

Taxonomy of Attitudes of Having Children for Rural Parents

YEI - FEI SU *

I. Introduction

1. Population problem

The agricultural problems discussed often by scholars in Taiwan from view points of agriculture and population are three. The first problem is scarcity of arable land in proportion to the amount of population. The average unit farm acreage decreased from 1.17 ha. of 1956's agricultural census to 1.02 ha. of 1973's agricultural census. It is very difficult, if not impossible, to facilitate farm mechanization and industrialization with such a tiny acreage per farm family. In other words, the main obstacle of improving agricultural production structure in Taiwan is too many agricultural population.

The second problem is the decreasing tendency of quality of human resources in agriculture. This problem can be discussed both from age structure and educational attainment. Recently, the industrial development in the urban sectors have attracted a great deal of farm population, by pulling the youth out and leaving the olds behind the farms. The average age of farm employment, increased from 34.0 of 1965 to 37.8 of 1975. According to labor survey statistics of Oct. 1975, the amount of agricultural employment who had no formal education amounted to 30.7% of total agricultural population whereas the total employment who had no formal education amounted only 16.0% of total population. Reasons lead to the low quality of agricultural human resources may be due to high birth rate and low family income of farm families. Because of these reasons, farm families provide less educational opportunities and has less attractions for rural youth to remain of farming. The present study reveals that annual mean family income of agricultural respondents (age 20-44 of husband respondents) is NT\$24,923 which is only 51.64% of the annual mean family income of total respondents. The mean number of living children of agricultural families is 2.8, and the overage amount spent per child per year is NT\$5,011 that is much smaller than NT\$8,552 of the urban middle families.

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Any planned change program is largely determined by the degree of modernization measures of the clientel themselves. By the same token, the National Family Planning program has been more successfully implemented in urban sectors than in rural sectors. In practice, the urban population has fewer children and need less encouragement from the family program but in fact they received more encouragement than rural people who have more children.

To avoid this dilemma, more assistance and behavioral change program should be provided for rural farmers in the national educational program other than the present national family planning program. The present paper is aimed at studying motives, values and attitudes of rural parents on the reason of having children. This is an interdisciplinary approach including socio-psychological concepts of human behavior.

Table 1-1 Estimated Annual Family Expenditures for Children by Subgroups

Item	Urban middle	Urban lower	Agri-cultural	All groups
Annual mean Family income	75,521	44,160	24,923	48,255
Average amount spent on all children per year	18,900	17,090	13,780	16,590
Mean number of living children per family	2.2	2.9	2.8	2.6
Percentage of annual mean family income spent on children	25	39	55	34
Percentage of annual mean family income spent per child	11	13	20	13
Average amount spent per child per year	8,552	5,934	5,011	6,356

Note: Monetary values expressed in New Taiwan Dollars (NT\$).

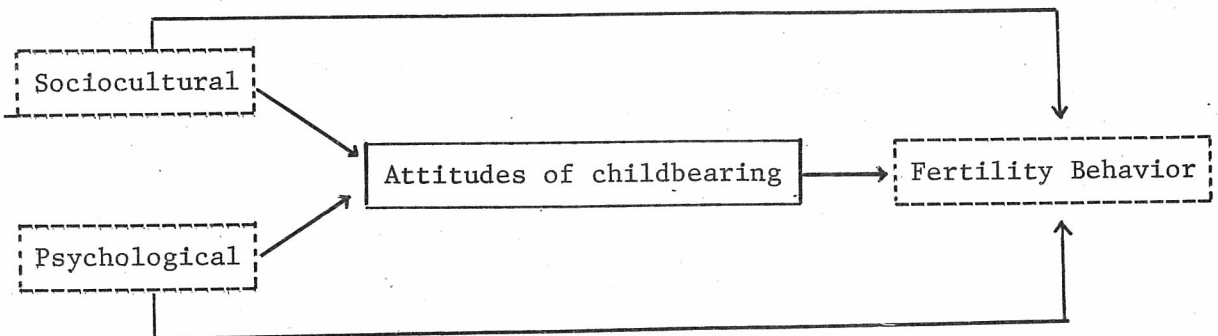
One NT\$ = U.S.\$0.026.

2. Frame of Reference

Benefits and costs of children have been studied widely by economists in past few years. Since many cultural factors are involved in determining the value or disvalue of children, we can not ignore traditional cultural determinants and only analyze the economical value. For example, in Taiwan the norm of boy preference is connected with many traditional norms that may have greater impact than pure economic rationality.

Data used in the present study is drawn from a cross-cultural research package titled as the value of children conducted by professor T.S. Wu of National Taiwan University in which the present author served as the research associate. The value of children research package was aimed at analyzing the relationship of sociopsychological factors, the value of children and fertility behavior. In a separate paper I have presented their interrelationships for rural couple under the title "The value of children of Rural couples". The present paper is mainly focused on the value aspect itself, to examine the classification of value of childbearing for the Taiwanese rural present. The position of this paper in relation to the research package can be drawn as the following scheme.

Figure 1-1 Research Scheme



Theoretically, the value of child bearing, the core questionnaire of the present paper also follows the value scheme presented by Hoffman and Hoffman. As this is an exploratory study, value, attitudes and motives are used interchangeably in the present paper. Strictly speaking, the value

studied in this paper indicates mainly the attitudes, especially as the responses were collected by using attitude scale.

Attitudes was defined by David Krech and others in the following words: "An enduring system of positive or negative evaluations, emotional feelings, and pro or con action tendencies with respect to a social object". Attitudes according to Krech consists of three components, i.e., cognitive component, feeling component and action tendency component. For example, cognitive component of an attitude toward childbearing may consist of the beliefs and understanding of the individual about childbearing. The most critical cognitions incorporated in the attitude system are evaluative beliefs which involve the attribution of favorable or unfavorable, desirable or undesirable, good or bad qualities toward having children. The feeling component of an attitudes refers to the emotions connected with childbearing. Having child is felt to be pleasing or displeasing; happy or unhappy; liked or disliked. It is this emotional looping which gives attitudes their insistent, stirred-up, motivating character. The action tendency component of an attitude includes all the behavioral readiness associated with the attitude. If an individual holds a strong positive attitude toward a child, he may be have a tendency to prefer more children and hence not use birth control techniques.

Values according to Krech are defined as beliefs about what is desirable or a good and what is an undesirable or a bad. Values reflect the culture of a society and are widely shared by the members of the culture. It seems that values are more or less similar to the cognitive component of attitude defined above whereas motives can be incorporated in the feeling component of an attitude. The present paper deals with the first two components of attitudes of parents toward childbearing.

Man's attitudes, values and motives develop as he develops and grows. But no man's life develops apart from the lives of his fellows and the society to which he belongs. Berelson found that individual opinions, attitudes and beliefs are differentiated by society, parental family, group membership and social strata.

Therefore the attitudes of parents toward childbearing was studied

by employing samples from urban middle class, urban low class and rural agricultural class with an emphasis on the study of the attitudes of the latter.

3. Methods and Samples

Urban samples were drawn from two precincts in Taipei city which consists of 16 precincts with 1,804,605 inhabitants (mid-year population of 1971). KUTING precinct, located in the southern part of Taipei city with a population of 180,968 was selected for the urban middle class sample. LUNGSHAN precinct, one of the oldest urban districts representing traditional Chinese culture in Taiwan, was used for the urban low class sample. LUNGSHAN precinct is located in the south-west side of Taipei city, with a population of 68,230; the inhabitants are mainly native Taiwanese.

Criteria used in the selection of sample (husband) in each of the two precincts are as follows:

KUTING precincts (Urban middle): Education more than Senior High School, with white collar occupation.

LUNGSHAN precincts (Urban low) : Education less than Junior High School, with blue collar occupation.

Twenty-four neighborhoods each from 58 neighborhoods of KUTING and 46 neighborhoods of LUNGSHAN were randomly selected to assure even distribution of the sample. Three couples were then randomly selected from each of the selected 24 neighborhoods in such a way that the female of each couple comes from one of the three age cohorts, i.e. 20-24, 25-29, 30-34, and the male from age range of 20-44. In other words, in each urban precinct, 24 couples from each of the three age cohorts were randomly selected to make 72 couples each from the two urban precincts representing urban middle and urban low classes. To locate these respondents, the precinct population register was used to identify education, occupation, age and location. From the register, a random selection was made of about twice as many households as needed to fill the quota.

Table 1-2 Sample : Couples

Age Cohort (According to Wife's Age)	Urban Middle	Urban Low	Agri- cultural	Total Couples
20-24	24	24	24	72
25-29	24	24	24	72
30-34	24	24	24	72
Total Couples	72	72	72	216

In the rural area, two townships from each of two agricultural prefectures were selected: One township with a higher agricultural population and another with a lower agricultural population. Selected townships with the employed population age 15 and over and percentage of agricultural population are listed below.

Table 1-3 Demographic Data of Selected Rural Townships, End of 1971

Township	Total Employed Population Age 15 and Over	% of Agricultural Population
(Iunlin Prefecture)	HUWEI 21,911	52.6
	ERHLUN 19,369	89.2
(Chiayi Prefecture)	POTZU 15,828	60.2
	LUTSAO 12,574	85.6

Source: "1971 Taiwan Demographic Fact Book, Republic of China", Table 29, published by Ministry of Interior, Republic of China.

One village of predominantly rice-growing farms was purposely selected to pick 18 couples randomly in such a way that 6 couples from each of the three age cohorts were found. A total of 72 couples from 4 townships in two prefectures were randomly selected. The township population register

was used to identify agricultural families of the proper age. The township farmers' association's records were also used to validate the agricultural criteria.

Some selected characteristics of rural respondents are shown in the following table with urban middle and urban low groups for comparison. Mean scores of all characteristics are all in favor of urban groups except the mean number of living children in which the rural group has a mean of 2.8 as compared with 2.2 of urban middle and almost identical with 2.9 of urban lower class. In general, rural respondents are shown with lower scores in all of the modernism measures. Taiwan rural respondents have income about onethird of urban middle, lower educational opportunities and fewer female employment opportunities.

A total of 28 interviewers were selected from Senior classes of the Anthropology, Agricultural Extension, Psychology and Sociology departments of the National Taiwan University. Eleven interviewers, 9 female and 2 male, interviewed the rural respondents; all were selected from the Department of Agricultural Extension. For the urban sample, 17 interviewers, 8 female and 9 male, were selected from the other departments. A 7-day intensive training program, including one day of field practice, was given to the interviewers and research assistants. Besides the general interviewing techniques, interviewers were particularly trained to the dialect or colloquial language of the interviewee to assure a higher degree of validity and reliability. To avoid interruption from children while interviewing the housewife, it was suggested to each interviewer that he or she bring along some candy.

In the rural areas, field work was facilitated by assistance obtained from local extension agents of the respective farmers' association, and other local leaders. In the urban areas, the city family planning commission provided some suggestions, but the interviewing work was carried out individually in the urban section.

The theme of present paper, the attitudes of childbearing, consists of 45 attitude items on children. As this information was taken from the Taiwan value of children study, the attitude items were designed collaboratively

Table 1-4 Selected characteristics of respondents

Characteristic	Urban middle	Urban low	Agricultural	Female	Male	All respondents
Mean age	30.2	30.3	28.8	28.7	31.0	29.8
Years of education	12.2	6.0	4.7	6.3	9.0	7.6
Percentage of life spent in urban areas	68.2	67.9	1.0	42.7	48.6	45.7
Mean age at marriage	24.3	22.7	20.7	20.9	24.3	22.6
Mean number of living children	2.2	2.9	2.8	na	na	2.6
Mean annual family income in New Taiwan Dollars ^a	75,521	44,160	24,923	na	na	48,201
Percentage of wives currently employed	19.4	16.7	13.2	32.9	na	16.4

na : not applicable

^aOne New Taiwan Dollar = US\$0.026.

by project leaders in all six countries that may not represent completely the value of Chinese in Taiwan on children. In addition to the attitude of children, open-ended questions and family size measures were also administered to secure perception of parents on child. Questions other than those analyzed in the present paper are not discussed here.

II. Factor Analysis of Attitudes of Having Children

In this paper, the attitudes toward children are broadly conceived as parents' feeling about children, about the functions children serve, and about the disadvantages of having children. Two open-ended questions were administered to elicit from respondents those advantages and disadvantages of children that were most important to them. Advantages and disadvantages of children were discussed in my previous paper under the title of "Value

of Children Perceived by Rural Couples". In order to analyze data more precisely, structured questions (attitude items) were used to elicit degree of feeling toward having children.

On the basis of a pilot study (Fawcett, Albores, and Arnold 1972), 45 attitude items or statements on values and disvalues connected with children were written. These 45 attitude items can be classified into following nine value categories: continuity, tradition and security, parenthood satisfactions, role motivations, happiness and affection, goals and incentives, social status, external controls, costs, decision-mindedness. Their classification seems to receive some influences from Hoffman and Hoffman's categories of the value of children. Hoffman and Hoffman provided nine general categories as a framework for studying the value of children as below:

1. Adult status and social identity
2. Expansion of the self, tie to a large entity, "immortality"
3. Morality : religion, altruism, good of the group; norms regarding sexuality, impulsivity, virtue
4. Primary group ties, affiliation
5. Simulation, novelty, fun
6. Creativity, accomplishment, Competence
7. Power, influence, effectance
8. Social comparison, competition
9. Economic utility

The 45 attitude items used in this paper were written in such a way to form a Likert type of attitude scale. Each attitude item has a scale value ranging from 1 (strongly disagree) to 7 (strongly agree) without a neutral position value. Respondents were first asked to express agree or disagree on each statement, then asked to indicate the degree of agreement (very agree, moderately agree, little agree) or degree of disagreement (very disagree, moderately disagree, little disagree). Neutral answers were discouraged and respondents were forced to make a selection between agree or disagree in the first step of rating attitude items. Don't know responses were coded with 4 scale value.

As 45 attitude items were prepared based on Hawaii study, few important values were ignored or not well covered. For example, disvalue of daughter, value of son preference, heritage of property. Many of the attitude items were phrased positively, expressing values rather than dis-values. As expected, most of the items elicited general agreement rather disagreement.

1. Mean Scores of Attitude Items

Before describing attitude scores for rural respondents, let us take a quick view on total responses. Items with which Chinese respondents agreed most strongly emphasized the need for children to perpetuate the family name and traditions (item 7), the opportunity parents have to influence the behavior of their children (item 33), and the incentive that children give their parents to succeed in life (item 6). Most of the negative items and items suggesting alternatives to children elicited general agreement, by only slight agreement. For example, items 10 (always having children around is a great mental strain), 41 (Before having a child, a couple should consider whether it would interfere with the wife's work or not), 19 (children limit you in what you want to do and where you want to go), and 1 (caring for children is a tedious and boring job) all had mean scores between 4 and 5. One negative item (item 26) and one item (item 32), suggesting a material alternative to children, elicited general disagreement. Most Chinese parents would probably agree that parents should sacrifice their own happiness on behalf of their children.

All mean scores of attitude items for female and male agricultural respondents are presented in Table II-1. The female agricultural respondents rated highest (mean score beyond 6.5) on the following items.

- Having children so family traditions will live on (item 7)
- Man has duty to have children to continue family name (item 34)
- Natural that a woman should want children (item 28)
- Having children, you are never lonely (item 36)
- Children can help when parents are too old to work (item 2)

The five attitude items scored highest (mean score 6.5 and more) by the male agricultural respondents are as below.

Having children so family traditions will live on	(item 7)
Man has duty to have children to continue family name	(item 34)
Natural that a woman should want children	(item 28)
Having children, you are never lonely	(item 36)
Children can help when parents are too old to work	(item 2)
Children gives one a special incentive to succeed	(item 6)

Sex differences among agricultural respondents on the attitude of childbearing are very little. Men and women both emphasize tradition of family name, old age security and companionship. One important difference is that male agricultural respondents think a child is the source of incentive to work harder and succeed.

Attitude items rated lowest (mean score 3 and less) by both female and male in the agricultural group are identical, as below: Children cause disagreements, problems between husband and wife (item 26) not right to interfere with nature, deciding to limit the number of children one will have (item 38) and pressures from family and friends, one doesn't have much choice about decision to have children (item 11).

Table II-1. Mean Scores of Attitude Items, by Sex of Agricultural Respondents

Item No.	Item	Female	Male	Total
1.	Caring for children, a tedious and boring job	5.7	4.8	5.2
2.	Children can help when parents are too old to work	6.7	6.2	6.5
3.	Raising children is an act of virtue	6.5	6.2	6.3
4.	Only with child can a person feel completely free to express love and affect	5.9	5.9	5.9

5. Married couples happier without children	5.8	5.9	5.9
6. Children gives one a special incentive to succeed	6.4	6.5	6.4
7. Have children so family traditions will live on	6.8	6.7	6.8
8. Natural that a man should want children	6.5	6.5	6.5
9. Couple should consider inconveniences caused by children before having any	4.9	5.2	5.1
10. Having children around, a great mental strain	6.0	5.2	5.6
11. Pressures from family and friends, doesn't have much choice about decision have children	2.8	3.0	2.9
12. Person's duty to society to have children	6.2	6.1	6.2
13. Efforts parent makes for children, worth-while in the long run	6.5	5.9	6.2
14. Children make a stronger bond between husband & wife	6.0	5.9	6.0
15. One of highest purposes of life, have children	5.8	5.0	5.4
16. A girl becomes a woman, only if she is a mother	6.3	6.2	6.2
17. Parents' fault if children are not successful	5.1	5.7	5.4
18. Children, the most important function of marriage	6.4	6.1	6.2
19. Children limit you, what you want to do and where you want to go	5.5	4.3	4.9
20. Life dull, without children	6.4	6.3	6.3
21. Young couple not fully accepted in community until they have children	5.6	4.6	5.1

22. After becoming a parent, a person is less likely to behave immorally	5.8	6.1	5.9
23. The first thing when deciding to have children, whether or not one can afford it	5.9	6.0	5.9
24. Inevitable to have children	6.5	6.2	6.3
25. One of best things about children, true loyalty they show to their parents	6.4	5.8	6.1
26. Children cause disagreements, probs. between husband and wife	2.2	1.6	1.9
27. Person with children is looked up to in the community	5.6	4.9	5.2
28. Natural that a woman should want children	6.6	6.6	6.6
29. Being needed, enough to make having children worthwhile	6.5	5.9	6.1
30. Being a good parent, one can feel completely satisfied with his achievement in life	6.2	6.3	6.1
31. Family with children, basis of good in our society	6.2	6.2	6.2
32. Before having children, couple should consider whether to use money for something else	4.1	3.2	3.7
33. Being a parent, chance to teach children what they should do and what they should not do	6.4	6.4	6.4
34. Man has duty to have children, continue family name	6.7	6.8	6.7
35. One feels a part of him lives on after death if he has children	5.7	5.8	5.8
36. Having children, you are never lonely	6.7	6.5	6.6
37. Raising children, a heavy financial burden	6.4	6.0	6.2

38. Not right to interfere with nature, deciding to limit the number of children one will have	2.6	3.0	2.8
39. With children, have to give up a lot of things	5.7	4.5	5.1
40. Impt. things in life, learned from raising children	6.1	6.1	6.1
41. Couple consider whether child will interfere with wife's work or not	4.8	4.7	4.8
42. Children, a sign of blessing on a marriage	6.5	6.3	6.4
43. Family with children, only place in modern world one can feel comfortable and happy	6.2	6.2	6.2
44. Person without children, never really happy	5.5	4.8	5.1
45. Boy causes a man only after he is a father	6.1	5.9	6.0

2. Factor analysis of attitude items

The VOC attitude items for the six groups and the total sample were separately factor-analyzed by the principal-factor method and then rotated to an orthogonal sample structure by the varimax technique. Six factors were extracted in all cases.

Close examination of the results of the factor analyses reveals that the factor structure varied widely among sub-groups with respect to the composition of each factor in terms of its high-loading items. Attempt to match factors across sub-groups seems to be difficult. The lack of equivalence of factors across groups might have resulted from the instability of the correlation matrices which was in turn due to the low ratio (72/45) between the number of respondents and the number of attitude items. For this reason, only the factor matrix for the total sample, with a sufficiently large N, will be dealt with in this abstract.

According to the factor matrix for the total sample, the first and largest factor, Factor I, had high loadings (greater than .40) on 12 items, is indicated in Table II-2-1. Further content analysis indicates that the 12 items may be divided into 3 sets. The first set consists of Item 30, 42, 33, 35, 29, 36, and 40; all of these items relate, in one way or another, having children to parents' self-actualization prior to as well as after death. The second set includes Items 31 and 43, which all assert that the family with children has something to do with the betterment of our society or world. Finally, the third set is composed of Items 24, 28, and 8, all suggesting a naturalistic point of view of having or wanting children. According to this analysis, it seems reasonable to say that Factor I has three "elements" and may be termed Parental Self-actualization, Societal Improvement, and Fulfillment of Nature's Work from Having Children.

Factor II has 7 high loadings, as shown in Table II-2-2. The factor may be labelled Children as Benefits and Obligations to the Parents, Family and Society.

The 6 high-loading items of Factor III are presented in Table II-2-3. The factor may be described as Happiness, Social Status, and Morality from Having Children. Table II-2-4 gives the 6 items on which Factor IV has high loadings. The factor is termed Economic and Psychological Costs of Having Children. Factor V is named Propensity to Assess Alternatives to Childbearing. The 3 items identifying the factor are shown in Table II-2-5.

Factor VI is a bipolar factor and is least "crystallized". Since there is only one item on the positive pole, as shown in Table II-2-6, the choice of a label is in doubt. However, for the sake of convenience it may be tentatively termed Individualistic vs. External Orientation to Childbearing.

At this point, it should be pointed out that the above six factors accounted for less than half of the total variance, indicating not only that more non-chance factors may be extracted but also that at least some of the extracted factors were not powerful at all. As a matter of fact, only the first two of the six extracted factors had high loadings on more

Table II-2-1 Factor 1 : Parental Self-actualization, Societal Improvement, and Fulfillment of Nature's Work From Having Children

Item No.	Loading	Item
30	.65	A person who has been a good parent can feel completely satisfied with his achievements in life.
31	.65	The family with children is the basis for all that is good in our society.
42	.58	Having children is a sign of blessing on a marriage.
43	.58	The family with children is the only place in the modern world where a person can feel comfortable and happy.
33	.52	One of the best things about being a parent is the chance to teach children what they should do and what they should not do.
35	.52	A person can feel that part of him lives on after death if he has children.
24	.50	For most people, it is inevitable to have children.
29	.49	Just the feeling a parent gets of being needed is enough to make having children worthwhile.
36	.49	One of the best things about having children is that you are never lonely.
40	.48	The really important things in life can be learned only from the experience of raising children.
28	.47	It is only natural that a woman should want children.
8	.40	It is only natural that a man should want children.

Table II-2-2 Factor II: Children as Benefits and Obligations to the Parents, Family and Society

Item No.	Loading	Item
2	.66	A good reason for having children is that they can help when parents are too old to work.
3	.63	Raising children is an act of virtue.
18	.62	Having children is the most important function of marriage.
7	.58	It is important to have children so that the family traditions will live on.
34	.58	A man has a duty to have children to continue the family name.
12	.47	It is a person's duty to society of have children
15	.47	One of the highest purposes of life is to have children.

than 5 items and accounted for more than 5 percent of the total variance. Factor I is most dominant in the sense that it accounted for almost one-fifth of all variance, which was about 3 times that accounted for by the next highest factor, Factor II.

The results of the factor analysis for the total sample may serve as a frame for calculating a scale for subgroups on each of six factors. Using the high-loading items as a core, more items may be added and evaluated to develop a factorially valid scale for each factor, and this would be particularly easy to do with Factor I, which already had high loadings on more than 10 items. In the present study, no effort has been taken to add more items to develop a new scale.

Table II-2-3 Factor III: Happiness, Social Status and Morality
from Having Children

Item No.	Loading	Item
44	.68	A person who has no children can never really be happy.
45	.59	A boy becomes a man only after he is a father.
22	.56	After becoming a parent, a person is less likely to behave immorally.
16	.47	A girl becomes a woman only after she is a mother.
27	.47	A person with children is looked up to in the community more than a person without children.
21	.42	A young couple is not fully accepted in the community until they have children.

Table II-2-4 Factor IV: Economic and Psychological Costs of
Having Children

Item No.	Loading	Item
19	.68	Children limit you in what you want to do and where you want to go.
37	.60	Raising children is a heavy financial burden for most people.
39	.56	When you have children, you have to give up a lot of other things that you enjoy.
1	.51	Caring for children is a tedious and boring job.
10	.50	Always having children around is a great mental strain.
41	.43	Before having a child, a couple should consider whether it would interfere with the wife's work or not.

Table II-2-5. Factor V: Propensity to Assess Alternatives to Childbearing

Item no.	Loading	Item
23	.59	The first thing a couple should think about when deciding to have children is whether or not they can afford it.
32	.58	Before having a child, a couple should consider whether they should rather use their money for something else.
9	.57	A couple ought to think seriously about the inconveniences caused by children before they have any.

Table II-2-6 Factor VI: Individual vs. External Orientation to Childbearing

Item No.	Loading	Item
38	-.58	It isn't right for a couple to interfere with nature by deciding to limit the number of children they will have.
5	.51	Most married couples would be happier if they did not have any children.
11	-.47	Considering the pressures from family and friends, a person really doesn't have much choice whether or not to have children.

3. Top and Bottom Quartile of Attitude Items

The factor structure was found to vary widely among the various subgroups, but the lack of factor equivalence may have resulted from the instability of the correlation matrices, which in turn was due to the small number of respondents in each subgroup relative to the number of attitude items. For this reason, the agricultural subgroup factor structures have not been analyzed.

Instead, the 11 items having the highest mean scores (i.e., those in the top quartile) and the 11 items with lowest scores (in the bottom quartile) were derived for agricultural subgroup in order to disclose the importance that the agricultural group placed on the items. Several observations can be made about the relation of these scores, which are presented in Table II-3, to the factor analysis.

First, four items have mean scores in the top quartile for both agricultural and urban middle groups: 8 (natural that a man should want children), 28 (natural that a woman should want children), 33 (being a parent, chance to teach children what they should do and what they should not do) and 20 (life dull, without children). All four items except 20 are highly loaded on Factor I. This may imply that factor is commonly shared by both agricultural and urban middle groups.

Second, Four items have mean scores in the top quartile for agricultural group were not shown in the top quartile for urban middle group. These four items are highly loaded in Factor II which expresses the economic value and obligation that are very important to Chinese. This seems to suggest that Chinese traditional values toward children are still very strongly held by rural agricultural people in Taiwan.

Third, none of the items in Factors III, IV, and VI scored in the top quartile for any group. Only one item in Factor V, propensity to assess alternatives to childbearing, received a high mean score, and from only the urban middle class: 23 (the first thing a couple should think about when deciding to have children is whether or not they can afford it).

Only three items that placed in the bottom quartile among two subgroups had generally negative scores (that is, below 4), 11 (Considering

the pressures from family and friends, a person really doesn't have much choice about whether or not to have children), 32 (Before having a child, a couple should consider whether they would rather use their money for something else), and 38 (It isn't right for a couple to interfere with nature by deciding to limit the number of children they will have). Respondents seemed resistant to the suggestion that they had no control over their childbearing decisions, or that children could be compared with consumer goods. Item 32 produced puzzled reactions from many respondents, perhaps because it had never occurred to them that a material substitute might be found for children. The low scores on item 11 may mean that social pressures favoring high fertility are beginning to weaken in the communities sampled, particularly among the middle-class. The negative reactions to item 38 suggest that family planning would not be objectionable to Chinese respondents, an interpretation borne out by their responses to later questions concerning their attitudes toward birth control. It is also possible that some respondents reacted to the strong wording of the statements rather than to the opinions expressed by them.

Two other items scoring in the bottom quartile among two subgroups generally scored on the positive side: 21 (A young couple is not fully accepted in the community until they have children) and 44 (A person who has no children can never really be happy). Both had high loading in Factor III (adult status, morality, and happiness). In each case, only the middle class disagreed with the statement, whereas the rural group registered the highest (though only slight) level of agreement. Agricultural respondents cited, with strong disagreement, item 26 (Having children causes many disagreements and problems between husband and wife).

On several remaining items scoring in the low quartile, the middle class stands in contrast to the agricultural groups. It attached relatively less importance to security from children in old age (item 2) and children as one of the highest purposes in life (item 15), relatively more importance to considering the alternatives to children (item 9). These differences accord with the more "modern" values elsewhere expressed by middle-class respondents. The agricultural group assigned relatively less

Table II-3-1 Mean Scores of Top & Bottom Quartiles of Attitude Items of Agriculture Respondents

TOP QUARTILE			BOTTOM QUARTILE		
Item No.	Item	\bar{X}	Item No.	Item	\bar{X}
7	Have children so family traditions will live on	6.78	26	Children cause disagreements, probs. between husband and Wife	1.92
34	Man has duty to have children, continue family name	6.73	38	Not right to interfere with nature, deciding to limit the Number of Children on will have	2.80
28	Natural that a woman should want children	6.59	11	Pressures from family and friends, one doesn't have much choice about decision to have children	2.90
36	Having children, you are never lonely	6.56	32	Before having children, couple should consider whether to use money for something else	3.65
8	Natural that a man should want children	6.46	41	Couple should consider whether child will interfere with wife's work or not	4.76
2	A good reason for having children is that they can help when parents are too old to work	6.45	19	Children limit you, what you want to do and where you want to go	4.89
42	Children, a sign of blessing on a marriage	6.40	9	Couple should consider inconvenience caused by children before having any	5.08
33	Being a parent, chance to teach children what they should do and what they should not do	6.38	39	With children, have to give up a lot of things	5.11

24	Inevitable to have children	6.34	21	Young couple not fully accepted in community until they have children	5.11
20	Life dull, without children	6.33	44	Person without children never really happy	5.14
3	Raising children is act of virtue	6.33	1	Caring for children, a tedious and boring job	5.24

Table II-3-2 Mean Scores of Top & Bottom Quartiles of Attitude Items of Urban Middle Respondents

TOP QUARTILE			BOTTOM QUARTILE		
Item No.	Item	\bar{X}	Item No.	Item	\bar{X}
36	Having children, you are never lonely	6.25	38	Not right to interfere with nature, deciding to limit the number of children one will have	1.96
42	Children, a sign of blessing on a marriage	6.16	11	Pressures from family & friends, one does not have much choice about decision to have children	2.08
14	Children make a stronger bond between husband & wife	6.14	26	Children cause disagreements, probs. between husband & wife	2.50
6	Children gives one a special incentive to succeed	6.13	21	Young couple not fully accepted in community until they have children	3.44
8	Natural that a man should have children	6.06	2	Children can help when parents are too old to work	3.64
23	The 1st thing to consider when deciding to have children is whether or not one can afford it	6.03	10	Having children around, a great mental strain	3.76

30	Being a good parent, one can feel completely satisfied with his achievement in life	6.00	44	Person without children, never really happy	3.86
28	Natural that a woman should want children	5.97	32	Before having children, couple should consider whether to use money for somethings else	3.96
33	Being a parent, chance to teach children what they should do and what they should not do	5.92	15	One of highest purpose of life, is to have children	4.04
13	Efforts parent makes for children, worthwhile in the long run	5.85	27	Person with children is looked up to in the community	4.16
20	Life dull, without children	5.84	3	Raising children is an act of virtue	4.20

importance to item 19 (Children limit you in what you want to do and where you want to go) than the other subgroups, probably because rural respondents were more home-centered than the middle class group.

III. Profiles of Motivations for Child-Bearing

Central to this investigation of motives for child-bearing is the concept of values as one of the basic imperatives of human action. The phenomena identified as values are a standard used by human beings in justifying or opposing a course of action. Attitudes, as used in this study, are not conceptualized in such a way as to distinguish them from wants, expectations and advantages (including their negative sides). They are rather used from the functional point of view.

Since we used different instruments from different response sets to secure values or motivations of parents toward child-bearing, we need to examine if they responded to the same values of different questions of similar importance. In other words, we need to draw profiles for different

people, because we believe specific categories of people's values are socially derived. Specific values are learned, acquired through the multiple life experiences that people go through. They can therefore be diversified (due to different experiences), and people can come to hold particular values that are not equally shared by others.

A summary and conceptualized scheme of motivation for child bearing is proposed here by integrating the conclusions of the preceding sections. The following scheme consists of two dimensions: direction, and utility or goal orientation. The direction dimension is dichotomized into positive and negative values. The utility orientation is also divided into Intrinsic and Extrinsic values. Positive values, by its name, means those which functionally motivate people to have children. Naturally, negative values indicate those values which functionally discourage people from having children. Some positive or negative values are composed of both intrinsic and extrinsic components. But some of them only consist of intrinsic or extrinsic values.

The term Intrinsic was defined as having children itself as the final goal, without other expectations. For example, Happiness for Individual Parent and Family as one sub-category of Happiness and Love, which itself is a goal for parents. Parents do not expect anything out of this value. Another component of Intrinsic values is that those values are deeply rooted in the minds of human beings and are thus more stable. Extrinsic values were defined as having children as a means toward other goals and thus each birth is accompanied with certain expectations. For example; continuity of family name itself is not the final goal for parents; they expect some benefits from this value such as economic help, conformity to social norm, security, status, etc. The 2nd component of extrinsic values is that they are not as deeply rooted as intrinsic ones and thus less stable.

Throughout the urban group was found more frequently on Intrinsic side than the agricultural group. In general, but not always, the urban middle group was found more frequently than the agricultural group on the Intrinsic side.

The first positive advantage category that I proposed to be intrinsic is Companionship and Love. But the result of the test of mean score differences between subgroups does not always support this result drawn from open-ended questions. For instance, item 14, children make a stronger bond between husband and wife is more highly cited by higher socioeconomic status (SES) groups. Yet item 44, a person without children is never really happy, is less often cited by the higher SES groups.

Tradition could live on and continuity of family name are the 2nd positive value and Extrinsic in nature are cited more often by the agricultural group. From Table III-3-1, attitude item 7, Having children (\bar{X} 6.78) so family tradition will live on and 34, Man has duty to have children, continue family name (\bar{X} 6.73) are the 1st and 2nd of the 1st quartile of the agricultural group. The mean differences of these two items are all in favor of the agricultural group. Companionship for other children, Avoidance of loneliness are classified as the 3rd positive value under the name of COMPANIONSHIP. These values are more Intrinsic by nature and are more frequently cited by the higher SES people.

From Table III-3-2 we see attitude item 36, Having children you are never lonely was rated as the 1st item on the 1st quartile by the urban middle group. One should notice that this attitude item was also rated by the agricultural group as the 4th one on the 1st quartile. The mean differences are in favor of the lower SES groups.

Unspecified help in old age, financial help to family and help on family chores are classified under the 4th positive value, ECONOMIC BENEFITS. Extrinsic by nature, these values are most frequently cited by the agricultural group. From Table III-3-1 we see attitude item 2, A good reason for having children is that they can help when parents are too old to work was rated as the 6th item on the 1st quartile by the agricultural group. The mean differences between groups are significantly in favor of the lower SES group. Incentive to succeed and character development are classified as the 5th positive value, IDENTIFICATION ON THE CHILDREN, that is Intrinsic by nature. From Table III-3-2 children give one a special incentive to succeed was rated the 4th one and 5th one on the 1st quartile

by the urban middle group. But the result of the significance test is in favor of the agricultural group as against the urban middle group. Attitude item 33, Being a parent, chance to teach children what they should do and what they should not do, is significantly in favor of the agricultural group.

Four negative values are also identified by the following Extrinsic and Intrinsic dichotomy. To explore the Intrinsic-Extrinsic dichotomy further on the 1st negative value, ECONOMIC COST, we should examine attitude item 37, Raising children, a heavy financial burden. Although this attitude item was not rated by any subgroup as one of the 4th quartile items, its direction of mean score is in favor of agricultural group (\bar{X} 6.21) as against the urban middle group (\bar{X} 5.31), with a value of 4.50 significant at the 0.01 level. The results of attitude item 26, children cause disagreement, problems, between husband and wife can be used to support the 2nd negative value, EMOTIONAL STRAIN on the Intrinsic-Extrinsic dichotomy. This attitude item was rated as one of the 4th quartile items by all subgroups, but the mean score difference is significantly in favor of the urban middle group (\bar{X} 3.51) as against the agricultural group (\bar{X} 2.92). As for the 3rd negative value, RESTRICTION/OPPORTUNITY COST, attitude item 19 (children limit you, what you want to do and where you want to go) can be used to explain its Intrinsic nature. It was rated by the agricultural group as one of the 4th quartile attitude items but did not have this position for the urban group. However, the mean differences between the groups are not significant. Referring to Figure III-1, RESTRICTION/OPPORTUNITY may be composed of two types of values; Restriction on time and lack of freedom belongs to the Intrinsic set, whereas Restriction on job career belongs to the Extrinsic category. Attitude item 39, with children one has to give up a lot of things, was rated as one of the 4th quartile items by agricultural group. Yet the mean score difference was not significant on this item.

One preliminary proposal may be stated regarding the above mentioned patterns of values; Intrinsic types of values are more difficult than the Extrinsic ones to change. For instance, for the former, having children

Table III-1 Mean Scores of Selected Attitude Items Under
Conceptual Taxonomy of Attitudes of Having Children

Positive Attitude Items	Mean Score		T Value
	Urban Middle	Agricultural	
Happiness & Love			
14 Having children makes a stronger bond between spouses	6.14	5.92	1.39
44 A person who has no children can never really be happy	3.87	5.14	4.68 _a
Continuity of Self & Family Name			
7 It is important to have children so that family traditions will live on	5.52	6.78	7.29 _a
34 A man has a duty to have children to continue family name	5.54	6.72	7.56 _a
Companionship			
36 One of the best things about having children is that you are never lonely	6.25	6.56	2.52 _a
20 Life for most people would be pretty dull without children	5.84	6.33	2.84 _a
Economical Benefits			
2 Children can help when parents are too old to work	3.65	6.44	12.76 _a
Identification with Children			
33 One of the best things about being a parent is the chance to teach children what they should and should not do	5.92	6.38	2.75 _a
6 Having children gives one a special incentive to succeed in life	6.13	6.4	2.14 _a

Economic Cost

37	Raising children is a heavy financial burden for most people	5.31	6.21	4.50 _a
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Emotional Strain

26	Having children causes many disagreements and problems between spouses	2.51	1.92	2.33 _a
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Restriction/Opportunity Cost

19	Children limit you in what you want to do and where you want to go	4.63	4.89	1.00
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Physical Demand

1	Caring for children is a tedious and boring job	4.56	5.24	2.67 _a
39	When you have children, you have to give up a lot of other things you enjoy	4.90	5.11	0.83

a < 0.01

itself is the goal for parents and we have not yet found an appropriate substitute for this goal. For the Extrinsicly-oriented parent, having children is just one kind of means toward goals other than children; thus we can, although not always easily, find a substitute for these means. For instance, High economic utility is one kind of Extrinsic value, but perhaps social security measures can be substituted for children as an adequate means towards this goal. Taking Kin Orientation as another example, it can be diminished once the large family system no longer exists. A Taxonomy of Attitudes of Having Children is drawn as follow for future examinations and discussion.

Fig. III-1 Taxonomy of Attitudes of Having Children

	Positive	Negative
Intrinsic	Happiness and Love Companionship	Emotional Strain Restriction/Opportunity Cost
Extrinsic	Continuity of Self & Family Name Economic Benefits Identification with Children	Economic Cost Physical Demands

IV. Recommendations for Population Policies and Programs

Keeping the importance of cultural elements in mind, the VOC study in Taiwan, following the six-nation research design, is aimed at exploring the benefits-cost of children or reason for having and not having children as perceived by parents and its relation to socio-cultural and psychological factors and fertility behavior. The present paper only dealt with the attitude dimension which is the core of the VOC study.

The result of depth analysis of attitude dimensions and factor analysis, a taxonomy of attitudes of having children was drawn for Chinese in Taiwan. The scheme consists of two dimensions: direction, and utility or goal orientation. The direction is dichotomised into positive and negative attitudes. The utility domain is also divided into intrinsic and extrinsic values. This taxonomy of attitude of having children is by no means a final one nor a complete one. It is mainly suggested to provide direction of future researches that might be taken on this area. However, several recommendations for population policies and programs were made under this taxonomy as below.

(1) Intrinsic types of positive emotional values, such as HAPPINESS AND LOVE, are themselves the final goal child-rearing. Instead of changing

them directly, we may have to emphasize the importance of these values and advise parents not to have too many children in order to achieve this goal. In other words, the economic concept of marginal return of children for the parents should be emphasized. Emotional values centered on parents, such as love and affection, may be changed by using some measures to develop substitutes for children such as developing more recreational facilities and social welfare resources for old people.

(2) CONTINUITY OF FAMILY NAME is by nature Extrinsic, and is attached to boy preference. Besides the economic utility, the concept of boy preference is also related to the following seven functions:

- (a) Responsibility of keeping family (clan) name alive
- (b) Responsibility of keeping blood-line alive
- (c) To serve as an heir, to prevent the out-flow of family properties
- (d) To make sure someone of one's own blood will continue to worship the ancestors
- (e) To make sure someone of one's own blood will worship oneself after one's death
- (f) Family status and power, especially for female parent
- (g) Family security, particularly for female parent

For policy implications the following measures may be employed to change above seven functions that are attached to boy preference:

- (a) Assuring, both legally and actually, sexual equality in the inheritance of property (against the third function).
- (b) Religious rituals should be reformed to allow female descendants to worship their ancestors (against the fourth and fifth functions).
- (c) Advocate small family or nuclear family system to weaken the influence of kin and relatives (against the sixth and seventh functions).
- (d) Use population education at an earlier stage of life to weaken the notion of the importance of continuity of family name (against the first and second functions).

(3) THE ECONOMIC BENEFITS of child-rearing are Extrinsic by nature and are more highly valued by the agricultural people. To discourage these kinds of values we may have to pay more attention to their occupational institutions. City slum dwellers and rural people engage in family business that need their children's help. Once the jobs are mechanized in agriculture, for example, parents may find no use for manual workers and need not rely upon their children's help. It is thus hypothesized that without changing their occupation institutions, other measures will not be effective in weakening the value of expected economic help. Next, these economically depressed people think that during their lives, especially during their active adult lives, they are not likely, to earn enough money to support them in old age. Instead of decreasing their birth rate, they are therefore more inclined to have more children. Therefore, it may not be correct to believe that economic factors are a motivation for controlling family size of poor people. It may be hypothesized that people recognize two sides of the value of children, but they may think that the financial cost of raising children is a matter of short range expenditures and regard economic benefits as a long-range return.

I propose that the economic value of having children may be weakened more easily than the non-economic values, insofar as appropriate substitution mechanisms are developed. A society with effective governmental influence should develop the following measures, as substitutes for children, to achieve economic goals:

- (a) Establishing an old social security system, to reduce the necessity of relying upon one's children after one's retirement and during old age.
- (b) Establishing various social welfare programs, to protect poor and aged people from destitution.
- (c) Promote industrial modernization and farm mechanization to reduce the need of relying upon one's own family members' labor.

(4) In approaching the problem of weakening the value of having children, it is also necessary to think in terms of positive and negative rewards. By means of positive rewards the government may provide rewards to those parents if they bear a limited number of children. A negative

approach may be taken by punishing people who have more children than permitted by government regulations. My hunch is that a positive approach with economic regards is more suitable for rural people to change their Extrinsic values than for urban middle people. On the contrary, a positive approach of changing values through education is more efficient for urban middle people to change their Intrinsic types of values than it is for rural people. I also assume that the negative approach is less suitable for higher SES people than for lower SES people. Comparing the negative approach to the positive economic rewards approach for lower SES people, the former may be more effective than the latter. The above discussion may be summarized into the following figures:

Figure IV-1 Congruence between Government Implementation and Extrinsic-Intrinsic Values of Child-bearing

Value	<u>Negative Approach</u>	<u>Positive Approach</u>	
	Law	Economic	Education
Extrinsic	1	2	3
Intrinsic	3	2	1

1, 2, 3 = Order of efficiency and suggested order for implementation.

(5) Besides education, cultural variables, and modern goods, media exposure and individual decision mindedness seem to be the most important determinants of ideal number of children. Besides the methods suggested above, various types of mass media exposure should be made available to all kinds of clients to change their perception of the ideal number of children. Besides those above-mentioned determinants, wife's employment and urban-rural residence are significantly correlated with number of contraceptive methods used. Therefore, female employment should be encouraged.

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