

VALUE OF CHILDREN AND INTERGENERATIONAL RELATIONS IN CULTURAL CONTEXT^{1,2}

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ABSTRACT

The present study attempts to partly replicate and partly modify the original "Value of Children Study". It is based on the achievements of the original VOC study and attempts to overcome its shortcomings by carrying out a multi-level analysis of the relations between contextual factors, individual value orientations, and parent-child relations over the life span in three generations. The cross-cultural and culture-specific approach is applied to the study of person and relationship variables including investment in children and/or parents. Along with the theoretical and the methodological conceptualization of the main study, some data from the pilot study focusing on the Chinese studies are presented. The results are discussed with respect to the general model and the question of transmission of values in times of social change.

The present study attempts to contribute to a better understanding of some of the psychological processes involved in social change. Ongoing changes within

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demographic trends, value orientations, and intergenerational relations are dealt with from a cross-cultural and culture-psychological perspective.

In different parts of the world, fertility, life expectancy, and population size are related differently. While in some countries overpopulation is increasing, in other countries the population is declining. Declining fertility rates in affluent industrialized countries contrast with high fertility rates in poor underdeveloped countries. In both cases, economic and socio-political problems are seen as both the causal factors for and the consequence of these demographic developments.

Declining fertility rates and increasing life expectancy are inverting the pyramidal population structure in societies currently experiencing high economic productivity. These demographic problems were discussed several decades ago, and since then they have even worsened. Obviously, these problems cannot be dealt with starting from a simple causal line of reasoning. The accelerating demographic changes have turned out to be a precondition and at the same time a consequence of socio-economic changes. A single factor theory is not useful to explain these changes since these demographic changes are related to numerous political, economic, social, and psychological factors.

In societies with high fertility the problem is to ensure sufficient material and psychological well-being, including economic security and education for the younger generation. In countries with a high birth rate in which the number of children and adolescents is higher as compared to other age groups, children are at risk to experience less care and formal education since their parents must invest in many children. In countries with declining fertility the situation is reversed: the growing number of elderly need a growing amount of support while, due to the low birth rate, relatively little manpower is actively engaged in the labor market. On the other hand, children and adolescents experience a longer period of formal education and manifold career opportunities. However, due to the inverted demographic pyramid in these societies the younger generations face the problem of having to provide financial and other support for a growing number of older fellow citizens while at the same time investing in their own future.

These demographic phenomena are presumably related to value changes (value of children and value of family) which in turn may affect parenting and parent-child relations over the life span. These aspects of intergenerational relations may be seen as a process for the transmission of values which affect the next generation's decision to have a child, the quality of child-rearing practices, and again the intention of parents and their children to "invest" in each other's (material, social and psychological) well-being and development. Therefore, several generations and several countries need to be included in order to study these questions.

The "Value-of-Children" Approach

So far, population growth and decline have mostly been studied by demographers, economists, and sociologists. However, psychological problems cannot be ignored. Here the question arises whether demographic differences between societies may not only be related to political, societal, and economic conditions but also to psychological factors, including culture-specific beliefs and value orientations. Furthermore, the changing demographic situation constitutes a specific context with new challenges and problems for individuals and their families. The psychological question of relevance for our topic is how people in different cultures deal with these changes and how intergenerational relations are affected.

Several studies on fertility take into account that fertility is based on individual decision making. The general assumption is that this decision is influenced by socio-economic and political conditions on the macro-level. Accordingly, it has often been assumed that high fertility is related to the economic value of children: when children are important for the economic productivity of the household, and their economic utility is high, the number of children born should be higher than when children's economic utility is low (for a summary see Nauck & Kohlmann, 1999; Nauck, in press).

The shortcomings of this view are obvious. On the one hand, it does not explain why children are born under circumstances of low economic utility (e.g., in high-income families) or when they imply high economic costs. The question therefore is why do people have children when having and bringing up children is expensive, e.g., since parents have to invest time and money to raise their children. Furthermore, the economic utility approach does not explain why the birth rate is high in many countries even though the children cannot significantly contribute to a low family income (e.g., in case of unemployment). Beside the economic utility as the basis of a "rational choice" to have children, other psychological aspects need to be taken into account in order to explain why people decide to have a child.

This was the starting point for the original "Value of Children Study" (VOC), which was carried out more than three decades ago. The original VOC study emerged out of demographic research in the 1970s and included a social-psychological perspective. In addition, to studying the impact of economic factors on fertility, questions about psychological conditions for fertility (Hoffman & Hoffman, 1973; Kagitcibasi, 1982a, 1982b) and parenting (Hoffman, 1987) were later taken into account. Thus, the VOC study has contributed to a better understanding of differences in fertility by including psychological variables in a complex model which takes into account the macro-, meso-, and micro-level. This comprehensive interdisciplinary and cross-cultural study took into account socio-economic, cultural and psychological aspects of fertility in nine countries,

including extensive surveys in the USA, Taiwan, Japan, South Korea, the Philippines, Thailand, Indonesia, Singapore, and Turkey, with a total of 20,000 married people, mostly women (see the monographs published by the East-West Population Institute at the East-West Center in Honolulu, Hawaii; Arnold et al., 1975; Fawcett, 1973; Hoffman, 1987, 1988; Hoffman & Hoffman, 1973; Kagitcibasi, 1982a, 1982b).

Only a few replications of the original VOC study have been carried out so far including smaller samples in China (Beijing) (Lin, Wan, Jing, & Hoffman, 1995), Turkey (Ataca & Sunar, 1999) and Iran (Aghajanian, 1988). Also, the VOC instrument has been used in some smaller studies to measure young parents' value of children (e.g., Quaiser-Pohl & Nickel, 1998).

The main goal of the original VOC study was to test expected relationships between socio-economic factors, the value of children, and fertility. The "value of children" was thus conceived of as a psychological construct referring to the expected benefits of having children as compared to the expected costs and disadvantages. Accordingly, the value of children was understood as reflecting parents' motivation to bear and rear children. This motivation includes personal goals and is based on one's own socialization experiences; thus it is related to cultural values. The value of children was conceived of as a psychological variable mediating between contextual factors and fertility. This concept was measured by structured interviews and open questions. These included an assessment of the advantages and disadvantages of having a child in general and the personal "reasons" for wanting a/another child. The instruments were designed to measure the value of children in general and the value of having one's own children. Young parents (mostly mothers) from nine countries were included in the sample.

The empirical results of the VOC study on different values were grouped into three major value types, utilitarian/economic, social, and psychological values. Utilitarian or economic values refer to the expected material benefits and costs of children when they are young and when they become adults (e.g., economic support given by parents to their young children and given by older children to their elderly parents). Social values refer to the expected social advantages or disadvantages of having children (e.g., social approval and social status when a married couple has a child; continuation of the family line in case of having a son). Psychological values refer to happiness, joy, and companionship or to discomfort and stress which parents expect to experience with their child.

The differentiation between these three types of values proved useful to test the theoretically expected relation between context and fertility. For example, in less developed or in rural areas as compared to more developed or urban areas, parents reported more economic value of children. The psychological value of children was negatively related and the economic value was positively related with fertility in the Turkish samples (Kagitcibasi, 1982a, 1982b). Another inter-

esting finding of the original VOC study concerns the relation between context variables, value of children, and parenting, viz. that parenting was more rule-oriented and fertility was higher in less developed, rural as compared to urban areas (Kagitcibasi, 1982a, 1982b; Hoffman, 1987, 1988).

A closer look at the results shows that the economic utility of children was only one aspect of the value of children and sometimes of minor importance. Instead, other instrumental, but not necessarily economic values can underlie the goal and decision to have a child. These other values are not only related to economic conditions as assumed in the original VOC study. They may rather be related to more general cultural values, including beliefs about the ideal family, marriage, or the role of women. For example, the social value of having a child may be more relevant in certain cultures. Depending on general cultural values, this social value may again have different implications. Having a child may fulfill the need to improve the marriage or family life or, in certain societies, be accepted as a man or woman. In some cultures, a female is not considered a woman unless she is married and has a child. Here, the young mother's social role and social esteem is different from that of the childless female. Another goal may be to give birth to a boy in order to continue the family lineage (e.g., in traditional Confucian societies) and to become accepted as a full member of the husband's family. In some cultures, to have a child raises the social status of the mother, the father, or the whole family. Here, the number of children can represent a certain level of social power, e.g., when only the most influential and rich families (in these otherwise poor countries) can afford to have many children. Moreover, a negative social value is associated with having only one child in some cultures and with having many children in others. Having only one child can be associated with low social status in a culture in which a great number of children demonstrates wealth and success. In other socio-cultural contexts, however, in which the one- or two-child family is common, having many children is evaluated negatively and can be associated with low social status. These are examples of the culture specificities concerning the social value of children.

Furthermore, the decision to have a child may be based more on the goal to experience psychological fulfillment through the child or to achieve maturity by taking responsibility for a child, or just to enjoy having a baby. These are examples of the psychological value of children which also can vary intra- and inter-culturally.

To summarize, the original VOC study has proved the so-called "value of children" to be an important psychological variable for explaining why different fertility rates occur in different countries. The original study also demonstrated that different individual goals may be associated with different rates in fertility, depending on the economic context. Furthermore, the VOC study opened the door to psychological questions going beyond fertility and taking into account socialization practices in different cultures.

Extension of the Value of Children (VOC) Approach

Despite its significant contribution to demographic research as an extensive interdisciplinary study, the original VOC study had its theoretical and methodological shortcomings. Theoretical shortcomings are related to the rather simple conceptualization of the variables and the limitations of the psychological model. Also, complex multivariate testing of the variables from these different levels is lacking. Therefore, the present study starts from the general questions of the previous "Value-of-Children" (VOC) study and the underlying fruitful approach; it goes beyond the limitations of this study by including theoretical advances in developmental and cross-cultural psychology (Nauck & Trommsdorff, 1998; Trommsdorff, 2001; Trommsdorff & Nauck, 2001).

The original VOC study was a cross-national study comparing countries which differed with respect to certain socio-economic conditions. The original VOC study did not, however, attempt to carry out a cross-cultural study focusing on culture-specific aspects of value of children. One result of the study was that individual values and the family structure, including the role of women, affect fertility decisions. The background and design of the study, however, did not allow the VOC researchers to go deeper into the psychological variables related to the value of children, such as past experiences of the parents and the relation between parents and their children over the life-span.

Also, the promising results on the relations between value of children and child rearing in different economic contexts were not further elaborated to include issues of effects of cultural values, parent-child relations and the mutual investments of parents and children. Thus, questions concerning the conditions of the quality of intergenerational relations, and the effects of past experiences on the value of children and the value of family and on parent-child relationships, were largely neglected. However, dealing with such questions may improve the understanding of the psychological aspects of ongoing demographic changes.

The theoretical model used in the original VOC study including the concept of value of children was obviously not sufficiently elaborated to study these questions and to explain social change including the drastic decline in the birth rate in most developed countries. First, it is to be asked how "value of children" can be conceptualized theoretically. Second, it has to be tested whether the value of children is the main mediating variable between (socio-economic and cultural) context and fertility. Third, and more important from a socialization and social change perspective, is the question about what follows fertility. Bearing a child is only the beginning of a complex process of parent-child interactions, including parenting and the quality of the parent-child relationship. Further processes need to be taken into account to explain social and value change and the related socialization conditions which affect the transmission of values from one generation to the next.

The theoretical basis of the value of children as a global construct needs clarification in several aspects. The original VOC study measured the various reasons why parents want or do not want a child. Three types of values were differentiated on the basis of reasons given by parents for why they want or do not want children. Results from our VOC replication (pilot) study, however, showed that presently hardly any economic, but rather mostly psychological values were mentioned (Trommsdorff, Schwarz, & Chakkarath, 2000; Makoshi & Trommsdorff, in press). Therefore, a more detailed differentiation between various psychological reasons seems to be necessary in future research.

Also, the individual structure of the value of children needs more clarification, e.g., the extent to which economic, social, and psychological values are subjectively relevant in relation to each other (e.g., as separate entities which can be added or compensated for in their respective value). Furthermore, the effect of person variables on the value of children need clarification. So far, general values, more specific individual orientations, and the working model of the person have been neglected. Specifically, the quality of attachment and the related working model (Bowlby, 1982), values of independence and interdependence which vary cross-culturally (Markus & Kitayama, 1991), general value orientations (Schwarz & Bilsky, 1987), or more specific values of the family may influence the value of children and further processes.

Finally, contextual effects on the value of children have to be clarified in future studies. Depending on the cultural context, children per se have a certain value in the society and for parents. This may be related to the individual value of having more or less children and of rather having sons or daughters. Also, the value of children depends on the concrete situational conditions such as the age, education, and socio-economic status of the parents, family structure, ecological conditions (e.g., costs for formal education, social network).

Even when taking into account these variables for clarifying the concept of the value of children and its function, little is gained to explain demographic and social changes. Fertility is only one aspect of the possible function of the value of children. Further functional aspects are parenting behavior, the parent-child relationship and the investment in one's own parents and/or children. These outcome variables can specify the intergenerational relation and can predict changes in the behavior of the next generation. Therefore, it is necessary to go beyond child bearing and focus on child rearing as the starting point for further development (of the child and of parent-child relations) over the life span in specific socio-cultural contexts. These developmental outcomes again are factors affecting value of children, fertility, and child-rearing of the next generation.

When the original VOC study was carried out, the main interest was to study the reasons for overpopulation in some countries and low fertility rates in other countries. This interest has not really changed. The original VOC study has

opened the door to contribute to the understanding of demographic and socio-economic changes from a psychological perspective. However, certain improvements in psychological research may allow us to study the value of children in a broader theoretical framework and on the basis of more adequate methods. The relevant questions for psychologists have become more clear, theoretical work on development and parent-child relations has become more refined, and methods to empirically investigate the relevant phenomena, including culture-specificities, have improved. This will allow us to study ongoing changes in the value of children and possible effects on other social and psychological phenomena such as parent-child relations over several generations.

In spite of some shortcomings, the former VOC approach is a promising starting point for dealing with the psychological problems of demographic change. Therefore, a partial replication and modification of this study is planned (Nauck & Kohlmann, 1999; Trommsdorff, 2001; Trommsdorff & Nauck, 2001). This revised VOC study will go beyond questions concerning fertility.

At least two sets of questions which were not answered by the original VOC study will be focused on by our planned extension and partial replication: One set of questions deals with relations between contextual variables, value of children, and parent-child relations: (1) Which cultural variables beside economic conditions are related to VOC? (2) Which psychological variables mediate between the macro-context and individual behavior: what is the relative importance of value of children and aspects of parent-child relations? (3) What is the function of these contextual factors and psychological variables for societal development and change? More specifically, it has to be clarified the extent to which contextual variables, individual values, and parent-child relations can explain the quality of intergenerational relations including parental support of children and vice versa, especially in times when parental longevity poses new problems for adult children. These questions focus on the underlying problem of socialization and social change with respect to the transmission of values to the next generation.

Another set of questions concerns the effects of social change 30 years after the original VOC study was carried out, i.e., (1) Has any change occurred with respect to VOC and its components? (2) Has the function of VOC as a mediating variable between macro-contextual conditions and individual behavior (e.g., fertility and parenting) changed?

The focus of our extended study will be on the preconditions and effects of the value of children with respect to intergenerational relations and the transmission of values to the next generation. This is necessary, especially when questions regarding the psychological conditions for social change are dealt with. Thus, parenting and parent-child relations and the effects on the child's development in the life span need to be taken into account beyond value of children and fertility. An extension of the original VOC study is necessary in order

to better understand the differences in value of children and its effects, including parent-child relations and the transmission of values from one generation to the next. Therefore, a three generation study is planned. Furthermore, specific theoretically relevant contextual variables (culture, socio-economic conditions), personal (e.g., values of family and independence/interdependence, attachment) and relational variables (parent-child relation) will be included for dealing with questions of value of children and intergenerational relations over the life-span.

REVISED VOC STUDY

The Value of Children and Intergenerational Relations

Theoretical Model

In order to study the psychological factors involved in the process of demographic changes, we suggest a modification of the model from the original VOC study based on a social motivation and life-span theoretical approach which includes cultural factors and other contextual variables on the macro-level (Trommsdorff, 1999, 2001).

The value of children is part of more complex individual value orientations influenced by one's own socialization experiences and thus by the proximate and extended socio-cultural environment. Value of children is only one aspect of the individual value orientation which is related to other values, most probably to the value of family, and the subjective importance to have a family and to continue the family line. Moreover, culture-specific values of individualism and collectivism are directly related to family values (Georgas, 1999).

Therefore, our general model will take into account these further aspects of the subjective value orientation in order to test their respective explanatory strength. The person's "working model" based on the person's relation between self and environment serve to perceive and interpret the world (including one's parents' behavior). According to Bowlby (1982) the "working model" (of relationships) depends on the person's attachment quality which again results from the person's experience with the primary caregiver in early childhood. However, it is difficult to empirically measure attachment at different developmental periods over the life span. This makes studies on the stability of attachment quite problematic. Much research has been carried out on the function of attachment for further development over the life span (Cassidy & Shaver, 1999). However, it is unclear whether attachment has different functions in different cultures, depending on the meaning of the construct. Rothbaum *et al.* (2000) demonstrate in their critical study that attachment research is impaired on account of an ethnocentric bias regarding the essential components in the develop-

ment of attachment. They show that the caregiver's sensitivity (a condition for developing secure attachment) is defined differently in different cultures. The authors also demonstrate that secure attachment as a precondition for later social competence is not necessarily related to social competence as defined in Western cultures which highly favor independence and autonomy. Furthermore, the authors reveal the culturally biased view on the "secure base" which has traditionally been conceived of as the precondition for curiosity motivation and related cognitive development. The authors discuss how the emphasis on autonomy, individuation, and exploration which is typical for Western thinking underlies attachment theory. Therefore, they suggest an indigenous approach to the psychology of attachment.

Biased theorizing and related methods may thus contribute to considerable inconsistencies with respect to empirical findings on the development and function of attachment. In order to improve attachment research, a less individualistic perspective and a more indigenous approach is needed. Markus and Kitayama (1991, 1994) have elaborated on the divergent construals of the self, others, and the interdependence of the two in the USA and in Japan. The authors contrast the "independent" view of the self with the "interdependent" view and demonstrate significant implications for cognitive, emotional, and motivational differences in the two cultural contexts. In the same line of reasoning, autonomy and relatedness can be contrasted as culture specificities (Kagitcibasi, 1996; Trommsdorff, 1999). Empirical studies have shown that relatedness is a more important value in the construction of parent-child relations in some Asian as compared to Western cultures (Trommsdorff, 1995). Therefore, another approach to a better understanding of parent-child relations may be seen in Markus and Kitayama's (1991, 1994) concept of "independence" and "interdependence".

The present study therefore attempts to take into account both, attachment and the value of independence/interdependence, in order to test their possible culture-specific function for the value of child, for parenting, the quality of parent-child relations, and the investment in parents and/or children. Furthermore, these variables will be studied with respect to their function in the transmission of values to the next generation of mothers and their adolescent children (three generations) (see Figure 1).

To summarize, in our planned study we will take into account specific person and relationship variables which can be conceived of as a result of past experience in a specific cultural context. These should at least include generalized value orientations (value of children and value of family), attachment quality, and independence/interdependence. It is assumed that these orientations affect the quality of the parent-child relationship, parenting, and invested support in parents and/or children in biologically related generations.

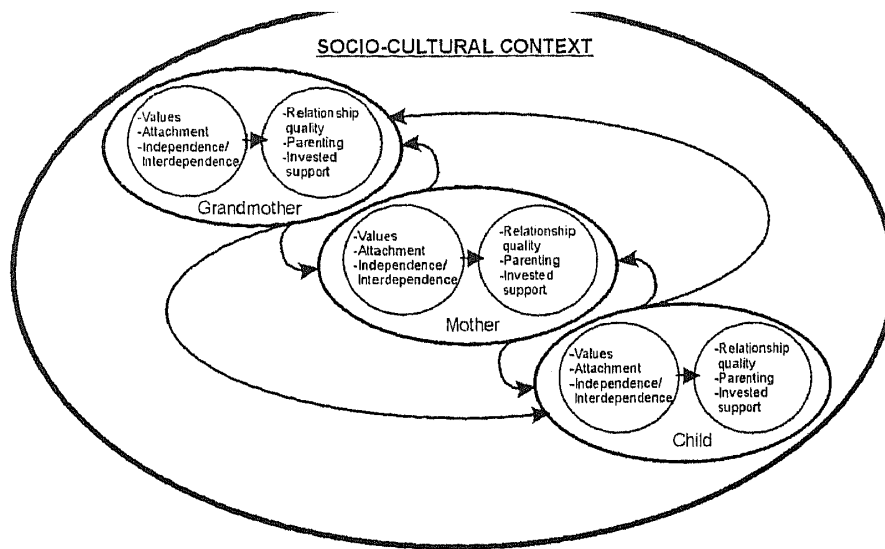


Figure 1. Value of Children and Intergenerational Relations in Three Generations.

Research Questions

According to the heuristic model (see Figure 1), the modified VOC study will empirically test whether and how contextual variables (economic development and cultural values) affect: (1) the value of children in its different aspects (e.g., a preference for economic, social, or psychological values; or, more specifically, values of self-fulfillment, maturation, family; here, the internal structure of the value of children is to be clarified); (2) the quality of intergenerational relations (including parenting behavior, investment in children and parents); (3) the mediating effects of the value of children on intergenerational relations; (4) the effects of values of independence/interdependence and attachment and intergenerational relations.

Specific questions to be tested are, e.g., whether the economic, social, and psychological value of children have an independent predictive value for fertility and intergenerational relations. This question is based on the following reasoning: (a) Economic interdependence is one aspect of intergenerational relations in the family which is related to the economic value of children. However, it is unclear whether other aspects, such as the social and psychological value of children, are related to parenting (preference for warmth, autonomy, obedience) and intergenerational relations in the family. (b) Under which conditions (e.g., culture, level of socio-economic stability) do these other aspects become prominent? Here we will differentiate between contextual (e.g., socio-economic and cultural) and psychological (e.g., attachment, values of independence and interdependence) conditions. (c) Due to increased longevity, the adult children and their parents face the problem of significant changes in the parent-child relationship over the life span. The aging parents may increasingly need support, and

their adult children may face the problem of having to invest in their parents in order to give them the support (economic, social, psychological) they need. The question is in how far the above-mentioned variables can explain the quality of investment in the older and in the younger generation. This makes a three-generation design necessary.

METHOD

Design

The modified VOC study will attempt to test the effects of culture and of socio-economic context on the value of children and intergenerational relations. It is assumed that socio-economic factors alone cannot explain the psychological processes involved in intergenerational relations. Even though a complete design for systematic variation of the relevant factors cannot be realized, we will attempt to arrive at a satisfying approximation. In order to explain conditions and processes of intergenerational relations in the family, including parenting and the mutual investments of parents and children, cross-cultural studies covering three generations will be carried out, systematically varying contextual factors (including socio-economic conditions and culture) and related individual values.

As for the selection of cultures, we will include samples from countries which differ with respect to economic status, general cultural values, and religious beliefs. Furthermore, in less developed cultures, we will also study intracultural differences by comparing urban and rural samples. The following countries will presumably be included: (a) Countries with high (Germany, Japan, USA), medium (Israel, Republic of Korea) and low (China, India, Indonesia, Turkey) economic status; (b) Countries with high value of autonomy (Germany, USA) and high value of relatedness (China, India, Indonesia, Republic of Korea, Turkey) and possibly high value of both (Japan); (c) Countries with monotheistic (Germany, Israel, Turkey, USA) and non-monotheistic religious traditions (China, India, Indonesia, Japan, Republic of Korea).

The inclusion of these cultures will allow us to partly vary relevant contextual variables. It is planned to choose samples from three generations of each family (adolescents, mothers, and grandmothers) in order to test the expected relations separately (a) on the level of each generation and (b) between the three generations.

This cohort design allows us to test possible differences with respect to the expected relationships between different age groups, though it does not allow the interpretation of the results as effects of development in the life span since no longitudinal data are available yet. Also, this design gives us the opportunity to compare our data with that on the young mothers interviewed (around 1970)

in the original VOC study, who are now about the same age as the grandmothers in the new study. Though one may be tempted to interpret possible similarities and differences between data from the previous and the ongoing VOC study as indicators of socio-cultural change, one should again be aware that differences could depend on the respective developmental age of the interviewees. Only a combination with a longitudinal design would allow us to disentangle cohort and age effects. Even though this makes the interpretation of results comparing data from the previous and the new VOC study difficult, a great advantage of this design is to test hypotheses on relations between the relevant variables in different cohorts while at the same time the quality of the relations between grandmothers, their daughters as well as these daughters' respective (adolescent) children can be studied.

The strength of the present study is that it includes variables besides value of children and fertility. This approach should allow us to detect conditions for value changes and changes in the society related to intergenerational relations. Studying a three-generation sample allows us to test the effects of intergenerational relations on value change and the transmission of values.

Instruments and organization

The study will be carried out on the basis of structured interviews. The questionnaires that will be used in the interviews are modified versions of those used in the pilot study, which was conducted in seven countries, the modifications, of course, based on the results (as regards culture-specific validity and reliability) of the pilot study as well as those of other cross-cultural studies. The team consists of psychologists and sociologists from the above-mentioned countries. The cooperation is based on regular meetings, electronic communication, and the exchange of all data sets for data analyses and joint publications.

Selected Data from the Pilot Study

In order to have an empirical basis for the extension of the revised VOC study, we carried out a pilot study in 7 countries. The cross-cultural design of the pilot study allowed us to test the instruments in various cultures and modify these according to culture specificities. Further goals were to get information on the applicability of our theoretical model (see Figure 1) and to ascertain the future organizational structure for cooperation. In each of the 7 countries, about 30 mothers and 30 grandmothers were interviewed. To summarize, the data of the present VOC pilot study support the assumption that an extension of the original VOC study involving the above-mentioned theoretical and methodological modifications is necessary (see Trommsdorff, Schwarz, & Chakkarath, 2000).

To give an example, comparisons between mothers from 7 countries showed significant differences in the value of children (see Figures 2, 3, 4). These results need further investigation with respect to other individual value orientations and their transmission to the next generation. More specifically, similarities in the economical and social VOC patterns (but not in the psychological/emotional VOC patterns) occurred for the samples from China and the former East Germany. These two groups shared similar social-political systems and dominant ideologies in the past several decades. The possible effects of the political system on the value of children will be examined in the planned VOC study.

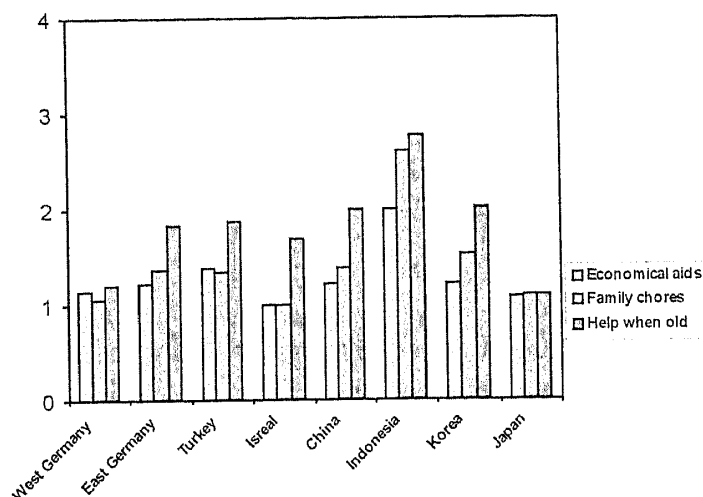


Figure 2. Reports (means) on the importance of having a child for economical needs.

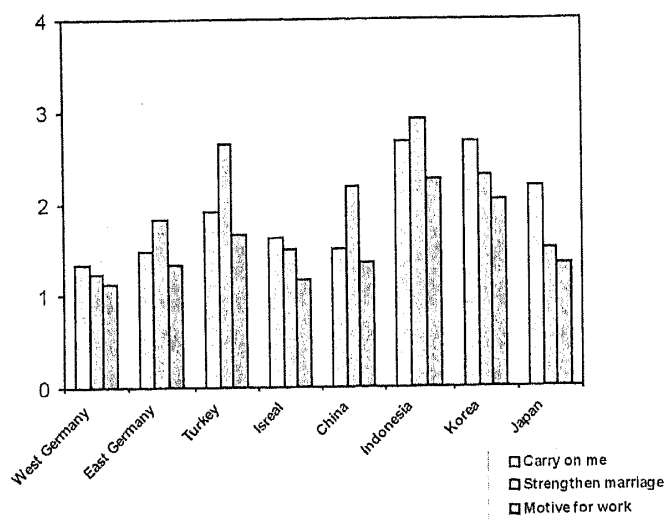


Figure 3. Reports (means) on the importance of having a child for social needs.

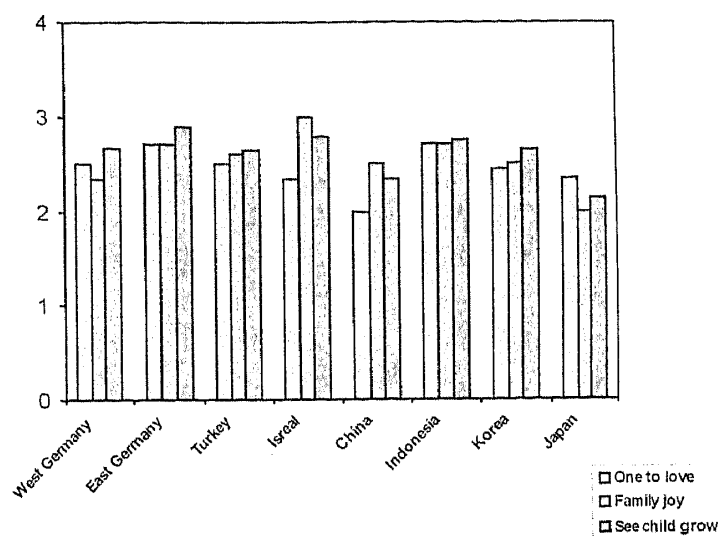


Figure 4. Reports (means) on the importance of having a child for psychological needs.

Of course, on account of the small sample size and the selectivity of the sample, these results cannot be generalized. However, the results from the pilot study may serve to illustrate some previously mentioned problems and to clarify some of our reasons for going beyond the original VOC study.

Selected Results from the Chinese Studies on Social Change and Value of Children

In the following, some selected results on value orientations from the pilot study in China are presented as an example of how the pilot study can be used to clarify culture-specificities and general questions of our theoretical model.

Data from the Chinese pilot study reveal possible value changes when taking into account some previous studies on the value of children in China. An interesting change in the value of children that is associated with changes in society can be observed. Although the Chinese samples in the original VOC study were recruited only in Taiwan (Hoffman & Hoffman, 1973), several follow-up studies have been conducted in different places. For example, in 1975, a sample of 2,103 mothers of young children was collected by Taiwanese researchers in Taiwan as a part of the original VOC study. The researchers tried to provide a national sample, including immigrants from the eastern and southeastern coastal regions and northern China. Both urban and rural samples were included; however, the currently available data from Taiwan do not provide separate figures for urban and rural respondents. In 1994, a VOC follow-up study was conducted in Beijing (Lin, Wan, Jing, & Hoffman, 1994), with a special focus on collecting data from Chinese urban and rural samples under the "one-child" family planning policy. A total of 222 married adults (100 males and 122 females)

were interviewed and statistical analyses were run for the main effects of urbanization (i.e., the urban-rural comparison), gender, having a child (i.e., a comparison between parents and married couples without children), and years of education. In 2000, a VOC pilot study for the current international research project was carried out in Beijing.

Comparisons of data from the reports in 1975, 1994, and 2000 were carried out with respect to the basic dimensions of value of children, e.g., economic utility, family ties, joy in family and life, expansion of self, adult status and social identity, sense of achievement and creativity, and other goals that had been summarized in the original VOC studies (e.g., Hoffman, 1988). Dramatic changes emerged in the percentage of young mothers who had emphasized the different values of having a child. In particular, the percentage of parents who said that bearing children would bring them "joy" increased from 68.6% to 77.2% to 83.9%; the need of "economic utility" dropped from 44.4% to 41.8% to 3.6%; and having a child seemed to become more and more important for keeping "family ties", as the report went up from 44.8% to 55.7% to 80%.

Social Change and Changes in Values in Two Generations

Results from the present VOC pilot study in 7 countries demonstrated that an intergenerational sampling design would be necessary for clarifying the effects of age, generation/cohort, and social change on VOC and life values. Here, only data on the Chinese sample will be reported. Specifically, we found significant decreases over generations in some traditional needs, such as "to continue the family name" (social need of expansion of the family) and "to help in old age" (economic utility). Comparing grandmothers and their daughters (young mothers), the percentage emphasizing the value of expansion of the family decreased significantly from 25.8% to 6.5%, and the same trend (i.e., a decrease from 16.1% to 3.6%) was found in the value of economic utility. It has to be asked whether such phenomena are the result of age and/or generation differences, or whether they were the result of larger social changes over the past several decades. In the data collected in both the early 1970's (Taiwan) and 1990's (Beijing), we see that the value of having children for economic utility were 38.1% and 48.8%, respectively, and that of expansion of family 44.4% and 41.8%. Thus, it appears that both social changes and age/generation-related effects may have played a role in the intergenerational differences. In addition, value changes could have taken place more rapidly in the last dozen years, as some societies (e.g., China) have undergone tremendous changes in a relatively short period of time. Obviously, more exploration on this issue will be needed in order to clarify the confounding factors of age, generation, and value change due to social development.

In addition to the VOC questions, mothers and grandmothers were measured with respect to a total of 13 collectivism-individualism values selected from the Schwartz and Bilsky (1987) instrument (selection based on Chang's COLINDEX). In the Chinese pilot data, Cronbach's Alpha for the six collectivistic scales ranged from .68 (mothers) to .64 (grandmothers) and for the seven individualistic scales from .68 (mothers) to .63 (grandmothers). Though these results are satisfying, some refining of the instrument may increase their applicability to a Chinese population.

Nevertheless, the results on collectivistic/individualistic values strongly suggest that more attention be paid to general life values, their relations with VOC, and their interactive effects with generation, age, culture, and changes in a society. For instance, the collectivism subscale in the Chinese samples showed, on the one hand, a highly significant mother-daughter correlation in "social order" ($r = .44$) and, on the other hand, a significant intergenerational difference with grandmothers scoring higher than mothers ($p < .001$). This suggests some consistency of value orientations between mothers and grandmothers. These may be due to socialization influence in the family. On the other hand, some data reveal differences in value orientations between the two generations: In general, the young mothers tended to be more individualistic than the grandmothers. The conditions for value change and intergenerational relations need clarification. These questions will be dealt with in the main VOC study.

One approach to these questions is based on cross-cultural comparisons including comparisons on the relative importance of family and individual interests. To give an example, cultural differences between the German and Chinese samples in the preference of family interests (as compared to personal interests) were large and in the expected directions. Specifically, more Chinese respondents strongly agreed that family interests are more important than personal interests, whereas the portion holding a neutral attitude was larger among the German group. However, the conditions and the function of such culture-specific value orientations need closer investigation.

Bearing and rearing children is but a part of human life and behavior and closely related to cultural values and individual value orientations. Thus, a more refined investigation of the contextual conditions and the individual value orientations will be an essential topic in the VOC main study.

Values of Adolescents: The Need for a Three-Generation VOC Study

The inclusion of an adolescent sample in the main VOC study is planned to carry out a three-generation design which will allow us to study the transmission of values. Furthermore, several studies by researchers of the Chinese team demonstrate the necessity of studying adolescents' values as part of the VOC research. These studies have been carried out to monitor social change in China

and its influence on adolescents' values since the late 1980's (Zheng, 1995; Zheng & Shi, 1999; Zheng, Shi, Yu, & Gao, 1996). The authors were preparing a large-scale survey of 13–18-year-old secondary school students in Beijing when they decided to participate in the pilot VOC study. Given this emphasis, one question became very obvious, viz. "How would the third generation differ from their parents with respect to such values?" Therefore, some items concerning the value of the parent-child relationship from the VOC questionnaire were added to the survey of adolescents ($N = 5,000$) and a smaller sample of parents ($N = 300$).

As expected, the results showed high correlations between parents and children in their ratings on most of the collectivistic values (i.e. 'honor of elders'; 'social order'; 'national security'; 'self-discipline'; and 'politeness'). At the same time, significantly lower means were found in the adolescent group on all of those values. This is parallel in direction, but even stronger than the differences found between mothers and grandmothers in the pilot VOC study. For individualistic values, significant differences were also found in ratings of the importance of 'pleasure', 'pursuit of a varied life,' 'being daring', 'independence' and 'an exciting life', whereas the correlation between reports by parents and their adolescent children was generally low. Again, the major finding of mean differences parallels that found between parents and grandparents. However, the tendency of this new generation of adolescents towards individualism is unrelated to their parents' endorsement of individualistic values, suggesting overriding social changes that preclude individual differences between families.

The data concerning parent-child relationships showed that, in the ratings on 'closeness', 'mutual understanding, 'mutual confidence', 'being fair', and 'mutual respect', high correlations ($r = .41$ to $.52$) occurred between mother and child reports, but not between father and child reports. Both fathers and mothers tended to rate the quality of the parent-child relationship higher than did their children.

The reports from adolescent children thus provided additional information on the validity of items in the present VOC questionnaires and the current situation of parent-child relations in China. Without adolescents' data, the results on parent-child relations based only on data from the mothers and the grandmothers would be incomplete with respect to questions of value change and changes in parent-child relations over the life span. By adding a group of adolescents, relations between mothers and children can be studied bi-directionally and contemporaneously, and changes in value of children and intergenerational relations can be examined. A three-generation sampling design will benefit the VOC study in order to test the present theoretical model (see Figure 1). Furthermore, this increases the chance for setting a solid empirical foundation for follow-up studies in the future.

CONCLUSION

The present study of the "value of children" conceives of the ongoing demographic changes as a problem. Since social and psychological research have not taken these changes into account sufficiently, we will attempt to investigate some of the psychological aspects of the current demographic changes, including their preconditions and consequences.

One of the important strengths of both the present and the original VOC study is their interdisciplinary approach in combining methods and perspectives from psychology, sociology and population studies. On account of several theoretical and methodological shortcomings of the original VOC study, a modification is attempted by the present VOC study. This is based on the belief that the best way to demonstrate, revise or develop a theory and/or method is to improve it, rather than discard it altogether.

The focus is on the value of children and intergenerational relations in the family. These will be studied in three generations of each family and in different cultural contexts. First, it is expected that the conditions for different birth rates and related decisions for having children will be clarified. Second, a better understanding of conditions and functional consequences of intergenerational relations can be achieved. Thus, the revised and extended VOC study may allow us to test changes in the value of children and related phenomena and to clarify contextual conditions. The results are expected to give more insight into psychological problems associated with demographic changes and contribute to a better theoretical understanding of social change and intergenerational relations in different cultures.

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