianism is encouraged, such as in the United States (Fernandez, Carlson, Stepina, & Nicholson, 1997; Triandis, 1995), people may not be doomed to carry more negative stereotypes of the older adults than those in traditional societies where orders and obedience are underscored. This hypothesis received support from a study comparing the students in California, USA, with the students in a very traditional community in northern Thailand (Sharps, Price-Sharps, & Hanson, 1998). Using an open-ended adjective-generation method, the Thais had more negative adjectives for the old than for the young, whereas no such difference was observed in the American students' data.

The inconsistency in the findings indicates that the relationship between modernization, culture, and values is not a simple one but a highly complex one that is under the impact of a matrix of mutually interacting factors. The impact of modernization on the value system, for example, is not linear. In other words, it is not that the more industrialized and economically developed a country is, the less caring and spiritual its citizens will become. Inglehart and Baker (2000) proposed to revise the classic modernization theory (Cowgill & Holmes, 1972), explaining that postindustrial modernization would shift people's interest away from material security to humanity, service, and spiritual growth. After their careful analyses of the World Values Surveys that covered 65 countries on all continents, Inglehart and Baker concluded that even if economic development did bring about cultural changes, the changes were not "Americanization." That is, the core cultural values in each country changed along their specific paths that were imprinted with specific historical, political, and cultural marks in each respective country. In other words, globalization does not necessarily result in universalization of Western cultures (Hamilton, 1994) but creates diversity due to history-dependent cultural specificity.

As a fast developing country in the early stage of modernization with the market economy introduced just recently (Inglehart & Baker, 2000; Leung, 1997), but with a set of core cultural values that have continued for a couple of thousand years, China is a good subject for studying the impact of sociocultural forces on younger

people's perception and understanding of older adults. According to Inglehart and Baker, modernization in its early stage is characteristic of concerns for economic and physical security. In China, there is a general zest for new technology and materialism (Zhou, 2006). Young people with college or higher education, especially those with high-tech skills, enjoy much better market values than older workers. As a consequence, retirement ages in the industrial and business sectors have been reduced to much earlier than the legally defined ages (age 60 for men and age 55 for women). Workers in late 40s are laid off to "wait for full retirement" (*dai tuixiu*) with a very low monthly allowance to cover the basic survival needs. These devalued workers, with only those that have specialties spared, are considered to be too old for reemployment elsewhere. Many of the job advertisements require applicants to be under age 35 (Rosenthal, 1998). This reminds us of the legal protection against age discrimination (those aged 40 or older) in employment in the United States, but such legal protection against age discrimination has yet to be developed in China.

The most vulnerable segment of the Chinese population in this swirl of modernization is the older citizens. Ironically, the socialist distribution principle applied during the revolutionary period in the older citizens' younger years gave them little personal savings for their older years. The two major resources for their security in old age, government-sponsored social security (Gu et al., 1995) and the family care system, are being challenged in the current socioeconomic structure. Pochagina (2003) summarized that the nuclearization of the family, the ideological shift toward individual development in the younger generations, lowered morality, the widened intergenerational income gaps, rewards to new technology skills, the quickened life pace, and the more demanding work load for adult children all combine to erode elder respect in China.

The present study intended to explore college students' perception of aging and their knowledge of older adults via a qualitative approach. Studying the college student population is important in that they are on the verge of either entering society as full-time workers or a focused professional area to receive further training at post-graduate levels. Their perception, understanding, and knowledge of older adults are more likely to have an immediate and direct impact on their potentially imminent service to senior citizens. The United States is a deviant case among highly modernized countries as it remains relatively traditional, although less traditional than the PRC (Inglehart & Baker, 2000). Many individualistic values (such as respect for independence and joy for freedom) that have been consistently found in many individualistic cultures (Donohue, 1990;

Hofstede, 2001; Triandis, 1995) are also verified by the USA's high position at the self-expression end along the "survival versus self-expression" dimension on Inglehart and Baker's cultural map (2000). By contrast, many collectivistic values, such as merits of interdependence and respect for the elderly, characterize the collectivistic cultures (e.g., in China). Within these theoretical frameworks, I had two predictions for the current study. First, if older adults were referred to as a general group (i.e., not specifically related to the respondents), the rapid modernizing process in the PRC would deviate current college students from the traditional value of elder respect to the same level, or even to a lower level, as compared with the USA college students. This would be true even though USA college students are living in a postmodern society that emphasizes equality, human dignity, and service. Second, the most essential core values would be preserved in their specific culture systems. To be more specific, in the PRC, regardless of the possibility of lowered elder respect, the collectivistic core of interconnectedness as seen in the interlocking parent-child relationships—i.e., filial piety (child to parent) and next-generation orientation (parent to child)—as well as the individual-society connectedness, would be significant in the PRC data but not in the USA data. Self-expressions and concerns for independence or freedom would be observed more frequently in the USA data than in the PRC data, demonstrating the hard core of individualism in the American culture.

METHOD

Participants

A total of 108 USA college students (72 women; 36 men) and 119 PRC college students (48 women; 71 men) participated in a questionnaire survey. These were convenience samples taken from two local universities, one in Joliet, Illinois, USA and the other in Shanghai, China. The samples were roughly equal for students in natural sciences and social sciences. The PRC and USA samples were compatible in their socioeconomic status relative in their respective cities (for details, see Zhou, 2006).

Materials and Procedure

To serve the purposes of my study, I constructed a questionnaire that was composed of rating scales, choice questions, and open-ended questions on the following dimensions: indicators of being old,

metaphoric representation of old age, retirement and reemployment, retirees' daily activities, the happiest/most fearful things about old age, caring issues, government policies/programs for senior citizens, attitudes toward older adults, and the best/least understood issues related to older adults. The English version of the questionnaire was created first. It then went through the standard procedure to obtain an equivalent version in Chinese.

Participants were seen in group settings in their regular classes, and they completed the questionnaire within one class period (50 minutes). The PRC participants, as well as their assisting class teachers, received money (\$5 per person) to create a fund for future class/group activities. The USA participants' participation was not compensated.

RESULTS

This article only includes the analyses of the college students' answers to the following open-ended questions: older adults' regular activities, the happiest/most fearful things to older adults, the best/least understood things pertaining to older adults, and knowledge of social policies/programs for older citizens. The college students' verbal responses were read first to identify common themes. Then the common themes were represented by a category label. Coders worked independently (two for each category) to classify the individual responses into relevant categories. The intercoder agreement percentages ranged from 77.8 to 87.4%.

Indicators of Being Old

The participants were instructed to list four indicators of being old. The responses were coded into the following categories: age; appearance (hair, skin, weight, and height); health (illness, physiological changes, energy level, mobility); cognition (thinking, memory, learning); personality; life (life experience, life achievements, lifestyle, retirement, life goals); self-care ability (daily functioning, independence); emotions; and family. The four most frequently mentioned indicators of the old age were health (74.3% of the respondents), chronological age (70.5%), cognitive ability (42.4%), and physical appearance (42.0%). The mean age to be considered being old was 65.3 years ($M_{USA} = 66.3$, $M_{PRC} = 64.4$), although the range was strikingly large: from 40 to 90 years of age.

The indicators in each category (except for age) were further assessed in terms of their affective direction and were then classified

as negative or positive. Explicit affective direction meant that the indicators contained words that clearly conveyed positive or negative meaning. For example, “memory loss” and “deterioration of all organs” were clearly negative, whereas “rich life experiences” and “enjoying life” were obviously positive. Indicators that did not include explicit words to suggest affective direction, e.g., “appearance” and “health,” were coded as ambiguous. Within the appearance category, expressions like “white hair” and “wrinkles” were placed in the ambiguous subcategory because those characteristics might mean something less desirable but might also present a dignified look. On the other hand, “loss of teeth” or “loose skin/skin not lustrous” was coded as negative. Categories of cognition, personality, life, and family had both positive and negative subcategories; appearance and health had negative and ambiguous subcategories; and emotions and self-care had only negative indicators.

First of all, MANOVA was performed to assess the effect of country on the total numbers of positive and negative indicators, which were entered along the affect dimension. There were more negative indicators than positive indicators, $F(1, 222) = 311.58, p < .0001, \eta^2 = .0584$. The interaction between country and affect was significant, $F(1, 222) = 17.03, p < .0001, \eta^2 = .071$. The PRC students had more negative indicators than the USA students, $F(1, 222) = 18.193, p < .0001, \eta^2 = .076$, although there was no country difference in positive indicators (see Figure 1).

To find out more detailed information, MANOVAs were applied to each of the six categories that had two dependent measures (positive and negative or negative and ambiguous) and independent-samples t tests were performed if a category had only one dependent

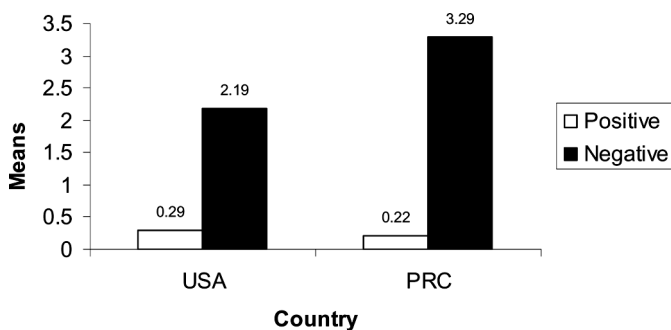


Figure 1. Means of positive and negative indicators of being old generated by the PRC and USA college students.

measure. Simple main effects were examined following each significant interaction. The USA students listed more positive cognitive indicators than did the PRC students, $F(1, 222) = 8.109, p < .01, \eta^2 = .035$; but more negative indicators related to self-care/loss of independence, $t(151) = 2.508, p < .02$. Compared with the USA students, the PRC students had more negative cognitive indicators, $F(1, 222) = 5.104, p < .03, \eta^2 = .022$; negative personality indicators, $F(1, 222) = 14.800, p < .0001, \eta^2 = .062$; and health problems, $F(1, 222) = 4.996, p < .03, \eta^2 = .022$. There were more negative indicators than positive ones in the life/goals category, $F(1, 222) = 23.60, p < .0001, \eta^2 = .096$. No differences were observed in the categories of family or emotional indicators.

These results supported the first hypothesis, which predicted that, when thinking of older adults in general, the students living in an industrially developing country (i.e., PRC) would be more negative than the students living in a developed country (i.e., USA). That more USA than PRC students listed inability to care for oneself (concern for independence) as an indicator was in line with the second hypothesis, confirming the individualistic nature of the American culture.

Knowledge of Senior Citizens' Regular Activities

In this section, and in the sections thereafter, chi-squares were calculated to examine the association of country with response categories. Statistically significant associations were marked in the corresponding tables.

The respondents were asked to provide the information about the regular activities that they believed senior citizens were engaged in. In both countries retirees were believed to partake in the following activities: table games (cards, bridge, chess, Mah-Jongg), physical/fitness exercising (morning exercises, tai chi), sports (golfing, bowling), socializing (club or community activities, eating out, social dancing), hobbies (gardening, fishing, painting), relaxing at home, and investing (stocks). The following country-related differences were observed (see Table 1): activities mentioned by the USA students only—casino/bingo, relocating homes, and just spending time with family; activities more common in the USA than in the PRC: traveling/vacationing and going to church; and activities more frequently mentioned by the PRC than the USA students: doing domestic chores, taking care of grandchildren/family, working for pay, going to classes designed for senior citizens, and getting involved in community service. The differences in the activities that the college

Table 1. Activities that USA and PRC college students believed retirees were engaged in

Activities	USA% (Count)	PRC% (Count)
<i>USA > PRC</i>		
Traveling/vacationing****	39.4 (41)	6.7 (8)
Going to casino/playing bingo****	36.5 (38)	0 (0)
Going to church****	12.5 (13)	0.8 (1)
Enjoying family time**	9.6 (10)	0 (0)
Relocating home**	8.7 (9)	0 (0)
<i>USA < PRC</i>		
Babysitting grandchildren****	8.7 (9)	43.7 (52)
Working for pay****	9.6 (10)	36.1 (43)
Performing domestic chores****	4.8 (5)	21.8 (26)
Partaking in community service*	10.6 (11)	22.7 (27)
Enjoying entertainment**	6.7 (7)	18.5 (22)
Getting continued education*	1.9 (2)	9.2 (11)
<i>USA = PRC</i>		
Investing	2.9 (3)	5 (6)
Playing table games	15.4 (16)	23.5 (28)
Fitness exercising/sports	46.2 (48)	39.5 (47)
Resting at home	7.7 (8)	15.3 (18)
Socializing with peers	29.8 (31)	27.7 (33)
Enjoying hobbies	18.3 (19)	20.2 (24)

Note. Chi-square tests were performed to examine whether the country was associated with the regular activities that the college students believed senior citizens were engaged in. Differences that have reached the significance level of .05 or above are marked: * = $p < .05$; ** = $p < .01$; *** = $p < .001$; and **** = $p < .0001$.

students believed senior citizens were doing reflected differences in the sociocultural practice and the degree of interconnectedness, which was in line with the second hypothesis (see the discussion section).

College Students' Perception of the Happiest Things in the Old Age

The participants were requested to list two happiest things that happen to older adults. The common themes in the responses from the students in both countries included seeing family grow, having a loving spouse, receiving respect, and having a sense of security (see Table 2). More USA than PRC students listed freedom/choice, knowledge, and having lived a life rich in experiences. More PRC than USA students mentioned having filial children, seeing children succeed, having made contributions to society, and being in good health. These results clearly supported the second hypothesis about

Table 2. The happiest and most fearful things to older adults perceived by the USA and PRC college students

Happiest things	USA % (Count)	PRC % (Count)	Fearful things	USA % (Count)	PRC % (Count)
<i>USA > PRC</i>					
Knowledge****	38 (41)	5.9 (7)	Death****	65.4 (70)	11 (13)
Life experiences**	38 (41)	21 (25)	Dependency****	16.8 (18)	3.4 (4)
			Discrimination*	9.3 (10)	2.5 (3)
<i>USA < PRC</i>					
Filial children*****	2.8 (3)	37 (44)	Abandoned by family*****	6.5 (7)	40.7 (48)
Good health***	6.5 (7)	21.8 (26)	Being alone/ feeling lonely***	12.1 (13)	29.7 (35)
Contributions to society*****	0 (0)	18.5 (22)	No pride in life	4.7 (5)	18.6 (22)
Children's success***	0 (0)	10.1 (12)	Having nothing to do*	6.5 (7)	16.1 (19)
			Conflicts in family*	0 (0)	6.8 (8)
<i>USA = PRC</i>					
Freedom ($p = .054$)	41.7 (45)	29.4 (35)	Poor health	34.6 (37)	45.8 (54)
A happy family	37 (40)	35.3 (42)	Loss of a loved One	16.8 (18)	13.6 (16)
Respect	4.6 (5)	4.2 (5)	Memory loss	8.4 (9)	3.4 (4)
Security	2.8 (3)	4.2 (5)	Aging	5.6 (6)	11 (13)
			No security	1.9 (2)	5.9 (7)

Note. Chi-square tests were performed to examine whether the country was associated with the happiest things that the college students believed senior citizens would like to enjoy in their old age or the most fearful things to older adults. Differences that have reached the significance level of .05 or above are marked: * = $p < .05$; ** = $p < .01$; *** = $p < .001$; and **** = $p < .0001$.

the differences pertaining to the individualistic and collectivistic cultures.

College Students' Perception of the Most Fearful Things in the Old Age

The respondents were asked to list two most dreadful things that happen to older adults. The students in both countries listed poor health, loss of a loved one, the aging itself, memory loss, and no security (see Table 2). More USA than PRC students mentioned death and dying, loss of independence, and prejudice/discrimination from society. More PRC than USA students listed being abandoned by family members, being all alone/feeling lonely, feeling no pride in life (e.g., no achievements, a worthless life), having nothing to do, and conflicts in family. The USA students' response pattern, again, was consistent to their individualistic culture, e.g., fear of dependency (i.e., fear of loss of independence) and the individual's experience of dying and death. In contrast, the PRC students' responses were more relationship-oriented, particularly within family, e.g., being abandoned by family, being all alone (which means fearing a life without a relationship), and conflicts in family. Thus, Hypothesis 2 received further support.

What Things College Students Claimed to Understand the Best Pertaining to Older Adults

The respondents were asked to list two things related to older adults that they were able to understand the best (see Table 3). The common areas included older adults' emotions (80% of the responses in the "emotions" category were negative, e.g., loneliness), need for care due to health problems, aging-related lifestyle/habits, need for love and respect, their care/love for family, and values/attitudes (e.g., love for life, stricter values than the younger people's). More USA than PRC students listed older adults' knowledge, personality (e.g., understanding, loving, stubbornness), and need for independence. More PRC than USA students mentioned older adults' sharing behaviors (e.g., being repetitively talkative). Where there were differences, the USA students' responses were more positive than the PRC students' (e.g., within all personality traits, positive ones: USA = 73.9% vs. PRC = 38.5%); and the PRC students' answers were more negative (e.g., within the negative behaviors of sharing experiences, i.e., repetitive talking: USA = 0% vs. PRC = 45.7%). The response differences were in line with both hypotheses.

Table 3. Things college students claimed to understand the best or the least pertaining to older adults

Best understood things	USA % (Count)	PRC % (Count)	Least understood things	USA % (Count)	PRC % (Count)
<i>USA > PRC</i>					
Knowledge****	31.2 (29)	10.3 (12)	Aging***	13.1 (11)	1 (1)
Personality*	20.4 (19)	8.5 (10)	Past experiences**	12.9 (11)	2 (2)
Need for independence*	8.6 (8)	1.7 (2)			
<i>USA < PRC</i>					
Need/behavior of sharing*	15.1 (14)	28.2 (33)	Controlling/judgmental****	0 (0)	18 (18)
			Personality*	11.9 (10)	24 (24)
<i>USA = PRC</i>					
Emotions	21.5 (20)	26.5 (31)	Values/attitudes ($p = .056$)	38.1 (32)	25 (25)
Need for care due to health problems	16.1 (15)	17.1 (20)	Lifestyle/habits	31 (26)	36 (36)
Need for love/respect	14 (13)	12.8 (15)	Emotions/mood	17.9 (15)	15 (15)
Aging	14 (13)	13.7 (16)	Way of thinking	15.5 (13)	14 (14)
Values and attitudes	6.5 (6)	12.8 (15)			
Care/love for family	5.4 (5)	12.8 (15)			

Note. Chi-square tests were performed to examine whether the country was associated with the things that the college students believed to be able to understand the best or the least. Differences that have reached the significance level of .05 or above are marked: * = $p < .05$; ** = $p < .01$; *** = $p < .001$; and **** = $p < .0001$.

What College Students Had Difficulty Understanding about Older Adults

The college students were asked to list two things that they understood the least about older adults (see Table 3). The common areas included older adults' way of thinking (65.5% of the responses were negative, e.g., set way of thinking); their emotions or mood (77.8% were negative, e.g., worries, sudden anger); their lifestyle or habits (69.7% were negative, e.g., repetitiveness, way of driving); and their values and attitudes (42.9% were negative, i.e., out-of-date values). More USA than PRC students didn't understand the aging process that the older adults were experiencing or their past life experiences due to living in different times. More PRC than USA students didn't understand why the old persons still wanted to control their adult children's lives (e.g., "never letting their children go," "interfere with their children's lives") and why they had negative personality (e.g., suspicious, stubborn, rigid). Once again, the differences seemed to be along the individualism-collectivism dimension, thus supporting Hypothesis 2.

Knowledge of the Social Policies and Benefits for Senior Citizens

In regards to knowledge of government policies for senior citizens, 20 USA students (18.5%) and 12 PRC students (10.1%) acknowledged their complete ignorance in this area. A total of 7 USA students (7.3%) said that their government had done nothing for the elderly people. The rest of the USA students mentioned Social Security, Medicare/Medicaid, senior discounts, and housing for the elderly. The PRC students listed senior discounts, giving priority to the elderly in service, inflation-adjusted pension/allowance, senior centers and activities, cultural promotion/practice for respecting the elderly, housing for senior citizens, and legal protection of the rights of the older people.

DISCUSSION

The current study investigated the knowledge of college students in the USA and PRC about older adults using a qualitative approach. Two most frequently used indicators of being old by the college students, health (physical, physiological, self-care abilities, mobility) and cognitive functioning (thinking, memory, learning), coincide with the same markers described by the old adults who had felt old (Bowling, See-Tai, Ebrahim, Gabriel, & Solanki, 2005; Nilsson,

Sarvimäki, & Ekman, 2000). Only 16 students (7.1%) spontaneously mentioned “if the person feels old” as an indicator of entering old age; the majority of the young people are most likely to use chronological age and physical appearance to determine if a person is old. There has always been a huge intergenerational gap in the use of chronological age as an indicator of old age (Albert, 2004). The college students typically use the ages around retirement and the older adults use the ages associated with their subjective feeling of getting old, which are much older. Another difference is the reliance on external cues, such as physical appearance, by younger people as a criterion for old age. This is in contrast to the internal psychological criterion, such as self-identity, by older adults (Nilsson et al., 2000). These difference can be attributed to young people’s lack of subjective experience of aging on their own part and lack of knowledge of the subjective feeling of the older adults whom they do not personally know. Perhaps also, the differences can be attributed to the older adults’ attempts to fight against negative stereotypes of aging so as to postpone the recognition of being old to the very last moment. One implication is obvious: To educate younger generations, attention should be directed toward older adults’ subjective feelings and their internal criteria for being and feeling old.

The data from the current study have confirmed Hypothesis 1, providing empirical support to the revised modernization theory (Inglehart & Baker, 2000). The relative high number of Chinese students’ negative responses across many categories pertaining to the general group of older adults indicates the detrimental effects of early modernization on the traditional cultural value of elder respect. For example, very few PRC students valued older adults’ knowledge, which was unexpected. Some popular Chinese sayings underscore the values in the knowledge/experience of older generations. For example, “the amount of salt that I have taken is more than the amount of the rice that you have eaten” or “the total number of bridges that I have crossed is larger than the number of roads that you have touched,” were actually listed by some Chinese participants in the current study as negative evidence of older adults’ rigidity, lack of open-mindedness, and means to exert control over them. Clearly, modernization has chipped away elder respect in China. In contrast, the USA students were higher than their PRC counterparts on quite a few positive measures, suggesting the positive effects of postmodern socioculture.

Hypothesis 2, which predicted the reservation of the culture-specific core values (Inglehart & Baker, 2000), has received strong support. One of the essential values in the Chinese culture resides in the

parent-child mutual obligations. In China, procreation has been mainly to continue the familial lineage (“among the three unfilial forms, the worst is having no son”: *bu xiao you san, wu hou wei da*) and to secure eldercare by children in the old age (“having children as an insurance for the old age”: *yang er fang lao*). The parents are obligated to their children for teaching and nurturing and the children are obligated to their parents for respect, obedience, and caring. These traditional ideas have been kept in the knowledge structure of the PRC respondents in the current study, and their responses are consistent across several domains. The domains include their descriptions of older adults' regular activities (babysitting grandchildren, doing domestic chores for their adult children—a form of extended parenthood); the happiest things to older adults (having filial children, having seen their children succeed); the most fearful things to older adults (being abandoned by children); and the difficult things that they don't understand (controlling adult children's lives—again, an extended parenting behavior). Another collectivistic core value is around the individual-society connectedness theme. The Chinese people have a long tradition to judge a person's worth in terms of his/her contributions to society. The PRC students' responses reflect this tradition. For example, feeling happy if having made contributions to society or feeling worthless if no such achievements. Likewise, the individualistic core values of independence and individualism are persistent in the USA data. Huge country differences are observed in these areas, confirming the tenacity of culture-specific core values.

Across multiple domains, the USA students' responses are consistently self-expressive and focused on freedom and personal experiences (life experiences, personal knowledge accumulated over a life course, the personal aging or dying experience). The PRC students' answers are consistently relationship-oriented and focused on interdependency and interconnectedness (filial children, fear of abandonment, caring for grandchildren, contributing to society). These patterns found in the current student-generated qualitative data have clearly buttressed the theories and conclusions discussed extensively by Triandis (1995) and others (Hofstede, 2001; Inglehart & Baker, 2000). One exception is the PRC students' high attention to personality. This may be due to one characteristic of the PRC sample. The students in one class in the PRC sample majored in applied psychology. The readers should keep in mind the limitations of convenience samples in the present study. In the future, random samples should be used or academic majors treated as an independent variable.

The college students' self-listed areas that they do not understand older adults should be taken seriously. A substantial proportion of

the students said that they had difficulty understanding older adults' values, attitudes, lifestyles, and habits. Notice that the absolute majority of the issues that the young adults were unable to understand were presented with a negative tone. Demystifying these issues for the younger generations may help reduce negative stereotypes of aging and older adults. Notice should also be made of the young people's lack of, or inaccurate, knowledge of social policies/programs for senior citizens (Damron-Rodriguez et al., 2004). In China, although the college students still *assume* the important value of filial piety to older adults (as they did in this study), that does not necessarily mean that they themselves have high regard for this value and that they will personally practice this value. Some researchers (e.g., Ho, 1994; Ishii-Kuntz, 1997, Lee, 1993) have warned that, due to modernization, the affectionate aspect in filial piety has shrunk, leaving it as a behavioral expression (e.g., monthly monetary allowance, short visits).

Age segregation and being at different developmental positions in the life course make intergenerational understanding a challenging task. Intergenerational programming and age-mixed activities should be created and expanded (Herkin, Santiago, Sonkowsky, & Steven, 1997). This is particularly important in the formative years (childhood through young adulthood) when values and attitudes are internalized and stabilized (Costa, Yang, & McCrae, 1998). Currently, more programs and contact opportunities are available for young children than for adolescents and young adults to interact with older adults other than their own grandparents. Innovative programs should be developed and supported by various institutions to promote intergenerational coactivities, especially for those who are or will be working with/for older adults.

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