

**The Importance of Social Context
In the Formation of Teenagers' Value of Children:
Social Class and Rural Urban Differences in Taiwan**

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(Abstract)

This paper examines how teenagers' values may be shaped by the immediate social context with special reference to social class and rural urban background. The locus of study is Taiwan, a society with rapid social changes in the last few decades and with drastic declining birth rates in recent years. It is hypothesized that teenagers' fertility values of having children (or positive values) and not having children (or negative values), which may lead to the subsequent fertility behavior, are accounted for by the individual, familial and social contextual factors. In order to capture social change effects, sampling design deliberately resembles the first wave VOC study in Taiwan in 1970. First year senior high students from urban middle class families (with fathers having college and above educations), from urban labor class families (with fathers having high school education or below and in blue collar work) as well as from rural families (with fathers having junior high school education or below) are drawn from specified geographical areas in Taiwan. Field survey was administered from winter of 2005 to early spring of 2006.

The analysis shows that three dimensions can be extracted from both positive and negative VOC, with emotional values the most important, followed by physical and social values. Due to the dominance of emotional values, no class nor rural urban differences was found. However, significant differences between classes and between rural urban samples with regard to physical and social values are indicated. Specifically, working class tends to emphasize more on the social reward and social cost of having or not having children. Middle class, instead, concerns less of the physical benefit children may produce, but the physical labor involved in child rearing is a more important reason for not wanting children. Rural urban comparisons reveal that rural samples, similar as working class samples, are more likely to report social obligations as reasons of wanting children, and less likely to state physical costs as concerns for not having children. Further analysis points out that social contextual factors, such as social network support, community attachment and media exposure, along with individual factors such as gender and individualism versus collectivism, (more so than familial factors) contribute to the formation of positive VOC among Taiwanese teenagers. Gender, negative evaluations of relationship with parents and lack of supports from friends or less communication attachment explain the negative value of not wanting children. The importance of social context is thus supported.

I. Introduction

In recent years, fertility behavior, parenting and elderly support have received increasing attention in family studies. This is largely due to emergent changes in the population structure, especially the decline in birth rates and the prolonged life expectancy. Various efforts from governments as well as from academic community are laid on how to motivate couples to have children as a necessary step to solve the problem. This paper will deal with the fundamental aspect of childbearing issues and will focus on the value of children held by the teenagers as a potential means to increase the motivation of childbirth.

The research locus will be Taiwan, a typical Chinese society with rapid economic progress over the last few decades. The enhancement in average education and labor force participation (especially for females) has brought about modern gender role ideologies as well as different life expectation (Yi, 2002). However, the preference for sons (Goodkind, 1996), the expectation of elderly support from children (Lee, et.al., 1994), along with other traditional family values pertaining to kin obligation (Tsai and Yi, 1997) remain relatively unchanged. It will be interesting to examine how teenagers, as future parents-to-be, perceive the value of having children or not, and to delineate possible factors accounted for the formation of these values.

For preliminary analyses, family-related situation and relevant societal factors will be explored and compared. The family context, which is regarded as the basic socialization agent, will encompass family's social class, family structure and family relations between parents and teenagers. The larger social context is considered to represent the structural and normative opportunity or constraint that tends to impose significant influence on individual values and behaviors. Selected societal variables include rural-urban background, major social contact channels and personal orientation regarding individualistic versus collectivistic values. It is assumed that teenagers receive information and value inputs from family and from immediate social circles, such as friends, neighbors and media. Value of having children or not is also assumed to be formed in the same living experiences of teenagers.

Similar as other youth research concerns, this paper will delineate the relative importance of familial versus societal factors in affecting the value of children for teenagers. Specifically, family's social class will serve as a salient family factor while rural urban background will be regarded as the significant societal factor. Variant effects of these two factors will allow us to explain the relationship between

exposure to one's immediate social environment and the outcome on values held.

In the following sections, we will first briefly discuss the research background with an intention to show the linkage with both Taiwan studies taken place in 1970 and recent VOC studies in other countries. Then we will highlight literatures on the importance of VOC as well as two focused aspects: social class and rural urban differences. Methods, results and discussion will follow.

II. The Value of Children: Social Class and Rural Urban Differences

A. About VOC Studies

James Fawcett initiated and coordinated the very first wave study named "Value of Children" (VOC) in early 1970s when overpopulation was a universal problem. This cross-national research design was carried out in six countries, Taiwan, Japan, Korea, Philippine, Thailand, and the United States (Hawaii only) between 1971 and 1972. The main purpose was to explore individual's perception on advantages and costs of having children as well as its consequent impact on the actual fertility behavior. The utmost intention was to propose effective policy for reducing the pace of population growth. Therefore, the 1970 VOC study can be characterized as a population control oriented cross-national research.

For the post-war Taiwan, island-wide family planning program has been actively carried out since 1965. According to documents collected by the series of national surveys on Knowledge, Attitude, and Practice of Contraception Use in Taiwan (KAP) conducted by the Taiwan Family Planning Research Institute between 1967 to 1994, Taiwan has experienced tremendous demographic changes: from traditionally high fertility (3.16) to low replacement levels (1.04) from 1956 to 1983; average life expectancy from 48 years of age in 1948 to 74 years of age in 1988 (Hermalin, Liu & Freedman, 1994); and crude death rates fallen down to 8.02 ‰ since 1956. In other words, Taiwan has completed the demographic transition in less than 30 years! It was considered a spectacular success in the history of Taiwan's Family Planning Program.

The 2nd wave of VOC study took place in the early 2000s. The external circumstance has changed from overpopulation to under-population for many countries in three decades. Headed by German social scientist with Gisela Trommsdorff and Bernhard Nauck as principle investigators, the new VOC study has a new focus on the generational transmission in studying value of children. Starting

with six cultures (Korea, China, Indonesia, Israel, Turkey, and Germany), it is hypothesized that value transmission across three generations functions as the key mechanism affecting teenager's value toward having children or not. To date, 15 more countries including India, Poland, Czech Republic, Nigeria, France, Japan, Ghana, Norway, South Africa, United Kingdom, Pakistan, Kenya, Russia have participated in this cross-cultural study. In addition to the main concern on fertility motives and behavior as the original VOC, the new focus requires sampling design from teenagers to mothers and grandmothers.

This new focus on generational transmission fits very well with the Taiwanese context. Under the traditional norm of patrilocal residence, three generations in one household has always been an important residential arrangement in Taiwan. Approximately one third of family structures has been constituted by families with three generations (Weinstein et al., 1990; Yi and Chang, 1996). For typical adolescents, almost half have co-residence experience with grandparents in early childhood (Yi, et.al., 2006). This implies that along with aging population, the frequency of intergenerational interaction in Taiwan may become more important. Family context may thus become an even more pronounced factor shaping the individual value orientation.

For 2005 Taiwan VOC project, two major concerns determine the subsequent research design. On the one hand, it is intended to compare findings of VOC between 1970 and 2005; the other is to compare findings of Taiwanese patterns with that of other societies. For the latter, similar as other VOC studies in the 2000s, three corresponding datasets will be collected: adolescents, their mothers and their grandmothers. This paper will present preliminary findings from the adolescent samples. We will delineate mechanisms affecting the formation of teenagers' values pertaining to attitudes held toward having or not having children. Furthermore, in order to make meaningful comparison with the wave I Taiwan VOC study, similar research design is to be continued. The analyses will thus reflect the sampling characteristics and will emphasize on two particular aspects, namely the social class and the rural-urban background, with an attempt to record possible social change impact. Hence, a great effort is made to duplicate the original sampling design by overlapping with the same research areas as well as by expanding to neighborhood areas due to realistic constraints. Social class differentiation has also become a sampling criterion for the adolescent sample. The original classification of urban middle class, urban labor class and rural residents constitute three major components of Taiwan VOC samples in the 1970s as well as in mid-2000s.

B. The Importance of Value of Children

The research purpose of the original VOC was mainly of demographic concern. Ever since Thomas R. Malthus published his famous essay on the Principle of Population in 1798, social scientists have been searching for an answer to the question: Why do some people have many children, others less or none at all? The economic model has more or less acquired a monopolistic position during the first half of the 20th century (Nauck, 2004). Becker (1991), from the new home economics perspective, pointed out that family household is not only unit of distribution and consumption of market goods, but also production unit of commodities which are generally not available on the market. Among unavailable commodities such as love, affection, support, and services, children are also included. From the new home economics' viewpoint, children are seen as consumer durables according to Becker. With a preference to optimize its economic benefit, each family needs to constantly calculate its time investment and opportunity costs of children. Therefore, the value of each additional child to a family depends on his/her marginal utility to parents' investment in time and money cost (Becker and Lewis, 1973; Becker and Tomes, 1976).

Although the model with children as consumer durables explained quite well the phenomenon of fertility decline in the modern developed countries, the theory was unable to explain why are children still so highly demanded in developing countries. Numerous reports document the significance of norm and values in having children, especially in developing areas. In other words, having children can not be regarded as a pure function of rational calculation. The economic model is thus suspected to be somewhat incomplete. As population explosion became a serious problem during the second half of the 20th century, the concept of "value of children" is considered a fundamental key or a feasible standpoint for the above puzzle. Social scientists are interested in linking the value with behavior in individual fertility issues.

The concept of value of children was originated from Hoffman and Hoffman's cross-national comparison data (1973). Their research findings suggest that in addition to the economic aspect, cultural, normative, and psychological factors related to the fertility behavior should be taken into account in explaining fertility. Hence, value of children was proposed to be the central mediator which tends to subject to variation from changes in society and its respective culture. In addition, VOC not only affects an individual's fertility, it also results in consequent parenting behaviors. In short, the first wave of VOC in the '70s emphasized the functions children served or the needs they fulfilled for parents—i.e., the value of children for their parents.

Not until the late 1990s did the second wave of the VOC research emerge. Two concerns appear in the research design. First, the study adopts the foci of the '70s on value of children and sex preference for children. However, since the previous VOC study reflects an asymmetry of parent-child relations with more weight on the parents, a balance of information inputs is constructed. Hence, the second focus is on the intergenerational relationship, especially the possible generational transmission of values of children.

In order to respond to the importance of cultural dimension, the 2nd wave VOC study makes special efforts to examine relevant structural as well as relational factors. This is not to claim that the 1st VOC study did not consider the cultural aspect. For example, it was found in the '70s that continuing family names and preference for son were valued by Taiwan and by Korea samples who shared similar cultural tradition of Confucianism. It was clear that the fertility value was significantly influenced by culture in both countries (Arnolds et al., 1975). Three decades later, VOC studies offer more systematic and deeper analyses of the phenomenon investigated. For example, the emotional advantage of having children is much less important than economic benefits for both adolescents and parents in developing countries; while the reverse is true for those in developed region (Trommsdorff and Kornadt, 2003). To count on children for elderly support is also distinguished between corporate welfare states and others (Nauck, 2000). Even the emotional value of children can be compared between primary economy versus tertiary economy (Nauck, 2002). It is evident that recent reports attempt to explain the relationship between fertility and intergenerational relationships. However, cultural values such as continuing family names and son preference remain dominant in Asian samples (Trommsdorff and Kornadt, 2003). This implies that rapid social change may have less effect on cultural norms. Nevertheless, due to the constraint of using similar research model for comparative purpose, the causal relationship between cultural norms and changing fertility behaviors needs further analyses.

Therefore, the first purpose of the current on-going Taiwan VOC research is to examine value of children among different generations in Taiwan. Individual, familial and social contextual factors accounted for the variation will be delineated. For this paper, only the adolescent sample is used. Special emphasis is put on the social class and rural urban differences in order to capture possible social change effects. It is intended to compare findings with Taiwan VOC study in the 1970s as well as with other VOC studies of the 2000s.

C. The Social Class Effect on Parenting

Bronfenbrenner (1958) and Kohn (1959, 1963, 1969, 1986) had proposed respectively that parents from various social class levels differed in terms of parental values and parenting behavior based on empirical evidence from their research. Moreover, an intergenerational transmission effect existed. This intergenerational transmission effect had also been verified in many different cross-cultural studies, to which plenty of sequential researches echoed. According to Kohn, parents from various occupational positions held different values associated with their occupations. These values would be transferred to positions associated with their familial roles. Consequently, self-direction emphasized by white-collar or professional occupation was associated with middle-class parental valuation of independence and autonomy on one hand. On the other hand, obedience and conformity that associated with blue-collar jobs had a decided impact on working-class parental valuation of conformity to external authority (Pearson and Kohn, 1966; Peterson and Peters, 1985; Luster et al., 1989).

Plenty of the following researches had confirmed that various occupational positions form different occupational values, and these occupational values would have causal relationship with parental values. The latter further affected parenting behaviors. Although previous research indicated the import effect of motherhood on child-rearing practice (Swinehart, 1963), other research argued that social mobility was one of the reason that caused different parenting behavior (Blau, 1965). Still, others proposed that the racial and ethnic factor would have caused the difference (Blau, 1964; Borman et al., 1983; Aptekar, 1990). However, most of the following researches supported the interrelationship among parents' social class and their parental value and then parenting behavior. Moreover, these researches also confirmed parental values would have transmitted onto their children. These researches had developed an important trend for studying parental values. They had also broadened research scheme to the sphere of intergenerational transmission from the conventional social structural effects on individual's value, belief, and behavior.

Explaining how parents socialized their children from the social class perspective brought a connection between family and work. Ever since 1990s, how work and job characteristics affecting familial lives had become a very important research topic, especially regarding the effect of parents' job characteristics on their children's lives. Recent studies, hence, have made every effort to specify differences in parental values and parenting behaviors that are caused by the complexity of parents' work. In addition, they have also tried to clarify how parents' value transmits to their children (Menaghan and Parcel, 1991; 1993; 1995; 1997; Cooksey

et al., 1997). The results of these studies have shown that the more complex parents' works are, the more likely the family atmosphere tends to be supportive. This supportive atmosphere thus helps children to internalize parents' value and belief. Once parents' parenting style is less authoritative, it reduces the possibility of children's problematic behaviors (Parcel and Menaghan, 1993; 1994; Grimm-Thomas and Perry-Jenkins, 1994; Greenberger et al., 1994). In short, working experience not only shapes personality and values an individual holds, but also transfers them into one's family life, and then to one's child. However, other researchers have argued that in addition to work hypothesis there might be some intermediate factors from other social contexts needed to be examined closely (Perry-Jenkins et al., 2000).

The effect of social class on parenting behavior regains its center stage in sociology. Based on her longitudinal qualitative data, Lareau has confirmed that in addition to parenting style, social class even has more significant effect on children's everyday lives (Lareau, 2003). Using several typical cases in her award-winning book, Lareau explains clearly the reason why a person experienced unfair treatment during childhood is in fact due to one's parents' social status in that society. When comparing children's educational achievements with their parents', there are two thirds of Americans duplicating their parents' educational achievements. Taking SAT scores for example, for those people whose parents are high-school drop-outs got average 150 points in comparing with 500 points for the total average.

Lareau has attributed children's achievement to the effect of their parents' social positions on their life chances. Due to the tradition of individualism as the prevailing ideology in the U.S. society, it is conventional for Americans to believe that a person's achievement is a result of his/her I.Q. and hardworking or not. Therefore, one should take the whole responsibility for one's own life. However, the publication of Lareau's book has reinitiated a great interest in the relationships between class and parenting in the academic circles. Her finding contradicts to conventional belief and reveals that personal factors are not necessarily the only attribution to a person's achievement. Chances brought about by social structures may be more likely the cause of differences. According to Lareau, any kind of activities that may help children's development shows significant class effect, whether it is incorporated in formal or extra curricula. Therefore, the most important factor to explain children's future achievement is the inequity from social positions based on their parents' educational levels and occupational prestige.

No matter whether it's Kohn's proposition about intergenerational transmission of parents' social class to children's value, or it's Lareau's reemphasis on the effect of social class on life chances, both of them are consistently from the conventional sociological perspective in which the intergenerational transmission of social

inequality in family domain is possible. Several researches regarding effect of social class on family values or familial behaviors have also been carried out in Taiwan before. However, only part of the relationship hypothesis can be verified by those early studies (Yi et al., 2004a). Following this line of research, we believe that resuming the study of VOC in Taiwan will contribute to specify the relationship between class and family value as well as familial behavior. Therefore, the second research purpose of this current study is by using representative samples from distinctive class categories to specify class effect on family value and behavior.

D. The Effects of Rural-Urban Differences on Parenting

Rural-urban difference has always been emphasized in the study of intergenerational relationships. Taking relationship between grandparents and their grandchildren for example, teenagers from urban areas receive less help from and interact less with their grandparents, in comparing with their rural counterparts. Urban teenagers, on the other hand, tend to have more severe conflict with their grandmothers from their mothers' side (King et al., 2003). Teenagers from rural areas, on the contrary, receive more help from their grandparents and interact with them more frequently (Ibid).

While rural-urban difference has recently become a prominent issue for intergenerational study in Western societies, it has always had an important contribution to agricultural extension related studies in Taiwan's academic circles. In Taiwan, rural-urban difference has also been taken as a main factor within the overall community contextual effect. However, rural-urban difference has seldom been incorporated into study of intergenerational relationship or family values. One recent study has found that there is no significant rural-urban difference about teenagers' subjective opinion on their relationship with their grandparents (Yi et al., 2004b). Other research did not find out a difference between rural residents and urban residents on their overall sense of community (Liao, 2004). Yet, this rural-urban difference does partially exist in family decision, especially about parents' resource distribution to their teenage children as well as parents' expectation on children's independence (Huang, 2004; Hsieh et al., 2004). Although there is no systematic research finding about rural-urban effect on family study in Taiwan, rural-urban difference implies differing in resources, social positions, and life chances. This implication is worth of systematic in-depth investigation.

It is rarely to see research examining rural-urban effect on interaction among family members in Taiwan, let alone in research focuses on value of children. Among few relevant researches, the first wave of Taiwan VOC in the '70s has revealed that urban middle class parents emphasized emotional and psychological

benefits. On the other hand, parents from rural area cared more about the economic utility such as economic feedback and elderly care in the future. In the meantime, locus of urban working class parents was in between the former two types of parents'. This finding was similar to that of other societies' findings from the same wave of VOC research in the '70s. Nevertheless, continuing family name was considered the very first positive value for parents to have children, especially for those urban working class parents and those parents from rural areas (Wu, 1977). Among the negative values parents in the '70s Taiwan thought a child might cost, the economic one was concerned most for rural parents. Urban middle-class parents, on the other hand, concerned more about emotional sacrifice, lost of free time, limitation on personal development, or noise and chaos that children might bring about (Ibid.).

The effect of rural-urban difference is seldom included in study of family values in Taiwan as stated before, but this difference is indeed found in the '70s VOC study. Therefore, our third research purpose for this paper is to reexamine whether the rural-urban effect still exists thirty years later when comparing with the VOC study in the '70s.

III. Research Method

A. The Research Design

The 2000's Taiwan VOC study starts with the teenager sample. For this particular paper, possible familial and social factors affecting teenagers' value toward having or not having children will be examined. From the discussion above, social class and rural-urban difference are two major concerns in the analyses. Since social class is likely to transmit from one generation to another and is strongly associated with other individual family background, social class is taken to represent an important dimension of the familial context. Rural-urban difference, on the other hand, points to the residential area which is part of the larger social environment, rural urban residence is therefore taken as a proxy of social context in the explanation.

In addition to the particular focus on class and rural-urban differences, other factors accounted for teenager's value of children may be grouped into individual psychological orientation, familial related variables and social circles or social impact variables. For the preliminary report, ANOVA and Multiple Regression will be applied for data analysis.

B. The Sample

In order to explore possible social changes effects on individual's value of

children, comparable sampling scheme needs to be applied. Hence, the 2005 Taiwan VOC study incorporates the sampling area of 1970. Three small samples were stratified at that time with urban middle class from the newer district of Taipei city (Kuting precinct or Taan and Chungjeng precincts as for now) and urban working class from the old district (Lungshan or roughly today's Wanhua area), rural samples were drawn from Yunlin and Chiayi prefectures (Wu, 1977). For each group, 72 couples who had at least one child and fit with required education and occupation were sampled (e.g., urban middle class defined by husband's education of being at least 9th grader and had a white-collar job; urban working class being no more than elementary school graduates and had a blue-collar job).

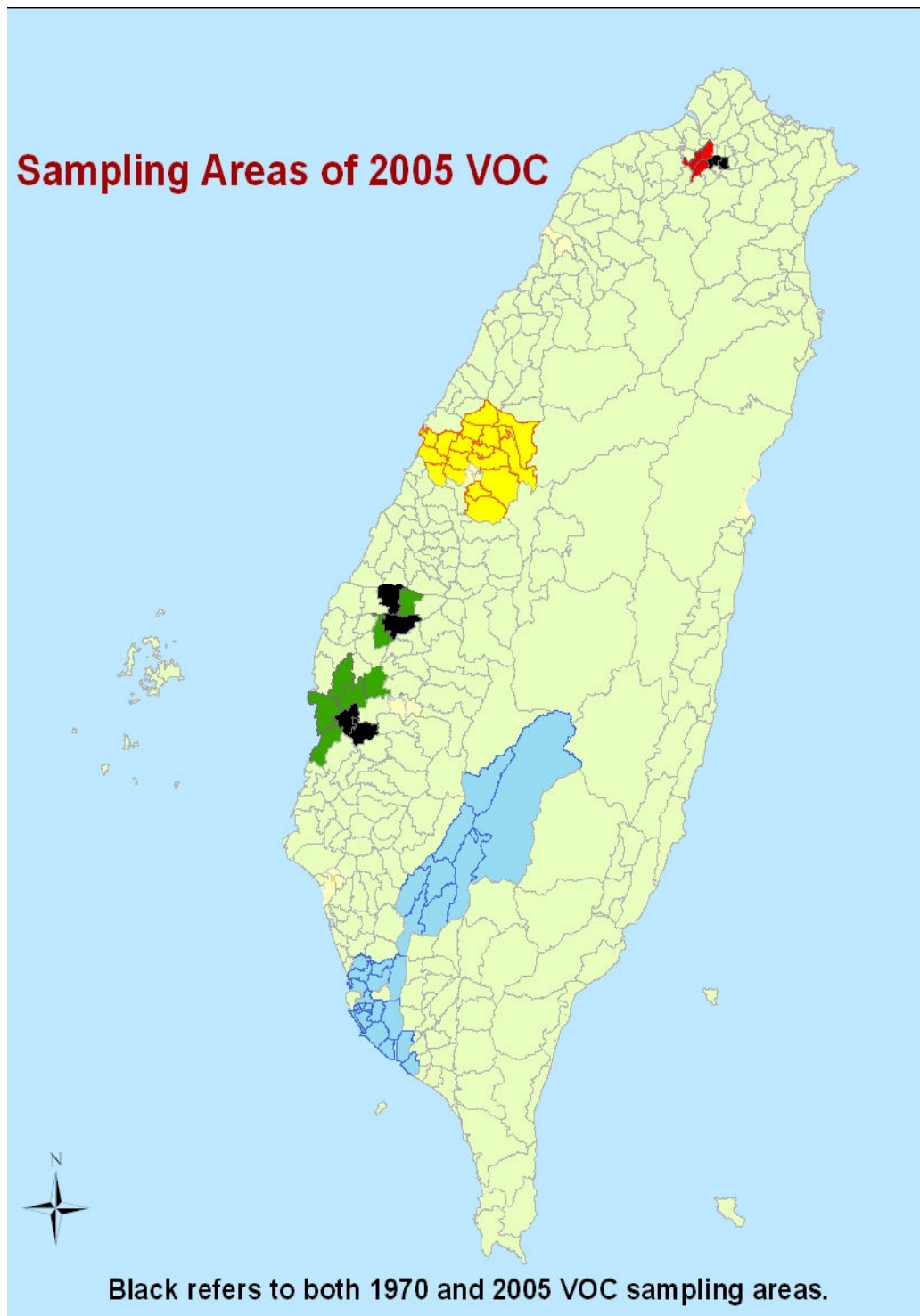
This current study consists of 600 first year senior high students with an average age of 16 years old. To collect comparable data with previous Taiwan VOC study and with other 2000s international studies, student samples are chosen by their father's SES background as well as the residential location. In other words, samples are first stratified by social class and by rural-urban origin. Furthermore, for better representative sampling concerns, our samples expand to major metropolitan areas in Taiwan. Hence, in addition to the overlapping sampling areas as that of 1970, three types of samples not only encompass the neighboring precincts or rural townships, they also include samples from middle and southern part of Taiwan. As can be seen from Table 1, the final sample does reflect variation in both geographical location and in class or rural urban differences.

Table 1: Samples, Sampling Areas, and Class

Urban Samples	Middle Class	Taipei Metropolitan		Taichung City	Kaohsiung City	
		100		50	50	200
	Working Class	Taipei Metropolitan		Taichung City	Kaohsiung City	
		100		50	50	200
Rural Samples		Yunlin	Chiayi	Taichung Prefecture	Kaohsiung Prefecture	
		100		50	50	200

A clearer picture may be shown from the map below (The black area refers to overlapping sampling area for both 1970 and 2005 Taiwan VOC studies).

Figure 1. Sampling Area of 2005 Taiwan VOC Study



C. Variables

Dependent Variable : Value of Children

This concept is distinguished by positive advantages or benefits for having or wanting children and negative costs for not wanting children. Among 16 positive advantages, factor analysis result in three factors: emotional, economic-physical and

social values (see Table 2). For 14 negative costs including emotional strain, or cost in the economics, energy, time and personal development, three similar factors (i.e., emotional, economic-physical, social) are extracted. This is similar as most other VOC findings reported in recent years. Five point Likert scale is used for samples to answer each item with 1 being the lowest score (“not important at all”) and 5 being the highest (“very important”). Item scores of each factor are added and divided by the number of items in that factor. Therefore, the mean score for each factor will be used in the following analysis.

(Table 2 about here)

Independent Variables:

Social Class – this variable represents respondents’ family SES background. It is based on fathers’ education and occupation of targeted adolescents. Two groups are intended, namely the middle class and working class. If fathers are college educated or above and have white collar jobs, teenager samples are classified as from middle class families. If fathers’ educational level is junior high school or below and have blue collar jobs, the teenagers are classified as from working class families. However, the rapid educational expansion in Taiwan over the last few decades results in difficulties for us in the construction of urban working class. Even among vocational high schools where more working class adolescents may be present, it became unrealistic to restrict father’s education to junior high. Therefore, the definition of working class in metropolitan areas is broadened to include fathers with senior high or vocational school and hold blue collar jobs. According to the above definition, 38.4% falls into middle class (see Table 3)

Urban-Rural Difference – this variable is measured by respondents’ current residence. Respondents who currently live in Taipei metropolitan areas or Kaohsiung and Taichung Cities are classified as urban residents. Respondents who reside in Kaohsiung and Taichung Prefectures as well as Yunlin and Chiayi Prefectures are rural residents. 32.4% are from rural areas.

Control Variables:

Individualism/Collectivism: For this individual psychological orientation, each is constituted by six items. Examples for individualism include: “Pleasure or gratification of desires” “A varied life filled with challenge, novelty, and change,” or “Independence or choosing your own goals and interests” Items for collectivism are “Obedience, fulfilling duties, meeting obligations” “Honor of your parents and elders” “National security, protection of your

own nation from enemies” Again, five-point rating scale is applied. Item scores are cumulated and the higher the score, the more important the respondents feel the orientation is to him or her. For teenagers, the average individualism score is 24.66, little higher than the collectivism (23.9).

Family structures: Two basic types are categorized: nuclear family and non-nuclear family. The former is defined as family with only parents and non-adult children (73.5%). The rest types are defined as non-nuclear family.

Relationship with father/mother: this variable is measure by item “how close do you feel with your father/mother?” Five-point Likert Scaling is used, and the closer the relationship is, the higher the score. For relations with fathers, the mean is 3.75, with mothers-4.235.

Social network support: this variable is measured by the subjective evaluation toward friends.” Six items are contained, for instance, “Friends will help me when I have trouble,” “Friends care about me,” or “Friends always criticize me.”. Scores are added from the standard five point rating scale. The higher the scores are, the better the support from one’s social network. The average score is 24.39, clearly leaning toward the positive side.

Community attachment: this variable is defined as respondents’ relationships with the community they are living in. Four items included are “Will you pay some attention to what happened in your community?” “What will you feel if you move out of the community where you are living now?” or “Are you satisfied with the community where you are living now?” Same as above, answers from the five-point rating are added and the higher the scores are, the more attached is the respondent to the community (M=13.5).

Media exposure: this variable counts the frequency that the respondent exposes to the following media, television, internet, and cell phone. The frequency is coded from the lowest “never” (0 point) to the highest “almost everyday” (5 points), and scores from all three types of media are cumulated. Higher score means more frequent exposure (M=10.4)

D. Hypotheses

An important attempt of this paper is to examine the possible effect of social class as well as of rural-urban difference on the value of children, two hypotheses are generated:

H1: Middle class teenagers tend to value the emotional aspect as the most important reason for having or not having children; while teenagers from working class families are more likely to emphasize the economic and social aspects. Rural samples will resemble the working class counterpart more closely.

H2: Teenagers from rural areas are more likely to endorse the economic aspect as the most important reason for having or not having children, while teenagers from urban areas may held more heterogeneous values of children. Among various heterogeneous reasons for urban samples, emotional and social aspects may be valued more than the physical component.

IV. Results

Table 3 lists means and standard deviations for variables considered in the model. For the outcome variable, it is clear that emotional benefit scores the highest among positive values reported by Taiwanese teenagers ($M=3.725$), physical advantage follows ($M=3.063$) and social benefit ($M=2.439$) is the least valued advantage of having children. Negative values generally reveal similar patterns in that emotional cost and physical cost are weighted much higher ($M=3.174$ and 3.112) than the social cost ($M=2.105$). These basic data imply that normative factor is perhaps no longer as dominant in shaping individual's value of children, at least not to teenagers in Taiwan. Whether addressing to the question of having children or not to have children, the endorsement or the sanctions of social norm is not considered the most significant component in the formation of value of children.

(Table 3 about here)

Next, the possible effect of social class and rural urban differences is analyzed. In order to show the significance of these two specified contextual effects, ANOVA is used. Results from Table 4 point out that class effects are salient for social and physical-economic values on both positive and negative accounts. Emotional reason, although appears to be the most recognized one, did not have clear class variation. Taiwanese teenagers, whether from middle class or working class families, do not reveal significant difference in values of children, be it positive or negative values.

(Table 4 about here)

With regard to other more pronounced effects, working class teenagers are more likely to express agreement with the physical-economic advantage ($M = 3.135$) and with the social benefits ($M=2.52$) than middle class teenagers ($M = 2.947$ and 2.3 respectively) for reasons of wanting children. The finding pertaining to positive values confirms our first hypothesis. However, slightly different pattern is found among negative value of children between two social classes. On the one hand, middle class teenagers are more likely to choose physical-economic costs as important reasons for not wanting children ($M=3.175$ vs. 3.072), they are, however, less likely to state social cost as significant concern than the working class counterpart ($M=2.042$ vs. 2.144). In other words, findings regarding negative value of children

partly support hypothesis one in that working class teenagers are more likely to report social costs as reasons of not wanting children. Nevertheless, naming physical or economic costs as negative values for middle class samples do not correspond with Ho.1. It seems middle class teenagers concern the physical labor involved and the economic burden of having children more than their counterparts, and is therefore contradictory with Ho.1.

Findings about rural urban differences basically deviate from the original hypothesis. For rural teenagers, the physical-economic value of children is relatively more important as a positive value, but the difference does not reach statistical significance (3.141 vs. 3.025). In terms of negative physical value, it is actually urban teenagers who report higher concern for not wanting children because of extra burden anticipated (3.158), and the difference between classes is pronounced. Hence, for physical-economic values, the finding contradicts with Ho.2. Furthermore, urban samples do not reveal stronger interests in the emotional values of children. In fact, it is rural teenagers who report greater social advantages of having children (2.548) as compared with their urban counterpart (2.386). The significant difference is a direct contradiction to Ho.2. In other words, different from our hypothesis, rural teenagers in Taiwan do not concern the physical-economic cost of not having children as much as their urban counterpart, but rural teenagers do regard social benefits as relatively more important in reasons for having children. Hence, despite the consistent insignificance of emotional values between rural and urban samples, patterns found among rural urban differences reject hypothesis 2.

(Table 5 about here)

After specifying patterns of VOC and its direct relationship with social class and rural urban background, other relevant control variables are entered in the model. From Table 6 it can be seen that for **positive values**, social class remains to be a salient factor accounting for the physical and social values favored by non-middle class teenagers. But rural urban difference loses its importance in the explanation. With regard to individual, familial and social variables, stronger individualism and collectivism, good relationship with mothers and positive resources from social circles, community and media exposure lead to greater endorsement of emotional values of having children. Male, stronger collectivistic orientation and less perceived support from friend result in higher physical and social values. In addition, community attachment and media exposure are also positively related to social values of having children.

(Table 6 about here)

The result on **negative values** of not wanting children, however, points out that both social class and rural urban background are not significant factors explaining why teenagers do not want to have children. The only exception is that rural samples are less likely to indicate physical losses as important reasons ($b = -.12$). This is opposite to what is expected from hypothesis 2. Other variables also have different effects from those for positive values. Take emotional losses for example, females, those with stronger individualism and less perceived support from friends are more likely to be affected. Physical losses as reasons of not wanting children are more likely to occur among those with stronger individualistic orientation, negative relations with fathers and less attachment to the community. For social losses, females, those with negative relations with mothers and less perceived support from friends tend to indicate this concern for not wanting children.

In short, the multiple regression analysis of value of children reveals at least two important messages. On the one hand, social class difference does produce salient effects on teenager's positive value of having children, but not negative values, after controlling other relevant factors. This pertains particularly to physical and social values in that working class context is likely to shape teenager's positive value. But no class difference is found for emotional value, meaning teenagers tend to endorse the importance of emotional gains in having children. The second point is that rural urban background does not account for variations in VOC reported by Taiwanese teenagers. Although ANOVA results indicate rural samples tend to endorse positive social values and urban samples report greater concern of physical losses, rural urban difference loses its salience when examined with other relevant contextual factors.

V. Conclusion

This paper attempts to delineate patterns of value of children among Taiwanese teenagers. Two research concerns determine the sampling design as well as the current analysis: one is to compare with the original VOC study in Taiwan in 1970, the other is to utilize comparable research design as other recent international studies. Since the 1970 VOC study focused on the effect of social class and rural urban background on positive values of having children as well as on negative values of not wanting children, the 2005 VOC study continues this line of research. Hence, a special effort is made in the sampling design to cover original study areas and to maintain the class and rural urban stratified groupings.

This paper reports preliminary findings of the teenager sample. The result on **value of children** among Taiwanese teenagers shows that three factors, namely emotional, physical-economic and social, are extracted from both positive and negative value of children. Emotional rewards as well as emotional costs are reported as the most important reasons accounting for the childbearing intention. Social benefits and social disadvantages receive relatively less concern. The basic pattern coincides with most VOC studies, especially those after the 2000s.

With regard to **social class effects**, no class difference can be ascertained toward emotional values. However, teenagers from working class families are more likely to favor physical and social value of having children. They also tend to report greater concern of the social costs of not having children. Middle class teenagers, instead, express higher concerns toward negative physical costs in the intention of not having children. Although middle class findings do not support hypothesis 1, working class teenagers do reveal expected value orientation. Furthermore, when investigated with other relevant factors, working class samples still favor physical and social values as reasons of wanting children. It should be noted that social class loses its importance in explaining negative values of not wanting children. This implies the class effect is salient for the account of teenagers' values of childbearing intentions. Despite the fact of similar interests in the emotional values, working class teenagers are more likely to express physical and social benefits in having children.

As to the **rural urban difference**, similar findings in term of the hierarchical order of emotional, physical and social values of children are found. But the different effect due to rural urban background appears to be less pronounced. Only two significant comparisons can be made: one is the positive social reward perceived by rural teenagers in having children, the other is the negative physical cost reported by urban samples in not wanting children. As stated in hypothesis 2, we have suspected a greater concern of the physical value among rural samples and a possible greater concern of emotional and social values among urban samples. The findings do not seem to support the expected relations. In fact, they are contradictory to the hypothesis in that rural samples show less concern on the negative physical value, while urban samples reveal stronger support for positive social values. The multiple regression analysis confirms the insignificance of rural urban differences in explaining negative values of children. Again, even controlling other relevant factors, rural samples are still less likely to state physical losses such as the economic burden, extra labor in childcare, difficulty in child rearing as reasons of not wanting

children, a direct contradiction to our hypothesis.

In brief, the social reward of having children as well as the social punishment of not having children are clearly salient factors explaining the VOC of working class. For middle class, instead, the physical support that children are likely to produce is not as important, but the physical labor involved is more likely to be considered reasons for not having children. Hence, the stronger utilitarian values expressed by the working class as well as by rural samples provide support for our hypotheses. Nevertheless, inconsistent with our hypotheses, middle class samples reveal more concerns on physical labor as reasons for not wanting children.

For many teenagers in Taiwan, the child bearing issue may seem a distant decision. Yet, the formation of value system is approaching stable maturity at this stage. This paper argues that the immediate social context should be taken into account in order to delineate possible factors accounting for the value formation. Our findings on value of children clearly point out that besides focusing on the individual psychological factors, the larger social context is significant in explaining teenagers' value system. Influences from immediate social network and from media exposure, along with greater community attachment are shown to affect different values expressed. Although negative relationship with parents is relatively more significant as possible reasons of not wanting children, social context beyond the family level seems to be more salient in shaping positive values of having children. Therefore, the overall importance of social context is supported.

Lastly, this paper documents the dominance of emotional gains as well as of emotional losses in the childbearing intention as shared value for Taiwanese teenagers. Although various patterns pertaining to physical and social values are found, more analyses are required in order to answer questions such as the possible overlapping effect of rural samples and working class and specific mechanisms accounting for the particular aspect of values held by teenagers. With future surveys on mother's sample, more profound effects from intergenerational transmission on value of children are expected.

Table 2 : Factor Analysis of VOC Among Taiwanese Teenagers

Positive VOC	Emotional	Physical	Social
Having children makes a family more like a family	0.742	0.175	0.221
Having children helps you to grow up	0.773	0.039	0.076
Because it is a joy to have a small baby	0.849	0.111	0.104
It is fun to have young children around the house	0.856	0.084	0.112
It is a pleasure to watch your children grow	0.817	-0.011	0.125
Raising children helps you to learn about life and yourself	0.715	0.204	0.122
To have someone to love and care for	0.651	0.162	0.142
People with children are less likely to be lonely in old age	0.377	0.668	0.190
To have one more person to help your family economically	0.012	0.680	0.442
Your children can take care of you when you are old	0.186	0.866	0.209
Your children can support you economically when you're old	0.044	0.866	0.233
Parenthood improves your standing among your kin	0.053	0.239	0.638
Your life will be continued through your children	0.282	0.201	0.656
To carry on the family name	0.063	0.204	0.827
It is a duty to have children according to your belief or religion	0.267	0.160	0.634

Negative VOC	Emotional	Physical	Social
The worries that children cause when they are ill	0.686	-0.021	0.208
To concern about the kind of future your children will have	0.766	0.421	0.008
Because you lose contact with your friends	0.453	0.297	0.429
A child needs a constant attention and cause strains	0.754	0.422	0.038
A child is a lot of extra work and bother	0.104	0.841	0.107
Children are hard to discipline and control	0.208	0.815	0.020
Having children is a financial burden for the whole family	0.154	0.709	0.267
Because of fear of pregnancy and childbirth	0.166	0.478	0.156
It is hard to take proper care of both family and household	0.455	0.629	0.136
You are not as free to do what you want	0.486	0.612	0.100
Children create problems with neighbors and in public	0.056	0.395	0.568
Large families are not well accepted in society	0.100	0.005	0.772
It is harder for you or your spouse to hold a job	0.337	0.354	0.501

Being a mother is not well recognized by people around you	0.040	0.049	0.726
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Table 3: Variable Means and Standard Deviations

	Mean	Std Dev	Min	Max
Positive VOC—Emotional	3.725	0.792	1	5
Positive VOC—Physical	3.063	0.897	1	5
Positive VOC—Social	2.439	0.823	1	5
Negative VOC—Emotional	3.174	0.796	1	5
Negative VOC—Physical	3.112	0.810	1	5
Negative VOC—Social	2.105	0.645	1	5
Social Class	0.384	0.487	0	1
Rural/Urban Difference	0.324	0.468	0	1
Sex	0.469	0.499	0	1
Individualism	24.657	3.595	10	30
Collectivism	23.901	3.486	12	30
Nuclear Family	0.735	0.442	0	1
Relationship with Father	3.750	1.019	1	5
Relationship with Mother	4.237	0.813	1	5
Social Network	24.391	3.359	6	30
Community Attachment	13.506	2.754	5	20
Media Exposure	10.401	3.192	1	15

Table4: Value of Children Among Taiwanese Teenagers: **Social Class** Differences

	Middle	Working	t-test	df	F
Positive VOC—Emotional	3.741	3.715	-0.51	1	0.26
Positive VOC—Physical	2.947	3.135	3.26 **	1	10.65**
Positive VOC—Social	2.305	2.522	4.12 ***	1	17.01***
Negative VOC—Emotional	3.170	3.177	0.14	1	0.02
Negative VOC—Physical	3.175	3.072	-1.98 *	1	3.93*
Negative VOC—Social	2.042	2.144	2.46 *	1	6.04*

*P<.05 ** P<.01 ***P<.001

Table 5: Value of Children Among Taiwanese Teenagers: **Rural/Urban** Differences

	Rural	Urban	t-test	df	F
Positive VOC—Emotional	3.698	3.737	0.73	1	0.54
Positive VOC—Physical	3.141	3.025	-1.93	1	3.74
Positive VOC—Social	2.548	2.386	- 2.94**	1	8.64**
Negative VOC—Emotional	3.146	3.188	0.80	1	0.65
Negative VOC—Physical	3.016	3.158	2.62**	1	6.88**
Negative VOC—Social	2.153	2.082	-1.65	1	2.71

*P<.05 ** P<.01 ***P<.001

Table 6 The Multiple Regression Analysis of Value of Children among Taiwanese Teenagers

	Positive VOC—emotional				Positive VOC—physical				Positive VOC—social			
	Model 1		Model 2		Model 1		Model 2		Model 1		Model 2	
	b	se	b	se	b	se	b	se	b	se	b	se
Intercept	3.73 ***	0.044	0.55 *	0.260	3.12 ***	0.050	2.14 ***	0.312	2.49 ***	0.046	1.26 ***	0.276
Middle Class	0.01	0.059	-0.03	0.055	-0.18 *	0.066	-0.15 *	0.066	-0.19 *	0.060	-0.14 *	0.059
Rural urban (individual)	-0.03	0.061	-0.07	0.057	0.03	0.069	0.01	0.068	0.07	0.063	0.05	0.061
Sex			-0.01	0.047			0.17 **	0.057			0.35 ***	0.050
Individualism			0.03 ***	0.008			-0.01	0.010			-0.01	0.009
Collectivism			0.05 ***	0.009			0.04 ***	0.011			0.05 ***	0.009
(familial)			0.04	0.053			0.08	0.064			0.10	0.056
Family type												
Relation w/Dad			0.01	0.025			0.03	0.030			0.05	0.027
Relation /Mom			0.08 **	0.032			0.05	0.039			0.01	0.034
(social)												
Social Network			0.02 *	0.007			-0.02 *	0.009			-0.03 ***	0.008
Community			0.03 **	0.009			0.02	0.011			0.03 **	0.009
Attachment												
Media Exposure			0.02 *	0.007			-0.00	0.009			0.02 *	0.008
R ²	0.0006		0.1639		0.0105		0.0594		0.0175		0.1267	

* P<.05 ** P<.01 *** P<.001

Table 6 The Multiple Regression Analysis of Value of Children among Taiwanese Teenagers (cont.)

	Negative VOC—emotional				Negative VOC—physical				Negative VOC—social			
	Model 1		Model 2		Model 1		Model 2		Model 1		Model 2	
	b	se	b	se	b	se	b	se	b	se	b	se
Intercept	3.21 ***	0.044	3.23 ***	0.280	3.13 ***	0.045	3.77 ***	0.279	2.13 ***	0.036	3.19 ***	0.224
Middle Class	-0.04	0.059	-0.04	0.060	0.05	0.060	0.05	0.059	-0.09	0.048	-0.06	0.048
Rural urban	-0.06	0.061	-0.08	0.061	-0.12	0.062	-0.12 *	0.061	0.02	0.050	0.03	0.049
(individual)												
Sex			-0.13 **	0.051			-0.29 ***	0.051			0.13 **	0.041
Individualism			0.03 ***	0.009			0.02 **	0.009			0.00	0.007
Collectivism			0.00	0.010			0.00	0.010			-0.01	0.008
(familial)												
Family type			-0.07	0.057			-0.10	0.057			-0.00	0.046
Relations w/ Dad			-0.04	0.027			-0.09 ***	0.027			0.01	0.022
Relations w/Mom			-0.04	0.035			-0.04	0.035			-0.09 ***	0.028
(social)												
Social Network			-0.02 *	0.008			-0.01	0.008			-0.02 ***	0.006
Community			0.00	0.010			-0.02 *	0.010			0.00	0.008
Attachment												
Media Exposure			-0.01	0.008			-0.01	0.008			0.00	0.006
R ²	0.0010		0.0423		0.0073		0.0779		0.0062		0.0646	

*P<.05 ** P<.01 ***P<.001

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