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Are Babies Consumer Durables?

A Critique of the Economic Theory of Reproductive Motivation*

JUDITH BLAKE

Never before have couples been able to control so effectively the number of children they will have. Although involuntary factors still affect family size, continuing advances in contraceptive techniques make deliberate choice an ever more important determinant of fertility. But what factors determine the size of family people will choose?[1] One type of answer advanced in recent years by Gary Becker views reproductive performance simply as economic behaviour.[2] Couples, he believes, desire fewer children when poor, more when rich.

Becker places family-size goals in the framework of economic theory by treating children as a consumption good analogous to cars, houses and refrigerators.[3] For almost all consumer durables, he says, there is income elasticity with respect to both quality and quantity. At higher income levels, families purchase both better and more units, and quality elasticity is greater than quantity elasticity. This framework suggests to him that '. . . a rise in income would increase both the quality and quantity of children desired . . .'[4] He does not believe that, according to economic analysis, the quantity income elasticity of demand for children can be expected to be negative.[5] In other words, according to Becker, the relationship of family-size desires and income should be positive – the more income (that is, the greater the purchasing power) the larger the family desired.

The theory underlying this view merits critical evaluation because this 'application' of economic analysis to demography has implications for both science and policy. Scientifically, it is hailed by some economists as an illustration of what an economic framework can do for population

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[1] Modern conditions of low infant and child mortality, accompanied by a virtual disappearance of the value of children as production goods or as principal sources of security for parents, have eradicated some of the most cogent reasons for having large families. For a discussion of changing family-size motives in the framework of utilities and costs, see Harvey Leibenstein, *Economic Backwardness and Economic Growth* (New York, 1957), Chapter 10. A discussion of the small family goal in the context of modern familial and extra-familial roles and statuses may be found in Judith Blake, 'Demographic science and the redirection of population policy', in Mendel Sheps and Jeanne Clare Ridley (eds.), *Public Health and Population Change* (Pittsburgh, 1965), pp. 41–69.

[2] Gary Becker, 'An economic analysis of fertility', in National Bureau of Economic Research, *Demographic and Economic Change in Developed Countries* (Princeton, 1960), pp. 209–240.

[3] *Ibid.*, pp. 210–211.

[4] *Ibid.*, p. 217.

[5] *Ibid.*, p. 215.

studies. For example, in his presidential address before the American Economic Association, Spengler speaks of Becker's work as a 'notable contribution' to the economic analysis of fertility. Spengler sketches further how elaborations of Becker's thesis, using the consumer durables analogy, 'should be able to explain changes in gross reproduction'.[6] Demographers have been more cautious in their admiration, but their reticence has been based on lack of evidence for the thesis rather than on theoretical grounds.[7] With regard to policy, the thesis implies that the long-existing but nevertheless unfortunate pattern of differential fertility whereby the poor have more children and the rich have fewer – a pattern still found in the United States – will be reversed if only everyone has 'access' to contraception. Since this notion is one of the planks in the platform for large-scale, publicly supported family-planning programmes, considerable interest attaches to whether the actualization of family-size preferences will, in fact, be likely to transpose the present inverse relation of family size and finances. If Becker is wrong, if the inverse relation of family size and income is not because of lack of contraception among the poor, but is also due to the desire for larger families among them, then a costly family-planning programme based on assumptions such as he advances will not change the pattern of differential fertility. In fact, if one takes into account the attention to sub-fertility and infertility given by such programmes, the change in average family size among the poor may not be very great.[8]

In evaluating the Becker thesis as an example of economic reasoning about reproductive behaviour, we shall endeavour to answer two questions. First, do empirical data support the thesis of a positive relation between family-size desires and income in modern societies? And, second, if not, why not? – what fallacies and omissions inhere in this type of analysis as applied to reproductive motivation?

EVIDENCE CONCERNING INCOME AND FAMILY-SIZE DESIRES

Becker is aware that the preponderance of data on *actual* family size in relation to income suggests that the quantity income elasticity of 'demand' for children is negative.[9] Nonetheless, he tries to discount the inverse association between family size and purchasing power by arguing that the

[6] Joseph J. Spengler, 'The economist and the population question', *American Economic Review*, **56** (March 1966), p. 14. Spengler's enthusiasm is not shared by James Duesenberry, an economist specializing in problems of consumer behaviour. See Duesenberry's discussion of Becker's approach in the same volume as the Becker article, *op. cit.*, pp. 231–234.

[7] Demographers recognize that Becker's thesis is an elaboration of the notion long held in demographic thinking that income and family size will be positively related when everyone has access to contraception. See, for example, Amos Hawley, *Human Ecology* (New York, 1950), pp. 118–119. Ronald Freedman has gone so far as to suggest that perhaps the expectations themselves may be misguided. See, in particular, Clyde V. Kiser (ed.), *Research in Family Planning* (Princeton, 1962), pp. 221–223.

[8] For more detailed discussion of this point, see Judith Blake, *op. cit.*, and Kingsley Davis, 'Population policy: Will current programs succeed?', *Science* **158**, 1967, pp. 730–739.

[9] Even where there sometimes seems to be a genuine change in the usually inverse relationship between family size and income, one typically finds that the apparently positive relation is due to some spurious factor, to some short-run happening, or to involuntary factors affecting fertility (the influence of which do not, of course, bear on a thesis concerning family-size desires). For example, in the United States, the simple measure of controlling for age rids one of the suggestion that family size may be higher where the husband has more income. An additional control for such a particularistically related variable as being Catholic or not is similarly helpful. See P. K. Whelpton,

intervening variable in this case is access to contraception. Greater access gives wealthier people more control than poorer people over the 'supply' of children. In his words, 'If knowledge of contraceptive techniques did not vary with income, the relation between actual fertility and income would equal that between desired fertility and income.[10]

It is clear that he assumes, without direct evidence, that wealthy people *desire* more children than do poorer ones. Not using direct data on reproductive preferences themselves, his only evidence for this assumption is the actual fertility of populations in which the contraceptive factor has been 'equalized'.

But such indirect reasoning is dubious because it is difficult to think of 'equalizing' contraceptive knowledge and practice apart from reproductive motivation itself – a point to be discussed later. In the meantime, even if we accept Becker's idea, we would still expect him to give systematic attention to populations where contraception has been 'equalized'. His actual procedure is more casual. He simply points out that there are exceptions to the inverse relation of family size and income, stating that 'not all evidence is one way.'[11] When we examine the few instances in which he claims that contraception has been 'equalized', we find that the positive relationships between family size and income, on which he lays such stress, result either from sample biases that he ignores, or from factors quite irrelevant to his analogy of children to consumer durables.[12] To show this, let us scrutinize the principal studies he mentions.

The Indianapolis Study. One case he cites is a special group in the Indianapolis Study – a sub-sample of couples all of whose children were 'number and spacing planned'.[13] Since the fertility

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Arthur A. Campbell, and John E. Patterson, *Fertility and Family Planning in the United States* (Princeton, 1966), pp. 102–104. Data from the 1960 census on number of children ever born per 1,000 white wives of completed fertility who had born children show an inverse relation with husband's income up to the highest income class, where there is a rise of, at most, one-tenth of a child. It is not possible, however, to eliminate the effect of the fertility of upper-income Catholics from the data. See U.S. Bureau of the Census, *U.S. Census of Population: 1960. Subject Reports. Women by Number of Children Ever Born. Final Report PC (2)-3A*, (Washington, D.C., 1964), Table 37. Recent data for European countries have been discussed in a previous paper: Blake, 'Demographic science and the redirection of population policy', *loc. cit.* In that paper the thesis was advanced that recent European differentials (some of which may be positive) are not the result of some different motivational pattern in Europe, but of the different recovery rates among social classes as they moved out of the trauma of depression and war. It seems hazardous to regard differential European fertility of the past 25 years as if it represented the denouement of a long-run trend. It is particularly hazardous to interpret it entirely as the result of voluntary factors with respect to fertility, when one knows that there were, as well, changing marriage patterns and gross differences in health, medical care, nutrition and the like. To generalize from European fertility during depression and ravaging war makes as much sense as generalizing from the demographic situation during the plague. An analysis of recent European fertility differentials is currently being prepared by the author.

[10] Becker, *op. cit.*, p. 220.

[11] *Ibid.*, p. 218.

[12] The only direct data on family-size desires cited by Becker come from a Detroit area survey in which it is generally recognized that the wording of the question asked may well have induced lower-income respondents to lower their ideals. See Ronald Freedman, David Goldberg and Harry Sharp, ' "Ideals" about family size in the Detroit Metropolitan Area: 1954', *Milbank Memorial Fund Quarterly*, **33** (April 1955), pp. 187–197.

[13] See P. K. Whelpton and Clyde V. Kiser (eds.), IX, 'Fertility planning and fertility ratio by socio-economic status', *Social and Psychological Factors Affecting Fertility*, Vol. 2 (New York: Milbank Memorial Fund, 1950), pp. 359–415.

of these couples varies directly with the husband's income, Becker claims that they show what would be generally true if contraception were more widely available. However, he overlooks the fact that the various income groups are disproportionately represented in the 'number and spacing planned' category. Any conclusions based on couples in this category are, therefore, based on income classes whose probabilities of being included are very dissimilar. For example, whereas those in the highest income category constitute 8% of the total Indianapolis sample, they are 14% of the 'number and spacing planned' group. Those who are in the lowest income class constitute 19% of the total sample, but only 11% of the 'number and spacing planned' group. Moreover, if one looks at the fertility-planning status of the various income groups, one finds that efficiency of planning varies directly with income. 45% of the upper-income group have planned their families completely and 15% have experienced 'excess fertility'. The situation is just reversed for the lowest income group– 16% have families that are 'number and spacing planned' and 42% have 'excess fertility'.[14]

This statistical bias might not seem important were it not for the additional fact that being a member of the 'number and spacing planned' category is not a mysterious attribute unrelated to family-size motivation. Planning both the number and spacing of one's children requires high motivation, more so for a poorer person than a richer one. It thus seems likely that poorer people in the 'number and spacing planned' category will be those who are atypically motivated (for their class) to have families of a limited size. This point comes out clearly in the 1960 Growth of American Families study which does not substantiate the results from the previous Indianapolis Study. Among couples with completely planned fertility there are no statistically significant differences in the number of births expected or wanted among groups ranked according to husband's income. As the authors suggest, 'couples who are willing and able to exercise the care needed to control fertility so well share certain family-size values that cut across ordinary social and economic class lines. It is only within this relatively small group that the extinction of socio-economic differences in fertility often predicted for all couples appears to have occurred.'[15]

Reproduction in Pre-war China. For additional support, Becker goes to far-away pre-war China. On the basis of one article, published in 1933, he notes that contraceptive knowledge in China was 'said to be very primitive in *all* income classes . . . and a positive relation between fertility and income also seemed to prevail . . .'[16] What Becker overlooks is that reproductivity in traditional China bore little or no relation to a 'consumer-durables' approach to childbearing. The traditional Chinese case was a classic instance in which children – especially male children – functioned in both an economically and ceremonially productive sense. They were at the opposite extreme from 'consumer durables'. Under such conditions one expects to find a positive relation between fertility and income, other things being equal, but for quite different reasons from his.

[14] *Ibid.*, p. 384.

[15] Whelpton, Campbell and Patterson, *op. cit.*, pp. 240–241.

[16] Becker, *op. cit.*, p. 221. The reference is to Herbert D. Lamson, 'Differential reproductivity in China', *Quarterly Review of Biology*, **10** (September 1933), pp. 308–321.

Even so, if one looks up the one article he cites, one finds that even the statistical regularities are open to question.[17]

Subscribers to a Consumers' Union. Becker also utilizes some previously unpublished data on 'family income, education, earners, and dependent children of a sample of the subscribers to Consumers' Union'.[18] This group, he claims, 'is particularly valuable for our purposes since it primarily consists of families with a keen interest in rational, informed consumption. If my analysis is at all relevant, fertility and income should be more positively related in this group than in the U.S. population as a whole.'[19]

The figures he gives are reproduced in Table 1. From them Becker concludes that the 'income elasticity is about 0·09 and 1·14 for graduates of a four-year college and of a graduate school respectively. These data, then, are very consistent with my analysis, and indicate that well-informed families do have more children when their income increases.'[20]

TABLE 1. *Reproduction of Becker's table on average number of dependent children for single-earner families with head age 35–44 in a sample of subscribers to Consumers' Union, April 1958**

Income class	Average number of dependent children by education class of head			
	High school graduate – or less	Some college	Graduate of four-year college	Graduate degree
Less than $3,000	2·43	1·61	2·50	2·17
$3,000– 3,999	2·14	2·47	2·18	2·23
4,000– 4,999	2·70	2·40	2·04	2·18
5,000– 7,499	2·68	2·73	2·88	2·67
7,500– 9,999	2·80	2·94	3·00	3·03
10,000–14,999	2·89	3·03	3·12	3·23
15,000–24,999	2·85	3·04	3·04	3·31
25,000 and over	3·12	3·23	3·28	3·60

* Reproduced from Becker, *loc. cit.*, p. 221.

[17] Lamson's data on family size were obtained from students who reported on births and child mortality in their families. He himself admits that: ' It is quite likely that in these families a certain number of miscarriages, stillbirths, and abortions have been omitted through failure of the reporting students either to know or to state such facts concerning the puerperal history of their mothers' (pp. 308–309). Lamson assumes, however, that these errors are randomized over the different groups he is studying. But, this would only be true if the lower economic groups were no more subject to such risks than the upper economic groups. Data such as these cannot take into account the role of female infanticide, or the sale of infant girls into prostitution. Moreover, many of the findings are themselves highly suspect. For example, the highest fertility of all is found among the higher-educated Christian families, yet Lamson does not tell us whether these families were Catholic or not. If many of them were, their behaviour (as converts) would include neither contraception nor infanticide. In addition, although Lamson examines concubinage in relation to fertility (and finds that concubinal families do not have the highest reproduction), he does not bring out that concubinage was concentrated at the upper-income levels. He thus overlooks the fact that upper-income, non-Christian families had at their disposal a hedge against wifely infertility or sub-fecundity. The *average* fertility of such families could be kept high through the reproductive services of concubines.

[18] Becker, *op. cit.*, p. 221.

[19] *Ibid.*, p. 221.

[20] *Ibid.*, p. 222.

However, the data appear to suffer from statistical biases of some importance to his thesis. Noteworthy is the question of what makes the children in this sample eligible to be considered 'dependent'. Since Becker does not mention this problem, we may assume that dependency relates to an age limitation and/or to an economic condition. If dependent children are those under 18 (or under 21), then the presence or absence of such children in families whose head is aged 35–44 depends greatly upon when the head married and on the rate at which he formed his family. Since heads with lower incomes on the average, will have married and started their families earlier than those with higher incomes, the distribution of dependent children by income may well simply testify to the later marrying and wider child-spacing habits of individuals with higher incomes.[21] That this suspicion is not misplaced is suggested by the strong positive relationship between education and number of dependent children among those in the middle- and high-income brackets. In fact, it turns out that the highest number of dependent children of all is found among those with graduate degrees who occupy the $15,000–24,999 and $25,000-and-over income brackets! If 'dependency' is defined economically rather than chronologically, then the positive relationship between income and dependent children is doubly enhanced. Not only will the better-off group have married later, but they will have been more likely than individuals with low incomes, to tolerate economic dependency among offspring for longer periods of time. For example, the outstandingly 'fertile' wealthy, graduate-educated cases may simply be instances of families who are supporting their children through graduate and medical schools.[22]

Fertility of Stockholm Families. Citing data on Stockholm compiled by Edin and Hutchinson, Becker says: 'Contraceptive knowledge is said to be diffused among all income classes in Stockholm, and the fertility of Stockholm families from 1917–1930 was positively related to income.'[23] However, if we may judge from the account by David Glass of the Swedish birth-control movement as late as 1937, it is most doubtful whether contraceptive information of a modern sort was widely available in Sweden during the 1920's. In fact, even in Stockholm, Glass calls attention to the backwardness of the situation and the reluctance to have public discussion of contraception.[24] Hence, the actual fertility of Stockholm families of 1917–30 does not seem to be relevant as a basis for conclusions

[21] Actually, of course, early marriage and early childbearing may well exert an independently negative effect on future income. See Ronald Freedman and Lolagene Coombs, 'Childspacing and family economic position', *American Sociological Review*, **31** (October 1966), pp. 631–648.

[22] The apparent income elasticity of Becker's Consumers' Union example is further vitiated by the fact that a number of the 'single-earner' families may include as a 'head' a woman instead of a man. If so, this situation is more likely to occur at low-income levels than at high, both because of greater marital instability at lower levels and because women's incomes are lower. Women whose marriages have been dissolved are likely to have fewer children than others of their income class, to have had them at younger ages than male heads, and to have a smaller probability of child dependency in an economic sense after the children reach age 18. Furthermore, the inclusion of single-earner families alone leaves out families in which the wife may be working. Since the wife is more likely to be working among lower than among upper income families, and especially among those where there is a sense of economic stringency (perhaps because of the number of children involved), an additional bias is introduced. Finally, it is worth noting that in evaluating the magnitude of some of the figures on family size given, one should take into account the number of cases (not given by Becker). In the various educational categories at $25,000-and-over for 1958, the number may well be too small to have any significance.

[23] Becker, *loc. cit.*, p. 220. The data are from Karl Arvid Edin and Edward P. Hutchinson, *Studies of Differential Fertility in Sweden* (London, 1935), pp. 69–87.

[24] D. V. Glass, *Population Policies and Movements* (Oxford, 1940), pp. 319–322.

concerning *desired* family size. Furthermore, the data are only for *marital* fertility; they refer to births to couples who married during the four-year period 1917–20 and who were still living together in 1930. No account is taken of births prior to marriage. Yet during the period 1919–22, for example, 28% of all live births in Stockholm were illegitimate.[25] No data are available on the class distribution of the illegitimate births, but a reasonable assumption would be that they were skewed toward the lower-income brackets. If so, this would probably reverse the association between fertility and income.[26]

Perhaps most disturbing methodologically is the fact that the Stockholm material referred only to families living in the city at *two* censuses. Those families broken by death and divorce as well as those moving out of Stockholm were not included. It seems most likely, therefore, that lower-income families who had more than a very small number of children would of necessity move out of Stockholm as the family grew, since they could not compete with upper-income families for scarce housing. Typically, those poorer families would remain in the city when fertility was very low. Finally, it is not at all clear that the 'consumer durables' approach is applicable to upper-income European (including Swedish) families of more than 40 years ago. Such families were widely characterized by inheritance of occupation and by businesses and professional establishments based on kinship. If these establishments were to be carried on at all, they required some attention to reproduction regardless of the stringency of housing and so forth at the time.

In sum, the data on income and family size presented by Becker turn out to be either biased in favour of his thesis through sampling distortion, or irrelevant by virtue of being cases in which children had the status of being production goods rather than simply consumer goods.

Empirical Data on Family-size Preferences

Given the difficulty of estimating differential reproductive preferences from data on actual performance, direct evidence on the preferences themselves take on crucial importance in an evaluation of Becker's thesis. He did not utilize such evidence, but, in another paper, I have presented data on family-size ideals by income and economic status from 13 polls and surveys in the United States using national samples of the white population. The materials extend over a 30-year period from 1936 through 1966.[27]

These studies do not confirm Becker's expectation of a rise in reproductive desires with a rise in income. The mean family-size ideals for white men and women are reproduced in Table 2. The

[25] Edin and Hutchinson, *op. cit.*, p. 65. Professor D. V. Glass has kindly called my attention to the fact that he himself voiced this criticism of the Stockholm data some 32 years ago. Cf. *Eugenics Review*, **27**, 4 (January, 1936), pp. 297–301. Moreover, as Professor Glass notes in his review, R. A. Fisher made the same point when preliminary results of the Edin and Hutchinson work first appeared in 1929, *ibid.*, p. 300.

[26] Becker's interpretation also takes no account of the historical circumstances. The family as an institution was being traumatized in Stockholm at the time due to severe housing shortages. In this type of situation the advantage of extra income to obtain the bare necessity of housing for a family was quite considerable. It is notable, too, that the overall completed family size of even the largest families was extremely small. The highest average family size in the data referred to by Becker was 1·85 children (even among the wealthiest and best educated). A situation in which *all* couples experience severe housing difficulties – a particularistic one for Sweden – does not seem to be a good example of Becker's thesis, especially when the problem of illegitimacy is overlooked as well.

[27] Judith Blake, 'Income and reproductive motivation', *Population Studies*, **21**, 2 (November 1967), 185–206.

TABLE 2. *Mean number of children considered ideal by white males and females according to economic status or income, United States, selected years, 1936–1966*[1]

Date	Age range	Economic or income levels[2]					
		1	2	3	4	Total	(*N*)
			Females				
1936	21+	3·1	3·0	3·3	3·4	3·1	(527)
1941	21+	3·1		3·2	3·3	3·2	(918)
1943	20–34	2·9	2·7	2·8	2·6	2·7	(2,379)
1945	21+	3·4		3·5	3·6	3·5	(1,408)
1947	21+	3·0		3·2	3·3	3·3	(1,280)
1948	18–25	3·3	3·1	3·1	3·0	3·1	(771)
1948	40–55	3·3	3·3	3·4	3·7	3·4	(859)
1952	21+	3·3		3·4	3·3	3·3	(893)
1955[3]	18–39	3·3	3·2	3·3	3·5	3·3	(2,579)
1955[4]	18–39	3·5	3·4	3·5	3·7	3·5	(2,579)
1957	21+	3·3		3·3	3·5	3·4	(586)
1959	21+	3·5		3·5	3·7	3·6	(625)
1960[3]	18–39	3·3	3·3	3·5	3·3	3·4	(2,378)
1960[4]	18–39	3·4	3·5	3·6	3·5	3·5	(2,378)
1963	21+	3·5	3·4	3·7	3·6	3·5	(638)
1966	21+	3·4	3·4	3·6	3·6	3·4	(550)
			Males				
1936	21+	3·0	2·9	3·3	3·5	3·1	(1,236)
1941	21+	3·2		3·1	3·3	3·2	(1,870)
1945	21+	3·4		3·4	3·7	3·5	(1,221)
1947	21+	3·2		3·2	3·3	3·2	(1,236)
1948	18–25	2·9	2·9	2·9	2·9	2·9	(791)
1948	40–55	3·2	3·3	3·1	3·2	3·2	(854)
1952	21+	3·1		3·2	3·4	3·3	(880)
1955[5]	18–39	3·3	3·2	3·1	3·2	3·1	(1,827)
1955[6]	18–39	3·4	3·3	3·2	3·3	3·2	(1,827)
1957	21+	3·1		3·2	3·5	3·3	(543)
1959	21+	3·2		3·5	3·7	3·5	(588)
1960[6]	18–39	3·3	3·2	3·2	3·0	3·2	(2,191)
1963	21+	3·2	3·4	3·6	3·8	3·4	(595)
1966	21+	3·1	3·3	3·3	3·5	3·2	(528)

NOTES: (1) All the Gallup polls (dated 1936, 1941, 1945, 1947, 1952, 1957, 1959, 1963 and 1966) asked the following question: 'What do you consider is the ideal size of a family – a husband, wife, and how many children?' The Roper Poll of 1943 asked: 'How many children would you like to have, if you had your choice?', and that of 1948: 'How many children do you think makes the nicest size family?' The Growth of American Families Studies of 1955 and 1960 inquired concerning the ideal number of children for 'the *average* American family'. The *minimum* distribution arises from coding range answers (e.g. 'two to three') to the lowest figure, and the *maximum* distribution from coding them to the highest figure.

(2) Levels 1 to 4 range in order from 'high' to 'low'. For the years 1955, 1960, 1963 and 1966 the four levels of income for the husband (or the chief wage-earner) are: (1) $7,000 and over, (2) $5,000 to $6,999, (3) $3,000 to $4,999, and (4) under $3,000. For the remaining years the categories represent qualitative evaluations of the household's 'economic status' by interviewers. In 1943 and 1948 these categories are: (1–4) Prosperous, Upper Middle, Lower Middle, and Poor; in 1952, they are (1–2) Wealthy and Average-plus, (3) Average, and (4) Poor; and for 1957 and 1959 they are (1–2) Upper, (3) Middle, and (4) Lower.

(3) Minimum ideal.

(4) Maximum ideal.

(5) Minimum wanted as stated by wife (results from coding range answers to lowest figure). Question asked of wife: 'How many children does your husband want to have altogether?'

(6) Maximum wanted as stated by wife (results from coding range answers to highest figure). See footnote (5) for question asked of wife.

reader can see that there is relatively little variability by economic status. In addition, in so far as there is variation, the relationship is inverse or slightly U-shaped. If, moreover, one separates the Catholics from the non-Catholics (Tables 3 and 4), the ideals among the latter are either virtually identical or inverse among the various economic levels. This is true almost without exception among women, and except for the 1955 Growth of American Families Study in which wives reported on the number of children their husbands wanted, it is true among men as well. On the other hand, when one turns to the Catholics, the relationship of family-size ideals and income is

TABLE 3. *Mean number of children considered ideal by white Catholics, both sexes according to economic status or income, United States, selected years, 1943–1966*

Date	Age range	Economic or income levels[1]					
		1	2	3	4	Total	(*N*)
				Females			
1943	20–34	2·9	3·2	3·0	2·7	3·0	(510)
1948	18–25	3·4		3·6	3·0	3·4	(175)
1948	40–55	3·7		3·6	4·1	3·8	(144)
1952	21+	*		3·7	3·5	3·5	(201)
1955[2]	18–39	3·7	3·4	3·5	3·5	3·5	(745)
1955[3]	18–39	3·9	3·6	3·6	3·7	3·7	(745)
1957	21+	3·5		3·5	3·5	3·5	(161)
1959	21+	3·5		3·8	3·8	3·7	(162)
1960[2]	18–39	3·8	3·6	3·8	3·9	3·7	(650)
1960[3]	18–39	3·9	3·8	3·9	4·0	3·9	(650)
1963	21+	4·2	3·7	4·2	3·9	4·0	(155)
1966	21+	3·7	3·7	3·9	*	3·7	(176)
				Males			
1948	18–25	3·2		3·2	3·2	3·2	(193)
1948	40–55	4·0		3·8	3·4	3·7	(136)
1952	21+	*		3·4	3·4	3·4	(194)
1955[4]	18–39	3·6	3·8	3·3	3·8	3·5	(483)
1955[5]	18–39	3·9	4·0	3·5	3·9	3·7	(483)
1957	21+	3·6		3·0	3·5	3·4	(129)
1959	21+	3·7		3·8	3·4	3·6	(151)
1960[5]	18–39	4·2	3·5	3·8	3·7	3·8	(548)
1963	21+	3·5	3·8	4·1	*	3·8	(155)
1966	21+	3·4	3·6	*	*	3·5	(129)

NOTES: (1) Levels 1 to 4 range in order from 'high' to 'low'. For the years 1955, 1960, 1963 and 1966 the four levels of income for the husband (or the chief wage-earner) are: (1) $7,000 and over, (2) $5,000 to $6,999, (3) $3,000 to $4,999, and (4) under $3000. For the remaining years the categories represent qualitative evaluations of the household's 'economic status' by interviewers. In 1943 and 1948 these categories are: (1–4) Prosperous, Upper Middle, Lower Middle, and Poor; in 1952 they are (1–2) Wealthy and Average-plus, (3) Average, and (4) Poor; and for 1957 and 1959 they are (1–2) Upper, (3) Middle, and (4) Lower.

(2) Minimum ideal (results from coding range answers to lowest figure).

(3) Maximum ideal (results from coding range answers to highest figure).

(4) Minimum wanted as stated by wife.

(5) Maximum wanted as stated by wife.

* Fewer than 25 cases.

frequently U-shaped with upper-income Catholics offering ideals higher than those at the next lower level, and sometimes even higher than those at the lowest level.

These results are analysed in detail in the paper mentioned. The principal point of interest here is that the relationship predicted by an *economic* interpretation of fertility – a rise in family-size preferences with rising income – is not actually found unless some powerful pro-natalist, *non*-economic influence, such as Catholicism, is at work.

TABLE 4. *Mean number of children considered ideal by white non-Catholics, both sexes, according to economic status or income, United States, selected years, 1943–1966*

Date	Age range	Economic or income levels[1]					
		1	2	3	4	Total	(*N*)
			Females				
1943	20–34	2·9	2·7	2·7	2·5	2·7	(1,869)
1948	18–25	3·0		3·0	3·0	3·0	(499)
1948	40–55	3·2		3·4	3·6	3·4	(600)
1952	21+	3·3		3·3	3·3	3·3	(692)
1955[2]	18–39	3·2	3·1	3·2	3·5	3·3	(1,834)
1955[3]	18–39	3·4	3·3	3·4	3·7	3·4	(1,834)
1957	21+	3·3		3·2	3·5	3·3	(425)
1959	21+	3·5		3·5	3·6	3·5	(463)
1960[2]	18–39	3·1	3·2	3·3	3·2	3·2	(1,728)
1960[3]	18–39	3·2	3·3	3·5	3·4	3·4	(1,728)
1963	21+	3·3	3·3	3·5	3·5	3·4	(483)
1966	21+	3·2	3·2	3·4	3·7	3·3	(374)
			Males				
1948	18–25	2·8		2·9	2·8	2·9	(445)
1948	40–55	3·2		3·1	3·3	3·2	(499)
1952	21+	3·1		3·1	3·3	3·2	(686)
1955[4]	18–39	3·2	2·9	3·0	3·0	3·0	(1,344)
1955[5]	18–39	3·3	3·0	3·0	3·1	3·1	(1,344)
1957	21+	3·0		3·3	3·5	3·2	(414)
1959	21+	3·1		3·4	3·8	3·4	(437)
1960[5]	18–39	3·0	3·0	3·1	2·9	3·0	(1,643)
1963	21+	3·1	3·2	3·4	3·7	3·3	(440)
1966	21+	3·0	3·2	3·3	3·4	3·1	(399)

NOTES: (1) Levels 1 to 4 range in order from 'high' to 'low'. For the years 1955, 1960, 1963 and 1966 the four levels of income for the husband (or for the chief wage-earner) are: (1) $7,000 and over, (2) $5,000 to $6,999, (3) $3,000 to $4,999, and (4) under $3,000. For the remaining years the categories represent qualitative evaluations of the household's 'economic status' by interviewers. In 1943 and 1948 these categories are: (1–4) Prosperous, Upper Middle, Lower Middle, and Poor; in 1952 they are (1–2) Wealthy and Average-plus, (3) Average, and (4) Poor; and for 1957 and 1959 they are (1–2) Upper, (3) Middle, and (4) Lower.

(2) Minimum ideal (results from coding range answers to lowest figure).

(3) Maximum ideal (results from coding range answers to highest figure).

(4) Minimum wanted as stated by wife.

(5) Maximum wanted as stated by wife.

* Fewer than 25 cases.

Findings such as these, together with the doubtful status of Becker's own evidence, lead us to be sceptical about the power of the economic theory of demand for consumer durables to provide demographic insight. Since empirical evidence points the other way, it seems wise to re-examine the relevance of the framework itself for the analysis of reproductive motivation.

A CRITIQUE OF THE ECONOMIC FRAMEWORK

In trying to understand why Becker's expectations concerning income and family-size desires diverge so markedly from the available data, we must bear in mind an overall feature of his reasoning. Rather than simply trying to take economic factors *into account* in explaining family-size preferences, he has chosen to propound a *solely* economic analysis of fertility desires. In doing so he has ignored, or specifically attempted to invalidate, well-known sociological determinants of reproductive motivation. He thus ends up with a framework to explain non-existent facts, while he ignores or attempts to expunge explanations for existing ones.

Becker's neglect of the social context of reproduction is most evident in four features of his analysis: the analogy of children with consumer durables; the concentration on the 'consuming' as against the 'producing' role of parents with respect to children; the misapprehension of child costs; and the failure to analyse the utilities involved in having children.

The Limited Relevance of the Consumer Durables Analogy

Why are children like consumer durables? It is noteworthy that Becker arrives at the analogy by a back route. He points out that in modern societies children are no longer what economists call a 'production good'. The net costs of children are no longer negative, but rather are now positive. This places children in a residual category, 'consumption goods', because, since they are not good for production, it is necessary 'to assume that psychic income or utility is received from them'.[28]

There are numerous reasons, however, for regarding this analogy as implausible and misleading. For example, the assumed equivalence of 'demand' for consumer durables and 'desire' for a family of a particular size is unwarranted. 'Demand' for consumer durables bears a positive relation to income primarily because individuals acquire such goods in the context of direct economic constraint. Their acquisitive behaviour is limited by their credit, not by their choice. A theory of demand is thus not a theory of desires or wants. This point might not invalidate the consumer durables analogy as a model for reproductive analysis, if controls over the acquisition of children were as direct and severe as they are in the case of consumer durables. But, even if all unwanted pregnancies were eliminated, there is no direct control over the acquisition of *wanted* children, as there is over the acquisition of wanted cars, refrigerators and houses. In fact, one

[28] Becker, *loc. cit.*, p. 213. Becker says: 'For most parents, children are a source of psychic income or satisfaction, and, in the economist's terminology, children would be considered a consumption good' (p. 210).

must recognize that the sociology of the family is such that freedom to choose the number of children one wishes is sacrosanct. Not only are individuals under strong institutional pressure to marry and start a family, but the decision to do so, even in the face of financial difficulties, receives widespread moral (and, if necessary, tangible) encouragement. The 'consumption' of a family by individuals who cannot 'afford' one is regarded quite differently from their decision to purchase a consumer durable that they cannot afford. In fact, the right to have a family is widely extended to individuals who are impaired physically and mentally, as well as financially.[29] Consequently, unless we presume a 'means test' for the acquisition of children analogous to a 'credit rating' for the acquisition of consumer durables, the analogy between the demand for consumer durables and voluntary family size is far fetched. Clearly, therefore, a major assumption of the economic theory of demand for consumer durables does not hold for the acquisition of children.

The analogy also implies that offspring are a means or instrumentality for the 'consuming' parents.[30] Leaving aside for the moment a consideration of the types of goals for which children are a means (that is, what it is about children that gives 'psychic income' or satisfaction), let us ask whether they are instrumentalities in the same sense as other consumer durables? For instance, does the consumer of children have flexibility in arriving at an optimum equilibrium position? Can he engage in a dynamic reshuffling of his consumption behaviour so as to maximize his well-being by equalizing the marginal utilities per dollar that he spends on each item of consumption? Such an assumption of freedom to change the items one consumes – an assumption that underlies the economic theory of demand for consumer durables – is sociologically absurd when applied to children. At best, parents can only anticipate, not re-arrange, their equilibrium position with respect to offspring. But anticipation is highly unreliable, because there are many more uncertainties involved in the acquisition of children than in the purchase of ready-made and visible products. If the parents miscalculate and find that the marginal utility they actually derive from an additional child is less than they would have had from an expenditure on something else, they cannot, normally, adjust the situation. Since couples know about the normative irrevocability of becoming parents, this fact must be assumed to enter into their reproductive decisions. If such an assumption is granted, the model of their decision-making process with respect to children is substantially different from that relating to consumer durables.

What about the consumer's 'sovereignty' in choosing the initial quality and type of the item he is purchasing? With respect to consumer durables, he can avail himself of a market and choose

[29] One of the ideological bases of modern social and economic welfare policies is precisely that one does not question the validity of 'family values', one simply tries to maximize everyone's ability to achieve those family goals that exist. Thus, one should not question the 'right' of individuals to have more children than they can afford, nor should economic help to such individuals be made contingent on their demonstrated willingness to stop having children. Economic considerations *are supposed to be* subordinated to familial ones. Persons who have had more children than they can manage financially are referred to euphemistically as 'unfortunate'. In this sense, a modern welfare society takes up economically where the extended kinship system left off. See Kingsley Davis, 'Some demographic aspects of poverty in the United States', in Margaret S. Gordon (ed.), *Poverty in America*, (San Francisco, 1965), pp. 299–319.

[30] For a discussion of motivational aspects of the desire for consumption goods, see James S. Duesenberry, *Income, Saving and the Theory of Consumer Behavior* (Cambridge, Mass., 1959), Chapters II and III, pp. 6–46.

among visible products whose qualities he can, with some rational effort, ascertain. But the acquisition of children of a particular quality or type is, for any individual parent, beyond his control and quite unpredictable. The potential consumer is thus by way of acquiring an item that he can only *hope* will bring whatever utilities he seeks, but which actually may turn out to have biological defects or other qualities that he finds unattractive.

Finally, we may ask whether the consuming parent has relatively free use (or abuse) of this means? Can the means be overworked, allowed to fall into disrepair, become a victim of repeated accidents through the owner's negligence? Obviously not. Parents do not 'own' children, and, as guardians, they are legally required to keep them in minimum repair, not to abuse them physically or mentally, or, through negligence, allow them to be victimized by accidental violence and the like.

When one takes these factors into account, one realizes that children are not merely a means for consuming parents – like cars or refrigerators – but rather that their existence obliges parents to accept many onerous conditions and restrictions. Some of these are biological and some are sociological, but all place children at a far remove from monetarily acquired, readily disposable, and normatively indifferent 'consumer durables'.

In sum, although the demand for consumer durables is pegged to purchasing power, the 'demand' for children is not under such monetary control. In fact, by creating public support for the dominance of family 'values' over economic rationality, reproductive and social institutions are geared to *prevent* economic factors from inhibiting reproduction. When one takes into account as well that the *desire* for children will be influenced, among other things, by the social and biological constraints surrounding their acquisition and their 'use' – constraints that may be independent of income or may vary positively with it – one has little reason to believe that the demand for consumer durables constitutes a theoretically apt model for family-size preferences.

Parents as Producers of Children

Further insight into reproductive motivation comes from recognizing that parents are 'producers' as well as 'consumers' of children. Their desire for offspring in any particular quantity will, therefore, presumably be influenced by the production problems involved in having a family as well as by the utilities they expect to gain. If this is true, the theory of demand for consumer durables leaves out of account important influences on reproductive decisions.

To be sure, Becker recognizes the productive role of parents, but he treats it entirely as part of the costs parents pay for the utility they expect to gain. We shall discuss this type of cost later. There are, however, elements in the productive process – particularly relating to the structure of the productive unit and its articulation with the society at large – that cannot fruitfully be subsumed under the category of costs.

For example, in making decisions concerning family size and quality, parents must reckon that the interaction of children with one another is an element in producing a successful product – the socialized child. Of course, this interaction can be achieved in many different ways; it is not necessarily true that siblings are required for the purpose. But, the isolation of the nuclear family

and its geographical mobility in modern society are such that parents find the substitution of non-siblings for siblings to be difficult. Hence, in facing up to the problem of providing adequate socialization, parents are typically highly motivated to avoid the 'only child' type of unit.[31]

Further constraint in the production of offspring comes from the societal surveillance over 'quality control'. Becker discusses the production of children of a particular 'quality' entirely in terms of an individual consumer's decision concerning the price of the child from whom *he* derives 'utility'. However, not only are 'tastes' in children more subject to social influence than Becker is willing to grant, but there are normative prescriptions to produce some minimum level of quality. For example, the child's behaviour must be within the law and not contrary to public policy. Further, in modern societies parents must comply with educational requirements up to virtually the end of childhood. In addition, as producers of children, parents are under some social pressure to recognize and validate a responsibility for the quality of their product throughout its life. The child can never go on the scrap heap without in some measure disgracing them. One must thus bear in mind that parental expenditure on children (or current savings for them) will often relate to a period when the parents may be dead. The present utility that they derive from such future-oriented provision for children inheres in the satisfaction gained through fulfilling kinship obligations.[32]

Finally, since a couple produce the children they 'consume', they must somehow adjust their desires regarding the family to the cyclical nature of family life. If the couple find utility in children, for how long is this utility to be made available? As the producers, they have to resolve the problem of how long the unit – a family with children – stays 'in business', so that, as consumers, the couple can enjoy the product. This point relates to the well-known problem of the 'empty nest', and to decisions concerning the number and spacing of children throughout the parents' lives.

In sum, the productive role of parents will have an influence on family-size desires. The nature of this influence is such that it seems unlikely to produce a positive relation between them and income under any and all conditions. In fact, one could claim that 'production' features introduce elements of *in*elasticity into the desire for children in relation to income. Poor parents as well as rich ones will view the only-child unit as a deprived one. Hence, two children, and not one, become the minimum for the avoidance of childlessness. Poor parents may also be concerned about the

[31] The Indianapolis Study found that a desire to avoid the 'only child' child-rearing situation (because of a belief that the only child is handicapped) was a major reason for couples having a second child. See Erwin S. Solomon, Jeanne E. Clare and Charles F. Westoff, 'Fear of childlessness, desire to avoid an only child, and children's desires for siblings', *Milbank Memorial Fund Quarterly*, **34** (April 1956), pp. 160–171.

[32] A considerable literature – written mostly by economists and historians – exists on the topic of inheritance and family size. By and large, this literature takes as 'given' the obligation experienced by parents to provide for the futures of their offspring and the 'problem' is seen as relating to the quantity of resources available, to their depreciation over time, to legal restraints, etc. One must point out, however, that of equal relevance is the set of controls that induces parents to take their children's adult futures into account at all. From a societal point of view, the parent's role as consumer is only instrumental to his role as producer and guardian. For a discussion of social control over parents' influence on age at marriage, see Judith Blake, 'Parental control, delayed marriage, and population policy', in *Proceedings*, United Nations, World Population Conference, 1965, Vol. II, pp. 132–136. Recognition of the changing problems experienced by parents in making provision for their children is given explicitly by J. A. Banks, *Prosperity and Parenthood* (London, 1954).

timing of the 'empty nest' – perhaps, as we shall see, they may be more concerned than rich parents. On the other hand, the social forces demanding quality control in children may impinge more heavily and immediately on the affluent than on the poor. The rich are, therefore, likely on these grounds alone to inhibit their family-size desires.

Misapprehension of the Costs of Children

Let us now turn to the costs of children, which Becker believes encourage a positive relation of family-size desires and income. He reaches this conclusion by ignoring *indirect* costs – alternative utilities on which parents could expend their resources, and by concentrating on *direct* costs – the resources actually expended on childbearing and rearing. Even with reference to the latter, however, he does not recognize, or denies the importance of, factors making direct costs heavier for the rich.

Direct Costs of Children. In determining the quantity one wishes to acquire of any item, at least two aspects of the direct cost would seem to be crucial – the timing of the necessary financial expenditure and the amount of such expenditure. In the case of children we have already pointed out that there is no formal purchase price or down payment. Little in the economic context of acquiring a child conduces to financial 'reality-testing' concerning its total potential costs. Since children are 'purchased' on the instalment plan, if the 'payments' are kept low, a major constraint on acquiring more is removed; if the payments are kept high, on the other hand, the impact of the costs involved may readily lead to a desire not to incur many more of a similar nature.

Are child costs likely to be relatively high for the poor and low for the affluent? Becker appears to believe that this is the case. He denies explicitly that there is any significant sociological determination of the 'quality' of child that people at different income levels will 'consume'. In particular he rejects the idea that wealthier parents are under significant social pressure to have 'expensive' children. He thus sees no 'cost effect' invalidating the expectation of a positive relation of family-size desires and income. He here overlooks two important points. First, parents find it difficult to separate significantly the level of living of their children from their own, since, after all, they normally all reside at the same address, eat the same types of food, etc. This criticism has already been made by Duesenberry.[33] Second, the way of life at a given social level puts its mark on *standards* of child quality as well. The fact is that the way of life of the poor leads them to accept low standards of child quality – standards that do not greatly transcend the actualities of the moment, whereas the pressures on the more well-to-do contribute to standards in children that will both conserve present advantages and secure added ones for the child.

Why do the poor not choose to have very few higher quality children, rather than more lower priced ones? The answer is, in part, that poorer people are not actively dissatisfied with low-priced children because they cannot transcend their own limitations to that extent. Low-quality children fit in with the way of life of the poor and, in an atmosphere of general scarcity and limitation, parents are not goaded into dissatisfaction with such children to the extent of making changes

[33] See Duesenberry's discussion of Becker's article, *op. cit.*, pp. 231–234.

in their own lives and objectives to rectify the situation. Since poorer children only rarely come into direct contact and competition with wealthier ones, poor parents are shielded from comprehending the overall effects of low price on comparative child performance. Thus, the poor parents' lack of perspective and knowledge concerning 'what it takes' to rear children effectively – a limitation that the situation of poverty both generates and leaves unshaken – conduces to a false sense of security about making low payments on children.[34]

By contrast, as one goes up the social scale, the standards of quality in children (like such standards with regard to other things) become more and more demanding. At issue here is not simply a predilection for luxury in children. Rather, at these levels, child-rearing is an exclusionary device relative to classes below.[35] Richer parents are thus motivated to invest in higher-quality children because, as producers of children, they feel obliged to give their issue the competitive advantages of their class.

Concern with child quality is intensified among the more affluent by the social mobility – both upward and downward – that is a persistent feature of life in middle and upper income strata. In this atmosphere of opportunity to rise and fall, standards of quality in children may become very inflated, causing parents to over-extend their resources in order to have offspring with the requisite qualifications. It is thus not uncommon for families in the wealthier strata of modern societies to feel subjectively under great economic pressure despite their objectively prosperous condition.

Finally, class-oriented standards of child-rearing do not relate merely to cash expenditure alone. As is well known, the more advantaged groups in the United States have been in the vanguard of parent-intensive child-rearing. Such large doses of personalized care – of non-cash parental

[34] A survey taken in 1959 by Roper questioned parents (with one or more children under 18 years of age but not in college) concerning their college intentions for their children and the financial preparations they were making to help the children. Among upper-economic level parents 97% expected their children to attend college, among the lowest level 44% had this expectation. Even upper and middle economic classes underestimated potential college costs by discounting the possibility of inflation by the time the children would be eligible for attendance. The lowest economic group was typically unable to make any such cost estimate at all. Questions concerning realistic financial preparations by parents revealed a minimal provision, if any, among even higher economic groups. The typical answer of the parents in the lowest economic group was that they 'hadn't had a chance to think about it yet.' Almost a fifth of lower economic level parents intended to pass the problem on to the children themselves, whereas this was true for only 3% of parents in the highest economic group. Elmo Roper, 'College ambitions and parental planning', *Public Opinion Quarterly*, **25**, 2 (Summer, 1961), pp. 159–166.

[35] Characteristics that are acquired by children within the family setting and during a long period of socialization such as accent, 'manners', and social facility and poise, are especially difficult for outsiders to acquire later in life. The literature on English class differences in speech is particularly graphic. See T. H. Pear, *English Social Differences* (London, 1955), Chapter 3; Nancy Mitford, 'The English aristocracy', *Encounter* (September 1955), pp. 5–12; and Alan S. C. Ross (ed.), *Noblesse Oblige* (London, 1956), *passim*. It is perhaps necessary to point out that we are not concerned here with the advantages to children in acquiring upper-class characteristics as these advantages might appear to an objective, and perhaps more knowledgeable, observer. For example, being reared as an aristocrat had certain drawbacks for a young Russian adult in 1917, just as attending an English public school to-day may result in certain trained incapacities for coping with life in the twentieth (and not the nineteenth) century. For a discussion of the persistence of the nineteenth-century gentleman as a goal of 'character building' in English public schools, see Ian Weinberg, *The English Public Schools* (New York, 1967), *passim*. We are merely concerned with the costs to parents of helping their children acquire expensive characteristics, regardless of the wisdom of having them do so.

inputs per child – have not been found among working-class parents.[36] Since the time and effort of even wealthy parents is limited, so is their propensity to have children.[37]

Indirect Costs of Children. Becker deals with the marginal utility to be gained out of some balance between quantity and quality in children, but does not consider that alternative utilities enter into family-size decisions. Such indirect, or opportunity, costs are of particular importance in societies having a wide range of consumption opportunities and many organizational axes in addition to kinship. One of the principal reasons for the decline in family size with rising income in the history of the West may well have been an expansion of competing items of expenditure in addition to a rise in direct costs.[38]

Even in the United States, where gross differences in consumption may no longer be widely evident, the way of life of upper-income groups is more competitive with children for time, effort and finances than is the life-style of those in lower-income brackets.[39] The former tend to be more active in political, civic and community affairs.[40] They also tend to be more wholly committed to

[36] For example, Daniel R. Miller and Guy E. Swanson, *The Changing American Parent* (New York, 1958); Murray A. Straus, 'Deferred gratification, social class, and the achievement syndrome', *American Sociological Review*, **27** (June 1962), pp. 326–335; and Glen H. Elder, Jr., and Charles E. Bowerman, 'Family structure and child-rearing patterns: The effect of family size and sex composition', *American Sociological Review*, **28** (December 1963), pp. 891–905.

[37] Duesenberry has noted that the problem of non-cash parental costs is particularly troublesome to parents. As he says, '. . . the marginal disutility of Cub Scouts and PTA meetings rises rapidly', *op. cit.*, p. 234. We might add that if well-to-do parents try to find surcease from the demands of child-rearing through the services of governesses, maids, boarding schools and the like, they soon begin to experience diminishing marginal utility in their parental roles. Assuming that a primary motive for having children is to 'enjoy them', to purchase more than can be attended personally and then turn over their 'consumption' to a third party is like hiring someone else to drive a car that one is oneself too busy to use. Only if one assumes that wealthier parents have motives for large families that go beyond the 'enjoyment-of-consumer-durables' syndrome can one make a strong case for their wanting more than a relatively few children.

[38] See Leibenstein, *op. cit.*, Chapter 10, and Banks, *op. cit.*, pp. 48–102. Banks attempts specifically to document the thesis of a widespread increase in the nineteenth century of the opportunity costs of children.

[39] Kurt Mayer has claimed that the decline in income differences in the United States has resulted in a great similarity of gross consumption patterns. 'By and large everybody in America wants to buy the same things everyone else buys. Americans exhibit a remarkable homogeneity of tastes, attitudes and buying habits, regardless of occupation' (Kurt Mayer, 'Diminishing class differentials in the United States', *Kyklos: International Review for Social Sciences*, **12** (1959), pp. 605–628). For a recent discussion by Riesman of the 'standard package', see 'Careers and consumer behaviour', in Norman W. Bell and Ezra F. Vogel, *A Modern Introduction to the Family* (Glencoe, 1960) pp. 143–162. Some of the European literature on this subject is cited by Richard F. Hamilton, 'Affluence and the worker: The West German case', *American Journal of Sociology*, **71** (September 1965), pp. 144–152. In general, the mass consumption thesis has a mass communications-social-psychological bias. It assumes that wants and goals are simply 'learned' or internalized either in the primary group or by means of mass persuasion. Thus, people are said to 'adopt' a middle-class style of life – as if the latter had some static meaning and as if the motives for 'adopting' were entirely unrelated to some dynamic calculus of interests, goals and pressures experienced by the individual and largely determined by his social roles and statuses. In this sense, the mass society approach attempts to turn Marx on his head with no theoretically valuable outcome whatever.

[40] For information concerning the voluntary association memberships of Americans by economic level and income, see Mirra Komarovsky, 'The voluntary associations of urban dwellers', *American Sociological Review* **11** (December 1946), pp. 686–698; Floyd Dotson, 'Patterns of voluntary association among urban working-class families', *American Sociological Review*, **16** (October 1961), pp. 687–693; Morris Axelrod. 'Urban structure and social participation', *American Sociological Review*, **21** (February 1956), pp. 13–18; Charles R. Wright and Herbert H. Hyman, 'Voluntary association memberships of American adults: Evidence from national sample surveys', *American Sociological Review*, **23** (June 1958), pp. 284–294; and Erich Goode, 'Social class and church participation', *American Journal of Sociology*, **72** (July 1966), pp. 102–111. In the Hyman–Wright study the proportions belonging to no associations drop precipitously at the 'above average' and 'very high' living levels, and the proportions belonging to two or more rise precipitously. For example, among five categories of living levels, the lowest three have 1, 5 and 17% belonging to two or more associations; but the highest two have 32 and 64% holding this many memberships.

the demands of work and of 'running things' in general.[41] They are stimulated and harassed by the social mobility that we have already discussed in relation to direct child costs.[42] And, they have more attractive and diversified consumption opportunities than have those of lesser income. An upper-income person is normally under some social pressure to take advantage of these opportunities. Unless he wishes to lead the life of an eccentric, he does not typically have the choice of consuming like an upper *or* a lower class person.

To summarize, not only must the affluent typically entertain higher standards of child quality than the poor, but affluence introduces opportunity costs into people's lives that do not exist where the range of choice is narrowed by poverty. Hence, even if wealthier couples feel that they can afford the *direct* costs of large families, they may not wish to sustain the *indirect* ones unless they are motivated by some powerful *non*-economic force such as, for example, Catholicism.

The Utilities of Children

From whence comes a sense of utility in children? By leaving this question untouched, Becker is free to make two assumptions necessary to his thesis of quantity income elasticity. The first is that there is no family-size threshold below which even poor couples will strongly resist falling, and the second is that there are no systematic social class differences in the relative utilities of children (and, hence, in 'taste' for children) which limit the family-size desires of the well-to-do. Neither of these assumptions is correct.

Children are sometimes said to be playthings, emotional objects and the like. But in view of the costs involved in their rearing and the restrictions on their 'use', an explanation of their desirability can be found only in terms of goals to which children are intrinsically related – goals that is, which can be achieved only through children. The creation and maintenance of such goals is a principal function of familial and kinship institutions in all societies. By exercising control over every step in the reproductive process, but principally by a ruthless exclusion of structured alternatives to and substitutes for family statuses, family satisfactions and kinship affiliations – alternatives that extend from prostitution and homosexuality, on the one hand, to celibacy and

[41] This situation contrasts greatly with that of static, *élite* societies in which a condition of 'non-effort' is the supreme achievement. See Kingsley Davis, 'The role of class mobility in economic development', *Population Review*, **6** (July 1962). Relevant here are data on lower-class as against upper-middle and upper-class marriages which indicate that the involvement of the *couple* in the man's work world varies greatly with level of living. In *Blue Collar Marriage* a dominant theme is the limitation of interaction between husband and wife extending not only to different patterns of leisure but to the participation of the wife in her husband's work world. Mirra Komarovsky, *Blue Collar Marriage* (New York, 1964), pp. 154–156, 311–312, and Chapter 14 (pp. 311–329) which deals extensively with limitations on blue collar social life. A contrast with this picture may be found in the families of corporation executives. See William H. Whyte, Jr., 'The wives of management' and 'The corporation and the wife', *Fortune*, **44** (October 1951), pp. 86–88, 204, 206–208, 210, 211, and **44** (November 1951), pp. 109–111, 150, 152, 155–156 and 158 respectively.

[42] Kurt Mayer grants that: '. . . there is some reason to believe that the emphasis on subtle status differences is now heightening as the leveling process increasingly blurs the income differentials between manual and white collar groups' (Mayer, *op. cit.*, p. 623). C. Wright Mills cites the 'status panic' of white collar groups in the face of rapidly diminishing indicators of separateness from blue collar workers. See C. Wright Mills, *White Collar* (Oxford, 1951), pp. 72–73. An interesting discussion of the differences between the Mayer and the Mills approach may be found in Richard Hamilton, 'The income differences between skilled and white collar workers', *British Journal of Sociology*, **14** (December 1963), pp. 363–373. The Mills thesis has been taken up popularly by Vance Packard in *The Status Seekers* (New York, 1959).

careers for women on the other – societies channel motivation in the direction of goals *that imply the advent and existence of children.* One can become a 'parent', 'have a family', be a 'mother' or 'father', only by acquiring children. That one should desire these statuses is the final result of complex institutional control, but, *given this desire,* children and only children can satisfy it. It is the societal support for the family that provides the strong desire for children and that makes it highly unlikely that poorer people will be willing either to remain childless, or to curtail their family size to the extent required for producing a direct relation of family size and income.[43]

By the same reasoning, one may expect some variability in the relative impact of familial goals on motivation, and hence some structured differences in 'taste' for children. In fact, in complex societies having highly developed institutions that compete with the family, such differences in taste may be expected to run counter to the Becker thesis. As we have noted, the upper classes are under greater pressure from non-familial demands than the lower and hence may find utility quite readily in small-to-moderate size families and disutility in larger ones.

Therefore, since familial institutions motivate almost everyone to have some children and non-familial institutions create a sense of disutility in large families among the affluent in particular, one has reason to doubt the Becker thesis on these grounds as well as on others.

CONCLUSION: THE FALSE TRAIL OF QUANTITY INCOME ELASTICITY

Clearly there are cogent reasons for concluding that the consumer durables model is inapplicable to children and hence cannot predict fertility differentials by income. The acquisition of consumer durables is externally limited by credit. The poor are prevented from over-extending themselves very far by the need to give evidence of ability to meet the purchase price. With respect to children, on the other hand, there is no purchase price. They are home-produced, and all strata have a right to produce them and to receive charity, if necessary, after they have produced them.

Looking at reproductive motivation rather than demand, we have found that the poor seem to share in certain society-wide *pro*-natalist motivational pressures, but do not share in many of the *anti*-natalist ones affecting the middle and upper income groups in modern societies. On the pro-natalist side, the 'utilities' involved in having children are built into the institutional structure of reproduction. These utilities, such as being a 'parent' and living in a family setting, are part of the generally unexamined assumptions of human societies. Little in the current social situation would lead poorer people to question the desirability of these utilities, and in fact they may find such goals to be relatively more satisfying than the rich when taken in the total context of all utilities available. Furthermore, since parents are producers of children – poor parents as well as rich ones – they are motivated by the demands of the structure of the family and its continuity, as well as by the prospective utilities. The poor may be expected to share with the rich an antipathy

[43] The widespread antipathy to childlessness is shown by the fact that this condition is considered preferable by a maximum of 1% of all female respondents in most surveys on family size preferences. See Judith Blake, 'Ideal family size among white Americans: A quarter of a century's evidence', *Demography,* **3,** 1 (1966), pp. 154–173. This is true for respondents at all economic levels. See, by the same author, 'Income and reproductive motivation', *loc. cit.*

to the 'only child' type of unit, both because of the child-rearing limitations it entails and because it limits the period of one's life during which children can be enjoyed. Again, if poorer people experience proportionately more of their total utility in the family than do the affluent, they will have considerable resistance to accelerating the 'empty nest' period of their lives.

With respect to anti-natalist pressures, the quality requirements for children can be ignored or fended off more readily by lower- than by upper-income groups. Since poor children live with poor parents, such children share in the low overhead that this entails. In addition, the instalment nature of child-payments allows for self-delusion concerning child costs. The way of life of poverty does not impel parents to realize higher standards by restricting quantity. After all, the poor are not threatened by chasms of downward mobility opening up for children. In addition, the offspring of the poor do not directly interact and compete with those of the rich. If one asks why poorer people overlook the 'cues' available to them in advantaged children, the answer is that selective inattention on their part protects them from unbearable awareness. If the well-to-do must struggle to rear three or four medium- to high-quality children, then the poor 'obviously' should have none at all. Were poor people economically rational and informed in their reproductive preferences, 'the rich would get richer, and the poor wouldn't even get children'.

Because of the simultaneously dynamic and systematic nature of the world in which middle- and lower-income groups live, they are surrounded both by pressures to watch over child quality and facilities for doing so effectively. Part of this quality entails personal effort (non-cash inputs) by parents who, in the nature of the case, are very limited in how much effective interaction, supervision and attention they can provide. But over and above these and other direct costs are the indirect ones that increase concomitantly with income. Affluent parents experience many alternative demands on their resources and many attractions that compete with children. Hence, they are unlikely to desire really large families. Beyond two children, their desires may be influenced by the wish to lengthen the family cycle, by sex preferences, by the woman's feeling that she wants to 'make something' out of the career of motherhood, and similar considerations.[44] But, beyond four children, such considerations are clearly replaced by others, and among a good share of couples the tolerance does not extend beyond three. Only if they are under strong ideological pressure (combined with organizational enforcement) to devote themselves to reproduction and to overlook and denigrate the costs involved, as is the case with Catholics, are such upper-income parents willing to think in terms of larger families than four.

It thus seems true that a theory of reproductive motivation is at the same time a theory of the family and society. Becker's framework fails to explain the direction of family-size ideals and income, because it fails to take into account important elements in the sociology of reproduction.

The results of our analysis have, in addition, long-run implications for population policy. By exposing the simplicity of the economic assumptions, they demonstrate that we cannot rely on want and poverty to provide the motives for fertility decrease, even if contraception were

[44] For example, the effects on family size of various combinations of sex preference in a family and the 'stopping rules' involved are discussed by Nathan Keyfitz in *Introduction to Mathematical Demography* (in press), Chapter 17.

'available' to everyone. Pro-natalist motives have helped societies survive thousands of years of want. The institutional context responsible for such motives is geared to combat the anti-natalist effect of poverty with desires that relentlessly override perceptions of current realities and demand the production of children in spite of everything. Regardless of child quality, or the toll it takes of individuals, this institutional complex concentrates on insuring the biological survival of the species. When we examine the anti-natalist pressures on the well-to-do, we find clues to potentially more widespread motives for fertility-control in the diminished utilities of family involvement, in the high direct costs of children (enforced by the prospect of virtually instantaneous downward mobility if the parents refuse to pay them), and in the competitors with the family and children for time, effort, finances and emotional involvement. But even among the higher income groups, family-size ideals are large enough to insure substantial population growth. We must recognize, therefore, that as yet we have no control over the social context of reproduction comparable to the control over consumer durables provided by the credit system.