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INTERCULTURAL AND INTRACULTURAL DIFFERENCES IN THE VALUE OF CHILDREN: COMPARISONS BETWEEN FOUR COUNTRIES AND THE URBAN, RURAL, AND FLOATING POPULATIONS IN CHINA¹

Gang Zheng & Shaohua Shi

INTRODUCTION

The first cross-national study of the value of children (VOC) took place in the 1970s and aimed to detect the perceived costs and benefits of having children for parents, explain the influence of VOC on fertility behavior and the influence of industrialization/modernization and Eastern vs. Western traditions on VOC and fertility behavior (Arnold et al., 1975; Fawcett, 1972; Hoffman, 1987; Hoffman & Hoffman, 1973). The research project was carried out in nine countries: Germany (the then West Germany), Indonesia, the Republic of Korea, the Philippines, Singapore, Taiwan (China), Turkey, and the United States. It was also replicated in Turkey (Kağıtçıbaşı, 1982a). Back then, the major concern was overpopulation in the world (e.g., Fischer, 1972; Kağıtçıbaşı, 1982a), so the basic research question of the VOC study was: “Why do people want children?”

The current VOC study², which has been conducted in China, Germany, India, Indonesia, Israel, the Republic of Korea, the Palestinian Authority, South Africa, Turkey, and other countries since 1998, has gone beyond a mere replication of the previous VOC study, extending its exploration into broader theoretical and applied domains of psychology, sociology, and demography (Trommsdorff & Nauck, 2005) in an attempt to explore the interactive processes of change in population development at the societal level and changes in values at the individual level. Today, a major concern in many countries—both wealthy and poverty-stricken—is that people are tending to have fewer and fewer children per family (Leete, 1999). Therefore, one of the basic research questions of the current VOC study is: “Why are people having much fewer children?”

¹ We wish to thank Gisela Trommsdorff for her valuable comments on a previous draft.

² This project was funded by a grant from the German Research Foundation (DFG) to the two principal investigators: Gisela Trommsdorff and Bernhard Nauck, Germany. The study involved a collaboration of researchers from the countries in which the study was implemented. The study in China was funded by a grant (No. 30470582) to the first author from the Chinese National Natural Science Foundation in addition to part of the grant from the DFG. The preparation of part of the presentation on which this chapter is based was funded by a grant from the Max Planck Society to the second author for a research stay at the University of Konstanz, Germany, in 2004.

The theory of demographic transition attributes fertility decline to four main causes: decreasing mortality (especially in infants and young children), increasing urbanization, the emergence of new educational and employment opportunities (particularly for women), and the decreasing economic value of children (Caldwell, 1976; Kağıtçıbaşı, 1982a; Notestein, 1953). The instrumental value of fertility was not explained yet, because internal motivations and other reasons for valuing children also play principal roles in fertility decisions (Easterlin, 1980; see also Leete, 1999). Nowadays, the problems of over- and underpopulation coexist and both may threaten population security and the sustainable development of a country. The driving forces behind fertility change and the causal relation between changes in fertility and in VOC have long been a central concern of population scientists, sociologists, and psychologists (Leete, 1999; Nauck, 2001; Trommsdorff, Zheng, & Tardif, 2002; van de Kaa, 1996).

During the past thirty years, two major approaches have been taken in psychological studies concerning sociocultural influences on the value of children. One approach, that taken by social-psychological-oriented studies, has shown the value of children (i.e., economic, social, or emotional needs for having children) as a motivational dynamic in fertility decisions, voluntary birth control, family size, and fertility rates in countries with different social, economic, and cultural backgrounds (e.g., Aghajanian, 1988; Boettcher & Nickel, 1998; Connolly, 1989; Hollos, 2002; Jurilla, 1986; Lin et al., 1995; Nerding et al., 1984; Ye, 1998; Zhu & Zhang, 1996). Research findings have supported the hypotheses that there is a negative correlation between industrialization/modernization and fertility rate and that cultural values slow changes in VOC and fertility rates in a rapidly changing society (McNamara, 1982). Another approach, that taken by developmental-psychological-oriented studies, has explored sociocultural differences and their effect on VOC, parenting and attachment, childrearing, parent-child relations, and child development (Harkness & Super, 2002; Hoffman, 1987; Kağıtçıbaşı, 1982b, 1984; Kashiwagi & Nagahisa, 1999; Nagahisa & Kashiwagi, 2000; Shek, 1996; Wu et al., 2002; see also Albert, Trommsdorff, & Mishra in this volume). Those studies have generally found greater emotional needs for having children and a stronger emphasis on child autonomy as a parenting goal in Western cultures or more industrialized countries and greater economic/social needs for having children and a stronger emphasis on child obedience as a parenting goal in Eastern cultures or less industrialized countries (Kağıtçıbaşı & Berry, 1989).

The current cross-cultural VOC study combines demographic, social psychological, and developmental psychological approaches in an attempt to further clarify the complex interactive relations between macrosocial changes (e.g., industrialization and urbanization), microstructural changes (e.g., number of children in family and family size), and individual changes (e.g., values and lifestyle). Those complex interactions may result in intergenerational changes in fertility decisions and VOC in different sociocultural contexts (Trommsdorff, Zheng, & Tardif, 2002; Zheng, 2004). To detect the intergenerational changes, four age groups were included in this study: mothers of an adolescent child aged 13-17, the mothers' biological mothers, the mothers' adolescent children, and mothers of a child aged 2-5 (i.e., young mothers). The group of young mothers was comparable to that in the VOC study carried out in the 1970s. Each adult respondent was interviewed face-to-face by a trained interviewer using a standardized interview script; the adolescent respondents completed a questionnaire. The interview scripts and questionnaires used in different countries were translations of the English originals.

Intercultural and intracultural comparisons

The Chinese part of the study aimed to understand the current state of VOC in China, to study the effect of VOC on fertility (viz., the actual and desired number of children) and the general effects of country (or culture), industrialization, urbanization on VOC, and to predict future changes in VOC. To this end, both intercultural and intracultural comparisons were made.

The intercultural comparisons between respondents from various countries were to clarify the cultural-universal and cultural-specific aspects of VOC in China and other countries, and the interactive effects of culture, industrialization, and urbanization on VOC. For example, among the countries in which the current VOC study was conducted, China and Turkey are countries with large agricultural populations; the Republic of Korea and Germany are industrialized countries with small agricultural populations. It could be hypothesized that, with respect to the economic value of children, the similarity between China and Turkey and the difference between China/Turkey and Korea/Germany is due to factors concerning industrialization. The difference between China and Turkey could be due to factors concerning culture. Korea and China are Asian countries with a Confucian cultural heritage. The similarity between Korea and China may thus reveal the effects of traditional culture on the value of children. As for the welfare, social security, and health care systems (i.e., alternatives of the insurance utility of children), Germany received a higher rating than Korea, Turkey, and China (Nauck, 2001). Thus, the difference between Germany and the other VOC countries may be due to the interactive effects of factors concerning culture, industrialization, and the social welfare system.

In China, there are salient urban-rural differences in economic, educational, and other social aspects, which have direct influences on fertility and the value of children. Without knowledge about both urban and rural populations, our understanding about the current state of fertility and VOC in China would be inadequate and biased. So far, few international studies that have included samples from China have taken notice of the intracultural differences in this huge developing country.

Urban-rural differences and the floating population in China

In 2002-2003, when the data were collected for this study, China had a population of over 1.26 billion, of which 59% lived in rural areas and earned their living from agriculture (National Bureau of Statistics of the People's Republic of China, 2004). In the past twenty years, China has gone through rapid economic and social development and many urban areas have become more industrialized and modernized. Some rural regions have also been industrialized and/or urbanized to various degrees, especially in coastal areas of the eastern and southern parts of the country. However, in the western and northern parts, the living conditions are still rudimentary in rural areas. The current VOC study demonstrated many of these dramatic urban-rural differences. For example, the average monthly family income of the urban respondents was 2,350 yuan while that of the rural respondents was only 831 yuan. As for education, nearly 89.1% of the urban respondents had received a senior high school or vocational school or college education (i.e., 12 years or over), while only 18.4% of the rural respondents had received more

than 10 years of education. In China, the level of formal social support and institutionalized social services for the elderly is rather low. A recent survey of urban married women found that 22.6% of the respondents would receive retirement pay from the government upon retirement, 38.7% would receive retirement pay from an old-age pension plan, and 38.7% would not receive reliable support from any formal social support system (Hua, 2005). In rural areas, the situation was much less favorable. Nearly all of the elderly depend on financial support from their children and/or relatives (Wang, 2002). Thus, in view of the considerable urban-rural differences, no urban-only sample is representative of the entire Chinese population.

In addition, in the past 20 years, a new subpopulation – the floating population (also called “rural floating population” or “peasant workers”) – has emerged in China. Most of these people used to be peasants in the countryside and have now moved to a city to make a living. According to published national statistics, the size of the rural floating population in China was over 120 million in 2003-2004. The VOC study in China paid special attention to this subpopulation for two reasons: first, its percentage of the Chinese population was on the increase; secondly, its members were experiencing rapid changes when moving to an urban setting, which may have had an influence on their values.

Most countries modernize through industrialization and urbanization. According to the push-pull framework that is widely used to categorize the reasons for migrants’ moves (Bagne, 1969; Jenkins, 1977; Li, 2003), rural people move to cities because of their disadvantaged economic conditions in the countryside (push) and more chances for personal development and higher income in the cities (pull). The economic improvement in the floating population was also shown in this investigation. The respondents of the floating population reported an average monthly family income of 1,441 yuan, over 1.7 times that of the rural respondents.

In China, the increased mobility of the Chinese rural population was primarily triggered by a change in social policy. Before the mid-1970s, both population mobility and private business were strictly controlled, making it impossible for rural residents to move to the city to make a living. With the reform policies of the late 1970s, China aimed to accelerate its progress in socialist market economy, political reform, and modernization. New industrialization and construction projects were carried out in large scale and the development of private businesses was also encouraged. Under these new circumstances, some of the rural population was able to move into the cities to work in the production industry or to run a small business in the service industry. Over 40% of the rural floating population is made up of families consisting of parents and their 0~14-year-old children (Committee for Women and Children of the National Ministry, China Child Center, & UNICEF, 2003).

The situation of the rural floating population in China differs from that of rural migrants in other countries. Under the present system in China, most of this population still cannot obtain a legal residence permit to settle down permanently in most of the cities in which they are living and working. A recent study investigating rural workers employed in factories reported that the three most important reasons for them to leave their home village were: to acquire knowledge and skills in the city, to live in the city instead of being a life-long peasant, and to follow other people who had gone to the city. Additional reasons were to make money in the city in order to support their family and to leave the inferior surroundings in the rural area (Yu, 2006). Among them, 38% hadn’t done agricultural work at home, 52% had helped the family at busy harvest seasons, and only 10% had been the main agricultural laborer at home. This reflects the fact that the

majority of the floating population was excess manpower in rural areas and would prefer to remain in the city. The respondents from the rural floating population make their living in different professions. Some of them will be absorbed into the urban population, and some will eventually return to their home villages. Nevertheless, their thoughts, values, lifestyles, and VOC will have been influenced by their urban experience.

The main purposes of this report

As a preliminary data report, this chapter focuses on presenting selected results of the analyses of the young mother sample.³ The empirical data concerning the fertility (viz., actual and desired number of children) and VOC of different cultural groups will be described and compared, and the relations between fertility and VOC will be analyzed. In addition, the results of the survey on Individualism/Collectivism (I-C) will also be reported. In cross-cultural studies, the individualism-collectivism construct is commonly viewed as being useful for detecting cultural differences at the societal level and the individual level (Kim et al., 1994; Matsumoto, 2004; Triandis, 2001). As the I-C measures had not been used in a VOC study before, it was interesting to analyze intercultural and intracultural differences in the two value dimensions and the relations between VOC and the I-C values.

To explore the effects of culture (or country), industrialization, and urbanization on fertility, VOC and I-C values, three cultural comparative analyses were conducted; the results will be presented in parallel.

Intercultural comparisons between Germany, Turkey, the Republic of Korea, and China. Due to page limitations, it is impossible to take into account the data from nine countries (viz., China, Germany, India, Indonesia, Israel, the Palestinian Authority, the Republic of Korea, South Africa, and Turkey) in one chapter. Therefore, four countries were selected to clarify the effects of industrialization and the Asian Confucian cultural heritage on fertility, VOC, and other values. As compared to China and Turkey, Korea and Germany are more industrialized. What is more, there are rural samples among the Chinese and Turkish respondents, while there are only urban respondents among the Korean and German respondents (see Klaus, in this volume). The similarities and/or differences between Korea/Germany and China/Turkey are expected to demonstrate the effects of industrialization and/or urbanization. China and Korea are both Asian cultures with traditional Confucian ideology. So any differences between China/Korea and Turkey/German should show the effects of the Asian culture.

Intracultural comparisons between the urban, rural, and floating populations in China. The Chinese sample will be divided into three subpopulations for intracultural comparisons. The similarities and/or differences between urban and rural groups should show the effect of urbanization on fertility, VOC, and other values. The respondents from the floating population used to belong to the rural agricultural population. By the time the data for this study were collected, they had worked and made a living in the city for one to six years. The differences between this floating population and the urban and rural populations should demonstrate whether and to what extent the experience of living in an urban setting influences people's VOC and other values.

³ The authors acknowledge the contributions of Dr. Hong Tang, Ms. Lesheng Hua, and Mr. Wei Yu to data collection for this study.

Intrapopulation comparisons between private-sector vendors and factory workers in the floating population. A further step in exploring the effect of urbanization in China is to detect the similarities and/or differences between two different floating population groups: private-sector vendors, such as vegetable sellers, whose living is based on the family as an economic unit, and “peasant workers” who work in factories and earn a salary. A comparison of the two groups should further clarify the confounding effect of urban settings and of lifestyle change on fertility, VOC, and other values.

METHOD

Sample

The data on young mothers with a child aged 2 to 5 were taken from the international data pool of the VOC study for our intercultural comparisons. The cases with missing data in the value of children and/or individualism/collectivism measures were excluded. The analyses were conducted on the data of 1,275 respondents from four cultural groups: 315 Chinese (avg. age: 31.9 yrs), 292 German (avg. age: 33.4 yrs), 354 Korean (avg. age: 33.1 yrs), and 314 Turkish (avg. age: 31.2 yrs). The Chinese group was further divided into three subpopulations for the intracultural comparisons and included 111 young mothers from the urban population, 103 from the rural population, and 101 from the floating population. The floating population was further divided into two subpopulations: 65 private-sector vendors and 36 factory workers.

Measures

VOC scales. The value the children (VOC) scales are composed of 48 items and include selected items from the previous VOC study (Arnold et al., 1975) and the Fertility and Family Survey (Pohl, 1995) as well as items developed specifically for this study (Schwarz, Chakkarath, Trommsdorff, Schwenk & Nauck, 2001). Twenty-seven of the items concerned reasons for wanting to have children (i.e., positive value of children), while 21 items concerned reasons for not wanting to have children (i.e., negative value of children). The respondents were asked to rate the importance of each reason using a 5-point Likert-type scale.

As the researchers from different countries participating in the current VOC study extracted different numbers of factors related to the positive value of children (Trommsdorff & Nauck, 2005), it was necessary to establish cross-national equivalence for cross-cultural comparisons. Klaus (see Klaus, in this volume) used exploratory factor analysis to achieve a general factorial solution for the total international sample of mothers and then performed repeated factor analyses by country to reach factor-specific agreement. The proportionality coefficient was used to assess the agreement. To approximate cross-national equivalence, seven of the 27 positive VOC items were eliminated during repeated factor analyses. Klaus derived three VOC factors and labeled them Comfort, Affect, and Esteem.

In the following analyses, we will concentrate on the three positive VOC dimensions, using the factors extracted in Klaus' report, but rename them Social/Economic VOC, Emotional VOC, and Familial VOC for two reasons. First, although there is a reasonable conceptual basis for Klaus' labels from a sociological

point of view (Nauck, 2005), our terms are more consistent with the concepts of the original VOC study and more commonly used in psychological studies (e.g., Kağıtçıbaşı, 1982a; Mayer, Albert, Trommsdorff, & Schwarz, 2005; Trommsdorff & Nauck, 2005; Trommsdorff, Zheng, & Tardif, 2002; Zheng, Shi, & Tang, 2005). Secondly, we feel that the contents of the actual items in the subscales for Comfort (e.g., Child helps around the house; To carry on the family name; To help family economically; and Children can help when one is old), Affect (e.g., Joy to have a little baby; Feeling of love between parent and child; and Pleasure watching children grow), and Esteem (e.g., Makes family more important; Brings parents closer together; and More reason to succeed at work) can be expressed more explicitly by the names we have selected. The mean ratings of the respective subscale items were used to measure the importance of the corresponding reasons for having children. Reliability tests were performed on the data from the young mother samples from the four countries and the results revealed high internal consistency in the Social/Economic VOC, Emotional VOC, and Familial VOC subscales (for Germans $\alpha = .75$, $.80$, and $.75$; for Turks $\alpha = .85$, $.74$, and $.74$; for Koreans $\alpha = .81$, $.82$, and $.79$; and for Chinese $\alpha = .80$, $.83$, and $.75$, respectively).

Value scales. The current VOC study used Chan's (1994) individualism-collectivism I-C value survey, which consists of 13 items selected from the Schwartz Value Survey (Schwartz & Bilsky, 1990), seven of which measure individualistic values (i.e., Exciting life, Pleasure, Creativity, A varied life, Being daring, Freedom, and Independence) and six of which measure collectivistic values (i.e., Honor of parents/elders, Social order, National security, Self-discipline, Politeness, and Obedience). Using a 5-point Likert-type scale, each respondent rated the importance of each value as a guiding principle in her life. The mean ratings of the respective subscale items were used to measure individualistic and collectivistic values. Reliability tests were performed on the data from the young mother samples from the four countries; the results revealed fairly high internal consistency in the two scales of individualistic values and collectivistic values (for Germans $\alpha = .71$ and $.76$; for Turks $\alpha = .73$ and $.67$; for Koreans $\alpha = .74$ and $.78$; and for Chinese $\alpha = .69$ and $.69$, respectively).

Analyses

The actual, desired, and ideal number of children were used as fertility behavior criteria. The percentage of the sample with different numbers of actual children was calculated. The group means were compared and the differences between the four countries, the three Chinese subpopulations, and the two floating population groups were analyzed. The VOC group means (Social/Economic VOC, Emotional VOC, and Familial VOC) and the I-C values group means (individualistic and collectivistic values) were compared. Regression analyses were performed to detect the predictive power of the VOC measures on the actual and desired number of children and that of the I-C value measures on VOC for the entire international sample as well as for separate cultural and/or subpopulation groups. Due to the limited number of cases, regression analyses were not performed on the data from the two floating population groups.

RESULTS

1. Cultural differences in the actual, desired, and ideal number of children per family

Over 90% of the Chinese, German, and South Korean respondents and over 85% of the Turkish respondents had only 1-2 children (see Table 1, upper part).

Table 1
Percentage of Sample with Different Numbers of Actual Children

Factor	Subgroup	Number of actual children					
		1	2	3	4	5	6+
Country	Germany	49.0	46.0	4.7	0.3	0	0
	Turkey	46.2	40.1	8.0	1.9	1.9	1.9
	Republic of Korea	29.5	62.9	6.8	0.8	0	0
	China	71.4	22.2	4.8	1.0	0.3	0.3
Chinese population	Urban	97.3	2.7	0	0	0	0
	Rural	66.0	30.1	2.9	0	0	1.0
	Floating	48.5	35.6	11.9	3.0	1.0	0
Floating population	Private-sector vendors	24.6	50.8	18.5	4.6	1.5	0
	Factory workers	91.7	8.3	0	0	0	0

In the two Asian countries, the number of children per family is strongly influenced by family planning policies. The percentage of young mothers with 2 children was higher in the Republic of Korea than in other countries, which may be a result of their encouraging people to have 2 children per family. As shown in Table 1 (middle part), nearly all of the urban Chinese respondents (97.3%) had only one child, while one-third of the respondents from the rural Chinese population had more than one child. In China, fertility is strongly determined by family planning policies that have been carried out since the mid-1970s (Zheng, Liu, Tang, & Shi, 2004). The one-child-per-family policy is practiced more strictly in cities than in rural areas (Zheng, Liu, Tang, & Shi, 2004).

Among the floating population, 91.7% of the factory workers had only one child, while people who made a living by running private-sector family businesses had more children (see Table 1, lower part). Over half of the private-sector vendors had 2 or more children. The floating population is able to bear more children for practical reasons. In China, local government organizations in the urban neighborhoods and the rural villages control fertility by issuing permanent residents permission to have a child. When rural people move into cities as temporary residents, it is difficult for the fertility authorities of their home villages and their current residence to control them frequently.

The means of the actual, desired, and ideal number of children in different countries are presented in the upper part of Table 2. The ideal number of children is assumed to reflect the respondents' beliefs about the appropriate number of children for a family in a society, going beyond their own fertility decisions. The correlations between the actual, desired, and ideal number of children were significant ($r=.2$ to $.91$, $p<.05$ -. $.001$). Paired sample t-tests were conducted for each country. The means of the desired number were all significantly higher than those of the actual number of children ($t=3.24$ to 13.59 , $p<.001$).

Table 2
Means of Actual, Desired, and Ideal Number of Children Per Family

Factor	Subgroup	Actual		Desired		Ideal	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Country	Germany	1.56	.60	1.95	.75	2.29	.67
	Turkey	1.81	1.13	2.12	1.06	2.30	.87
	Republic of Korea	1.77	.67	1.90	.67	2.60	.84
	China	1.37	.70	1.45	.74	1.90	.48
Chinese population	Urban	1.03	.16	1.03	.16	1.96	.54
	Rural	1.41	.70	1.41	.17	1.85	.51
	Floating	1.72	.86	1.97	.84	1.89	.37
Floating population	Private-sector vendors	2.08	.87	2.15	.94	1.89	.40
	Factory workers	1.08	.28	1.64	.49	1.89	.31

The young mothers in Germany, Turkey, and Korea still wanted to have more children. China was an exception. Most of Chinese respondents did not want to answer the question concerning the desired number of children because they were not allowed to have one more child due to the family planning policies. In all four countries, the desired number of children means were significantly lower than the ideal number of children means ($t=3.23$ to 13.87 , $p<.001$). For the overall sample, the actual, desired, and ideal number of children means were 1.64, 1.86, and 2.08, respectively.

As for the Chinese subpopulations, there were no differences in the actual and desired number of children means in the urban and rural groups, while the ideal number means were higher than the desired number means ($t=5.82$ to 17.97 , $p<.001$). As for the floating population, the difference between the desired and the ideal number means was not significant (see the middle part of Table 2). For the vendors in the floating population, the desired number mean was slightly higher than the ideal number mean ($t=2.13$, $p<.05$), while there were no significant differences between the actual and desired number of children. For the factory workers, the ideal number mean was significantly higher than the desired number mean ($t=3.42$, $p<.01$), which in turn was higher than the actual number mean ($t=6.61$, $p<.001$) (see bottom part of Table 2).

To examine the influence of country, of Chinese subpopulation, and of floating population profession, one-way ANOVAs were conducted with the actual, desired, and ideal number of children means. There was a significant main effect of country on the actual number of children [$F(3, 1260)=21.91$, $p<.001$, $\eta^2=.05$] (post hoc tests: Korea = Turkey > German > China), on the desired number of children [$F(3, 1276)=39.57$, $p<.001$, $\eta^2=.08$] (Turkey > Korea = German > China), and on the ideal number of children [$F(3, 1260)=49.41$, $p<.001$, $\eta^2=.1$] (Korea = Turkey > German > China). There was a significant main effect of Chinese subpopulation on the actual number of children [$F(2, 310)=31.09$, $p<.001$, $\eta^2=.16$] (Floating > Rural > Urban) and on the desired number of children [$F(2, 312)=59.27$, $p<.001$, $\eta^2=.27$] (Floating > Rural > Urban), but there was no significant difference between these subpopulations with respect to the ideal number of children. There was a significant main effect of floating population profession on the actual number of children [$F(1, 99)=44.08$, $p<.001$, $\eta^2=.31$] and the desired number of children [$F(1, 99)=9.39$, $p<.01$, $\eta^2=.08$] (vendors > factory workers in both measures), but there was no significant difference between vendors and factory workers with respect to the ideal number of children.

2. Intercultural and intracultural differences in the value of children and the VOC factors as significant predictors of the actual number children and desired number of children

Intercultural and intracultural differences in the value of children. Of the three reasons for wanting to have children for the whole international sample, the Emotional VOC, Familial VOC, and Social/Economic VOC means were 4.19, 3.06 and 2.16, respectively. In general, the first two were considered important reasons for wanting to have children. The correlations between the three factors were all significant, i.e., $r=.33$ to $.58$, $p<.001$.

To examine the influence of country, of Chinese subpopulation, and of floating population profession, ANOVAs were conducted with the means of the three reasons for wanting to have children. As presented in the upper part of Table 3, there was a significant main effect of country on all three reasons. The effect sizes ranged from $\eta^2=.12$ for Emotional VOC to $\eta^2=.16$ for both Familial VOC and Social/Economic VOC. The results of the post hoc tests further clarified the differences between countries with respect to Emotional VOC (Turkey > China > German = Korea), Familial VOC (China > Korea = Turkey > German), and Social/Economic VOC (Turkey > China > Korea > German). The Chinese and Turkish groups rated Social/Economic VOC and Emotional VOC as being more important than the Korean and German groups did. As for Familial VOC, the means of the Chinese, Korean, and Turkish groups were higher than those of German group.

Table 3
ANOVA for the Evaluation of the Populations with
Respect to the Value of Children

Factor	Subgroup	Emotional VOC			Familial VOC			Social/Economic VOC		
		M	SD	F	M	SD	F	M	SD	F
Country	Germany	4.01	.77	58.35***	2.44	.74	83.11***	1.77	.49	83.42***
	Turkey	4.58	.52		3.17	1.01		2.55	.92	
	Republic of Korea	3.96	.70		3.21	.67		1.97	.54	
	China	4.24	.65		3.36	.69		2.35	.68	
Chinese population	Urban	4.15	.72	2.63 n.s.	3.21	.65	6.74**	1.87	.48	65.18***
	Rural	4.35	.55		3.55	.69		2.76	.55	
	Floating	4.22	.63		3.35	.67		2.49	.68	
Floating population	Private-sector vendors	4.11	.65	5.62*	3.43	.64	2.28 n.s.	2.62	.66	7.75**
	Factory workers	4.41	.54		3.22	.68		2.23	.64	

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

There was a significant main effect of Chinese subpopulation on Social/Economic VOC, $\eta^2=.28$ (Rural > Floating > Urban) and Familial VOC, $\eta^2=.03$ (Rural > Floating = Urban), but not on Emotional VOC (see the middle part of Table 3). There was a significant main effect of floating population profession on Social/Economic VOC such that the vendors rated this reason as being more important than the factory workers did. The Emotional VOC means were slightly higher for the factory workers, but the effect sizes were small, $\eta^2=.01$ to $.03$ (see the bottom part of Table 3).

VOC factors as significant predictors of the actual and desired number of children. Regression analyses were conducted using the enter method to detect the predictive

power of the VOC factors on the actual and desired number of children. The findings are presented in Table 4.

The overall results show that only higher Social/Economic VOC predicted a greater actual number of children (see the upper part of Table 4). The results of the regression analyses on the VOC factors predicting the desired number of children again showed that, for the international sample, higher Social/Economic VOC predicted a greater desired number of children. At the same time, Familial VOC was a negative predictor of the desired number of children, i.e., higher Familial VOC predicted a lower desired number of children.

Table 4
Regression Models on Actual and Desired Number of Children
(Beta Coefficients)

Sample	Predictor	Number of Children as Dependent Variable	
		Actual	Desired
International	Social/Economic VOC	.212***	.271***
	Emotional VOC	-.001	.055
	Familial VOC	-.055	-.154***
R²		.035	.055
German	Social/Economic VOC	.094	.159*
	Emotional VOC	.169**	.198**
	FamiliarFamilial VOC	-.176*	-.241**
R²		.038	.064
Turkish	Social/Economic VOC	.137*	.233**
	Emotional VOC	-.048	-.050
	Familial VOC	.091	.057
R²		.038	.067
Korean	Social/Economic VOC	.129*	.101
	Emotional VOC	.032	.070
	Familial VOC	-.077	-.002
R²		.014	.018
Chinese	Social/Economic VOC	.435***	.464***
	Emotional VOC	-.039	-.027
	Familial VOC	-.096	-.143*
R²		.168	.187
Urban	Social/Economic VOC	.074	.074
	Emotional VOC	.006	.006
	Familial VOC	-.043	-.043
R²		.005	.005
Rural	Social/Economic VOC	.480***	.480***
	Emotional VOC	.140	.140
	Familial VOC	-.162	-.162
R²		.225	.225
Floating	Social/Economic VOC	.241*	.311**
	Emotional VOC	-.200	-.160
	Familial VOC	-.046	-.159
R²		.118	.159

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

The factor models of the significant predictors for different countries are shown in the middle part of Table 4. As for the different countries, the factor patterns of the significant predictors are different between Germany and the other three countries (see the middle part of Table 4). In Germany, higher Emotional VOC predicted a greater actual number of children, while higher Familial VOC predicted a lower actual number of children. However, Emotional VOC was a better predictor of a greater desired number of children in Germany. The predictors were the same as those for the desired number of children, and Social/Economic VOC also demonstrated modest predictive

power with respect to the desired number of children. In China, Turkey, and Korea, only Social/Economic VOC had significant predictive power, i.e., higher Social/Economic VOC predicted a greater actual number of children. Social/Economic VOC showed predictive power with respect to the desired number of children for young Chinese and Turkish mothers, but not for young Korean mothers.

The regression analyses performed on the data for the Chinese subpopulations showed intracultural differences (see the bottom part of Table 4). Higher Social/Economic VOC predicted a greater actual and desired number of children in the rural and floating populations, but not in the urban population in China. The result showed that Social/Economic VOC may be associated with the lower levels of economic and social development of the cultural context. Of course, predictive analyses on the urban population were not necessary as most of the urban respondents already had one child and would not be allowed to have another. Their answers to the question concerning the desired number of children were likely based on practical considerations that go beyond the VOC factors.

3. Intercultural and intracultural differences in the I-C values and the I-C values as significant predictors of the value of children

Intercultural and intracultural differences in life values. For the young mothers from all four countries, the Collectivism means were higher than the Individualism means ($t=5.69$ to 32.01 , $p<.001$), and there were significant correlations between the two factors ($r=.15$, $p<.01$ to $.4$, $p<.001$). To examine the effect of country, of Chinese subpopulation, and of floating population profession, ANOVAs were conducted with the means of the two values. As presented in the upper part of Table 5, there was a significant main effect of country on both dimensions. The effect sizes were $\eta^2=.21$ for Individualism and $\eta^2=.09$ for Collectivism. Furthermore, the post hoc tests showed the differences between the countries in mean Individualism (Germany = Turkey = Korea > China) and Collectivism (Turkey > China = Korea > Germany). Comparatively, the young Chinese mothers rated low on the importance of Individualism.

Table 5
Means of Individualistic and Collectivistic Values and Group Differences

Factor	Subgroup	Individualism			Collectivism		
		Mean	SD	F	Mean	SD	F
Country	Germany	3.80	.47	112.66***	4.01	.54	46.49***
	Turkey	3.79	.62		4.46	.44	
	Republic of Korea	3.78	.48		4.14	.50	
	China	3.14	.59		4.21	.47	
Chinese population	Urban	3.28	.54	6.28**	4.27	.47	1.66 n.s.
	Rural	3.13	.56		4.19	.42	
	Floating	2.99	.63		4.15	.52	
Floating population	Private-sector vendors	2.84	.66	11.02***	4.06	.55	5.12*
	Factory workers	3.26	.48		4.31	.44	

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

There was a significant main effect of Chinese subpopulation on Individualism (Urban > Rural > Floating), but the effect size was small, $\eta^2=.03$. There was not a significant subpopulation effect on Collectivism (see the middle part of Table 5). There was a significant main effect of floating population profession on both Individualism and Collectivism. Individualistic values were more important for the factory workers

than for the vendors, and the effect size was $\eta^2=.1$. Collectivistic values were also more important for the factory workers than for the vendors, but the effect size was $\eta^2=.03$ (see the bottom part of Table 5). In fact, the factory workers rated the two values as being as important as the urban respondents did.

I-C values as significant predictors of the value of children. Regression analyses were conducted using the enter method to detect the predictive power of Individualism and Collectivism on the fertility behavior and the value of children. Individualism and Collectivism did not predict the actual or desired number of children, $\beta=.004$ to $.033$. The findings concerning Individualism and Collectivism as predictors of the value of children are presented in Table 6.

Table 6
Regression Analyses on I-C Values as Significant Predictors of Value of Children
(Beta-Coefficients)

Sample	Predictor	Value of Children as Dependent Variable		
		Social/Economic	Emotional	Familial
International	Individualistic Values	-.160***	-.018	-.117***
	Collectivistic Values	.237***	.259***	.284***
	R²	.064	.065	.079
German	Individualistic Values	-.005	-.097	.026
	Collectivistic Values	.257***	.079	.212***
	R²	.059	.012	.048
Turkish	Individualistic Values	-.028	-1.03	-.086
	Collectivistic Values	.209***	.336***	.295***
	R²	.041	.103	.079
Korean	Individualistic Values	-.078	.078	.033
	Collectivistic Values	.095	.075	.202***
	R²	.013	.021	.039
Chinese	Individualistic Values	-.191**	.113*	.054
	Collectivistic Values	-.069	.260***	.116*
	R²	.052	.113	.015
Urban	Individualistic Values	-.013	.130	-.036
	Collectivistic Values	.029	.046	.063
	R²	.001	.024	.003
Rural	Individualistic Values	-.103	.105	.249*
	Collectivistic Values	-.010	.383***	.153
	R²	.012	.192	.118
Floating	Individualistic Values	-.272**	.220*	.012
	Collectivistic Values	-.178	.435***	.164
	R²	.138	.302	.028

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

Overall, higher Collectivism predicted higher means for all reasons for wanting to have children, while higher Individualism predicted lower Familial VOC and Social/Economic VOC. The regression analyses performed on the data for the four countries showed that Collectivism was the only significant predictor of Familial VOC in all four countries (see the upper part of Table 6). For different countries, higher Collectivism also predicted higher Social/Economic VOC for Germany and Turkey. But, for Turkey and China, higher Collectivism predicted higher Emotional VOC. For China, higher Individualism also predicted lower Social/Economic VOC. The regression analyses performed on the data for the Chinese subpopulations showed that higher Collectivism predicted higher Emotional VOC for the rural and floating populations (see the bottom part of Table 6). Higher Individualism predicted lower Social/Economic VOC for the floating population. The I-C values did not demonstrate

predictive power for any of the reasons for wanting to have children for the urban population.

DISCUSSION

Intercultural and intracultural similarities and differences in VOC and the possible determinants. As shown in the results of this VOC study, the relative importance of the three reasons for wanting to have children was the same for young mothers in all four countries, i.e., Emotional VOC was rated as an “important reason” for parents to have children, Familial VOC as a “moderately important reason,” and Social/Economic VOC as “not a very important reason.” The difference between countries was in the absolute importance of each specific reason, which could be due to factors concerning culture, values, industrialization and/or urbanization. Turkish and Chinese groups rated Emotional VOC higher than German and Korean groups did. This might be due to the higher collectivistic values in Turkey and China, which showed a very significant correlation with Emotional VOC. The relations between VOC and I-C values will be discussed later in this chapter. The Chinese, Korean, and Turkish groups rated Familial VOC higher than the German group did, which might reflect traditional values concerning the importance of family ties in those cultures. The young Chinese and Turkish mothers rated Social/Economic VOC higher than their German and Korean counterparts did, which may reflect the effect of industrialization and/or urbanization on Social/Economic VOC, as Germany and Korea are more industrialized countries than Turkey and China.

The comparisons between the Chinese subpopulations demonstrated significant urban-rural differences. There was little difference between the urban, the rural, and the floating respondents in Emotional VOC. However, the differences between these groups in Social/Economic VOC and Familial VOC were very significant, i.e., the rural and floating groups rated these reasons higher than the urban group did. One explanation could be that, as the formal social security system for elderly care has not yet been established in the vast rural areas of China, rural parents will need support from their children when they are elderly (Zheng, Liu, Tang, & Shi, 2004).

Two especially interesting results should be pointed out. First, the intracultural urban-rural difference was larger than the intercultural difference in Social/Economic VOC between the Chinese urban sample and the Korean and German samples. There was no difference in Familial VOC ratings between young urban Chinese and Korean mothers. So the intercultural difference between China and the other countries may be mostly due to the higher ratings by the rural and floating populations. Secondly, among the respondents from the floating population, the factory workers’ Social/Economic and Familial VOC ratings were more similar to those of the urban respondents, while the vendors’ ratings were more similar to those of the rural respondents. By the time they were interviewed, all of the floating population respondents had lived in the city for 1-6 years, and the average number of years of urban experience of the two subgroups was approximately the same. For the agricultural population, the shift towards wage labor may have led to the change in family planning attitudes (Hollo & Larsen, 1997). The necessary condition resulting in the floating population’s changes in VOC may not only be to live in the city, but also, and more importantly, to have a different lifestyle, such as working in industry and/or earning a wage. These results showed a further aspect of the effect of the urbanization process on VOC.

The effects of VOC on fertility. The young mothers who were investigated in this study were still in the fertility age group. So, their desired number of children should well-reflect the final number of children in the family. For the overall sample, Social/Economic VOC and Familial VOC were shown to be significant predictors of the desired number of children per family. General societal development, such as industrialization and/or urbanization in a nation, may influence people's value of children, which, in turn, could affect their fertility decision. Social/Economic VOC is influenced by the industrialization and urbanization of a society. That is, Social/Economic VOC decreases when a nation becomes more industrialized and has a better social security system or when a subpopulation becomes more urbanized. Social/Economic VOC is a positive predictor of the number of children. Higher Social/Economic VOC predicts more children per family and vice versa. Familial VOC was shown to be a negative predictor of the desired number of children. This may have two implications: First, it is important to have a child or more children to enhance familial relations and a sense of responsibility for the family; second, for the same reasons, one may want to have fewer children. In this study, the importance of Familial VOC was rated fairly high, while the importance of Social/Economic VOC was rated rather low in all four countries.

As for the question concerning why people are having fewer children, one answer from this study is that it may be partially due to the increasing Familial VOC and the decreasing Social/Economic VOC. A further question is: How few will the number of children per family be in the future? In this study, most of the respondents believed that the ideal number of children per family was about two, including young urban Chinese mothers who are not allowed to have more than one child, young Korean mothers who are encouraged by the country to have two children per family, and young Turkish and German mothers whose fertility decision is not directly influenced by social controls. The reasons for this cultural-universal belief should be further explored.

For the overall sample, Emotional VOC was not shown to be a significant predictor of the number of children per family. One might expect it to be an internal need of people to bear and rear children or a biologically determined intrinsic motive of human beings to extend the species. The number of children per family should be determined by both internal and external needs and the living conditions of parents in certain social or cultural contexts. Nevertheless, Emotional VOC showed its predictive power with respect to more children in Germany. It can be hypothesized that, in the developed and modernized countries in which the average family size is becoming relatively small and the social security system supporting the elderly is well-established, Social/Economic VOC should lose its predictive power with respect to more children per family and Emotional VOC should become a significant predictor. This prediction should also be appropriate for the middle class in some developing countries, but not in China, unless China changes its current family planning policies.

The I-C values and their effects on VOC. Taking a look at the international samples in this study, the young mothers from the four countries of Germany, Turkey, the Republic of Korea, and China were similar in that they all rated collectivistic values as being more important than individualistic values. There were also cultural differences between the four countries. Looking at Individualism and Collectivism separately, the two industrialized countries, Germany and Korea, were lower in Collectivism and higher in Individualism than Turkey and China. Turkey was high in both Individualism and Collectivism. China was high in Collectivism, but low in Individualism.

The intracultural comparisons between the Chinese subpopulations confirmed that the urban-rural difference in I-C was basically a difference in Individualism, i.e., the urban samples were more individualistic. The influence of urbanization on people's values was shown again by the intracultural differences in the floating population. The experience of living in cities and running a family-owned business (as private-sector vendors) seems to have had little effect on I-C. Those who work in factories seem to have become more like urban residents as far as I-C values are concerned. Their new lifestyles, higher education level, and mass work setting could be factors that encourage changes in the "peasant workers" values. As the samples for the different professions among the floating population in China were small, more evidence is needed to confirm these results and further clarify the possible determinants.

The value of children and changes therein are influenced by various social, economic, and personal factors (e.g., Leete, 1999) as well as by the I-C values and their changes. The processes of industrialization and/or urbanization seem to give people's values a more individualistic orientation. But, at the same time, collectivistic values may remain high in some cultures, as shown by Turkey and China in this study. The I-C values did not predict the number of children per family, but their correlations with VOC indicate that they may have an indirect influence on fertility. For the overall sample, the I-C values demonstrated predictive power with respect to the positive value of children, i.e., higher Collectivism predicted higher Emotional VOC, Familial VOC, and Social/Economic VOC, while higher Individualism predicted lower Familial VOC and Social/Economic VOC.

Last but not least, Individualism and Collectivism were positively correlated, but they predicted the same VOC (viz., Social/Economic VOC and Familial VOC) in two opposite directions. How can we explain this? How can the fertility decision be made on the basis of a VOC that is affected by the two I-C values differently? One possible explanation is that, although the I-C values are commonly used theoretical concepts to define the differences between cultures (Matsumoto, 2004), both individualistic and collectivistic values coexist in a culture and/or in an individual. For example, a young mother may have independent life goals that would be negatively influenced by having children and, at the same time, she may also need to have children for her interdependent social life with others. Fertility decisions should be made on the basis of the relative strength of and/or a compromise between different VOCs (Emotional VOC, Social/Economic VOC, Familial VOC, and other positive or negative VOCs) and between other values (individualistic and collectivistic values) an individual has and also on the basis of the individual's agreement with and/or obedience to environmental conditions and requirements made by a culture, country, or social context, such as the need for familial elderly care, constraints on having children in modern times, and family planning policies.

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