

# Sex of Previous Children and Desirability of the Next Child: A Follow-up Study of Unwanted Children

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## Introduction

Studies dealing with the having of an additional child after two or more children have shown the sex composition of the previous children to have a slight but significant effect (Carr-Hill et al., 1982; Cutright et al., 1974, Gray and Morrison, 1974; Goody et al., 1981; Freedman et al., 1960; Thomas, 1951), and it has also been found that reaching the ideal family size is a more effective factor in limiting family size than is the sex composition of the family (Gray and Morrison, 1974; Cutright et al. 1974; Thomas 1951). Although there has been some change in sex preferences from a preference for boys towards a balanced sex preference, the trend is still in favor of boys (Dunnell, 1979; Riihinen et al., 1980). Thus Carr-Hill et al. (1982) found that families from the lower social classes tended to have an additional child if they had only girls.

The study on unwanted children born in northern Finland included less families with children of one sex than the control groups of wanted children (Rantakallio and Myhrman, 1980). The aim of the present paper is therefore to determine how constant this pattern of behavior is. Do families continue to have an additional child more often if there are children of one sex in the family than if there are both sexes? There is hardly any literature describing families who continue to have children because of sex preferences and the effects of this aspect on the children are almost unexplored (see Williamson, 1976). The main purpose of this study is to compare the families with children of one sex who wanted an additional child with matched families who did not want the child and to assess the possible effects on the child.

## Material and methods

The series originated from a survey of 12 068 pregnant mothers in the two northernmost provinces of Finland, Oulu and Lapland. The investigation was started at the sixth or seventh month of pregnancy and covered 96 % of all deliveries in the region in 1966. The desirability of the pregnancy was ascertained by proposing the alternatives: »The mother finds that this pregnancy a) occurred at a propitious time, b) would have been more desirable later, c) should not have occurred at all». 12 % of the mothers said that the pregnancy was unwanted, and 63 % that it was desired (Rantakallio, 1969).

The follow-up study on the children born from these unwanted pregnancies concerned the stage at which the children had completed their first year at school. 300 children, about one fifth of the total, were chosen for study by systematic sampling. Each child was assigned a control from among the children born from desired preg-

nancies, chosen so that the families would be similar at the time of birth in respect of social group and the marital status and parity of the mother. Questionnaires were sent separately to the family and the teacher of the child. 284 of the families with an unwanted child and 283 of the controls (95 %) answered the questionnaire, the corresponding figures for the teachers being 271 (90 %) and 274 (92 %).

The study group consisted of families with from two to four children of the same sex born before the unwanted or wanted child, the number of such families with an unwanted child being 20 and that with a wanted child 39. The control group contained families with children of both sexes. The number of families is 110 with an unwanted child and 89 with a wanted child.

## Results

### Sex composition

The families who did not want the additional child differed in sex composition from those who wanted the child. There were significantly less families with children of one sex in the unwanted group than in the wanted group, the difference being pronounced among the families with three children (Table 1).

Table 1. Desirability of the child in families of different sex composition.

	Families with unwanted child	Families with wanted child
B = boy		
G = girl		
Third child	N	N
B B (B)	2	5
B B (G)	3	4
G G (B)	3	5
G G (G)	3	6
both sexes	20	21
children of one sex/both sexes:		
$\chi^2 = 1.149$ , df 1, ns		
Fourth child		
B B B (B)	3	6
B B B (G)	2	6
G G G (B)	2	2
G G G (G)	0	1
both sexes	47	32
children of one sex/both sexes:		
$\chi^2 = 4.285$ , df 1, $p \leq 0.05$		
Fifth child		
B B B B (B)	0	1
B B B B (G)	1	0
G G G G (B)	0	0
G G G G (G)	1	3
both sexes	42	36
children of one sex/both sexes:		
$\chi^2 = 0.940$ , df 1, ns		

After eight years' follow-up the difference still existed between the families with an unwanted and a wanted child, being pronounced now among those with three and four children. Further examination of those families who continued to have an additional child after the child in question showed that the sex composition of the family had no effect on the having of an additional child in the group with wanted children whereas there was a tendency among the families with an unwanted child having only boys to continue to have another child more often (Table 2, p. 56).

Table 2. Families with 3—5 children who continue to have another child after the unwanted/wanted child by sex composition.

3—5 children	N	Families with unwanted child		N	Families with wanted child	
		continue	%		continue	%
B . . . (B)	5	4	80	12	4	33
B . . . (G)	6	1	17	10	3	30
G . . . (B)	5	1	20	7	2	29
G . . . (G)	4	0	0	10	3	30
both sexes	110	28	25	89	27	30

Table 3. Family characteristics.

	Families with children of one sex		Families with children of both sexes	
	Unwanted child N 20	Wanted child N 39	Unwanted child N 108	Wanted child N 88
Appliances	%	%	%	%
television	95	97	91	86
washing machine	70	97*	89	94
car	55	64	69	70
Care of the child				
child prepares own breakfast	20	26	19	10°
no adult at home after school-hours	25	11	21	9*
Child's possessions				
bicycle	65	92**	70	76
skis	85	95	90	95
skates	56	63	64	66

Table 4. Development of the child.

	Families with children of one sex		Families with children of both sexes	
	Unwanted child N 20	Wanted child N 39	Unwanted child N 108	Wanted child N 88
Health	%	%	%	%
chronic illness	10	15	14	14
attendance at central hospital	25	33	21	23
attendance at local hospital	5	15	18	20
School achievement				
mean ability 7.4 (scoring 4—10)	7.4	7.2°	7.2	7.4
ability above average	56	54	41	49
Good in skills				
handicrafts	39	19°	19	26
drawing	42	16*	14	21
oral expression	5	21	18	24
sports	26	30	27	33

## *Social change*

The families had been selected so that the social group and marital status were the same in the families with unwanted children and with wanted children. There were some differences, however, in the subgroups of families with children of one sex, in that the social status was higher among the families with an unwanted child at the time when this child was born but the situation was reversed eight years later. There had been more upward mobility in the group with a wanted child (21 %) than in that with an unwanted child (15 %), whereas downward mobility had been more common in the families with unwanted children (15 % compared with 5 %).

Total change in social status was 40 % in the group with unwanted children and 36 % in the group with wanted children, farmers included. There were also some changes in marital status, 95 % of the mothers with unwanted children and 92 % of those with wanted children being married at the birth of the child, whereas eight years later the corresponding figures were 85 % in the group with unwanted children and 90 % in the group with wanted children.

## *Family*

As far as the question of whether the families with children of one sex showed any special characteristics with respect to the desirability of an additional child was concerned, the families with children of one sex who wanted an additional child were found to be better off than those who did not want to have the child. They had certain household appliances more often than the families with an unwanted child, the difference being statistically significant in the case of owning a washing machine, and the same was also true of the children's possessions, e.g. a bicycle. The care of the unwanted children was usually more problematic than for the wanted children, the difference being significant before school-hours and almost significant after school-hours, but the problem of taking care of the children was not so pronounced in the families with children of one sex (Table 3).

## *The child*

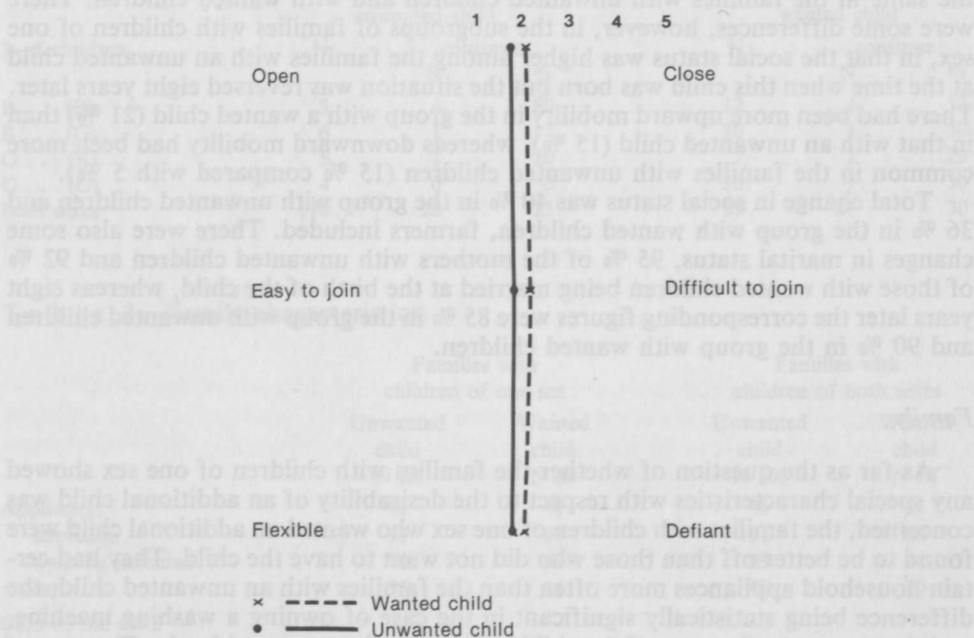
The health of the unwanted children was better than the health of the wanted children in the families with children of one sex. There was less chronic illness among the unwanted children and they were in hospital less often, although the difference was not statistically significant. Statistical differences in educational achievement were obtained in the cases of drawing and handicrafts, the unwanted children in the families with children of one sex being almost significantly better at drawing and significantly better at handicrafts than the wanted children in the families with children of one sex (Table 4).

The adjustment of the children to school differed between the families with children of one sex and with the children of both sexes, the wanted children in the latter group having better relations with their teachers than the unwanted children. They were almost significantly more open towards their teachers, and significantly more often found it easy to cooperate with them. The opposite was true in the families with children of one sex, where the unwanted children were more open towards their teachers and also cooperated more easily, although there was no statistical difference between the unwanted and wanted children because of the low number of cases (Figure 1, p. 58).

## **Discussion**

The gender effect among the children was found here after parity three, as in a study concerning large families, whereas in smaller families the gender preference

Figure 1. Attitudes towards the teachers among families with children of one sex



was found to be concentrated at parity two (Gray and Morrison, 1974). Gender preference has a small, limited effect on the number of children as a function of changes in the level of intended numbers of children. This result has been confirmed by Cutright et al. (1974) and Sloane and Lee (1983).

One surprising result was that school adjustment educational achievement were poorer in the families with children of one sex where the child examined was wanted than in those where this child was unwanted, the statistical differences being almost significant or significant. These differences are not due to the social status of the families, since this was poorer among the families with an unwanted child. Previous studies on unwanted children have shown that social and educational development is poorer in these than in their controls (Matějček et al., 1978). One possible explanation is that sex preference is not necessarily a good motive for having a child.

## References

- Carr-Hill, R.; Samphier, M.; and Sauve, B. (1982). Socio-demographic variations in the sex composition and preferences of Aberdeen families. *Journal of Biosocial Science* 14: 429-443.
- Cutright, P.; Belt, S.; and Scanzoni, J. (1974). Gender preferences, sex predetermination, and family size in the United States. *Social Biology* 21: 242-248.
- Dunnell, K. (1979). *Family Formation, 1976*. Office of Population Censuses and Surveys, HM Stationery Office, London.
- Freedman, D.; Freedman, R.; and Whelpton, K. (1960). Size of family and preference for children of each sex. *American Journal of Sociology* 66: 141-146.
- Goody, J. R.; Duly, C. J.; Beeson, I.; and Harrison, G. (1981) Implicit sex preferences: a comparative study. *Journal of Biosocial Science* 13: 455-466.
- Gray, E.; and Morrison, N. M. (1974). Influence of combinations of sex of children on family size. *The Journal of Heredity* 65: 169-174.

- Matějček, Z.; Dytrych, Z.; and Schüller, V. (1980). Follow-up study of children born from unwanted pregnancies. *International Journal of Behaviour Development* 3: 243—251.
- Myhrman, Antero (1982). Undesired pregnancy and children's life circumstances. *Yearbook of Population Research in Finland* XX: 68—87.
- Rantakallio, Paula (1969). Groups at risk in low birth weight infants and perinatal mortality. *Acta Paediatrica Scandinavica* Suppl. 193.
- Rantakallio, P. and Myhrman, A. (1980). The child and family eight years after undesired conception. *Scandinavian Journal of Social Medicine* 8: 81—87.
- Riihinen, O.; Pulkkinen, A.; and Ritamies, M. (1980). Suomalaisen perheen lapsiluku. Väestöntutkimuslaitoksen julkaisusarja D (Publications of the Population Research Institute, Series D), No. 7.
- Sloane, D. M.; and Lee, Che-Fu. (1983). Sex of previous children and intentions for further births in the United States, 1965—1976. *Demography* 20: 353—367.
- Thomas, M. H. (1951). Sex patterns and size of family. *British Medical Journal* 1: 733—734.
- Williamson, N. E. (1976). *Sons or daughters? A cross-cultural survey of parental preferences*. Sage Publications, Beverly Hills, Ca.

## Introduction

At this stage of the study it is clear that the women who were interviewed in the first part of the study were a highly selected group. They were women who had been interviewed in the first part of the study and who had been interviewed in the second part of the study. The women who were interviewed in the first part of the study were a highly selected group. They were women who had been interviewed in the first part of the study and who had been interviewed in the second part of the study. The women who were interviewed in the first part of the study were a highly selected group. They were women who had been interviewed in the first part of the study and who had been interviewed in the second part of the study.

The purpose of the study was to investigate the relationship between the sex of the child and the sex of the parent. The study was conducted in a hospital setting and the results were compared with the results of a previous study. The study was conducted in a hospital setting and the results were compared with the results of a previous study. The study was conducted in a hospital setting and the results were compared with the results of a previous study. The study was conducted in a hospital setting and the results were compared with the results of a previous study. The study was conducted in a hospital setting and the results were compared with the results of a previous study.

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