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Lifeboat versus corporate ethic: social and demographic implications of stem and joint families

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Abstract

We contrast stem and joint family systems, to show how differences in norms of inheritance and residence profoundly influence our values and social constructs. They shape how people evaluate each other and patterns of conflict and cooperation within and between generations. Through this, they influence many fundamental aspects of social organization and behaviour. These influence health outcomes through categorizing people into those whose health is encouraged to prosper or to fail. It also influences a wide range of other outcomes, including strategies of household resource management; migration; ways of exploiting commercial opportunities and the operation of civil society. A number of hypotheses are developed about the nature of these interrelationships, some of which are substantiated empirically and others which can be tested.

Introduction

Kinship systems profoundly influence our values and social constructs in ways of which we are usually not conscious. They influence what people learn about appropriate ways of relating with others, within and outside the family. They shape the relative evaluation of different categories of members of a household. They shape who people will live with, who they will live for and networks of cooperation. Through these pathways, they influence many fundamental aspects of social organization and behaviour, which influence health and demographic outcomes. In addition, they also influence household and group strategies of resource management; migration; ways of exploiting commercial opportunities and the operation of civil society.

In this paper, we compare 'stem' family systems and 'joint' family systems, in order to illustrate some of the above assertions. These terms are of course ambiguous. For example, there are striking differences between the 'stem' family as found in Japan (Nakane, 1967) and that found in various regions of Western Europe). Here we focus on how differences between kinship systems in norms of residence and inheritance shape fundamental values and behavioural outcomes.

This interest in looking at large contrasts between kinship systems arose for me while doing fieldwork in North India, where it seemed difficult to say much about the kinship system because it appeared to be so unremarkable. Later, reading Berkner's account of stem families in eighteenth century Austria revealed how very different kinship arrangements can be. The idea of some children not inheriting property and not having claims to support from the household, the idea of parents drawing up precise retirement contracts with their children: these suggested a stunningly different set of relationships between kin from that of North India, where ties between patrikin are very strong.

Two brief examples give a flavour of the closeness of the ties in North India: "This is my son, or, if you

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want to be precise, we adopted him. I was unable to bear children, but my husband's younger brother married my younger sister and we adopted one of her sons. We all live together and raise our children together", as well as the outrage when obligations are not met: "My brother and I separated our landholdings about thirty years ago when we were in our forties and have lived in neighbouring homes since then. Last year, he bought a tractor which he rents out to other farmers. But can you imagine, when my son asked to borrow the tractor, my brother asked him to pay the rent for it! You write that down in your book: My own brother wants to charge me rent for using his tractor!"

To illustrate some of the features of stem families which distinguish them from joint families, this paper draws a stylized contrast between the stem family system of Northern Europe and the joint family of North India, which has much in common with that of China. The discussion of stem families is based on studies of peasant households in eighteenth and nineteenth century Austria and nineteenth century Scandinavia (see, for example, Arensberg and Kimball, 1968; Berkner, 1972; Gaunt, 1983, 1987; Sieder and Mitterauer, 1983; Plakans, 1989; Sorensen, 1989). The discussion of joint families is based on studies of North India and China (see, for example, Hsu, 1948; Freedman, 1965; Karve, 1965; Wolf, 1968; Kessinger, 1974; Wolf and Huang, 1980; Kolenda, 1987; Davis and Harrell, 1993; Das Gupta, 1995a; Gates, 1996).

The discussion in this paper ignores the actual variation on the ground in the operation of these family systems. Such variation exists not only between regions, but also between different socio-economic groups within the same region. Of course, individual families also vary in the precise nature of the arrangements they make. Not only are these forms of variation ignored, but also the fact that systems change over time. The point of reference in this paper is the family system which prevailed amongst peasants around the turn of the century and still prevails to a considerable extent amongst the peasantry of North India and China.

The stylized version of the family systems presented here highlights their essential features in order to throw their contrasts into relief. Some hypotheses are also put forward as to how differences in family systems might influence demographic outcomes. This follows the tradition of Davis (1955) and Hajnal (1982), who found it useful to compare these family systems in a stylized way, to derive some theoretical understanding of the implications of family systems for childbearing behaviour. Here we focus on the implications of these family systems for health behaviour and health outcomes and offer some additional hypotheses as to their implications for other household and group strategies.

We begin with a brief description of the patterns of inheritance and residence in these two family systems. This serves as a framework for the subsequent discussion of the ways in which these systems influence health and other outcomes. We argue that norms of inheritance and residence shape the nature of intra-family relationships, networks of cooperation and the relative evaluation of household members. Several hypotheses about the nature of these interrelationships are set forth, which can be tested empirically.

Patterns of inheritance and residence in stem and joint families

In the North European stem family system, property was passed on either intact to one child (unigeniture) or the bulk of it was passed on to one child and smaller shares given to other children. Since the system was essentially patrilineal, the inheritance normally passed in the male line. However, there was a good deal of flexibility in this principle, such that if there were no sons a daughter and her husband could inherit the property. It could also be passed on to non-kin of the owners' choice, such as an employee who had won the owners' trust. The main objective was to ensure the continuity of the estate and maintaining the family line was a secondary objective.

The central event in the household lifecycle was the transfer of property to the heir, which often took place at the time of his marriage. At some point of their aging, the parents would decide that it was time for them to retire and would transfer the property formally to the heir. Through marriage, the heir formed a new partnership to manage the property and run the household. It was common for a formal retirement contract to be drawn up, specifying the support to be provided by the heir to the retired parents.

Non-heirs or the lesser heirs would leave the main estate at the time of the property transfer if they had not already left before this and would make a living through whatever ecological niches might be available. One option for them was to find work as labourers on other farms and sometimes they could save enough from this to establish a household and raise a family. In times of urban expansion non-agrarian employment could also be found. Some might be able to remain for some time with their retired parents. The heir had few obligations to these people, although they were usually their own siblings.

Here we term this a 'lifeboat ethic', whereby the social and economic position of the farming family was effectively maintained by removing or highly circumscribing the potential claims of other kin to sup-

port from the household. Even the claims of the parents were clearly circumscribed. The estate was passed on largely intact. In many ways this must have acted as an incentive to be innovative, both for the heir who did not have to share the benefits of innovation and for the others whose survival depended on being able to extract a living from their environment.

The joint family system of North India and China has a very different logic. To begin with, sons inherit equal shares of the property, although one son may have the use of additional land if the parents are living with him. Transfer of property and managerial authority takes place gradually, beginning with the sons working under the father's direction and moving on to the sons taking over some of the managerial decisions as the father ages. Gradually the father becomes only a titular head. The sons move from cultivating their land jointly, to cultivating it separately and later to formalizing the transfer and division of the estate. This last step often takes place after the father's death.

Marriage is not a central event in the household lifecycle. Children may marry at any point and sons' wives can be incorporated into the household whether or not the son is financially independent. The household and property management is conducted by the unit of the father and his sons, with the help of the women married into the family. Thus, marriage does not create a new partnership which is of much significance, other than importing another woman into the household to bear children and carry out the other tasks assigned to females. A more important event is the birth of a grandson, which signals the continuation of the family line.

All those born into the household have a claim on the household estate to help establish them in life. Sons, of course, inherit property directly and it is the responsibility of the father and brothers to use household resources to arrange for daughters' marriages. These claims do not expire with formal transfer of property, as brothers are responsible for looking after unmarried siblings and launching them in adult life. After marriage, a girl continues to visit her natal home and receive the ritual and material supports which are due to her, whether or not her brothers have divided their property. It is rare for brothers to refuse to provide this support and such refusal would be viewed as a scandalous infraction of norms. Parents, too, have a claim to support by their sons. Thus, the sons' claim over their property is far less complete than that of a heir in a stem family system, since the other members of the household continue to hold residual claims on the estate.

It is common for married brothers to live together for some part of the household lifecycle and form separate households gradually as their own children grow. Thus, parents may live together with more than one married son and the unmarried children, or they may live with only one son. On the ground, the composition of the household may be very similar in the joint and stem family systems, consisting for example of a nuclear family with or without grandparents in residence. However, the normative underpinning of the system is quite different: in the North European stem family, where the residual claims of other household members are minimal compared to the situation in the Chinese or North Indian joint family.

Here we term the latter a 'corporate ethic', since all the members of the family are perceived as having claims to the family resources. The important point is that the household functions as a corporation, with the men of different generations forming the central members of the corporation and the birth of sons ensuring its continuity from one generation to another. Women have primary rights of maintenance from their parents' household before marriage and from their husband's household after marriage, with continuing rights to visit and receive help in lifecycle rituals from her parents' family. The main point is to ensure the continuity of the family rather than the household/estate and the estate is managed such that the family can meet its goals.

This system, too, is patrilineal. In the absence of sons, the preferred option is to adopt a son from a brother or other male relative of the husband. Adopting a son-in-law is a less preferred option, since it brings in a male from outside the lineage. For the son-in-law, too, this is a difficult option, because the strict laws of exogamy and residence require that women go to live with their husbands. A man from another village is an anomaly, a person who has no intrinsic right to be a member of the village, a 'wild duck' (as opposed to a home-grown duck) as they are sometimes called in Anhui province of China (Xie, 1997), or a 'house-bridegroom' as they are called in North India. These are very humiliating names for a man.

Of course, there is a great deal of variation on the ground in the operation of family systems. In stem families, there is much variation in the strictness with which the basic principle of unigeniture is applied as opposed to giving other children some minor share of the property. Besides, it does not necessarily follow from the principle of unigeniture that the transfer of property and managerial authority should be sudden as opposed to gradual, from father to appointed heir. The transfer seems to have been discontinuous in Northern Europe, but in other cultures it could be gradual without compromising the main principle of keeping the estate intact, as in Japan (Carl Mosk, personal communication). In the latter case intergenerational relationships are likely to be smoother, despite unigeniture.

Table 1
Sources of financial support in old age, South Korea 1995[a]

	Urban	Rural	Whole country
Self support	40.9	22.1	37.6
Eldest son	29.9	48.4	33.1
Second son	7.0	10.4	7.6
All sons	8.8	7.9	8.7
Daughters	1.6	1.5	1.6
Sons and daughters together	11.4	9.6	11.1
Other	0.3	0.1	0.3

[a] Source: Republic of Korea, National Statistical Office, *Social Indicators in Korea 1995*: 231, based on National Statistical Office, Social Statistics Survey.

The Korean family system is a good example of one which is difficult to classify into the above neat categories. The primary goal is similar to that of Chinese and North Indian joint families, namely to maintain the continuity of the family line. Yet the family does not act as a corporate group in the same way as a joint family, since inheritance is not equal between sons. The eldest son inherits the main share of the property and small shares are given to the other sons. As in China and North India, unmarried siblings have residual rights in that the father or eldest brother is responsible for arranging their marriages, even after the property has been transferred from the father.

In other ways the Korean family behaves like a stem family, in that the parents are expected to live with the eldest son and primary heir and once siblings have left the home their fate is uncoupled from that of the occupants of the primary share of the estate. Even today, despite the fact that nearly 85% of the population of South Korea lives in urban areas and sons frequently live and work far away from their place of birth, the tradition of being supported by the eldest son persists among a high proportion of families (Table 1). The eldest son carries on the family line and the other sons set up their own separate family lines. If there is no grandson from the eldest son, then another son may be used to continue the family line and inherit the main share of the property. As in China and North India, the birth of a grandson is a much more significant event in the household lifecycle than a son's marriage: women are imported into the family to bear children and work for the household.

Family systems and intrafamily relations

Rules of residence and inheritance play an important role in shaping intrafamily relations. For example, the relationship between generations is strongly affected by whether the transfer of property and managerial authority is sudden or gradual. Where the transfer is sudden, the younger generation can resent the parents for refusing to retire, since until then they remain in a highly subservient position in the household and cannot establish themselves as full adults in the community. The parents, of course, have a strong interest in retaining control of the property as long as possible, since once it is handed over their own position becomes more vulnerable. After retirement, the resentment at having to support the aged couple could result in neglect, "especially when they have reached the age when they can no longer work; then it is no longer hidden that the young wish them a quick departure" (Gaunt, 1983, p. 262, quoting from a contemporary observer in eighteenth century Sweden). Plakans summarizes the literature on the treatment of the old: "there is now something like a consensus that the treatment of the old was harsh and decidedly pragmatic. Dislike and suspicion, it is said, characterized the attitudes of both sides" (Plakans, 1989, p. 177). After all, the fundamental ethos is for the heir to have full control of the estate uncomplicated by residual claims of others.

In the joint family, the transfer of property and managerial authority is more gradual, allowing sons to attain social adulthood while remaining members of the father's household. The parents relinquish authority only gradually, retaining some authority over household decision-making well into their old age. Thus, their position in the household does not undergo the sudden loss of status and power associated with retirement in the North European stem family. Thus, there is far less scope for intergenerational tension in the joint family system. The other side of this coin is that age hierarchies are a more central feature of life, with the old exercising some authority over the young over much of their life.

The position of women is also very different in the stem and joint family systems described here. As mentioned above, the position of a wife in the North European peasant family is that of the partner of the husband: together they constitute a unit which runs the family enterprise. The conjugal unit seems to have been the most important one in economic, social and emotional terms. The couple was the joint enterprise, recruiting help as needed through childbearing and hiring labour. Though women came from outside the husband's home, they came as the important and explicitly acknowledged partner in the husband's enterprise. Thus, a premium was placed on a close conjugal partnership.

In the Chinese and North Indian joint family, the central bond is that between patrikin, both intergenerationally (between parents and children) and intragenerationally (between siblings). Consequently, there is far less emphasis on the conjugal unit, which is seen as a potential threat to these other bonds. Through various means, the conjugal bond is discouraged from flourishing: by separating women from men all day in

their place of work and creating separate worlds for men and women to function in, in which senior men exercise authority over younger men and senior women over younger women.

Relationships between siblings are also likely to be quite different in the two systems described here. In the joint family, siblings have more incentive to co-operate for their mutual benefit, not only while the property remains joint, but also afterwards, since they have residual rights and duties to fulfill towards one another. In the North European stem family, there is far less incentive for siblings to cooperate, since each has to make their own way in life and has little claim on or obligation to another. The obligations of parents to children are also more circumscribed in this family system, since children do not have claims to the estate through the fact of their birth. It was common in Northern Europe for parents to send children out to work for other families and live with them instead of at home, in what has been termed 'the circulation of servants' (Hajnal, 1982). By contrast in joint families, excess family labour is not dealt with in this fashion: people remain members of the household and are either underemployed in the family enterprise or seek work outside to supplement the family income. The exception to this is that girls may be jettisoned from the household if it is suffering from very serious duress, as during a famine.

The basic unit in the Chinese and North Indian joint family is the household, not the couple, as in the North European stem family. The corporate group is recruited almost exclusively through the male line. Women marry into lineages other than their own, while men constitute the next generation of their own lineage. Thus, it is men who constitute the social order and women are marginal to it. A woman is transferred to her husband's lineage upon marriage and her own family gives up virtually all rights to her subsequent productivity. In her husband's home, her task is essentially biological: to bear children and to work. The social aspect of her persona is minimal, since it hardly matters which woman gave birth to a child: a child derives its social identity by dint of its position in its father's lineage. Thus, women are interchangeable and an individual woman can in principle be replaced by another if necessary. Age and gender hierarchies are intrinsically stronger in this joint family system than in the North European stem family, as these are the central pillars of the system.

Implications for health and mortality

In this section, we put forward some hypotheses about how the position of different categories of people in the North European stem family system and the patrilineal joint family system might influence their health and longevity. These hypotheses largely remain to be tested. Some empirical data are presented which have a bearing on the hypotheses.

Mortality differentials between siblings

We would expect to find larger mortality differentials between siblings who survive childhood, in the stem family system than in the joint family. This is to be expected because those who do not inherit property or inherit a minor share of the property are likely to be pushed down the socio-economic hierarchy and be exposed to greater risk of disease and death. Intergenerationally, these inequalities between siblings are likely to increase, as the life chances of children of labourers are even poorer than that of their parents, who at least began life in a more affluent household. Hajnal (1982) shows, as we would expect, that the probability of becoming a labourer is far higher among the children of labourers than the children of peasants. Thus, non-heirs/lesser heirs can be viewed as being encouraged to die out, whether by not surviving to reproduce, being unable to acquire the resources to marry, marrying too late to have many children or through poorer ability to provide for their children.

During phases of history when opportunities outside the agrarian sector were growing, some children who leave the household may actually have stood a chance of becoming wealthier than the family heir. However, until this century mortality levels in urban areas were much higher than in rural areas, so even if they were economically successful they may have been exposed to higher mortality risks.

By contrast in joint families, there is far less social and economic differentiation between siblings, who share both poverty and affluence to a large extent. This means, of course, that when resources are slender there may be elevated mortality in the group as a whole, instead of among a subset of the group as in the stem family. Although households restrict sons' marriage to control reproduction, the unmarried sons continue to be producers and consumers within the household and, therefore, differences in nutritional and environmental stress are small as compared with their counterparts in stem families. This hypothesis is testable using data from Northern Europe on the survivorship of siblings and comparing it with that from China or India during similar phases of occupational structure.

By contrast, we hypothesize that in early childhood mortality differentials between siblings may be wider in joint than stem family systems. This is because the greater claim of each child to household resources in joint family systems may put greater pressure on the household to control the size and composition of the

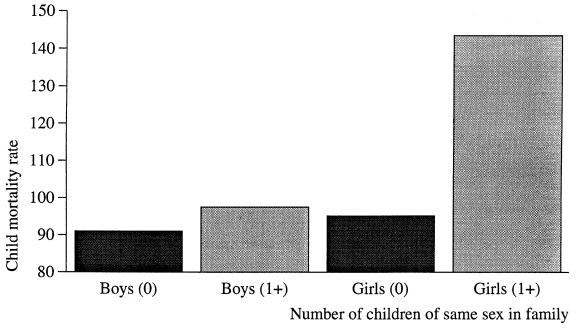

Fig. 1. Sex differentials in child mortality by parity, rural Punjab (women aged 15–59). Source: based on Das Gupta, 1987, Table 4

sibling set. A younger sibling may receive less in the sense that younger sons may have lower chances of marrying and less attractive matches may be found for younger daughters if household resources are diminished, but they all have the right to live in the household and be supported by it. In the North European stem family, there is far less obligation to provide for each child.

We do know that in China and North India there is considerable effort to control the size and composition of the sibling set (Figs. 1–3). Children of higher parity face a much greater chance of abortion, infanticide and death from neglect. This is true of boys, despite the high premium on having sons in these cultures. It is even more true of girls, as discussed below. This is a major source of differentials in the life chances between members of the same sibling set in patrilineal joint family systems of China and North India.

Of course, it is a long step from saying that stem family households have lower obligations to their children, to saying that they would be unconcerned about

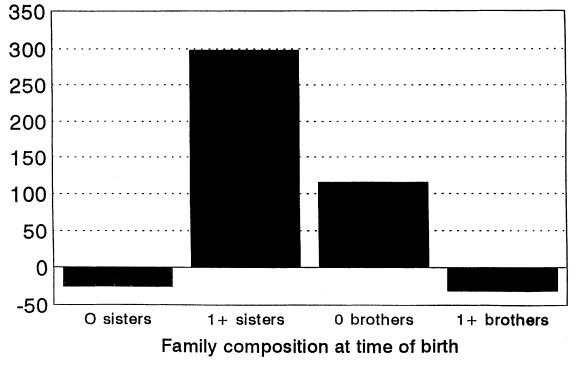

Fig. 2. Excess female child mortality by family composition at birth (per 1000 female livebirths) China 1989–90. Based on the sex ratios at birth, 1990 Census of China (Zeng Yi et al., 1993).

their family size. To begin with, they have an obligation to raise a child at least until it is old enough to leave home. Since most of the children leave home, both the costs and the benefits of childbearing are lower in the stem family than in the joint family system. This hypothesis about different pressure to control family size is testable using data from Europe and China or North India. Some excess mortality of higher birth order girls has also been recorded in nineteenth century Germany (Klasen, 1994). The differential in Germany is relatively small compared with North India and China (Figs. 1 and 2) and this may be attributable partly to fertility differentials and partly to differences in family systems.

Effects of gender inequality

Although the European and Asian family systems discussed here are all patrilineal in inheritance and patrilocal in residence, women are structurally more disadvantaged in the patrilineal joint family system. This is because the primary unit is the corporate group which consists of male patrikin. Women are at the bottom of two hierarchies: the gender hierarchy as well as the age hierarchy. A young bride enters her husband's family as a marginal person with little autonomy. Layers of people are above her in the decision-making hierarchy: not only the men of the household, but also the women who are senior to her. By contrast in the North European stem family, women are subservient to their husbands, but not to anyone else in the household. The relative absence of an age hierarchy means that the woman has considerable autonomy in the running of the household. With the acquiescence only of her husband, she is in a position to act on her perceptions of her own needs and those of her children, to protect their health and well-being as seems desirable and the household resources allow.

The powerlessness of women in the patrilineal joint family system of China and North India is at its peak during the early phases of a woman's marriage, which are the peak childbearing years. These are the years when a woman is subject to the stresses of reproduction and her children are very young and vulnerable. This is especially unfortunate for maternal and child health outcomes. If a woman perceives a problem with her reproductive health or feels that her child is unwell, she may not be able act on this perception effectively. She may hesitate to mention it and even when she mentions it the matter will be considered by those senior to her before action is taken. Such delay is especially critical for very young children, whose life can be jeopardized by delay in receiving care. In Punjab in North India, the infant mortality rate of children born in their father's home is nearly double that of those born in the mother's parental home,

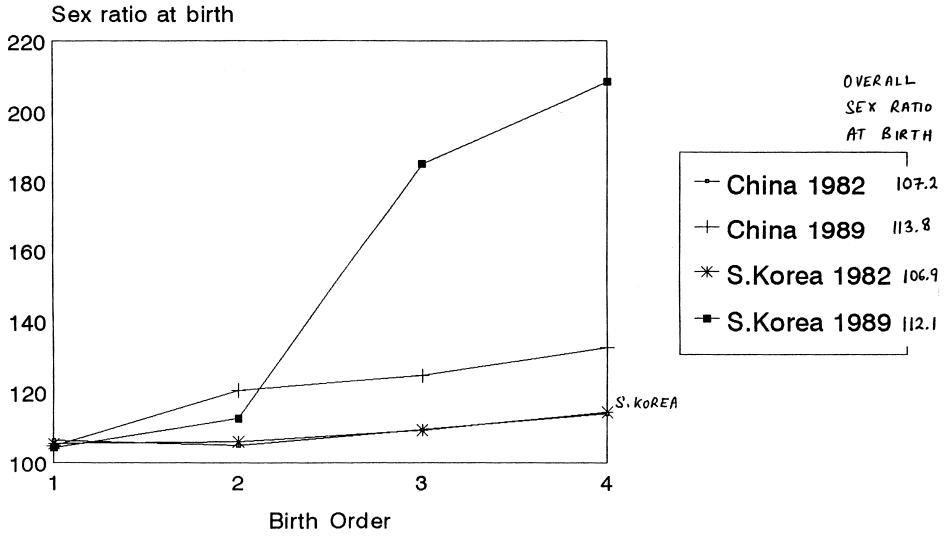

Fig. 3. Sex ratios at birth, China and South Korea. Source: Chai-Bin Park and Nam-Hoon Cho, 1995.

where women are freer to act on their perceptions of their needs and those of their children (Table 2). A similar phenomenon can be seen in China, where children in nuclear families have lower mortality than those in more complex households, controlling for socio-economic factors (Ren, 1996).

Women themselves also suffer from greater reproductive stress because they are not in a position to take decisions about their own care if they are in their husband's home. For example, in North India they are not free to decide to eat more nutritionally dense food during pregnancy and lactation (Jeffery et al., 1989; Das Gupta, 1995b). Thus, even in an affluent and well-nourished State like Punjab, women are undernourished during pregnancy and lactation (Fig. 4). They are similarly handicapped in making decisions about obtaining medical care during pregnancy and at childbirth.

This results in elevated levels of maternal mortality even where medical facilities are easily accessible. Doctors are often called upon when it is already too late to save the woman. It is interesting to note that in late nineteenth century England women had lower mortality than men even during the peak childbearing years, although levels of fertility were high at the time. By contrast, the data from China and India show higher mortality of women during the childbearing years and this differential narrows as fertility declines.

These negative health outcomes are not necessarily volitional. They take place because of delays in communication and the participation in crucial decision-making by people who are not in a position to really assess the nature of the threat. Of course, any potential threats to the health of adult males is approached with much more care, as they are the crucial components of the social order. This explains why, for example, in a household in Punjab which assiduously arranged for the elderly grandfather to receive injections of vitamin B to strengthen him, a wife haemorrhaged to death during childbirth because by the time she was taken to a doctor it was too late to save her.

Table 2
Infant mortality rates by place of delivery, Khanna 1984–88 (deaths in first year of life, per 1000 live births)

Place of delivery	0 months	1–11 months	0–11 months
Mother's Home	15	31	37
Husband's home	34	67	86

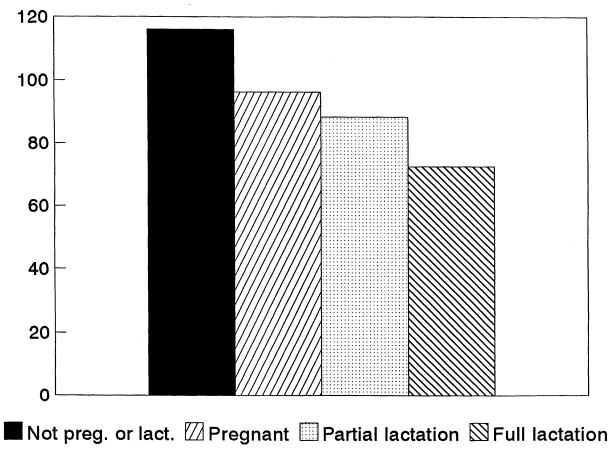

Fig. 4. Percentage of caloric requirements met.

Table 3
Number of girls 'missing' per 1000 livebirths[a]

	China 1989–90	South Korea 1992	India 1981–91
No. of excess deaths age 0–4, per 1000 female livebirths[b]	13	–	36
No. of excess abortions per 1000 female livebirths[c]	48–81	70	9
Total number of girls missing per 1000 female livebirths	61–94	70	45
Total number of girls missing per 1000 livebirths (m + f)	30–46	34	22
0–4 mortality rate, 1991	61	14–17	109–119

[a] Sources: **Sex differentials in mortality:** Huang and Liu 1995; Sample Registration System of India. **Sex Ratios at birth:** 1990 Census of China (the lower estimates are based on Zeng Yi et al.'s (1993) recalculation of the 1990 figures); Park and Cho (1995); intercensal estimates for India from Das Gupta and Bhat (1997). **Child Mortality Rate:** Lin Liangmin et al. (1996); Korean life tables (lower estimate) and vital statistics (higher estimates); International Institute for Population Science (1995) report on the NHFS survey in India.

[b] Computed from the sex differential in recorded mortality, compared with West model life tables for the prevailing life expectancy.

[c] Computed from the recorded sex ratio at birth, assuming a normal ratio of 106.

Other kinds of negative health outcomes are more clearly volitional. One example of this is the substantially elevated mortality of girls born into families where there is already a girl. This can be seen in China, North India and South Korea (Figs. 1–3). It is achieved by manipulating the sex ratio at birth through sex-selective abortion and infanticide and higher child mortality largely through delays in obtaining medical care in illness. The kinship system ensures that daughters are largely a drain on household resources: leaving home when they are old enough to become productive and having their productivity transferred to their husband's household. The volitional nature of the discrimination is clearly indicated by the fact that the discrimination is not experienced equally by all girls. As a consequence of such discrimination, some 70 per 1000 girls are 'missing' in South Korea and China, a very high rate of loss as compared with the child mortality rates in these countries (Table 3). By comparison, there is little evidence of excess female child mortality in countries such as the Philippines (Arnold, 1997) which have more bilateral kinship systems.

In patrilineal joint family systems, the pressure to remove higher birth order girls increases as family size declines, since this reduces the number of opportunities to bear sons. This is empirically the case in China, South Korea and India (Das Gupta, 1987b, 1997). Excess female mortality has also been observed to rise in China and South Korea in times of war and famine (Das Gupta and Li, 1999). Unfortunately the poor quality of age-reporting in the data from India makes it more difficult to see whether there is a similar impact of war and famine on gender differentials in mortality in India.

The position of the old

It is unclear whether we can expect differential exposure to mortality in old age in stem and joint family systems. Of course, to the extent that some siblings move down the socio-economic hierarchy in the stem family system, there is elevated mortality of some of the old. It is less clear whether we should expect elevated mortality of retired heads of households of comparable socio-economic status in the two family systems.

What we can expect in stem families is likely to depend on whether inheritance is sudden (as in Northern Europe) or gradual (as in Japan). In the latter case, the position of the old can be hypothesized to be similar to that in joint family systems, as there is likely to be less intergenerational conflict over the inheritance and the old do not face a sudden loss of power and authority. In the joint family system, old people are likely to obtain greater emotional and physical support and also perhaps greater access to financial support in an emergency than might have been forthcoming for retired parents in the stem family system.

The accounts of the position of the old in North Europe suggest tension and hostility, but we must remember that historical documents tend to be drawn up in cases of conflict. The appalling precision of the retirement contracts, leaving apparently so little room for affect and mutual concern, may have been drawn up in the more conflict-ridden families. People who had more trust in each other may have been less likely to document this fact for posterity.

We also know that in North European societies, in which intergenerational relations were characterized by conflict, relatively low proportions of the elderly lived with their children even in preindustrial times. One of the higher estimates of the proportion of elderly living with their children comes from the Robin (1984) study of an English village in 1851–1871, where half the aged

with surviving children lived with a child. In India in 1987–1988, 80% of the elderly live with their children (Hashimoto, 1991). This aspect of family systems changes slowly even with extensive urbanization and industrialization, as can be seen in contemporary Japan and South Korea. Nevertheless, it is not clear to what extent lower levels of emotional and physical support should be expected to translate into increased risk of mortality.

Reproductive behaviour and health

Much has been written about how different family systems influence childbearing behaviour. Davis (1955) argued that the logic of the joint family system would make for higher fertility than the European system, because only the latter had a 'nuptiality valve' regulating population to the available resource base. In stem families, individuals are responsible for their own economic situation and have to acquire an adequate resource base in order to marry and have children. When the resource base is thin, many of them are unable to marry and reproduce and many others would marry late and have a short reproductive career. By contrast, in joint families a couple is absorbed into a larger economic enterprise in which the responsibility of making ends meet is a shared responsibility of the larger household. Thus, Davis argued, there are few disincentives to high fertility. Hajnal (1982) concurs with Davis' argument.

This argument may need some modification, as it arguably focuses too narrowly on the couple as the decision-making unit. This may be valid for the North European family, but not for the patrilineal joint family of China and North India. There is growing evidence that in the latter type of family system, the household may seek to regulate its reproduction to avoid threats to its continued economic viability. For example, it is widely noted in India that household members influence a couple's decisions about childbearing and thereby participate in making joint decisions about household fertility. Another way to regulate fertility at the household level is to regulate marriage and there is evidence from both China and North India that households regulated the marriage of their men such that some married late or never married, especially in poorer families (Das Gupta, 1995a; Li and Lavely, 1995; Lee and Campbell, 1996). This pattern emerges clearly from data from Northeastern China for the period 1792–1873 (Lee and Feng, 1997). In both India and China, marriage has typically been earlier and more universal for women than for men, as excess female child mortality generates a shortage of women.

A study in North India found that a high proportion of men of the landowning caste never married and that this proportion increased with rising population pressure on resources, from 13% of men unmarried in 1921 to 23% in 1969 (Das Gupta, 1995a). Genealogies show that families with several sons surviving to adulthood were most likely to discourage their marrying, especially if they already had a small landholding. By contrast, the proportions never marrying among men of the landless labourer caste were much lower, at around 5%. This can be attributed to the fact that, unlike the landowning caste, they did not have clearly defined property which subdivided visibly if marriage was not regulated. For the landless labourers, the perception of population pressure was diffused because they did not own specific productive resources and depended on the generalized security of patron–client relations for their livelihood.

A similar pattern was found in Italy (Kertzer, 1991). Between 1861 and 1921 as many as 16% of males among sharecropper families never married: men were discouraged from marrying if there were several brothers in the family "since a point could be reached where the number of family members would become too great for the farm to support". As in North India, marriage rates were higher among agricultural labourers. These studies suggest more control of reproduction in the joint family system than Davis and Hajnal had assumed.

There are several paths through which family system's shaping of childbearing behaviour could impact on health outcomes in several ways and some hypotheses are put forward here in the hope that they may be tested empirically. A well-known path from fertility to mortality is that high fertility takes a toll on women's health and is associated with higher rates of maternal morbidity and mortality. One could hypothesize that there may be less control on marital fertility in a stem family system such as that of North Europe, since the household has less obligation to its children than in the joint family household. In the former, excess children could be sent out of the household to make their own way in life and in this case the household's obligations to the child cease when it leaves home. In joint families, the household has the responsibility of managing the long-term viability of the entire unit and all members born into it have a claim to its resources to help establish them in life. Sons have a claim to an inheritance, the chances of survival over time. and daughters have a claim to be raised and have their marriage arrangements taken care of.

A second path from fertility behaviour to mortality outcomes is that surplus children may obtain less help to thrive and to survive. Here one could hypothesize that elevated levels of mortality in later childhood and young adulthood might be associated with the Northern European system of sending children out of the household. In joint family systems, there might be

elevated mortality in infancy, as a form of postnatal control of family size, in order to avoid having too many claimants on household resources.

A third path is through the interaction of inheritance systems with mortality. Compared with unigeniture, systems which allow for multiple heirs may be expected to generate more equal chances of survival within a given generation. Over generations, however, they may lead to excessive subdivision of holdings and reduced survival chances for the kinship group as a whole. This is especially relevant in agrarian settings where the size of landholdings is such a crucial resource for survival. Through much of human history, mortality peaks from crises may have obviated the impact of subdivision of holdings, but since the advent of steady mortality decline during this century, serious reduction in size of landholdings has been observed in both China and India.

Management of resources

Whether the family system is premised on a 'lifeboat ethic' or a 'corporate ethic' affects patterns of cooperation and conflict and therefore may have considerable implications for the resource management strategies of groups and of individual households. Below we summarize a few hypotheses on these links.

Migration

In joint family systems, migration as part of an overall household strategy for diversifying sources of income and thereby spreading risk of failure of any particular source of income. The migrants typically retain their property rights in their place of origin and frequently also leave their wives and children behind. This minimizes their costs in the place of migration. It also permits the migrant's spouse and children to continue generating income from their property, from labour opportunities, as well as from the common property resources in their place of origin. The household of origin can also subsidize the migrants to tide them over periods of difficulty when they are between jobs. When they are earning, they send remittances back home, which can be used to smooth consumption flows or invested for future returns. Thus, we can expect to find more circular migration in regions where the family system gives people greater claim to family resources (Das Gupta, 1987a, 1987b).

By contrast, in the stem family system, migration is likely to be essentially that of individuals, who are seeking their own livelihood. In this situation, there is little reason for people to retain a link with their home area, unless this is administratively required by the State. One possible reason may be access to common property resources, if such access is limited to people who are born into a particular territory.

Labour management

Stem family systems certainly allow for much more flexibility of labour management. Since children whose labour is not required can be sent out of the household when they are old enough to leave home, households can minimize problems of under-employment. When necessary, they can hire in labour to tide them over difficult periods. The one difficult point in the household lifecycle may be when the property is transferred and most of the siblings leave, which can create a temporary vacuum of labour in the household (Smith, 1977). By contrast, joint household systems are more prone to having members under-employed.

Household regeneration after a crisis

The scope for regeneration of households may be greater in joint family systems. When mortality was high and sudden mortality peaks could decimate households, it must have been a frequent occurrence that households lost most of their working-age adults and became unviable. In such a situation, it is relatively easy for households to be reconstituted in joint family systems, because the underlying notion of the sublineage as a corporation makes it easy for uncles to team up with nephews, or with more distant relatives. Since people have residual rights of kin in the property of their cousins and more distant kin, it is relatively easy to reconstitute households which may earlier have divided. Many instances of such reconstitution can be found in the life-histories accompanying genealogies in Northern India. It is possible that households were more prone to becoming unviable in stem family systems, because kin did not share a common interest in property and, therefore, had were fewer built-in mechanisms for reconstituting households once they had separated.

Commercial strategies

Compared with stem families, there is greater scope for cooperation and mutual trust amongst members of a joint family 'corporation', which facilitates using household networks as a way of spreading risk and maximizing income from different sources. This has already been discussed in the context of migration. These strategies also facilitate certain forms of commerce. This can be seen, for example, amongst overseas Chinese and Indian communities, which find it possible to conduct business on a global scale using family networks. This can give them powerful commercial advantages over those who cannot tap into exist-

ing networks of trust. At the same time, these systems have less flexibility than non-family based systems, for purposes of recruitment and rewarding of enterprise. This can make them uncompetitive for certain forms of large modern business organization which need to be able to motivate professional managers by offering them opportunities for advancement regardless of their kinship links.

Conclusions

There is enormous variation in family forms, which makes it difficult to use simple classifications such as 'stem' family and 'joint' family. The Korean family system, for example, has features of stem organization in terms of inheritance, but is very similar to the Chinese and North Indian joint family in that the main objective is the continuation of the patrilineage rather than of the household. Thus, in Korea siblings may face very different life-chances, as they do in stem family systems since inheritance is not equal between sons, but age and gender hierarchies operate in ways similar to that of patrilineal joint families.

Some features of kinship systems are of especial consequence for demographic outcomes. Amongst these are the nature of claims on the household estate of different categories of family members; whether inheritance is egalitarian or not; the rules of residence and the arrangements for transfer of property and managerial authority from one generation to another. These go far towards shaping intrafamilial relationships: whether the conjugal bond is primary or subsidiary to that between patrikin, the relationships between siblings and between parents and their children.

If property is unequally divided, siblings have very different life-chances, with some being exposed to greater risks of mortality and facing more constraints in forming households of their own and raising children successfully. If managerial authority is transferred suddenly, this makes for greater intergenerational conflict. If the primary unit is the patrilineal corporate group, females are marginalized and their life-chances are reduced. Circumstances may sometimes generate fairly similar household composition in stem and joint family systems, but their demographic outcomes will be very different, as these are shaped by the very different moral and structural underpinning of the two family systems.

Until recently, the literature focused more on the fertility implications of different family systems, rather than mortality or migration. However, the effect of family systems on health outcomes may be greater and more persistent than that on fertility. Unlike the conscious evaluation of fertility behaviour, the norms regarding the evaluation and treatment of different household members are driven by ideas deeply embedded in our societies' cultural constructs, of which we are often not conscious. Even if such evaluation is reflected only in differentials in the speed of seeking health care, this can translate into significant differences in mortality. This is illustrated here with a few examples from North India, China and South Korea.

Of course, while joint family systems may have smoother intra-familial relationships than stem family systems, they are likely to have sharper conflict between groups. Faction fighting between lineages are endemic in Northern India, for example. In China, lineages sometimes became so powerful that the state found it difficult to exert authority over them. Recent accounts from China suggest that this is beginning to happen once again, with lineage-based villages thwarting state efforts to enforce the law against one of their members (Zhang and Li, 1993; Hu Jingsheng, personal communication). This suggests that the arrangements of civil society may be more difficult to generate and sustain in joint family settings.

There is considerable evidence that the values and constructs of kinship systems change very slowly, even in the face of industrialization and urbanization. For example, Japan, South Korea and Western Europe are all highly industrialized and urbanized today. Yet they differ enormously in the proportion of the elderly living with their children. These large and persistent differences in the extent to which the aged receive physical, emotional and financial support from their children seem to be closely related to the structure of intergenerational relationships in the peasant societies from which these industrialized societies have emerged. In this paper, we have put forward a few hypotheses about how family systems may influence demographic processes and behaviours. Our understanding of these processes will be much enhanced as research proceeds on the nature of family systems.

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