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Demographic Dimensions of an Intervillage Land Dispute in Nubri, Nepal

The demographic basis for a land dispute between two Tibetan villages in Nubri, Nepal, is examined in relation to family systems. Despite close proximity and sociocultural ties, the villages experience divergent population growth rates resulting from different frequencies of marriage. In one, old-age security concerns induce parents to retain female labor within the household by designating daughters to be nuns, a practice that has the unintended consequence of limiting aggregate population growth by barring many women from marriage and reproduction. In the other village the slightly different family system results in fewer nuns, faster population growth, and a need for more land. Comparisons with family systems and demographic outcomes in Europe and Asia reveal this to be a case in which preventive checks can exist in a context of early marriage and high marital fertility and demonstrate how concerns for old-age security can act as a restraint on aggregate fertility. [*Tibetans, family systems, demography, religious celibacy*]

High in a remote valley of Nepal, ethnic Tibetans from the neighboring villages of Sama and Lho gathered on opposite sides of a turbulent Himalayan stream. Separated by the cascading barrier of water, men from either side attempted to breach the others' defenses by rushing the wooden bridge dividing them. A hail of rocks kept the antagonists at bay. The battle raged for hours, ending in a stalemate at nightfall when the participants in this grudge match reluctantly returned to their respective villages. In the final tally, there were no human casualties. Yet the social consequences were far from negligible. The escalation of this intervillage dispute resulted in contentious relations between the residents of Sama and Lho, people who have been interdependent for centuries. What had gone wrong?

The myth that Tibetan societies are devoid of internal strife persists in the popular imagination (Lopez 1998; Shakya 1999). Such a caricature ignores the simple fact that Tibetans, like all humans, compete among themselves and against others for economic resources such as land, bovines, pastures, and even trade privileges (e.g., Ahmed 1999; Ekvall 1964; Ortner 1989). In the case of the Sama-Lho conflict, the villagers were fighting over a small stretch of land called Shala, a previously uninhabited forest between the two villages.

The purpose of this article is to contrast demographic processes in Sama and Lho, specifically with regard to fertility, marriage, and population growth rates. It may seem strange to start a discussion of village-level demographic

trends with a description of an intervillage melee. However, the logic will become clear, for the conflict is directly related to a contrast in population processes, one that is not intuitively obvious because of the fact that the villages share a common linguistic and cultural heritage, are linked via marital exchanges and religious affiliation, and are economically intertwined through shared resources and trade. Despite their numerous similarities, a crucial difference in the family systems of the two villages has resulted in different rates of nuptiality, fertility, and population growth—a finding that would not be apparent in macrolevel demographic studies that tend to veil local-level heterogeneity through aggregation. In this study, I use a microdemographic approach (e.g., Axinn et al. 1991; Caldwell et al. 1988) to highlight the localized nuances of historical processes, family systems, cultural attitudes, and their influences on demographic outcomes—akin to what Fricke (1997) refers to as a “thicker demography.”

Family systems (the normative manner in which family practices and household dynamics transpire, including marriage forms, succession, inheritance, and so forth [Skinner 1997:54]) influence demographic behavior and outcomes. This proposition has an ongoing academic history (e.g., Das Gupta 1997; Davis 1955; Goody 1996; Hajnal 1965, 1982; Levine 1987; Skinner 1997) and is one of many key points of convergence between the disciplines of anthropology and demography. Hajnal's (1965, 1982) seminal hypothesis proposes that a cultural pattern in northern Europe characterized by late marriage and high

rates of celibacy resulted in relatively low fertility, in contrast to elsewhere (primarily in Asia) where the joint family is assumed to induce high fertility through partible inheritance, early and universal marriage, and the shared cost of child rearing inherent in multigenerational households. Although the details of Hajnal's classic formulation have not always held up to critical scrutiny (e.g., Goody 1996; Guinnane 1991; Kertzer and Hogan 1991; Lee and Wang 1999), the line of reasoning that family systems influence demographic behavior remains intact. In the case presented here, a slight difference between family systems in Sama and Lho accounts for distinct population growth rates in these two villages, a disparity that is at least partially responsible for the recent dispute.

Within the context of family systems it is necessary to consider parental decisions regarding each offspring's role within the family throughout the course of the household development cycle—in other words, a family management strategy. The decisions relate to many crucial social and economic matters, including marriage options, the intergenerational transfer of assets, and provisions for old-age security. To a certain extent these decisions influence family and household compositions after children have been born and are influenced, but certainly not determined, by cultural norms and household-level demographic realities. As Greenhalgh (1988) and Skinner (1997) have pointed out, in addition to controlling fertility (birth control), offspring sets can be manipulated by influencing survivorship (child control) and by sending certain children out of the family or bringing others in (child transfer). Examples of child control through infanticide (Ball and Hill 1996; Chagnon et al. 1979; Scrimshaw 1978) and differential parental investment leading to higher mortality among less desired infants (Levine 1987; Scheper-Hughes 1997; Shorter 1977) and examples of child transfer through fosterage (Bledsoe 1990, 1994; Greenhalgh 1988) and abandonment (Johnson et al. 1998; Kertzer 1993) are well-documented methods by which parents deal with family sizes and compositions after children have been born. These are all part of the family management strategy, and as Bledsoe notes it is important to highlight "people's active efforts to achieve demographic outcomes by restructuring household compositions and influencing children's obligations, rather than acting strictly within the biological bounds or cultural norms that seem to be imposed upon them" (1990:97–98). A consideration of social roles that children can occupy as members of a household, whether in situ or living elsewhere, is an important step toward understanding the importance of the family management strategy. This article focuses not so much on child control and transfer but, rather, on how parents influence their children's obligations to them by keeping some offspring within the household while sending others out. In this case the major decisions involve who among one's children can

or cannot marry, choices that are constrained by norms of inheritance and postmarital residence, as well as the need to assure security in old age.

In the context of Tibetan communities, the formation of polyandrous unions and male monasticism (in some sense analogous to fosterage) are both options within the family management strategy that can help achieve household sustainability over time by removing some sons from inheritance potential (monks) and condensing the others into a single inheriting block in order to avoid excessive partitioning of land and herds (Goldstein 1976; Levine 1988). Rather than focusing on polyandry, as most analyses of Tibetan societies tend to do, in this study I consider the demographic implications of female celibacy. Specifically, the focal point is the practice of converting daughters into nonmarrying, celibate nuns in an effort to retain female labor within the natal household—a family management strategy that is common in Sama but not in Lho. At the aggregate level this strategy acts as a restraint on fertility and population growth, as the data will reveal. Because, according to parents, a primary motivation of converting daughters to nuns relates to old-age security issues, the resultant curbing of fertility is an unintended consequence of the family management strategy, which leads us to the issue of population regulation.

Wood asks the question, "Is the growth of preindustrial populations 'regulated' in any meaningful sense of the word?" (1998:100). Malthus (see 1933) broached the issue long ago in his discussion of "preventive checks" on population growth. He viewed sociocultural mechanisms to balance a population with its resource base such as delayed age at marriage as far preferable to "positive checks" such as famine and plagues induced by rapid population growth. Preventive checks on population growth have long been a popular topic of inquiry. Studies of marriage patterns and family systems in historical populations (e.g., Lee and Campbell 1997; Netting 1981) and anthropological studies of small-scale populations (e.g., Chagnon 1975; Hern 1992; Levine 1988; Wiley 1998) have revealed an array of ecological variables, biological factors, and human behavioral mechanisms that act to inhibit fertility and maintain a balance between populations and resources. Yet the question has seldom been asked whether such preventive checks are *intended* to have the effect of limiting population growth or merely represent an inadvertent result of cumulative behavior.

Popper noted long ago that a primary task of research should be to analyze "the unintended social repercussions of intentional human actions" because "an action which proceeds precisely according to intention does not create a problem for social science" (1985:352). Numerous cases have been documented whereby state- or community-level administrative policies, usually having something to do with taxation and common resource allocation, have a

direct bearing on population growth by influencing household formation processes, marriage timing, and levels of permanent celibacy (e.g., Goldstein 1971b; McNicoll 1975; Netting 1981; Vasey 1996; Wrigley and Schofield 1981). Yet rarely is this issue addressed at the level of the conjugal family, the locus of decision making for those who are responsible for and bear the primary consequences of reproductive decisions (for theoretical views on reproduction, see Carter 1995; Greenhalgh 1995). Nevertheless, numerous scholars admit the possibility that population regulation is an unintended consequence of social practices. In an effort to construct a more "ecological demography," Low et al. argue that "population 'regulation' is likely to be almost universally the incidental outcome of individuals responding to available resources, *whether consciously or not*" (1992:20, emphasis added). Furthermore, on historical population processes in Iceland, Vasey writes, "I treat regulation here as a compensatory response of mortality, fertility, or both to changing population pressure, *whether or not the actors intend to exercise control*" (1996:366, emphasis added). Finally, while commenting on the decline of group selection as an analytical tool for understanding population regulation in human societies, Wood states, "If group selection is unimportant, then it is very unlikely that special behavioral and institutional mechanisms have evolved *in order to* restrain population growth or regulate population size. But that does not mean that factors do not exist that have that effect, even if it is not the reason for their existence" (1998:101).

In this article the unintended consequences of human actions will be addressed directly by looking at contrasting population processes in two villages that are closely allied through social, cultural, linguistic, and economic connections. The case of Sama and Lho illustrates how individual decisions made within the context of family systems may lead to inadvertent (but not necessarily unappreciated) outcomes at the community level, such as restricting fertility and consequently hindering population growth. My analysis centers on how long-term parental strategies of family management can result in demographic stability, despite the fact that the primary motivations have little if anything to do with population regulation.

Economic Insecurity and the Demise of Trans-Himalayan Trade

The highland villages of Sama (elevation 3,350 meters, population 460) and Lho (elevation 3,180 meters, population 394) are the principal villages of Nubri, a valley that comprises the highest reaches of the Buri River in Gorkha District, north-central Nepal. Positioned on the southern slope of the Himalayas, the area is ecologically distinct from the arid plateau on the northern side of the mountains where the rain shadow effect makes vegetation sparse. Adequate rainfall and careful management practices in

Nubri permit the maintenance of some of Nepal's best preserved forests (Hetts 1996).

Politically, Nubri is divided into two Village Development Committees: Sama (Sama and Samdo villages) and Lho (Li, Sho, and Lho villages).¹ Tibetan historical documents provide evidence that the area may have been settled as early as the thirteenth century when it was claimed by Gungtang (Gung-thang),² a small kingdom that existed in southern Tibet until 1620 (Tshe-dbang Nor-bu 1990). Another early source suggests that the original inhabitants were non-Tibetan, for a famous eleventh-century Tibetan yogi referred to Nubri as an "uncultured realm of darkness" (*mtha'-'khob mun-pa'i smag-rum*) and to its inhabitants as "bovines" (*dud-'gro*) and "nonhumans" (*mi-mayin*) (Mi-la Ras-pa 1985:67b–68a). By the late fourteenth century Tibetan was spoken in the upper part of the valley (Rgod-Idem 1983:2a). Tax documents compiled in 1830 place Nubri within Tibet's Rdzong-dga' District (*Lcags-stag zhib-gzhung* 1989), yet the valley was definitely a part of Nepal by 1861 (Montgomerie 1868), suggesting that political affiliation transferred following the 1856 war between Tibet and Nepal. The current population is made up of Tibetans, who migrated across the Himalayas in several waves, and Ghales,³ who migrated from areas of lower elevation at undetermined dates. Based on linguistic evidence and the historical sources, it is reasonable to assume that an initial wave of Ghale settlers was culturally subsumed by the more numerous Tibetan migrants.

The inhabitants of Nubri pursue the typical Tibetan economic triad that combines subsistence farming, herding, and trade, a subsistence strategy that has been referred to in comparative studies as *Alpenwirtschaft* ("alpine economy") and involves the seasonal exploitation of vertical zones, communal control over pastures, individual control over farmland and haying fields, and the regulation by social institutions of movements over space and time (Guillet 1983; Orlove and Guillet 1985; Rhoades and Thompson 1975). Nubri residents fit Netting's (1993) description of intensive farming smallholders. They continuously cultivate each plot of land (no fallow period) and carefully manage the soil through the creation of natural fertilizers (leaf base and bovine manure), annual crop rotation, deep tillage with the aid of animal traction, and intercropping (barley with turnips in Sama and Lho; corn with beans in Lho). Households are the primary units of production, and most have secure rights to arable land and productive pastures. Both villages have long been incorporated into state structures (Tibet until the mid-nineteenth century, Nepal since then) and maintain international exchange relations (trans-Himalayan trade with Tibet, currently an autonomous region of China).

Very few households produce sufficient grain to sustain themselves throughout an entire year (McEachern et al. 1995:49). In the past, the food deficit was offset by trade. Bordering Tibet, Nubri residents were in a prime position

to be middlemen in the lucrative trans-Himalayan exchange networks. Grains such as rice and millet flowed from the lower elevation Ghale communities to Babuk, a regulated trade center above Sama on the Nepalese side of the border, where they were exchanged for Tibetan salt, sheep, and wool. The situation would not last, for in the 1960s the balance of trade shifted dramatically because of a combination of the Chinese occupation of Tibet, with its concomitant infrastructural improvements and restrictive regulations on trade, and the increase in trade between Nepal and India facilitated by new road networks (cf. Fisher 1986; Fürer-Haimendorf 1975; van Spengen 2000). Today, rice is trucked to the Tibetan Plateau from mainland China, and Indian iodized salt is readily available and cheaper than Tibetan salt for Nepalese lowlanders. To further complicate matters, the currently diminished volume of trade is periodically impeded by border closures. One such closure occurred in 1996 following an outbreak of hoof-and-mouth disease among Nubri's bovine population. Nubri dwellers still maintain, "If we don't trade, we starve," yet trade can no longer be counted on as a reliable household-level economic supplement.⁴

In response to chronic food shortages and trade insecurity, Lho residents decided to clear the forest at Shala in 1985 and convert the land for agrarian purposes. There were, however, some obstacles. For one, Gorkha District government officials refused to grant permission to clear the land, a decision that was in line with the national-level policy against deforestation. Furthermore, because of the fact that there existed no formal line of demarcation between Sama and Lho, and because Shala lies more or less equidistant from the two, the land in question was claimed by both villages. Conflicts had not arisen in the past because forest resources (firewood and construction timber) at Shala were sufficient to satisfy the needs of both villages. Despite these obstacles, Lho residents divided the land, allocating about one-tenth of a hectare to each household in the village. Households could either sell their allotments to other families or reduce the forest and commence planting potatoes. In all about ten hectares were cleared. Repercussions soon followed, including several violent skirmishes with Sama residents. District-level officials intervened and devised a solution that emphasizes the economic interdependence that has always existed between these villages. Today, Sama residents must pay a salt tax to Lho each year in exchange for the right to gather wood at Shala, and Lho residents must pay a cash tax on each bovine that is herded above Sama every summer. The dispute is resolved, and Shala is now recognized as a part of Lho's territory.

Lho residents state that the decision to claim Shala was based on their perceived need to increase food production in order to feed a rapidly growing population. Many people expressed concern that their children would not have

enough to eat in the future. To a certain extent this fear can be attributed to the declining role of trans-Himalayan trade in the local economy. However, placing sole responsibility on exogenous economic factors contributes little toward determining why it was Lho residents, and not Sama residents, who claimed and cleared the land at Shala. After all, trade insecurity is a major issue in both villages.

A comparison of population densities (Sama, 20.5 people/hectare; Lho, 20.8 people/hectare) does not resolve the issue. Lho has a smaller population, yet land holdings per household are equal, seemingly tipping the resource scale in favor of Lho because of the higher quality of their fields.⁵ One would expect that Sama residents, with their higher population and less productive land, would be the logical candidates for initiating extensification. However, bovines are a critical aspect of the alpine economy, one that is closely rooted in cultural conceptions of wealth. The Tibetan noun for cattle (*phyugs*) is etymologically related to the adjective for "wealthy" (*phyug-po*). Another term for cattle (*nor*) also bears the connotation of wealth ("property," "possessions"). Thus, cattle are directly associated with notions of prosperity.

To support bovine herds, the critical ecological variable is not summer pastures, which are plentiful in Nubri, but winter pastures that are close to the village, have a reliable water source, and are situated on southern-facing slopes so that the sun can quickly melt snowfall and reveal the grass underneath. Lho residents claim that the people of Sama are wealthier because of their comparatively extensive winter pastures that permit the maintenance of larger bovine herds. Thus, whereas the land ratio favors Lho, the bovine ratio (Sama, 2.5 bovines/person; Lho, 1.8 bovines/person) favors Sama.

One cannot conclude which village had a greater need to convert Shala from forest to farmland based on a simple comparison of resources. Because the people of Lho, and not Sama, initiated the conflict by claiming the disputed land, other factors must have been involved. Cohort fertility measures of women born between 1941 and 1950 (those who were completing or close to completing childbearing in 1985) show higher aggregate fertility in Lho prior to the crisis. Although the mere existence of a fertility differential is a good indicator that an elevated rate of population growth may have impelled the residents of Lho to initiate the land claim, the more compelling question is why these culturally similar villages could experience such distinct demographic processes. To sort out the motivations behind the land grab it is therefore necessary to examine the demographic data within the context of family systems and family management strategies.

Marriage versus Celibacy

Contradictory attitudes exist in Tibetan societies regarding the merits of family life versus religious celibacy. Buddhist

clergy consider marriage to be an obstacle to enlightenment, for it entails a commitment to perpetuating worldly suffering through procreation, an attitude evident in the proverb "What is needed is the practice of the holy Dharma [the teachings of the Buddha], what is not needed is a wife for one's *samsara* [worldly suffering]" (Pemba 1996:40). In contrast, another proverb proclaims: "A single wild ass doesn't get water, a single man doesn't live life fully" (Pemba 1996:7).

In Nubri there is a long-standing conflict between individual desires to pursue the life of a recluse and family pressures to remain economically active within the household. The religious aspirations of Tashi Dorje (Bkra-shis Rdo-rje), an elderly married lama and the paternal uncle of Sama's current head lama, illustrate this tension: "I wanted to be a monk when I was young. Watching our father [formerly the head lama of the village] perform rituals, my brothers, sisters, and our friends from the neighborhood got the idea to act out our own religious ceremonies. Behind our house was an overhanging rock. This was our temple. When a group of children gathered there, we would make offerings and recite prayers. All of the children took part in our game." Eventually Tashi Dorje was sent for religious training to a monastery in Tibet, where he developed a desire to remain as a celibate monk. But his father had another plan, namely, the perpetuation of the lama lineage. Even though Tashi Dorje's elder brother would become the village's head lama by virtue of primogeniture, high mortality in the village necessitated that both brothers marry in order to assure a successor. Tashi Dorje's desire was subordinated to the need for the continuity of a biological descent lineage that can be traced back to the medieval emperors of Tibet.

The tension between marriage and celibacy is not a new phenomenon in Nubri, as illustrated by the following passages from the biography of Pema Döndub (Padma Don-grub), a Nubri resident who was born in 1668. The excerpts record a conflict that arose several centuries ago when Pema Döndub opted out of the householder's life in favor of becoming a celibate cleric:

When I was 12 my father's brother, Uncle Tsetan, came to our home and said to my father, "I need an adopted son and have selected this middle boy of yours." I replied, "I will not go, I want to practice religion." Then father said to me, "You must go to Uncle Tsetan's home. If you do not go, you will not receive any inheritance of fields and animals." Because my uncle was an influential man with many possessions, I was powerless to refuse.

One day I heard my uncle say, "That nephew of mine is now 15 years old. He is becoming a mature man, so it is necessary to find him a wife." Hearing this plan, I ran away, resolved not to engage in such worldly activities. I would not live in the dreary world of suffering like he does. I would not take a wife. When Uncle Tsetan finally caught up with me and heard my point of view, he demanded, "What are you

saying?" I repeated my vow, and he said, "Well then, if you do not become a householder, who will receive my inheritance? I have no son of my own to receive the estate."

As a youth I wore religious clothing because the desire was strong within me to lead a life of religion. I recalled playing the lama as a child. All of my friends, both boys and girls, came to receive offerings from me while I sat on a throne. Now, my parents were an obstacle to my desire to practice religion. I returned home and stayed for a few days. Father confronted me and said it was time to return to Uncle Tsetan. I declared, "I won't go! Doing so would go against my inclination." . . . Father then stated, "Because you are a son without a heart, you are no longer a resident of this house. If you do not accept uncle's inheritance, you will receive nothing from the hands of your own parents, not even cups to drink from or plates to eat from." Then he screamed, "Get out of here!" I departed feeling deep remorse. [Padma Don-grub 1979:2b-6a, my translation]

The intergenerational transfer of assets is a critical concern. But why, given that Pema Döndub had two other brothers, were his parents so concerned about his insistence on pursuing a religious lifestyle? The reason becomes evident in the following passage, illustrating the fact that children represent old-age security for parents in Nubri. Pema Döndub succeeded in his quest to live the life of an unmarried recluse, but in the meantime his two brothers died, leaving his parents in a bind. On numerous occasions they tried to convince their son to come back to the village but to no avail. One of Pema Döndub's last encounters with his old mother and father is related in the following passage:

When my two elderly parents came to visit [my meditation retreat], they stood outside of the cloth door and wept. "Son, come and look at us two old folks with bad karma!" A single tear fell from my eye. I said to my old parents, "Do not speak like this. Listen to me. . . . As for me, your son, I have no wish but to practice religion. . . . My venerable mother and father, spin your prayer wheels. There is no true substance to whatever you perceive. Nor is there substance in any thoughts. As for me, I have no wish but to seek perfection. Do not suffer, elderly ones, just spin your prayer wheels. Even the walls that make up the house and the wealth that accumulates within are impermanent. You may be emotionally connected to the family, but in witnessing their deaths [i.e., their other two sons who died as young adults] you see that life is naturally impermanent. Do not suffer, elderly ones, spin your prayer wheels. All sentient beings are destined to die. Once born, there is no one who shall escape death. Suffering is the epitome of worldly existence. In your younger days it was acceptable not to practice much religion. But now, my parents, at this stage of life you must continuously spin your prayer wheels. . . . My parents, set your mind to the three jewels: the Buddha, his teachings, and the community of followers. Listen carefully to what I have said, and you will no longer suffer."

My parents got up to leave. Father sobbed, "So this is your advice, my son? We can endure more stoically if we can only imagine that we are not suffering?" Mother added, "When the

two of us old folks die, there is nobody on whom our hopes for the future can be placed. Your elder brother and younger brother are both dead, and the house is abandoned. The courtyard is abandoned. If we die, there will undoubtedly be suffering. My son, are your oaths so unwavering?" Mother and father cried while leaving. As for me, at this place of solitude, because of the nature of everything being impermanent, I contemplated long and hard on the suffering caused by our tendency to grasp for permanence. My parents could not understand the message I had imparted. [Padma Don-grub 1979: 56b–57b, my translation]

At the present time most lay people in Nubri respect the cloistered lifestyle of monks, yet they prefer to live as reproductively active householders. Rarely do individuals strike off on their own to become monks, for it is a decision made for them when young by their parents. Marriages are also arranged by parents, the goals being to create or reinforce social relationships with other families, to assure the perpetuation of the family lineage, and to pass ownership of family assets on to the next generation. The story of Pema Döndub illustrates many of the concerns that still arise today when individual desires and family aspirations collide. In a society in which children are valued for the support they give aging parents, the intergenerational dispute is bound to manifest when offspring strike off on their own and leave the elderly to fend for themselves. The irony is that one way to assure old-age security today in Sama is precisely through religious celibacy. In this case it is not a son who is made a monk but, rather, a daughter who becomes a nun—a practice that has discernible demographic implications and will be dealt with below in the context of household processes and family systems.

Family Systems and Family Management Strategies in Nubri

Many have noted that family and household typologies can be problematic (e.g., Fricke 1994; Hammel 1984; Skinner 1997; Wilk 1991). By classifying families and households according to a static typology, their inherent processual natures are veiled (Wilk and Netting 1984), and the roles of individuals within households are obscured (Alter 1988:65). Furthermore, most demographic studies fail to differentiate children within the household, assuming that they somehow have the same utility to their parents, a perspective that Bledsoe (1990, 1994) has criticized by examining differential investments in children according to gender, parity, and aptitude. These points are critical, for without grasping how the household develops through time, and without understanding the potential roles that individuals can occupy within the household, it is difficult to say anything meaningful about how the family system affects demographic processes.

To remedy the situation Skinner's (1997) model of the family system is adopted here. Using the conjugal unit

(CU), consisting of any two of husband/father, wife/mother, and child(ren), as the point of departure, three types of families are possible: the conjugal family consisting of only a single CU, the stem family with two or more CUs but no more than one per generation, and the joint family containing two or more CUs with at least two being in the same generation.⁶ From a diachronic perspective the conjugal system implies neolocal marriage, equal inheritance among offspring (or among one gender) and the absence of succession per se, a usual sequence of coresidential arrangements whereby an extended period with children is preceded and followed by the couple being alone prior to children and as "empty nesters," that family formation occurs with marriage, and that family extinction occurs with the deaths of the married partners. In the stem system a spouse is brought in for only one offspring in each generation, succession is to the child who has married within the household, an unequal inheritance favors a single heir, and an alternation occurs between conjugal and stem phases. Finally, the joint system means that spouses are brought in for each member of one gender, inheritance is equal for the favored gender, succession is generally absent, the domestic cycle includes conjugal, stem, and joint phases, and fissions into two or more families can occur (Skinner 1997:54–63).

In Nubri the most basic terms for household and home are *drongba* (*grong-ba*) and *kyim* (*khyim*). In the majority of cases, all those who dwell under the same roof are members of the same family (*mizang* [*mi-bzang*]), so the terms *drongba* and *mizang* are nearly synonymous (see also Aziz 1978:29). Within the household, the *kyimdak* (*khyim-bdag*; "master of the house" or "household head") is the person who is responsible for each household's jural and economic obligations in relation to the village.⁷

Ideally the household development cycle in Nubri is characterized by oscillations between conjugal and stem phases that inevitably result in the formation of multiple conjugal households, each headed by a consanguineously related *kyimdak*. The cycle can be summarized as the following sequence of events: First, spouses marry and begin residing in the groom's natal home with his parents and unmarried siblings (stem phase).⁸ Second, once their first child is born (on average three years after marriage) the young couple inherits a portion of the groom's father's land and bovines. The young couple is then expected to build or renovate and move into a separate home where their own offspring set will develop (conjugal phase). Third, alternations commence between stem and conjugal phases as successive sons marry and bring home their brides (conjugal to stem), who then establish separate residences following the births of their own children (stem to conjugal). Fourth, when the youngest son marries he inherits the parents' home. It is at this point that the family systems in Lho and Sama diverge. Parents in Sama commence

a final conjugal phase by moving into a retirement home, usually at Pema Chöling *gompa* (Padma Chos-gling *dgompa*), the temple complex just outside of the village. Parents in Lho, on the other hand, move into a small home attached to or in the immediate vicinity of their former home now occupied by the youngest marrying son.

Nubri's family system fits somewhere between Skinner's stem and joint classifications, albeit the end product is several conjugal families. Even though all members of a single generation (males) can theoretically marry and inherit household assets (characteristic of a joint system), each son is expected to form an independent household prior to the subsequent son's marriage. Two conjugal units of the same generation are never simultaneously present in the household. Therefore, Nubri represents a case of the "hiving off" variant of the stem system (Keyes 1975; Skinner 1997).⁹

The process of partible inheritance and the establishment of independent households by sons raise two major concerns for parents. First of all, they must assure the orderly transfer of property without partitioning an estate to the point of leaving children with insufficient resources to maintain their own households. Furthermore, parents must bear in mind that their own physical abilities are declining and hence they will one day require assistance. Strategies for managing an offspring set through long-term planning are critical with respect to both of these issues.

Polyandry can reduce the excessive partitioning of estates. Village regulations in Nubri stipulate that no more than two brothers can engage in such a union, unlike in other Himalayan communities where all brothers in a single household can marry a common bride (see Goldstein 1976; Levine 1988; Schuler 1987). The logic behind the regulation in Nubri relates to the village tax system. Simply stated, the more households created, the larger the tax base to draw on for funding communal rituals (Childs 1998). Nevertheless, fraternal polyandry is a common practice among Nubri's householders, despite the fact that it occurs at a low intensity compared with that in other Tibetan societies.

Sending sons outside the village to be monks is another strategy that reduces estate partitioning. The practice effectively removes a potential claimant from his share of household resources. In the past many sons were sent to study at monasteries across the border in Tibet. Those no longer exist, having been destroyed in the 1960s during and prior to China's Cultural Revolution. Since then, Tibetan refugees have reestablished numerous monasteries in Kathmandu. At first these primarily drew on the exile community to fill their ranks. Recent demographic changes involving sharply reduced fertility in the refugee population have resulted in a new trend whereby most new recruits now come from the ethnic Tibetan communities of the Himalayan borderlands.¹⁰ Incentives to send a monk to Kathmandu include the aforementioned reduction by one

of a household's claimants on heritable resources and, just as importantly, the possibility that he will remit to the village-dwelling parents cash obtained from performing religious ceremonies in the refugee communities. Once removed from the village, monks rarely return except to visit.

Care for the elderly is the other major issue mentioned above. Old age is considered to be a stage of life that should be dedicated to prayer, the purpose being to positively influence one's future rebirth through the accumulation of merit. We see this in Pema Döndub's exhortation to his parents to spin their prayer wheels, a common practice among elderly Tibetans who are preparing for death and transmigration to new lives. However, whereas age commands respect, it also entails a certain degree of dependency (Goldstein 1980; Ortner 1978). Elderly folks are esteemed for their experience and religious devotion, yet they are considered somewhat of a burden because of their infirmity. In the words of an aged invalid from Sama, "Old age is infernal, the young ones do not want us around. They must feed their own children before they feed us. I am just waiting to die." On the other hand, neglecting elderly parents is frowned upon. According to a householder in Sama, "Children who neglect their parents will be unable to receive their gratitude. It is a disgrace to the entire community. We scold such individuals by saying, 'Your parents helped you when you were too young to go to the toilet on your own. Now your parents need help, and you cannot even give them a bit of food? Have you no shame?'" Tensions between economic realities and cultural ideals are evident in the above statements.

Who do parents in Sama consider to be best suited among their children to provide support in old age? Not married sons whose primary obligations lie with their own developing families, and not unmarried sons such as monks who are usually sent to reside in monasteries located in Kathmandu. Because marriage results in a transfer of labor from a woman's natal household to her marital household, caring for aging parents by married daughters is in direct competition with their duties to their new families. Therefore, in Sama (but not Lho) people turn to unmarried daughters, primarily nuns, to assure old-age security. According to a Tibetan proverb, "If you want to be a servant, make your son a monk; if you want a servant, make your daughter a nun" (Lopez 1998:211). This same sentiment is often expressed by Sama laity and clerics alike, who state unequivocally that a major reason for making a daughter a nun is to assure a caretaker in old age. All the nuns whom I interviewed in Sama concurred that the life-course decision was made by their parents.

Cultural rationales behind this family management strategy are compelling. One sure way to gain a substantial stock of religious merit is to donate a child to the religious order. Doing so brings *sodey* (*bsod-lde*; "good fortune") and *jlnab* (*sbyin-rlabs*; "blessing") to the daughter, the

parents, and the entire community. Strong social stigmas associated with a nun's engagement in sexual activities help assure that such women rarely revert to the householder lifestyle.

Female religious practitioners in Tibetan societies generally have low status compared with male practitioners, a bias that is to an extent rooted in Buddhist philosophy (Campbell 1996; Klein 1995). Many Tibetan men consider nuns to be morally lax, emotionally unstable, and less adept at attaining spiritual progress than their male counterparts (Havnevik 1989:144–158). Sama nuns occupy the lowest rank in the religious hierarchy. While married lamas and monks recite from texts during rituals (there is a direct connection between literacy and religious prestige) and are seated close to the altar, nuns recite prayers from memory and are relegated to the back of the temple. They are always served last, after all male participants, during communal festival meals. Furthermore, nuns never partake in household rites that are often dedicated to the *polha* (*pho-lha*), the protective deity of the patrilineage.

The life course of a nun in Sama generally follows a pattern: she is consigned to her religious role while young (generally under ten years of age), resides within the developing natal household during which time she helps care for younger siblings, relocates to the temple retirement home with the aging parents after her youngest brother marries and takes over the natal household, and finally lives alone in the temple home (which she owns) after her parents pass away. The final living arrangement for the elderly and their nun daughters makes sense according to local perceptions of physical space, for the temple complex is conceived of as a "religious realm" (*chos-pa'i yul*), whereas the village is considered a "realm of worldly suffering" (*jig-rten-pa'i yul*). Despite visible symbols of religious renunciation (shaven heads and red robes), the nuns of Sama do not reside in seclusion from the rest of the community. Rather, they remain very active in the local economy, spending much of their days either caring for elderly parents or assisting brothers with their herds and fields. Thus, restricting a daughter from marrying by converting her into a nun is an aspect of family management directed at retaining labor within the household and assuring that parents are not neglected in their waning years.

Similar to Sama parents, parents in Lho send many sons to be monks in Kathmandu, yet rarely are daughters designated to be nuns. In contrast to Sama children, sons and daughters-in-law are the primary caretakers of the elderly in Lho. Table 1 illustrates the variation between the two villages with respect to monk and nun populations. The difference is striking. Although the proportions of monks are similar, Sama creates far more nuns than Lho. The data show that parents in Sama export monks and retain nuns at home, indicating a gendered dimension to perceptions of the utility of religious celibacy. The demographic implica-

Table 1. Comparison of monk and nun populations in Sama and Lho.

		Monks and Nuns in Village as % of Male/Female Populations	Monks and Nuns Elsewhere as % of Male/Female Populations	All Monks and Nuns as % of Male/Female Populations
Monks	Sama	4.8% (n = 13)	14.4% (n = 38)	19.2% (n = 51)
	Lho	1.7% (n = 5)	14.9% (n = 35)	16.6% (n = 40)
Nuns	Sama	15.5% (n = 42)	3.4% (n = 9)	18.9% (n = 51)
	Lho	2.3% (n = 4)	4.6% (n = 11)	6.9% (n = 15)

Source: Childs 1998.

tions of these trends will be detailed later. First it is necessary to explore the reasons why such a difference in family management strategies exists between villages that are otherwise so similar.

A Historical Basis for Demographic Heterogeneity

Religious practitioners in Nubri adhere to the Nyingmapa (Rnying-ma-pa; "Ancient Ones") sect of Tibetan Buddhism. One of the major differences between the Nyingmapa and the politically dominant Gelugpa school (Dge-lugs-pa; "Virtuous Ones," headed by the Dalai Lama) is that the former permits clerics to marry, whereas the latter does not. Nubri has long been a haven for lineages of married, householder lamas (*sngags-pa*) of the Nyingmapa tradition, many of whom moved in from elsewhere. Such lamas not only are permitted to procreate but are expected to do so in order to perpetuate their lineages. Succession works on the basis of primogeniture, so that the eldest son inherits control over the lineage's temple and associated lands, usually situated close to if not within the village. This principle of primogeniture (as opposed to partible inheritance among nonlama householders) creates the potential for branch lineages to form, as documented elsewhere in the Himalayas (Clarke 1980a, 1980b). Younger sons in lama lineages often move on their own initiative or are invited elsewhere to establish temples where none currently exists, a process that has happened repeatedly throughout Nubri history.

Prior to the seventeenth century, Buddhist beliefs, practices, and social institutions were not well entrenched in Nubri (Childs 1997). At the time there lived a lineage of married lamas who occupied Tradum (Spradun-rtse) and Legtsey (Legs-rtse) monasteries on the northern side of the Himalayas and who held a land grant that included dominion over Nubri. These lamas occupied a very significant

position within the spiritual hierarchy of Tibet, for they claimed a direct line of descent from Tibet's medieval emperors. Their claim was bolstered by a decree issued in 1661 by the fifth Dalai Lama (Aris 1975) and recognition by an eminent eighteenth-century Tibetan historian (Tshedbang Nor-bu 1974). Because of their connection with the imperial family, the lama lineage is referred to as Ngadag (Mnga'-bdag; "possessing power"), a term reserved for those who have either a biological or a spiritual link (e.g., through reincarnation) with the medieval emperors of Tibet.

According to senior members of Sama's lama lineage, their ancestor who presided over Legtsey monastery during the early seventeenth century had several sons, one of whom migrated to Sama 13 generations ago. The reason for his relocation across the Himalayas is unclear but may be related to contemporaneous political events. At that time Mongol armies were very active in Tibet in support of the politically ascendant Gelugpas. Members of the Nyingmapa school believed that one of the Mongols' aims was to destroy all vestiges of Tibet's old imperial lineage, for the latter represented the leaders of an idealized Tibetan society that formerly held sway over much of inner Asia. Ngadag members therefore had ample reason to seek refuge in "hidden valleys" (*sbas-yul*) situated in the relative seclusion of the Himalayas (Childs 1999). One such hidden valley is found in Nubri.

Sama's lama lineage has perpetuated to this day. The position of head lama of the community passes from father to eldest son or from uncle to nephew in case no son is born (as happened once in Sama). During the middle of the last century the head lama had four sons. The eldest inherited his father's throne, whereas the younger three were permitted to establish collateral lineages in the village. Today there are four lineages of married lamas in Sama, each represented by its senior male member.

For reasons that are not entirely clear Lho has no such lineage of married lamas. Several abandoned villages above Sama attest to the fact that the upper part of the valley used to have a greater concentration of population than lower down where Lho is situated, so perhaps the lamas settled nearest to the economic focal point of the valley. Another reason could be related to settlement patterns found throughout the Himalayas whereby higher communities tend to be more Tibetan (or Tibetanized) in ethnicity, religious affiliation, and socioeconomic practices. Three-fourths of the current inhabitants of Sama belong to descent lineages (*rgyud-pa*) that are Tibetan in origin, as opposed to one-half the residents of Lho. The balance comprises members belonging to lineages of Ghale or other origin. Regardless of the reasons, the presence of the lineage in Sama and not in Lho helps account for the difference in the nun populations.

Lamas are a prerequisite for initiating females into their social role as nuns. The economic incentive for lamas to do

so is rooted in the mandatory labor service (*'u-lag*) that nuns incur through initiation. Every year until either the lama dies or the nun becomes too infirm (usually the former, for lamas are older than their disciples) a nun is required to work for several days on tasks specified by her lama. By training nuns a lama can significantly increase his household's labor supply beyond the limits set by fertility and mortality within the family.

Lho must rely on Sama's lamas for the performance of communal rituals and death ceremonies. Services are rendered in exchange for cash or commodities. Technically Sama's lamas could also initiate females from Lho, yet such women are considered a bad risk because of their distant physical proximity. Calling on their labor at peak work seasons is both impractical and unreliable, so there is little economic incentive for the lamas of Sama to initiate nuns from Lho.

Nuns also require a place to live. In the case of Sama, nuns tend to reside at Pema Chöling temple complex, only a ten-minute walk from the village, from where they can easily remain active in the local economy. Lho also has a temple complex, Trong gumpa (Krong dgon-pa), that was founded about 50 years ago by a lama from Tibet. A few elderly folks and one nun do live there, yet using Trong as a retirement destination is a recent phenomenon according to current residents. The problem is that it is situated an hour's walk away across difficult terrain, rendering it impractical to commute between temple and village on a regular basis. If nuns were expected to lead cloistered lives of contemplation, the locale would be ideally suited to their lifestyle. However, such is not the case with village-based nuns who are valued primarily for their economic contributions.

A third possibility for the differential is based on perceived needs. It is possible that Lho residents are content with their arrangements for elderly care and therefore see no reason to create nuns. In a related vein, Lho has an imbalanced sex ratio in the 0–19 age group (113 to 100) favoring males. This is a possible indication of higher female mortality, especially among infants and children, engendered by "aggressive neglect" (see Levine 1987). Such discrepancies are not uncommon in societies in which males are valued more highly than females for their household contributions (e.g., in India [Das Gupta 1987] and East Asia [Goodkind 1996]). Therefore, it is likely that those females who do reach maturity in Lho are in higher demand as spouses than as caretakers for the elderly.

The above reasons help explain why Lho residents have developed a system for elderly care whereby sons and their wives (daughters-in-law) provide most of the support. In contrast, the elderly in Sama rely on unmarried daughters for support, a system made possible by the historical migration of a lama lineage from Tibet and the development of a nearby temple complex that acts as a retirement destination. Whether one system is more effective in catering to

the needs of the elderly is beyond the scope of this article, for recent research shows how such a comparison requires detailed data on old-age mortality (i.e., Alter et al. 1998). Therefore, the next task here is to sort out the demographic implications of these divergent family systems, specifically with regard to the side effect of population growth.

Demographic Implications

Sama and Lho both exhibit the characteristics of natural fertility populations, meaning that no stopping measures are employed by couples after they have reached a targeted number of children (Wood 1990). This by no means implies that women give birth to an unrestricted number of children, for several intervening variables relating to the proximate determinants of fertility (Bongaarts 1978; Wood 1990) such as birth seasonality and prolonged breast-feeding act to limit births. Nevertheless, at this point in time very few people express a need to limit their fertility through contraception.¹¹ A woman in Nubri typically commences childbearing a couple of years after marriage (first birth interval is on average about three years) and does not cease until the onset of menopause, premature sterility, or the death of her spouse(s).

Table 2 compares birth rates in Sama and Lho.¹² Fertility in Lho is significantly higher than that in Sama, regardless of whether the rates are influenced by the population structure (i.e., the Crude Birth Rate), restricted to the women who are potentially fecund (i.e., the General Fertility Rate and Total Fertility Rate), or limited to only those women who are both married and in their fecund years and therefore most likely to be bearing children (i.e., the General Marital Fertility Rate). Given the sociocultural and economic similarities between these two villages, the differences are salient and somewhat unexpected.

The differences in Table 2 are probably not attributable to ecological factors such as altitude (Beall 1983; Moore 1983), for Sama is only 170 meters higher than Lho. Nor are nutritional factors likely responsible (Panter-Brick 1996), for the diets and consumption patterns in the two villages are so similar. Table 3 indicates that the difference cannot be accounted for by sociocultural factors such as a significantly earlier age at marriage and the closely related age at first birth or by demographic factors such as infant mortality rates.¹³ Instead, the fertility differential is most

Table 2. Comparison of birth rates.

Fertility Measure	Sama	Lho
Crude Birth Rate	31	44
General Fertility Rate	148	180
Total Fertility Rate	5.3	7.0
General Marital Fertility Rate	264	332

Source: Childs 1998.

Table 3. Comparison of marriage and infant mortality.

Measure	Sama	Lho
Female mean age at marriage	20.5 years	19.9 years
Mean age at first birth	23.7 years	22.8 years
Infant mortality rate	229/1000 (23% of live births)	208/1000 (21% of live births)
% of women aged 20–49 unmarried	38% unmarried (n = 36)	25% unmarried (n = 18)

Source: Childs 1998.

closely related to patterns of marriage. In Sama 38 percent of women aged 20–49 are unmarried as opposed to 25 percent of their counterparts in Lho.¹⁴

More women in Sama than in Lho are initiated as nuns and thereby barred from engaging in reproductive activities.¹⁵ To begin estimating the consequence of this trend, Table 4 compares Total Fertility Rates (TFRs) in Sama and Lho. The first row shows the TFRs calculated to include all females. The next row shows what the TFRs would be if celibate nuns were excluded from the population. Excluding nuns has hardly any effect on the rate for Lho (an increase of 0.2 births per woman) but has a profound effect on the rate for Sama (an increase of 1.2 births per woman).¹⁶

Intrinsic growth rates reveal that Sama's population is increasing (0.66 percent per year, doubling time of 105 years) more slowly than Lho's (1.48 percent per year, doubling time of 47 years).¹⁷ Table 5 compares the calculated growth rates for each village and what the growth rates would be if all nuns married and reproduced at the same rate as their householder counterparts. The intervillage difference in the intrinsic growth rates is 0.83 percent per year. By excluding nuns from the sample, the difference is reduced to only 0.21 percent per year. Whereas the figure for Sama jumps by 0.70 percent when including nuns, the rate for Lho increases by only 0.09 percent. Simply stated, a higher rate of nonmarriage in Sama results in a slower pace of population growth. In neither case are the estimated rates very high,¹⁸ yet in a context of food scarcity they certainly have the potential to upset the balance between the populations and their resource bases.

If all of Sama's nuns had married and reproduced at the same rate as their married counterparts, there would have been 27 additional births in Sama from 1990 to 1996. Taking infant mortality into account (229 per 1,000), this would result in an additional 21 surviving children in the village, representing a 4.4 percent increase in the de facto population. If these numbers are extrapolated over time, it is clear that Sama residents would have far more mouths to feed unless out-migration or mortality increased. Clearly, the family management strategy resulting in a high rate of female nonmarriage works to restrain population growth in Sama.

Table 4. Comparison of Total Fertility Rates (TFR).

	Sama	Lho	Difference between Villages
TFR (including nuns)	5.3	7.0	1.7
	births/woman	births/woman	births/woman
TFR (excluding nuns)	6.5	7.2	0.7
	births/woman	births/woman	births/woman
Difference within village (effect of nuns)	1.2	0.2	
	births/woman	births/woman	

Source: Childs 1998.

Comparisons and Conclusions

The dispute between Sama and Lho over Shala was, in part, driven by demographic factors. The argument can be summarized as follows: By the mid-1980s some villagers in Nubri perceived a need to increase their food production in response to the demise of trans-Himalayan trade, a component of the subsistence strategy that had in the past more than offset any shortfalls in the agropastoral economy. At the time Lho's population was growing more rapidly than Sama's, a trend that was (and still is) in great part attributable to differential rates of female nonmarriage. Therefore the people of Lho seized on the opportunity of opening new land for agriculture, despite the repercussions that followed.

Demographic heterogeneity in a single setting is by no means a unique revelation. For example, Kertzner and Hogan (1989) uncovered differences along class lines in a nineteenth-century Italian community, whereas Folmar (1992) shows how caste distinctions can account for demographic differentiation within a contemporary Nepalese community. In the case of Nubri, class and caste are not the issue. Rather, differences in reproductive outcomes result from a variation in long-term parental strategies aimed at securing old-age care. Old-age security concerns may indeed be linked with high individual fertility (see Nugent 1985), but at the aggregate level the provision of elderly care through nuns keeps Sama's fertility and population growth in check.

For years anthropologists and demographers have debated the hypothesis that the joint family system found nearly everywhere but historical Europe is accountable for high fertility in preindustrial societies. Contrasting the European family system, characterized by late inheritance that induces men and women to marry at advanced ages and prevents many from marrying at all, with Asian systems that promote early and universal marriage has resulted in the implicit assumption that population growth is restrained by preventive checks that induce low fertility in the former and by positive checks through high mortality in the latter (Das Gupta 1995). However, as more data

Table 5. Comparison of intrinsic rates of natural increase (IRNI) and doubling times.

	Sama	Lho	Difference between Villages
Actual IRNI	0.66% per year	1.48% per year	0.82% per year
Doubling time	105 years	47 years	58 years
IRNI if nuns marry	1.34 per year	1.57% per year	0.23% per year
Doubling time	52 years	44 years	8 years
Difference within village (effect of nuns)	0.68% per year	0.09% per year	
	53 years	3 years	

Source: Childs 1998.

come to light, this perspective is failing to hold up to critical scrutiny with the revelation of fertility control within marriage in some Asian societies (e.g., Das Gupta 1995; Lee and Wang 1999). Where does Nubri, and in particular Sama, fit into this debate?

Tibetan societies have long been viewed as an exception to the "Asian" pattern because of polyandry and male monasticism (Malthus 1933; Turner 1991), the result of these practices being a deficit of marriageable males and a concomitant surplus of women who are unable to marry. As for Nubri, marriage occurs at relatively young ages for women (mean age of about 20), which is significantly lower than in nineteenth-century European populations such as Törbel in the Swiss Alps (Netting 1981), Verviers in Belgium (Alter 1988), and Casalecchio in Italy (Kertzner and Hogan 1989) in which women did not marry until their mid- to late twenties. The mean age at marriage in Sama is similar to that in parts of historical China (Lee and Campbell 1997:84–90) but somewhat higher than that in Nepal (16.4 years [Pradham et al. 1997:81–83]) and neighboring parts of India (e.g., 18.0 years in Bihar [Ram et al. 1995:53]). Based on this level of comparison, Nubri resembles the Asian demographic experience more than the European.

The frequency of nuptiality, however, reveals a picture resembling Europe far more than Asia.¹⁹ The fact that about 20 percent of women in Sama never marry is anomalous in South and East Asia. For example, more than 99 percent of women in Bihar marry by the age of 30 (Ram et al. 1995:54), and in modern China marriage remains nearly universal for women (Lee and Wang 1999:68). Sama's female marriage frequency is strikingly low when compared with national figures for Nepal showing that 98 percent of women over age 30 have married (Pradham et al. 1997:79), yet it is more similar to the case in historical Europe, where female nonmarriage levels ranged from around 25 percent in nineteenth-century Iceland (Vasey 1996) and postfamine Ireland (Guinnane 1991) to about 10 percent in Germany at the turn of this century (Hajnal 1965). Spinsters were a common feature of European society (Watkins

1984), yet they were nearly nonexistent in historical Asian societies such as China (Lee and Campbell 1997) and Japan (Cornell 1984). Widespread marriage and the lack of spinsters in China have historically been attributed to skewed sex ratios resulting from higher rates of female infant mortality and outright infanticide (Lee and Campbell 1997; Lee and Wang 1999) and have been attributed in modern times to sex-selective abortions (Coale and Banister 1994). In either case the result is a shortage of brides and a high demand for marriageable women. No such scenario exists in Sama, where abortion is unknown (let alone the means for prenatal sex determination) and infant mortality for females is slightly less than that for males. Lho, on the other hand, has a sex ratio imbalance stemming in part from a higher level of female infant mortality that may be directly related to the family system whereby there are fewer roles for women to occupy as celibate nuns. Hence, women are not valued as potential providers of old-age security and may be subjected to higher levels of mortality as a result.

Like many parts of historical Europe, Sama maintains a low level of population growth due in part to the fact that many women never marry. Although the demographic outcomes are quite similar, the root causes embedded within the family system are completely different. In Europe late marriage and nonmarriage are both attributed to economic necessity, for young people depended on the inheritance of land and other resources in rural settings, and on prolonged apprenticeships and years of toil in urban settings, before acquiring the prerequisite resources to start families. Bequeathals to children were often delayed until parents were too elderly or infirm to manage a farm on their own, a situation that caused much intergenerational tension as evidenced by the following Austrian folk song:

Father, when ya gonna gimme the farm,
 Father, when ya gonna sign it away?
 My girl's been growing every day,
 And single no longer wants to stay. [Berkner 1972, cited in Netting 1981:171]

Old-age security was often assured through legal contracts that stipulated everything from subsistence allotments to whether or not the retired parents could sit by the fireplace (Gaunt 1983). In the Swiss Alps, parents could retain a small portion of land for subsistence and could also receive in exchange for inheritance a set cash allowance from their children and rights to reside within the house (Netting 1981:172–174). Given the contractual nature of retirement and the potential for a lack of security in old age, it is no wonder that parents held onto their assets for as long as possible.

In contrast, inheritance in Nubri occurs at marriage, and the partitioning of assets occurs shortly thereafter. Parents retain a portion of the land and animals for their own subsistence until the day they die. Thus, the nature and timing

of intergenerational wealth transfers are no impediment to marriage, for the partitioning occurs in increments as each successive son marries—a process that can take up to two decades. To assure old-age security, parents in Sama have a different strategy than in either historical Europe or Asia, where sons and daughters-in-law tend to be the primary means of support. Parents in Sama retain a daughter within the household by making her a nun. Her loyalty to the natal household is assured, on the one hand, through cultural prohibitions against engagement in reproductive activities and, on the other hand, through the assurance that she will inherit a house at the temple complex and the land that her parents retained for their own subsistence.

Although not discussed directly in much of the literature, the fact that many unmarried children in historical Europe remained with their aging parents instead of emigrating from the natal household is somewhat analogous to the situation of nun caretakers in Nubri. For example, Netting (1981:174) mentions that unmarried adults often lived with their parents in Törbel, while Guinnane's (1997:204) data on Ireland from 1911 show that more than one-half of unmarried men and women aged 35–44 lived in their parents' homes. Bourdieu's study of the French village of Béarn (see 1990) reveals an inheritance system that favored eldest sons, leaving few incentives for parents to find matches for their younger sons. One option for younger sons (i.e., those who did not inherit) was to forgo marriage and remain as servants within their own families. In essence, this meant that “the younger son was, so to speak, the structural victim—the socially designated and therefore resigned victim—of a system that placed a whole armoury of protective devices around the ‘house,’ a collective entity and an economic unit, or rather, a collective entity defined by its economic unity” (Bourdieu 1990:158). Similarly, the nuns of Sama can be considered “structural victims” of a family system that precludes girls with male siblings from inheriting, that provides a role of religious celibacy for women within their natal households, and that induces parents to rely on their children in old age following the bequeathal of assets to those sons who marry.

Cain and McNicoll (1988) argue that marital fertility will not decline as long as the family remains a prominent welfare institution. India is one setting where high birth rates have been closely associated with concerns over old-age security (Cain 1981, 1991; Dharmalingam 1994; but see Vlassoff 1990, 1991). The thesis may be valid at the individual level, but what about aggregate fertility? Sama presents us with a situation in which concerns over old-age security actually moderate fertility at the community level. The end result is similar to the historical European experience (a high incidence of nonmarriage contributing to low population growth) but for reasons that are entirely different. The unintended consequence at the community level is a restraint on fertility and population growth in contrast

with those at Lho, where few nuns reside and where population growth has led to a need to increase agricultural production—a need that resulted in the intervillage conflict described at the beginning of this article.

Low population growth in Sama is a direct outcome of conscious choices made by parents whose motivations center on the need to assure that a caretaker will be available in their waning years. In this case preventive checks have little if anything to do with a conscious strategy to limit population growth.

Notes

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1. Village Development Committees (VDCs) are subdistrict administrative units that are further divided into wards consisting of about 20 households each. There are 69 VDCs in the district of Gorkha. Each has a representative in the district government.

2. Tibetan has been written for over 1,300 years. To facilitate both readability and accuracy I use approximate transcriptions of Tibetan personal names and place-names, followed at their first occurrences by proper transliterations.

3. Ghales are a branch of the Gurung ethnic group that is concentrated in the middle hills of central Nepal. Ghales speak a Tibeto-Burman language, consider themselves to have originated in Tibet (Pignède 1993), and have maintained social and economic contacts with Tibetans for several centuries. It is not unprecedented for Ghales who inhabit highland valleys of Nepal to become culturally affiliated with Tibetans through enduring contacts (e.g., the residents of Nyishang; see van Spengen 2000).

4. Nubri residents interpret the recent demise of trade networks as an indication that the world system is in an advanced stage of decay. According to Buddhist theology, the earth and its inhabitants progress through continual cycles of creation and destruction. A golden age characterized by human longevity and social cohesion gradually degenerates as life expectancies ebb and society disintegrates. The end result is total destruction followed by regeneration as a new cycle commences (Nattier 1991). In terms of currency, the fact that gold and silver cash has given way to iron coins and then paper money in recent decades is interpreted by Nubri residents as a visible manifestation of the cyclical decline and the onslaught of a degenerate era.

5. Microclimatic conditions mean that Sama's fields yield a single crop per year, compared with two in Lho. Furthermore, Lho's ratio of measures of grain harvested per measure sown is 10–12 to 1, compared with 6–10 to 1 in Sama. Sama's slightly higher altitude is also enough to prevent the growing of corn and beans, which thrive in Lho. The difference in land quality is reflected in land prices—six times higher in Lho than in Sama.

6. The term *family* has become problematic within anthropology because it is so difficult to define in a cross-cultural perspective. In this model, it is clear that Skinner uses *family* in the limited sense of people who are biologically related and coresident.

7. The *kyimdak* is almost always a male, with the following exceptions: (1) the household is headed by a widow or divorcée whose children are still young, (2) the household is headed by an unmarried woman (i.e., nun or spinster) who may or may not have children, or (3) the household is headed by a woman who has a matrilocally resident husband (referred to as a *magpa* [*mag-pa*] in the local vernacular).

8. Although patrilocal residence is the norm, all three types of postmarital residence (patrilocal, matrilocality, and neolocality) are options in Sama. Most marriages result in the bride moving in with the groom, whether in his parent's house (patrilocal) or in a new home of their own (neolocality). In the cases in which parents lack sons, they bequeath their possessions to a daughter, and the daughter's husband will be a *magpa* (matrilocally resident son-in-law).

9. Stem family systems are very common in the Himalayan region. For example, although the majority of households in the Tamang village of Timling are conjugal, Fricke (1994: 152) argues that the system actually operates according to a stem principle because elderly parents reside until death with a married son. Similarly, among the Nyinba of western Nepal the family system is considered stem because brothers take a single bride and live in the same home with their parents (Levine 1988). Goldstein (e.g., 1971a:71) has emphasized the stem family as a cultural norm among Tibetans.

10. Data from the 1998 survey of Tibetan refugees living in India and Nepal reveal below-replacement fertility levels for 1997–98 (Planning Council 2000:24–28). Furthermore, several lamas and monks in Kathmandu have informed me that, in recent years, there has been a large increase in the percentage of monks in refugee monasteries who come from rural areas of Nepal. No firm data are available to confirm this anecdotal evidence.

11. I was unable to uncover data on indigenous forms of birth control in Nubri similar to those that have been documented in other Tibetan communities (Norberg-Hodge with Russell 1994). People in Nubri claim no awareness of such measures, yet it is possible that women guarded their knowledge from a male interviewer. No health facilities exist in the entire valley for disseminating modern contraceptives. Only one man in the lower part of the valley had a vasectomy performed in Kathmandu recently, and only one woman in Sama and Lho is known to have used an injectable contraceptive while she and her husband were living in Kathmandu.

12. In order to minimize the effects of stochastic variation (a critical issue when working with small populations) the fertility data for Sama and Lho represent annual averages over a

seven-year period (1990–96). The Crude Birth Rate (CBR) is a simple ratio of births in a given year per 1,000 people. As it includes the entire population regardless of sex or age, the CBR has limited use because it is not a measure of fertility among those who are at risk of giving birth. The General Fertility Rate (GFR) is a ratio of births per 1,000 women of reproductive age (15–49), so it controls for the age and sex structure of the population. The Total Fertility Rate (TFR) represents how many children a woman can expect to bear throughout her reproductive career given current age-specific fertility rates. In other words, Sama's TFR of 5.3 means that, given today's fertility rates, women now reaching their fifteenth birthdays can expect to give birth to five or more children on average. Because all women are included in this calculation, a high rate of nonmarriage moderates the overall measure. Finally, the General Marital Fertility Rate is similar to the GFR except that births are divided by the number of married women, thereby providing a good indicator of fertility within marriage by controlling for nonmarriage. To set the data in a national context, Nepal's 1996 rates were as follows: CBR = 37, GFR = 167, and TFR = 4.6 (Pradham et al. 1997).

13. If infant mortality rates were higher in Lho than in Sama, this could theoretically account for the fertility differences. Prolonged breast-feeding is one of the primary means for achieving long birth intervals in Nubri. More infant deaths could result in higher fertility by shortening the duration of lactational amenorrhea (in Sama birth intervals are 34 months following a child that survives but only 21 months following an infant death). However, the question is moot because the rates are nearly identical.

14. The difference is not accounted for by different rates of divorce and widowhood: 30 percent of the cohort in Sama have never married, compared with only 19 percent in Lho. Nuns account for 19 percent of the cohort in Sama ($n = 18$) but only 4 percent in Lho ($n = 3$).

15. Nuns who do become pregnant are expelled from the order, as they are considered to be highly immoral for breaking their religious vows and too impure due to intercourse and childbirth to carry on as religious practitioners. In some cases, they move out of the community to avoid social reprobation.

16. When nuns are removed from the sample there is still a differential of 0.7 births/woman, meaning that marital fertility is higher in Lho. Therefore, religious celibacy does not account for the entire fertility gap. One possible explanation for this phenomenon is that Lho has experienced a recent baby boom since opening the land at Shala. Shala is situated a two-hour walk away from Lho, so families have built temporary residences there for the peak work season. During the summer most households now exploit three different ecological zones (as opposed to two in the past): the high summer pastures for grazing, the village fields, and the new fields at Shala. Lho's householders have thereby created a greater demand for labor, a requirement that may be reflected in their reproductive behavior (cf. Netting 1993).

Another possible explanation concerns the relationship between old-age security concerns and fertility (Nugent 1985). Perhaps sons in Lho are not considered to be a reliable source of support, thereby providing an incentive for parents to have many sons who can share the burden of supporting them in old

age. In Sama old-age security is assured once a daughter has survived past infancy and has been converted into a nun. Parents in Lho may therefore perceive a greater need for children and act accordingly.

17. One can derive an estimate for the rate of natural increase (the intrinsic growth rate) with the aid of model life tables (Shryock and Siegel 1976:313–318). Using mortality patterns as guidelines (high rates in infancy, childhood, and old age), Coale and Demeny's South Level 6 model life table (1983:386) was found to best represent the demographic situation in Nubri.

18. China has resorted to coercive measures to achieve a growth rate similar to Lho's (1.53 percent per year in 1985–90, doubling time of 45.3 years [United Nations 1995]), whereas Sama's rate is only slightly higher than those found in low-fertility countries such as France (0.55 percent per year, doubling time of 126 years), Japan (0.44 percent per year, doubling time of 158 years), and Norway (0.42 percent per year, doubling time of 165 years) (United Nations 1995). Both villages are experiencing rates well under Nepal's national average (2.50 percent per year in 1995–2000, doubling time of 27.7 years [United Nations 1995]), yet they compare favorably with other Himalayan Tibetan communities in western Nepal (1.0–1.5 percent per year for the Nyinba, doubling time of between 46 and 69 years [Levine 1988:241]; and 2.1 percent per year in Limi, doubling time of 31 years [Goldstein 1981]).

19. According to Coale's index of marriage (a weighted average of the proportions of married women), nuptiality in Sama and Lho is still somewhat higher than levels in historical European populations. The levels in Sama (.603) and Lho (.695) are above those found in northern Europe during the 1870s and 1880s, for example, in England and Wales (.504), Germany (.467), and Switzerland (.411) (see Coale and Treadway 1986:48–54).

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