THE FAMILY AND THE STATE*

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I. Introduction

CHILDREN are incapable of caring for themselves during many years of physical and mental maturation. Since their mental development is not sufficient to trust any contractual arrangements they may reach with caretakers, laws and social norms regulate the production and rearing of children. Laws punish child abuse, the sale of children, and unauthorized abortions. They provide compulsory schooling, welfare payments to families with dependent children, stringent rules about divorce when young children are involved, and minimum ages of marriage.

Trades and contracts are efficient if no deviation from the terms would raise the welfare of all participants. An alternative criterion for efficiency is that the monetary gains to those benefiting from a deviation do not exceed the monetary loss to those harmed. Unfortunately, the immaturity of children sometimes precludes efficient arrangements between children and parents or others responsible for child care.

This difficulty in establishing efficient relations within families provides the point of departure for our interpretation of the heavy state involvement in the family. We believe that a surprising number of state interventions mimic the agreements that would occur if children were capable of arranging for their care. Stated differently, our belief is that many regulations of the family improve the efficiency of family activities. To be sure, these regulations raise the welfare of children, but they also raise the welfare of parents, or at least they raise the combined welfare of parents and children.

The efficiency perspective implies that the state is concerned with justice for children, if "justice" is identified with the well-being of children, for their well-being is the prime factor in our analysis. The efficiency perspective does not imply, however, that the effect on children alone determines whether the state intervenes. The effect on parents is considered too. The state tends to intervene when both gain or when the gain to children exceeds the loss to their parents.

According to Richard Posner and others, the common law also improves efficiency when transaction costs are large. Richard Posner says, "In settings where the cost of allocating resources by voluntary market transactions is prohibitively high—where, in other words, market transactions are infeasible—the common law prices behavior in such a way as to mimic the market."[1]

We cannot *prove* that efficiency guides state involvement in the family. We will show, however, that state interventions in the market for schooling, the provision of old-age pensions, and access to divorce are consistent on the whole with the efficiency perspective.

The modern theory of regulation and public choice questions whether much government activity encourages efficiency and justice. Section VII sketches an analysis of interest-group behavior that can lead to government intervention to promote efficient family arrangements.

In order to interpret public policies, we develop an analysis of family behavior under different circumstances. The analysis greatly extends earlier work by Becker. His Woytinsky Lecture of more than twenty years ago shows that only parents who give their adult children gifts or bequests make optimal investments in children.[2] Becker and Tomes, and Becker's *A Treatise on the Family* develop this approach further.[3] Thompson and Ruhter reached the same conclusion while apparently unaware of this earlier literature.[4]

Our discussion of the gains from government intervention in family decisions generalizes the analysis of subsidies to schooling and other human capital found in Becker's Woytinsky Lecture and *Treatise*.[5] Thompson and Ruhter have a nice analysis with a similar interpretation of

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[1] Richard A. Posner, Economic Analysis of Law 230 (3d ed. 1986).

[2] Gary S. Becker, Human Capital and the Personal Distribution of Income: An Analytical Approach, W. S. Woytinsky Lecture (1967), reprinted in Gary S. Becker, Human Capital (2d ed. 1975).

[3] Gary S. Becker & Nigel Tomes, Human Capital and the Rise and Fall of Families, 4 J. Lab. Econ. S1 (1986); Gary S. Becker, A Treatise on the Family (1981).

[4] Earl A. Thompson & Wayne E. Ruhter, Parental Malincentives and Social Legislation (unpublished paper, UCLA, undated).

[5] Becker, *supra* note 2; Becker, *supra* note 3.

government intervention in families.[6] Also relevant is the discussion of fertility by Nerlove, Razin, and Sadka.[7]

II. ALTRUISM TOWARD CHILDREN

We assume that the large majority of parents are altruistic to their children in the sense that parental utility depends on the number of children and the utility of each child as well as on their own consumption. The altruism assumption is supported by the many sacrifices parents frequently make for children. Parents spend money, time, and effort on children through child care, expenditures on education and health, gifts, and bequests. More or less all parents spend on young children, but only some parents give sizable gifts to adult children or leave bequests.

Plato's *Republic* objects to the rearing of elite children by their parents. It advocates instead that "as soon as children are born, they will be taken in charge by officers appointed for this purpose . . . , while taking every precaution that no mother shall know her own child."[8] Plato's views attracted the attention of philosophers and stimulated experiments that invariably failed. Even the kibbutz movement has returned to giving parents responsibility for the care of children.

Parental altruism is the reason why essentially all societies have shown more common sense than Plato and give parents or other close relatives primary responsibility for child care. Altruistic parents are good caretakers because they consider the effects of their actions on the welfare of children. They sometimes sacrifice their own consumption and comfort to increase that of their children.

Of course, some parents abuse their children, as examples of battered children depressingly illustrate. But even contemporary Western countries display great confidence in parents as caretakers, at least relative to feasible alternatives. Despite the anguish over parental abuse of defenseless children, governments seldom remove children from their parents. Fewer than two children per 10,000 below age eighteen are under state care in either the United States or England and Wales.[9]

Sometimes cited against the importance of parents' altruism is that parents seldom insure the lives of their children. This evidence does not

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[6] Thompson & Ruhter, *supra* note 4.

[7] Marc Nerlove, Assaf Razin, & Efraim Sadka, Some Welfare Theoretic Implications of Endogenous Fertility (unpublished paper, University of Pennsylvania 1987).

[8] The Republic of Plato 160 (Francis M. Cornford trans. 1951).

[9] See Robert Dingewall & John Eckelaar, Rethinking Child Protection, in State Law and the Family 99 (M. D. A. Freeman ed. 1984); American Humane Ass'n, Highlights of Official Child Neglect and Abuse Reporting (1984).

speak to the effect of a child's death on the utility of parents, however, because optimal insurance works to equalize the *marginal* utility of income in different states of the world. Even if a child's death enormously reduced parents' utility, it would not be insurable if it hardly raised and perhaps reduced the marginal utility of money to parents. Support for the importance of altruism comes from the time and effort parents devote to lowering the probability of accidents, illness, or other harm to children. These "self protection" activities respond not to the effect of a child's mishap on the marginal utility of parents' income but, rather, to their effect on the *level* of parents' utility.

Our analysis recognizes that frequent contact among family members often raises the degree of altruism. That is to say, altruism may well have some of the properties of an addictive taste that is fostered by its consumption.[10] We believe that addictive aspects of altruism better explain the apparently larger bequests by parents to children who visit them more frequently than does the view that parents use bequests to "buy" visits.[11]

The Rotten Kid Theorem states that, under certain conditions, both altruistic parents and their perhaps selfish children work out efficient relations that maximize the combined resources of the family as a whole.[12] If this theorem applies to most situations, state interventions in the family could not raise efficiency.

The Rotten Kid Theorem fails to hold, however, when parents do not give children gifts or bequests.[13] They may not give because their altruism is weak, but even parents with strong altruism may not give gifts and bequests when they expect their children to be much better off than they are. Children are better off than parents when economic growth is rapid and when their endowments of ability and other qualities are higher than those of their parents.

Bequests are large in rich families, fairly common among the middle class, and unimportant in poor families. One reason is that endowments of children tend to exceed those of their parents in poor families and to be less than their parents' in rich families. But whatever the reason, the evidence on bequests implies that certain types of efficient transactions with children are less common in poorer than in richer families. Never-

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[10] On addiction, see Gary S. Becker & Kevin M. Murphy, A Theory of Rational Addiction, J. Pol. Econ. (in press).

[11] This view is developed in B. Douglas Bernheim, Andrei Schliefer, & Larry H. Summers, The Strategic Bequest Motive, 4 J. Lab. Econ. S151 (1986).

[12] Becker, *supra* note 3, ch. 8.

[13] Other qualifications are discussed in Theodore Bergstrom, Remarks on Public Goods Theory and the Economics of the Family (unpublished paper, University of Michigan 1984).

theless, bequests may cause other inefficiencies, as we will show in the next section.

III. INVESTMENTS IN THE HUMAN CAPITAL OF CHILDREN

Since parents must reduce their own consumption (including leisure) to raise the time and resources they spend on child care and children's education, training, and health, even altruistic parents have to consider the trade-off between their consumption and the human capital of children. But altruistic parents who plan to leave bequests can avoid this trade-off by using bequests to help finance their investments in children. In effect, they can force even selfish children to repay them for expenditures on the children's human capital. These parents would want to invest efficiently in children because that raises children's utility without costing them anything.

To make this clear, assume a 4 percent rate of return on assets accumulated over the life cycle to provide either old-age consumption or gifts and bequests. If the marginal rate of return on investments in children exceeds 4 percent, parents who give gifts and bequests could invest more in children without lowering their own consumption by accumulating fewer assets. For example, if the marginal rate on human capital is 7 percent, an additional $1,000 invested in children raises their adult earnings by about $70 per year. If parents finance this investment through reduced savings of $1,000 and by reducing annual gifts by $40, their consumption at all ages would be unaffected by greater investment, while their children's income increases by $30 per year.

Clearly, then, altruistic parents who leave bequests will invest until the marginal rate of return on human capital equals the rate on assets. They are better off with efficient investments because they can trade between bequests and investments.

Some altruistic parents do not leave bequests because they get less marginal utility from consumption by their adult children than from their own consumption when elderly. They would like to raise their own consumption at the expense of their children's, but they cannot do this if unable to leave debts to children. Although children have been responsible for parents' debts in some societies, that is uncommon nowadays. Selfish and weakly altruistic parents would like to impose a large debt burden on their children. Social pressures can discourage this in closely knit societies where elderly parents live with and depend on the care of children, but these pressures are not effective in mobile modern countries where the elderly do not live with children.

Parents who cannot leave debt can substitute their own consumption

for their children's by investing less in the children's human capital and instead saving more for old age. Therefore, in families without bequests, the equilibrium marginal rate of return on investments in children must exceed the rate on assets saved for old age; otherwise, parents would reallocate some resources from children to savings. These parents under-invest in the human capital of children.

When the rate of return on savings is less than the marginal rate on human capital, both children and parents could be better off with a "con-tract" that calls for parents to raise investments to the efficient level in return for a commitment by children to repay their elderly parents. Unfor-tunately, young children cannot be a party to such contracts. Without government intervention, social norms, or "guilt" by parents and chil-dren, families without bequests would underinvest in children's human capital.

More generally, expenditures by an altruist are inefficient in the states of the world where he gives to a beneficiary if he does not give in other states. When he does give, an altruist would get the same utility from equally small changes in his own and in his beneficiary's consumption. Therefore, he would be willing to give more in these states in return for a commitment by the beneficiary to give him even a little in the other states. The selfish beneficiary also gains from such an agreement since he would receive much more in some states than he gives up in the others. Unfortu-nately, the beneficiary's promises to give may not be credible, just as children's promises to support elderly parents may not be credible.

State intervention in the provision of education and other human capital could raise investments in children to the efficient levels. Since poor parents are least likely to make efficient investments, such intervention would also reduce the inequality in the opportunities between children from richer and poorer families. The compulsory schooling laws in the United States that began in the 1880s and spread rapidly during the subse-quent thirty years tended to have this effect. A state usually set minimum requirements at a level that was already exceeded by all but the poorest families in that state.[14] These laws raised the schooling of poor children but did not tend to affect the schooling of other children.

Subsidies to public elementary schools in the United States also began to grow in the latter half of the nineteenth century, and subsidies to public high schools expanded rapidly during the twentieth century. These sub-sidies appear to have raised the schooling of poorer families relative to

[14] See William M. Landes & Lewis C. Solmon, Compulsory Schooling Legislation: An Economic Analysis of Law and Social Change in the Nineteenth Century, 32 J. Econ. Hist. 54 (1972).

richer ones, for the effect of parental wealth and education on the educa-
tion of children declined over time as public expenditures on schooling
grew.[15]

Strong altruism of parents contributes to efficient investments in chil-
dren by raising the likelihood that parents give gifts or bequests to adult
children. Strong altruism may reduce efficiency in other ways, however,
if children recognize that they will be rescued by parents when they get
into trouble. For example, children who do not receive gifts now but
expect gifts in the future from altruistic parents will save less and borrow
more to increase their current consumption and reduce their future re-
sources since altruistic parents tend to increase their gifts when children
are poorer.[16] Similarly, children may have fun in school and neglect their
studies if they expect greater future support from their parents when their
earnings are lower. Or children who receive gifts from altruistic parents
may take big risks because they expect large gifts if they fail and yet can
keep most of their gains if they succeed since gifts cannot be negative.

Parents will not give children such perverse incentives if they can pre-
commit the amount of future gifts and bequests. With precommitment,
children cannot rely on parents to bail them out of bad gambles or other
difficulties. Precommitment is unnecessary if parental altruism declines
enough when they believe that children caused their own difficulties by
gambling excessively, neglecting their studies, and so on.

Parents may choose not to precommit, however, even when it is per-
fectly feasible. The Rotten Kid Theorem gives one advantage of retaining
flexibility in future transfers. Flexibility can discourage children from
actions that help children but hurt parents even more. With flexible gifts
and bequests, parents would reduce their transfers sufficiently to make
children worse off if they take these actions.[17] Parents may choose not to
precommit also because they want to help children who get into diffi-
culties through no fault of their own.

When precommitment is either not feasible or not desirable, parents
may take other actions to give children better incentives in the future.
They would *overinvest* in education and other training if children cannot
run down human capital as readily as marketable wealth. They would also
invest more in other illiquid assets of children, such as their housing.

[15] David L. Featherman & Robert M. Hauser, Changes in the Socioeconomic
Stratification of the Races, 82 Am. J. Soc. 621 (1976).

[16] Neil Bruce & Michael Waldman, The Rotten-Kid Theorem Meets the Samaritan's
Dilemma (Working Paper No. 402, UCLA 1986); Asser Lindbeck & Jorgen W. Weibull,
Strategic Interaction with Altruism: The Economics of Fait Accompli (unpublished paper,
University of Stockholm 1987) develop similar arguments.

[17] Becker, *supra* note 3, at 188–89; and Bruce & Waldman (1986).

Public policies can also discourage children from inefficient actions. Many countries require parental approval when children want to marry early, drop out of school, get an abortion, or purchase alcoholic beverages. Presumably, one reason is to prevent children who do not anticipate delayed consequences from taking actions that will make them worse off in the future. Another reason, however, is that children may anticipate all too well the future help they will receive from parents if they get into trouble. The state then tries to reproduce the effects on children's behavior of an optimal degree of commitment by parents.

IV. SOCIAL SECURITY AND OTHER OLD-AGE SUPPORT

Throughout history, children have been a major help to elderly parents. The elderly frequently have lived with children who care for them when ill and provide food and other support. In the United States a mere thirty years ago, only about 25 percent of persons over age sixty-five lived alone.[18]

Richer families who leave bequests rely less on children because they are insulated from many risks of old age. For example, parents who live longer than expected can reduce bequests to finance consumption in the additional years. The opportunity to draw on bequests provides an annuity-like protection against an unusually long life and other risks of old age. If bequests are not a large part of children's assets, elderly parents get excellent protection against various hazards through the opportunity to reduce bequests, and yet this does not have much influence on children's welfare. In effect, children would help support their parents in old age, although their support is not fully voluntary.

Children in poorer and many middle-level families would be willing to help support parents who agree to invest the efficient amount in the children's human capital. Few societies have contracts or other explicit agreements between parents and children, but many societies have social "norms" that pressure children to support elderly parents. Although little is known about how norms emerge, it is plausible that norms are weaker in modern societies with anonymous cities and mobile populations. Public expenditures on the elderly together with public expenditures on children's education and other human capital can fill the void left by the breakdown in norms.

Expenditures on the elderly in Western countries have grown rapidly in

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[18] Robert T. Michael, Victor Fuchs, & Sharon R. Scott, Changes in the Propensity to Live Alone: 1950–76, 17 Demography 39 (1980).

recent decades. United States governments now spend more than $8,000 on each person aged sixty-five or over, largely in the form of medical and pension payments. Is the rapid growth in expenditures on the elderly mainly due to the political power of a growing elderly population? The media contains much discussion of generations fighting for a limited public purse.[19] Some economists support a balanced budget amendment to prevent present generations from heavy taxation of children and other future generations.[20] In a widely cited and stimulating presidential address to the American Population Association, Samuel Preston suggested that growing public support for the elderly has been partly at the expense of public expenditures on children.[21]

We would like to suggest the alternative interpretation that expenditures on the elderly are part of a "social compact" between generations. Taxes on adults help finance efficient investments in children. In return, adults receive public pensions and medical payments when old. This compact tries to achieve for poorer and middle-level families what richer families tend to achieve without government help; namely, efficient levels of investments in children and support to elderly parents.

Federal, state, and local expenditures on education, head start programs, welfare, and the like are large: in recent years they exceed $2,500 per child under age 22. Even though real expenditures per capita on the elderly in the United States grew at a rate exceeding 7 percent from 1950 to the 1980s, Table 1 contradicts the impression that expenditures on the elderly grew at the expense of expenditures on children. Per capita public expenditures on the young hardly changed between 1950 and 1983 relative to per capita expenditures on the old.

As Table 1 shows, public expenditures on education in the United States increased long before spending on the elderly did. If public spending on education and the elderly are both part of a social compact, then the first generation of parents taxed to finance investments in children would be the first to receive public old age support. If education taxes start when a person is a young married adult, some thirty to forty years should elapse between the growth in spending on education and the introduction of social security. Perhaps the actual lag in the United States was longer because immigration was not really constrained until the early

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[19] See, for example, Philip Longman, Justice between the Generations, 85 Atl. Monthly 73 (1985).

[20] See James M. Buchanan & Richard E. Wagner, Democracy in Deficit: The Political Legacy of Lord Keynes (1977).

[21] Samuel H. Preston, Children and the Elderly: Divergent Paths for America's Dependents, 21 Demography 435 (1984).

TABLE 1

REAL PER CAPITA PUBLIC EXPENDITURES IN THE UNITED STATES ON PERSONS UNDER AGE
TWENTY-TWO AND SIXTY-FIVE AND OVER (1980 DOLLARS)

	Children under Twenty-two, Including Higher Education ($) (1)	Persons Sixty-five and Over ($) (2)	Col. 1/Col. 2 (3)
1920	122	*	...
1930	293	126	2.33
1940	393	1,022	.38
1950	557	1,708	.33
1960	922	3,156	.29
1970	1,825	5,447	.34
1980	2,472	7,520	.33
1983	2,515	8,307	.30

SOURCES.—U.S. Dep't of Health and Human Services, Social Security Bulletin Annual Statistical Suppl. (various years). U.S. Dep't of Education, National Center for Education Statistics, Digest of Education Statistics (various years). U.S. Dep't of Commerce, Bureau of the Census, Statistical Abstract of the United States (various years).
* Unable to estimate but apparently a small amount.

1920s. A social security system introduced prior to that time might well have encouraged substantial immigration of older people.

The much greater per capita spending on the elderly ($8,300 vs. $2,500) seems difficult to reconcile with a social compact between the young and the old. But these numbers are deceiving: the young, if anything, actually do better than the old. To show this, suppose young adults pay $2,500 to finance public investments in the human capital of each child. When adults reach age sixty-five they receive $8,300 annually for the remainder of their lives. These expenditures on children and the elderly continue until possibly a last future generation. Which generations would be better off with these expenditures?

Since the net reproduction rate in the United States is now close to unity, we assume that the representative parent has one child at age twenty-five. We also ignore offsetting reductions in parents' spending on children in response to public expenditures on children and offsetting reductions in children's support of parents in response to social security payments (our analysis applies directly if reduced parental spending equals reduced child support). Currently in the United States, a twenty-five-year-old has a .79 probability of reaching age sixty-five, and a sixty-five-year-old can expect to live until age eighty-two. Therefore, each adult member of the initial generation would pay $2,500 annually from ages twenty-five to forty-six and expects to receive $6,557 (.79 × $8,300) from

ages sixty-six to eighty-two. All subsequent generations receive a per capita government investment in their human capital of $2,500 until age twenty-two. The last generation does not invest in children, but it pays $6,557 from ages forty-one to fifty-seven to support the elderly of the prior generation. Each member of all in-between generations pays $2,500 from ages twenty-five to forty-six to support children of the succeeding genera- tion, $6,557 from ages forty-one to fifty-seven to support the elderly of the prior generation, and expects to receive $6,557 from ages sixty-six to eighty-two.

Since estimated rates of return on schooling and other types of training exceed 5 percent,[22] and since most public expenditures on children are for schooling and other training, we assume conservatively that these have an average rate of return of 5 percent in the form of equal increases in earnings from ages twenty-three to sixty-five. Then $2,500 invested for twenty-two years would increase earnings each year by $5,939. The after- tax net earnings of each member of the last generation would increase by $5,939 from ages twenty-three to forty; they decrease by $618 ($6,557– $5,939) from ages forty-one to fifty-seven while they are taxed to support the elderly of the previous generation, and they increase again by $5,939 from ages fifty-eight to sixty-five. The present value of this net earnings stream is positive for all nonnegative interest rates. Therefore, the last generation clearly gains from this exchange of child support for old-age support.

Unlike the last generation, generations between the first and the last must also support children of the succeeding generation but receive sup- port when old. The reader can work out the arithmetic of their com- plicated net earnings stream, but the bottom line is that the present value of this stream is positive for nonnegative interest rates. Therefore, all generations in between the first and the last also unambiguously benefit from the present combination of public spending on the young and old.

The initial generation of adults does the least well. Each member pays $2,500 on child care from ages twenty-five to forty-six and gains $6,557 in old-age support from ages sixty-six to eighty-two. The internal rate of return on this series of gains and losses is a little less than 2 percent. This rate is slightly higher than the average interest rate (1.8) on short-term U.S. government securities from 1948 to 1980 after adjustment for antici- pated inflation,[23] but it is considerably lower than the 4 percent average rate of return on tangible business capital in the United States during the

[22] See George Psacharopoulos, Returns to Education: An International Comparison (Keith Hinchcliffe asst. 1973).
[23] See Robert J. Barro, Macroeconomics (2d ed. 1987), at ch. 7.

post–World War II period.[24] This generation does less well because their human capital is not augmented by public spending; however, they may still be better off even if this internal rate of return is less than the appropriate market rate of interest because their utility is higher when the welfare of the next generation is higher (assuming altruism toward children).

Whatever the conclusion about the initial generation, our results sharply contradict the view that government payments to the elderly in the United States are large relative to government spending on the young. Indeed, any generation that benefits from the current level of public investments in children can easily use the higher earnings created by these investments to provide current levels of support for the elderly, and they would still have a considerable profit left over. Therefore, children would be happy to enter into a social compact with their parents whereby the children support their parents when old at current levels in return for a commitment to the current level of public support on children.

Our theoretical analysis implies that an efficient compact between the young and the old raises the human capital of children from poorer and middle-class families in return for contributions to the health and incomes of older members of these families. We indicated earlier that public spending on education favored the poor and middle class. Public spending on medical care also favors poorer families: the rapid growth in public spending on medical care during the past twenty years sharply reduced the effect of family income on medical care.[25] In addition, poor and middle-level older persons are much more likely to live apart from their children than they were before social security became important.[26]

V. Divorce

Practically all societies forbid marriage prior to specified ages; many countries have banned marriages between men and women of different races, religions, and social classes; and Christian countries have not allowed polygamy. Regulation of divorce is equally common. The United States and other Western countries essentially did not allow divorce until the mid-nineteenth century. There were fewer than two (!) divorces per year in England from 1800 to 1850.[27] Gradually, divorce laws in the West

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[24] See Edward C. Prescott, Response to a Skeptic (Quarterly Review, Federal Reserve Bank of Minneapolis 1986).

[25] Victor R. Fuchs, Who Shall Live: Health, Economics, and Social Choice (1975).

[26] Michael et al., supra note 18.

[27] Griselda Rowntree & Norman H. Carrier, The Resort to Divorce in England and Wales, 1858–1957, 11 Population Stud. 188 (1958).

liberalized toward allowing divorce when one party committed adultery, abandoned his or her spouse, or otherwise was seriously "at fault." Divorce by mutual consent also began to be possible, especially when there were no young children. About twenty years ago, the United States and other countries started to allow either spouse to divorce without proving fault or getting consent.

Although some divorces badly sear the children involved, little is known about the usual effects of divorce on children. Among other things, the available evidence cannot distinguish the effect of a divorce from the effect of having parents who do not get along.[28] All altruistic parents consider the interests of children and are less likely to divorce when their children would be hurt badly. Nevertheless, even if we ignore the conflict between divorced parents in determining how much time and money each spends on their children,[29] altruistic parents might still divorce when their children are harmed. Parents who do not leave bequests might divorce even when the money value of the cost to children exceeds the money value of the gain to parents. The reason is that children do not have a credible way to "bribe" their parents to stay if they cannot commit to old-age support or other future transfers to parents contingent on the parents not getting a divorce.

The story is different in families with bequests. If divorce does not change the degree of altruism toward children and if a divorce only affects future earnings and the value of other tradable resources, then children would also be made better off if their parents decide to divorce. The reason is that parents raise their gifts and bequests to compensate children for any losses from the divorce. This is an implication of the Rotten Kid Theorem.[30]

On the other hand, children may suffer from a divorce even by parents who give bequests if the divorce reduces the nontradable goods consumed by children. For example, children may be unhappy after a divorce because they seldom see their fathers. Parents cannot directly compensate children for the effect of a divorce on their happiness or other consumption. Indeed, if the effect on nontradables lowers the marginal utility to children of tradable resources, altruistic parents who divorce would *reduce* their gifts of tradables to children and thereby make children still worse off.

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[28] See Robert E. Emery, Interpersonal Conflict and the Children of Discord and Divorce, 92 Psychological Bull. 310 (1982).

[29] This issue is well analyzed in Yoram Weiss & Robert J. Willis, Children as Collective Goods and Divorce Settlements, 3 J. Lab. Econ. 268 (1985).

[30] Becker, *supra* note 12.

We claimed earlier that the degree of altruism is not fixed but often responds to the frequency and intensity of contacts with beneficiaries. In particular, over time a divorced father might become less altruistic toward his children as his contact with them declines. This would explain why many divorced fathers are delinquent in child-support payments,[31] and it strengthens our conclusion that a divorce may make children worse off even when their parents are quite altruistic prior to a divorce and even if they continue to give bequests after a divorce.

A divorce may greatly harm a wife who has many children and cannot earn much in the labor force or when her ex-husband fails to meet his financial and other obligations to the children. This is true even when divorce requires mutual consent because in many societies husbands could intimidate wives into agreeing to a divorce under unfavorable terms for them.

It does not seem farfetched to suggest that the state often regulates divorce to mimic the terms of contracts between husbands and wives and parents and children that are not feasible. Such contracts, for example, might greatly reduce the incidence of divorce when families have many children since the aggregate loss to children (and mothers) from divorce would rise with the number of children. Many countries did prohibit divorce when the typical family was large. Moreover, even when a divorce could not be easily obtained, marriages without children often could dissolve—could be "annulled." Divorce laws eased as birth rates began to decline in the nineteenth century. In recent decades, low birth rates and the much higher labor force participation of women stimulated a further easing toward no-fault divorce.

Some parents choose to separate from their children not through divorce but through the sale of their children. The universal ban on this practice strongly suggests that the sale of children lowers social utility. Young unmarried women and poor parents who need money are the two groups most likely to sell their children. Some children sold to prosperous families who want them may consider themselves better off than if they had remained with their parents. But even children who would suffer greatly might be sold because they have no way to compensate their parents for keeping them. Just as a ban on divorce may improve efficiency because certain contracts between parents and children are not feasible, so too may the ban on the sale of children improve efficiency. Nevertheless, Landes and Posner, and Posner could be correct that a very limited right to sell babies is better than the present controlled adoption

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[31] Weiss & Willis, *supra* note 29, give other reasons.

system.[32] Note that subsidies to poor families with children through Aid to Families with Dependent Children and other programs encourage unmarried and other poor mothers to keep their children rather than give them up for adoption.

VI. OPTIMAL POPULATION

With a heroic amount of additional imagination, we can consider not only the relation between parents and actual children but also contracts between parents and *potential* children. Such a thought experiment provides a new way of determining optimal family size and optimal population. The literature on optimal population has lacked an attractive guiding principle.[33]

Suppose that a potential child could commit to compensating his parents eventually if he is born. This "contract" would be Pareto improving (we assume that third parties are not hurt by births) if the child would still prefer to be born after compensation to parents that makes them better off. Since such contracts are impossible, some children may not get born even when both parents and children could be better off. Both fertility and population growth are too low when compensation from unborn children to their parents would be Pareto improving.

The first-order utility-maximizing condition with respect to number of children implies that parents are indifferent to a small increase in numbers. Unborn children want to compensate parents to change indifference into a positive preference for additional children. All parents might appear to welcome compensation, regardless of their altruism, because compensation lowers the net cost of additional children. This conclusion is correct for parents who do not provide gifts and bequests to children since these parents would benefit from old-age support or other compensation from children (see Section III).

The surprising result is that compensation *lowers* the utility of parents who do provide children with gifts and bequests. Compensation from potential children, in effect, reduces the net gift to these children. But parents do not need compensation to reduce gifts since they may reduce them in any case if they so choose. Therefore, families with gifts and bequests to children do have the Pareto-efficient number of children (ne-

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[32] Elisabeth M. Landes & Richard Posner, The Economics of the Baby Shortage, 7 J. Legal Stud. 323 (1978); Richard A. Posner, The Regulation of the Market in Adoptions, 67 B. U. L. Rev. 59 (1987).

[33] See the criticisms of this literature in James E. Meade, Population Explosion: The Standard of Living and Social Conflict, 77 Econ. J. 233 (1967); David Friedman, What Does "Optimum Population" Mean? 3 Research Pop. Econ. 273 (1981).

glecting effects outside the family): compensation from unborn children makes the parents worse off rather than better off.

The seemingly bizarre thought experiment with unborn children has a very concrete implication. We have shown that poorer families are less likely than richer ones to leave bequests. If commitments for compensation from unborn children are not feasible, fertility in poorer families is too low, and fertility in richer families (who give bequests) is optimal. Therefore, our approach implies—with any third-party effects ignored—that the aggregate private-fertility rate is below the Pareto-efficient rate.

A conclusion that poorer families may have too few children will shock some readers because poorer families already have larger families than richer ones. But other factors raise fertility by poorer families, including welfare programs, subsidies to education, and limited birth control knowledge.

Thompson and Ruhter also conclude that parents who do not leave bequests tend to have too few children,[34] but their argument, in contrast to ours, seems to depend on the underinvestment in the human capital of each child by these families. Such an argument is not correct since underinvestment in children may induce families to have too many rather than too few children. The suboptimal expenditure per child "artificially" lowers the effective cost of an additional child through the interaction between the quantity and quality of children.[35]

VII.   POLITICAL COMPETITION BETWEEN GENERATIONS

Since public policy results from competition among interest groups, how does competition for political favors lead to efficiency-raising state interventions in the family? In this section we sketch out a possible answer when parental altruism is important.

Political competition between adults and children is hardly a contest since children cannot vote and do not have the means and maturity to organize an effective political coalition. If adults use their political power to issue bonds and other obligations, they can help support themselves when old by selling these obligations to the next generation of younger adults. Some economists support balanced government budgets and limits on debt issue to control such exploitation of the political weakness of children and later generations. Of course, this is not a problem if each

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[34] Thompson & Ruhter, *supra* note 4.

[35] See the analysis in Gary S. Becker & Kevin M. Murphy, Incomplete Markets and Investment in Children (unpublished paper, University of Chicago 1986); Nerlove *et al.*, *supra* note 7.

generation can repudiate debt issues by previous generations. Since the issues involved in debt repudiation are beyond the scope of this article, we will just assume that debt is not repudiated.

Although present generations may be able to exploit future generations, altruism limits their desire to do so. Indeed, if all parents are altruistic and leave bequests, present generations have no desire to exploit future generations. After all, if they want to, they may take resources from future generations by leaving smaller bequests. Although families who do not leave bequests favor debt and other exploitation of the political weakness of future generations, their degree of altruism may greatly affect how they use their political power against future generations.

We showed in Section III that families who do not leave bequests underinvest in the human capital of their children. They can increase the wealth of the children's generation by using their political power to raise education and other training through state schools and subsidies to other investments in children. Then the present generation may, if it wishes, issue obligations to future generations that extract this increase in children's wealth.

Although selfish parents try to extract as much as they can from children, altruistic parents may prefer to share some of the increased wealth with children. This means that future generations may also benefit from the political power of present generations. Therefore, even if the altruism of many parents is not strong enough to lead to positive bequests and efficient investments in human capital, it could be strong enough to ensure that future generations also gain when the present generation uses its political power to issue debt and other obligations to future generations.

This overly simplified analysis of political power and political incentives may help explain why public expenditures in the United States on children are not small compared to public expenditures on the elderly. The discussion in Section IV indicates that the next generation gains enough from public expenditures on children by the current generation to pay social security and other help to the elderly of the current generation, and yet the next generation still has some profit left over from the public investment in their human capital.

VIII. SUMMARY

We have tried to understand the widespread intervention by governments in families. We conclude that many public actions achieve more efficient arrangements between parents and children. Clearly, parents and children cannot always make efficient arrangements because children are unable to commit to compensation of parents in the future.

Families who leave bequests can "force" children to repay parents for investments in human capital by reducing bequests. Therefore, these families do not underinvest in children's human capital. By contrast, families who do not leave bequests, often poorer families, do underinvest in children. The state may subsidize schools and other training facilities to raise investments in children by poorer families to efficient levels.

We consider not only subsidies to education and training but also social security and other old-age support, subsidies to births, laws that limit access to divorce and the sale of children, and laws that require parents' permission for early marriage and other choices of children. It is remarkable how many state interventions in family decisions appear to contribute to the efficiency of family arrangements.