

Chapter VI

Sex Ratios and the Value of Infants: Further Inquiries into Local Biologies

Sex ratios describe the number of males per hundred females. Worldwide, ratios fluctuate, ranging from lows of 80 or 90 males per hundred females at birth in some societies to highs of 137 males per hundred females among Orthodox Jews in Israel (Sieff 1990). World populations average approximately 105 male infants born for every 100 female infants (Sieff 1990). Isolated indigenous populations possess some of the highest sex ratios among infants in the world. For example, scholars have noted rates of 128 males per hundred females at birth in the Amazon basin, of 116 per hundred for Ache hunter gatherers in Paraguay (Sieff 1990), and up to 224 male per 100 female children in turn-of-the-century Inuit populations (Smith and Smith 1994). In New Guinea sex ratios in some areas are also exceptionally skewed. For example, Juillerat (1986) notes rates of 117 males per 100 females among infants, Schiefenhövel (1989) records a ratio of 190 infant boys for 100 girls, and Godschalk (1992) lists the highest rate in the literature worldwide of 300 boys per 100 girls in some communities in the eastern highlands of Irian Jaya.

Three seemingly biological constants shape the sex ratio within the life cycle. First, more boys are born than girls. Second, boys are more likely to fall sick in the first year of life than girls. Third, more boys die in the first year of life than girls. In most populations sex ratios usually have evened out by adulthood to the point where there are as many women as men survive in a given population. Infant male vulnerability, however, is widely recognized as a material fact (McKee 1984; Arnold 1991).⁵²

⁵²McKee (1984) notes this pattern begins at conception: conservative estimates of primary sex ratios (conception to birth) worldwide sit at 120/100. More fetal mortality, spontaneous abortion of male fetuses and stillbirths of boys reduces the ratio to locally specific rates.

Scholars of sex ratios among infants have been concerned to explain *why* sex ratio imbalances occur, how they correct themselves, and what social and biological factors bring about locally specific patterns. For example, analysis of skewed ratios reveals the following possible causes: coital frequency and timing, as a woman is more likely to give birth to a girl if she conceives at the height of her ovulatory cycle (Martin 1994); birth order and age of mother, as younger women are more likely to give birth to girls and these girls are more likely to survive (Sieff 1990); and marital patterns, as polygynous women and widow remarriages produce higher numbers of female infants (Whiting 1993; cf. Mulder 1994). However, many of these hypotheses remain tenuous and have incited vigorous debate over the respective contributions of genetic and other biological factors as against social and structural constraints *after* birth. Female infanticide, for example, has been shown to skew ratios to favour males (Schiefenhövel 1989; Scrimshaw 1984; Sargent 1988; Smith & Smith 1994). Culturally-sanctioned beliefs about infants usually legitimate the act, as Sargent (1988) shows in the killing of infants who are thought to be witches in Bariba society and as Schiefenhövel (1989) shows in the pragmatic decision-making by Eipo Mek mothers in an environmentally harsh region of eastern Irian Jaya. Societies that favour males may also help skew the sex ratio, if not by direct infanticide, then by selective neglect. For example, ideologies of son preference, and preferential feeding patterns in China have been linked consistently to family planning policies restricting numbers of children per family (Greenhalgh 1994; Ren 1995; cf. Hyndman 1989).

In many New Guinea societies, more boys are born than girls. Censuses also record changes in mortality rates among the very young, in which more infant boys get sick and die than do infant girls. These patterns of birth and death can be seen as local biologies that may be shaped by and may in turn shape cultural meanings attached to infants, to gender, and to notions of life and death.

In contrast to scholarly attempts to describe causal factors affecting sex ratios, this chapter focuses on cultural meaning and its intersection with the local biological demographics of skewed sex ratios. In this vein of inquiry, the anthropologist McKee (1984:93) has previously argued that "preferential treatment of males arises, at least partially from perceptions of their greater biological vulnerability and correspondingly higher death rates." In other words, McKee proposes that boys receive more attention in societies where they are more likely to fall ill and possibly to die than girls. McKee further proposes that higher status accrues to boys because of their vulnerability, and this would be viewed as "natural" because of the special consideration they have received since early infancy. However, this argument hinges on a functionalist assumption that having an equal sex ratio is desirable and that actions to bring this about occur as a consequence. McKee posits the following sequence to explain preferential treatment towards males:

Adverse Environment Circumstances --> High Sex Mortality Differential -->
 High Female Survivorship --> Male Preference --> Female Progenicide/Neglect --
 > Reduction in Number of Females --> Culturally Desired Demographic Structure
 (McKee 1984:95).

This functionalist sequence begs the question of why parents would treat their infant female children at all well, or why they would bother spend the time to offer preferential treatment to their sons. In other words, neglect of female infants coupled with non-preferential treatment of boys might well lead to the same demographic pattern. In addition, a vital factor missing from this and other scholarly work about sex ratios is the issue of cultural meaning. It is as though "culturally desired demographic structure" (ibid:95) is in itself sufficient to generate action. Scholars quickly dismiss cultural values other than male preference in shaping responses to male vulnerability and, even more quickly, downplay the potential complexities of cultural practice, beliefs, and actions,

asserting instead that an infant's sexual status (as opposed to gendered identity) has the ability to determine adult action (see Smith and Smith 1994 and reply by Graburn 1994 for a succinct example of the problem).

In this chapter, I speculate that demographics of gender imbalances among the Dani, where consistently more boys are born and die than girls, do affect beliefs and practices about the very young. I argue that male status among the Dani *may* be linked to sex ratios but that this is one link among many that does not, on its own, deserve causal explanatory power. Since local biologies shape and are shaped by cultural practice, I suggest that the region-specific pattern of genders of children born and of children dying are factors that feed into and sustain local meanings.

The argument that sex ratios shape and are shaped by cultural practice is highly tentative for two reasons. First, the Dani say unequivocally that they do not practice female infanticide or selectively neglect their children. Power may be constituted in part through local biologies of skewed ratios, but this power is not explicitly recognized in stated discourse. Throughout all interviews with Dani men and women, in any social situation, I only ever heard two or three people state that not all children were treated equally. Assertions that boys and girls receive equal care, attention, and love have their echo in practices that resonate with this egalitarian attitude (cf. Greenhalgh 1994 for China). To argue that demographic patterns affect symbolic constructions, without finding support among the Dani for such a statement, requires exploring distinctions between broad cultural beliefs and specific practice. I discuss the subtleties of this realm and argue that, of the multiple strands that make up lived experience, demographic patterns, subtle or otherwise, do have a place in the way the world is perceived and acted on, particularly when these patterns affect the life of the very young.

Second, there is a lack of adequate quantitative data on sex ratios and mortality rates for all of Irian Jaya. This paucity of accurate data prevents a thorough evaluation of my argument. Government data on mortality patterns are inaccurate--this I discovered

within my first week of fieldwork. When I asked a staff member from a non-profit project if I could see how they analyzed health data, he laughed and said they did not analyze data because there was nothing reliable for them to analyze. Drawing together data on adults, he said, was difficult enough; drawing together data on children was close to impossible because women consider childbirth and child death private affairs.⁵³ Women also were reluctant to bring their children to be weighed and immunized. Thus I rely on missionary and small-scale village census data from communities across the highlands to build a tentative profile of sex ratios. I also draw on data from clinics across the Baliem valley and on interviews to assess morbidity patterns of the very young. These data could have been strengthened by a comparison to figures from outside of the Baliem valley, but, since I was not given permission to leave the Baliem valley for research purposes, I concentrated on gathering the most reliable material I could obtain from within my approved research zone.

Sex Ratios as Local Biologies

Throughout the communities of the Irian Jaya highlands, more boys are born than girls. Drawing from a number of small-scale surveys conducted by missionaries, the World Wildlife Fund, and a village census conducted in the Baliem Valley, overall sex ratio patterns in the highlands among infants and children favor males from birth to adulthood. Table 7 shows that, depending on the region, sex ratios can be as high as 250 males for every 100 females under the age of 15 (Godschalk 1992), or as low as 106 male children for every 100 females (Butt, fieldnotes). While these results need to be complemented by a more thorough demographic study, they strongly suggest that the Irian Jaya highlands contain populations that exhibit some of the most skewed ratios in the world. Another region that exhibits similarly skewed ratios is the Amazon river

⁵³This explanation provides an intriguing contrast to ancestor-driven explanations among the Dani as to why childbirth and infancy are private times. It reflects a tendency among non-profit agency staff to know little about *adat* and its implications on health-related behaviour.

basin, lending credibility to analyses that small-scale populations living in difficult ecological conditions exhibit more

Table 7. Sex Ratios from Small Community Censuses in the Irian Jaya Highlands

Group	Data Source	Sex Ratio
Eipo Mek, Star Mountains	Schiefenhövel (1989)	130 males/ 100 females at birth ⁵⁴
Eipo, Sela Valley children ⁵⁵	Godschalk (1992)	150 males/100 females for
Nduga, Paniai district	Manembu (1991)	154 males/100 females for children
Amungme, Paniai district	Manembu (1991)	129 males/ 100 females for adults
Hupla, Soba	Mission birth records	143 males/100 females at birth
Dani, Baliem Valley	Peters & Lokobal (1991)	113 males/100 females for children
Dani, Baliem Valley	Butt, survey results	127 males/100 females at birth
Dani, Baliem Valley	Butt, survey results	106 males/100 females at 1 year

skewed ratios than populations with long-term out-migration or less harsh living conditions (Sieff 1990; Smith & Smith 1994). Thus, the Eipo people, among whom Godschalk recorded rates in one community of 300 boys for 100 girls, inhabit one of Irian Jaya's most environmentally challenging regions. In contrast, the Baliem valley Dani, among whom exists a less skewed ratio, have experienced in- and out-migration and have a more plentiful resource base.

To further investigate relations between demographic patterns and local meanings, I sought out other sources of data which would allow for large-scale comparison. In community *puskesmas* (health clinics) across the valley, each health post keeps its own record book of clinic visits where staff list the name, age, sex, diagnosis,

⁵⁴Schiefenhövel (1989) documents a high rate of female infanticide among the Eipo Mek such that, after infanticide is taken into account, the sex ratio rose to 190 males/100 females. The author also documents a decrease in infanticide following mission presence, but the rates of 130/100 endured through the decade in which the report was conducted.

⁵⁵The rate of 150/100 is average: Godschalk documented rates ranging from 104/100 to 300/100 in some villages.

and treatment of each patient. From these books staff derive monthly reports and draw up requests for medication (see chapter 7 for a full discussion of health services and staff). These daily record books, tattered and dirty, offer a wealth of relatively accurate data about who uses clinics, when, and for what purposes. *Mantri* (health clinic workers) assiduously write down the gender of patients, how often they come in, as well as the names of patients, from which it is possible to determine tribal affiliation. The books also list diagnosis, treatment, and whether the patient paid money for treatment or not. Over the course of my fieldwork, I visited all of the *puskesmas* on the western side of the valley, and analyzed data from their daily record books. Drawing from an average six months' worth of records from each health centre, the number of infants and children taken for care is listed in the following table:

Table 8. Use of *Puskesmas* by Age and Sex of Child in the Western Baliem Valley

Puskesmas name	Infants <1 year		Children >1 and <5		Total by Sex		Total < 5
	Boy	Girl	Boy	Girl	Boy	Girl	
Sogokma	13	26	10	5	23	31	54
Hitigima	81	61	155	112	236	173	409
Hepuba	0	2	11	3	11	5	16
Welesi	43	39	50	34	93	73	166
Wamena ⁵⁶	31	30	43	35	74	65	139
Homhom	61	38	91	58	152	96	248
Holima di bawah	28	16	80	40	108	56	164
Kuliama	32	17	41	25	73	42	115
Asologaima	13	4	22	12	35	16	51
Total:	302	233	503	324	805	557	1362
Percentages:	22%	17%	37%	24%	59%	41%	100%

⁵⁶The urban Wamena clinics (Wamena and Homhom) serve newcomer Indonesians more than Dani, in keeping with their role throughout Indonesia to provide low-cost health care to rural communities and to government employees (Rienks & Iskander 1988). In the two Wamena clinics, Baliem valley Dani patients form just 20.4% and 13.7% of the patient population seen in the six-month period October 1993 to March 1994. Here I consider only Dani patients.

Table 8 signals three features of health care service use by the Dani. One is that Dani families use health clinic services regularly for infants below one year. For example, at the Wamena and Welesi clinics there are almost as many visits for infants below one year as there are for children ages one to four. In other words, when an infant is not well parents react and one of the ways they do so is by bringing their sick child to the clinic. This pragmatism reflects a high level of interest and concern for Dani infant well-being. The second feature of note is a wide discrepancy in use by clinic. Comparing the number of babies treated at the Hitigima and Hepuba clinic over a six-month period, for example, it is notable that almost no children were treated at the Hepuba clinic whereas the Hitigima *mantri* (health care worker) was clearly busy treating a large number of children. In other words, Dani caregivers prefer to go out of their way to get help from a *mantri* they trust.

The third pattern of note is biased use of clinic services by sex of child. Overall, boys receive medical care one and a half times more often than girls. As infants, girls receive medical care only 77% as often as do boys, and from the ages one to four only 64% as often as boys. This gender bias is remarkable because it extends across the valley and does not appear to be affected by levels of modernization, religion, or access to care.

Daily record books also provide information on diagnosis by sex. Data on diagnoses are potentially problematic because many *mantri* are unreliable, they delegate diagnosis and treatment to untrained community volunteers, and they are sporadic in their record-keeping⁵⁷. However, an overview of six months' worth of material from four *puskesmas* where I evaluated staff as consistent and thorough in their diagnoses and in their record-keeping suggests that boys are more likely to be taken to the clinic and

⁵⁷For example, in one of the recording books, only three diagnoses were listed: upper respiratory infection, malaria, or gonorrhoea. Thus infants were either diagnosed as malarial or needing penicillin for chest infections. Diagnoses common in other clinics such as scabies or thrush, were entirely absent.

diagnosed with non life-threatening illness than girls. Table 9 summarizes the results derived from daily record books. When the disease is serious, even life-threatening as is often the case for upper respiratory infection, boys and girls are treated equally.

However, for seemingly less serious or life-threatening ailments, such as scabies, thrush and "malaria" (often used as a diagnosis for a fever), boys receive care more frequently than girls.

Table 9. Diagnosis by age and sex at clinics in Wamena, Asologaima, Hitigima, and Kuliama

Diagnosis <5	Infants <1 year		Children > 1 and <5		Total by Sex		Total
	Boy	Girl	Boy	Girl	Boy	Girl	
Upper Respiratory Infection	47	44	34	38	81	82	163
Intestinal Worms	4	3	14	9	18	12	30
Diarrhea	10	10	23	14	33	24	57
Scabies	17	8	11	8	28	16	44
Red eye/thrush	11	7	29	12	40	19	59
Malaria/fever	6	4	4	1	10	5	15
Other (fever, cough, cut, burn)	34	34	44	33	78	67	145
Total:	129	110	159	115	288	225	513
Percentages:	25%	21%	31%	23%	56%	44%	100%

Over the course of my fieldwork, I asked a score of Dani what they thought about these skewed patterns. In the main, most Dani replied that they loved their children equally. One man offered, "I don't know how this can happen, in my family I don't have this problem, they are sick the same, boy, girl, they are from me, from my blood, we love them the same, boy or girl. If it comes from the *mantri* reports it must be true, but I don't know any families like that." As I discovered, even bringing up these kinds of questions with Dani parents met with indignation and the response, "we love all our children equally," was offered time and again, no matter how I posed the question (see Nations & Rebhun 1988 for similar responses in Brazil). This contrasts with Schiefenhövel (1989), for example, who obtained straightforward answers about male preference in response to his questions about infant death among the Eipo Mek of Irian Jaya.

This insistence on gender equality in care and affection strikes a different tone from the gendered ways of viewing the world that prevail elsewhere in Dani daily life. As we have seen, bodies are clearly gendered, as are actions, roles, and domestic and garden spheres. Communities have "shortages" of women, while other villages "over there" is where one finds a lot of women. From conception to adulthood, boys are seen as needing more food; they do not grow as fast as girls; and they are always "catching up." In some parts of New Guinea, those distinctions translate into practices that actively favour boys, leading to female infanticide and to long-term preferential treatment towards boys (McDowell 1988; Schiefenhövel 1989). However, in the Baliem valley, a broad belief about neglecting or causing the death of infant girls has no voice. As far as I was able to discern, while problematic infant deaths are part of life, deliberate deaths of one sex over another are not. Equally, while parents might have favourites, this does not translate into a systematic practice of denying female infants access to health care or of actively over-feeding boys and under-feeding their sisters. There is thus no evidence to back up a claim that gender preference (secret or public) affects ways of treating children.

These data give rise to two questions: first, do gendered beliefs and practices alter the way Dani caregivers look after their children, and is this the factor that shapes demographic patterns? Second, do boys simply get sick more than girls, with health care responses a non-gendered attempt on the part of caregivers to keep their children alive? To answer these questions, I review notions about gender and health of young children among the Dani.

Gendered Beliefs and Practices

Some of the thoughts and actions of the Dani that may affect the well-being of children include ideas about growth, feeding patterns, and allocation of responsibility for childcare. In this section, I briefly review these three factors, showing how allocations of responsibility for childcare may have a greater role to play than practices relating to food and growth. I show that, in practice, parents do discriminate between males and females, but I suggest that this discrimination has little effect on ratios or morbidity patterns.

First, how children are expected to grow might affect how parents regard their young, and might lead parents to value their children differentially. Within the framework of a society that places high value on male activities it is noteworthy that knowledge about bodies partially contradicts the expectation that men will grow stronger than women. Just as girls are born fast because they are "naturally" big and healthy, so are boys slow growers, slow to be fully grown inside the womb, and slow to grow once born. However, in numerous discussions about differential growth patterns of boys and girls, I again was able to discern no overt statements of concern about boy's inferior health status. As Elias Meaga, a man, put it:

Oh girls, from when they are babies until they are big and ready for marriage, their bodies grow fast, they grow fast...their growth is bigger than boys...boys don't get sick, they are just always smaller, girls are born bigger....but once a woman has a baby, all her strength lies in her breast milk...in my breast there is no milk so all the strength lies in the rest of my body. But women's strength all runs

to their breast milk... Women don't know this, don't know that all their strength runs through their breast, that's why women can't work hard, can't be as strong as men when they are older.

In a group interview, women unanimously agreed that, indeed, girl babies take the longest to be born because they are bigger. Just because they hurt differently when they are being born doesn't mean they are more or less strong. "Boy, girl, it's the same when it comes to strength and health," one new mother said. In sum, values about growth do not translate to perceptions about health that might lead to the skewed patterns described above.

Second, a possible explanation for preferred use of clinic services for boys is that boys get sick more often than girls because boys receive different food and of different quality than their female counterparts. It has been shown that malnutrition weakens immune system responses, making poorly-nourished children more vulnerable to infections and less able to fight illness off when they do get sick, thus leading to increased clinic use (see for example Cole and Parkin 1977). If one sex gets more food than the other, we might expect that the less well-fed child will fall sick more often. The usual approach of Dani men and women to food is that in order for boys to grow and catch up to the more rapid growth pattern of girls, boys must eat a lot of sweet potatoes and of good quality.

According to hierarchies of food distribution given to me by several informants, both male and female, men receive food first of the best quality and they receive it first; youth and young boys are second; young girls third; and women last. When men are around, at pig festivals and funerals, male *adat* leaders who cut up the pigs and distribute pieces to feasting guests do so within the hierarchy listed above, and it is obvious to everyone, including women, that women and girls receive far less than their male counterparts. However, I frequently saw women feeding their children leftover scraps of food or dough cakes that I brought with me, and they divided portions in a scrupulous and gender-neutral way. Women also divide sweet potatoes at meals, and they divide

portions equally for boys and girls. Women also look out for themselves and their children by supplementing a two-meal a day diet with occasional treats. This is somewhat ironic as men, who receive the larger and more delicious sweet potatoes at meals, subscribe strongly to the notion that women need to eat less than men and need less good food. Women challenge the political power associated with food distribution every time they acknowledge hunger pangs by sneaking a 100 rupiah cake (about \$0.02 US) when at the market, or when they give their growing girl child an extra second or two of nibbling at crumbs or small potatoes before bundling up food in banana leaves for her to take to the men. Thus, even though it might be argued that it is girls who would be less likely to receive adequate nutrition than boys and would therefore be more likely to get sick, patterns of food supplementation partially challenges this generalization. Boys get good food when young, and so do girls.

A third possible explanation for patterns of clinic care may be the distribution of labour around childrearing. Ideally, men can help with childrearing if they have the right kind of personality, but even a "good father" cannot be held responsible if he does not get involved in childrearing or help out with sickness episodes. Women assume all tasks related to the day-to-day duties involved in caring for a child (see Table 1). However, some men are more solicitous than others. In twenty-five interviews conducted by the UNCEN/WATCH research team with women who were caring for infants, respondents said that men who have only one wife were more likely to help their wives than men who have several. As an ideal cited by these interviewed women, the monogamous and solicitous husband pays for medicine, attends the clinic with his wife, and prays or conducts *adat* as necessary for a youngster's return to health. One woman whose husband had not yet paid his bride price for her but who had already fathered her child said she expects her husband to help her out with any sickness episodes:

He's really happy with our boy because he's our first child. He has been very attentive when our boy got sick and he paid for the medicine, even though he is a

lazy man overall, not very diligent. My situation is good though, if the husband doesn't love the wife, he won't look after the child.

In practice not all men meet this model of the ideal father. In another interview, a woman with two co-wives confided:

My husband is pretty fair, he splits food up between the three of us. But for the care of the child I must be the guarantor, it is to each and every woman to look after her own children. If my husband beats me I can run away to another compound and if my child gets sick I have to look to the *kepala suku* (tribal chief) for help.

A third woman stated,

Diarrhea, sick stomach, *panas dalam* (inner heat), my baby has had them all. I'm the one who brought her to the clinic, it's my responsibility to pay for the medicine. Father knows the baby is sick but he doesn't look out for her and doesn't pay for the medicine. Only I look after and nurse the baby.

However, if parents worry more about their boys, they may care for them differently without doing so in a conscious or learned manner. There is evidence to suggest men worry more about their boy children. For instance, men care whether or not they have boy children. Many men said that when men are strong and full of good food, they can make good *adat*. If a man performs his *adat* well, he will have sons. One man commented, "having boy children is a sign of well-being. If a man has only girls it means he has done something wrong in his *adat* ceremony, especially in the marriage ceremony: It's like having your wife run away, a wife who can't sit still." The government-appointed village chief Hermann, whose wife just gave birth to her third child, another daughter, knows he will never have any sons because of the ongoing conflict he endures with his long-dead father:

I wanted to have only one wife, but my first wife was barren and since it is very important for us to have children, I married again even though I didn't want to. Now my second wife only has girls. My father caused this to happen. No matter what I do my father will always make trouble for me. I will never have a boy.

Ancestors that hang around the backs of men can cause havoc in terms of infant boy's health as well. One man mused,

Men like to play with their boy babies more, that makes it easier for the spirits to jump off the father's back and make the boy baby die.

In the case discussed in chapter 5, for example, Ukumhearik was "scared" when his son was sick, suggested one of his wives, and hung around the compound because the sick son reflected fault directly back to Ukumhearik. When his baby girl got sick, Ukumhearik got angry, went to Wamena and stayed away for ten days without as obvious a degree of concern. A woman confirmed the trend for men to enjoy interacting with their infant sons:

Overall it's a woman's job to take care of her child, and a man can get mad fast if the baby is sick and cries all the time. But still, a man can like a boy baby more than a girl baby, play with a boy more, though he will love a girl baby too, because the boy baby will have the same life experiences of the father and can do the same things in the same places. In the same way my girl Herlina was excited when she saw her new baby sister, because she'll go where Herlina goes, and will have the same girl experiences.

In sum, the gender of the child tells parents something about themselves. Men's interest in seeing that a son reflects well upon his father, as well as accompanying him eventually into the realm of men's worlds, means that men hold a different view of their sons than they do their daughters, who are already foreign to them by virtue of their sex and the rigid division of labour. In short, within the realm of divided lives and within an ideology of undifferentiated love, men look out more for other men than they do for their womenfolk (Gelber 1986). It is this fact, I argue, which may have the greatest impact on patterns of health care use.

Boy babies tell fathers something about themselves. If men look out for other men, they will be more inclined to keep a close eye on their boy children. If their boys are covered with scabies or have thrush in their mouths, fathers may be more likely to notice. If a man's child is sick, others notice, and if others notice, the man's status might be called into question. Thus, a man is more likely to encourage his wife to take actions to rid an infant of a disease, or to act himself to help make the child better. Fathers can pay for clinic visits and medicine; accompany the mother to the health service; seek out

the help of local *dukun* (healers); or, if the severity of the sickness warrants it, perform one of four *adat* ceremonies used to cure illness. In cases where the child is dangerously ill and *adat* is performed, every man I interviewed said they would do this for their child, irrespective of their gender. Of the twelve cases for which I have sufficient data, seven of the *adat* ceremonies were performed for girls. For less critical cases, however, boys get taken to the clinic more frequently because their fathers are able and more willing to make it happen.

Symbolism and Demographic Patterns

We are left to conclude that more boys are born than girls and that more boys die than girls in a pattern that occurs at least in part outside of local practice and knowledge. While there is support for the argument that local beliefs make men more likely to encourage their wives to attend to their boy children, no support exists for sustained, deliberate gender discrimination of a magnitude that would cause consistently skewed numbers.

If the demographics of skewed sex ratios are not shaped exclusively by cultural factors, then the questions remain to what extent these demographic patterns shape cultural practice, and to what extent they should be considered as separate conceptual categories at all. The broad range of anxieties surrounding boy babies may derive in part from the skewed ratios prevalent in the highlands. Because young boys fall ill and die more often than girls, this may strengthen a complex set of symbolic values attached to boy children that feed off of and feed back into these mortality patterns. The Dani values that equate girls with innate strength and boys with smallness have their mirror reflection in mortality rates of boys under one that are almost double those of girls. In the small village census I conducted in Kuliama, death rates for boy infants almost doubled those of girls -- 350 deaths/1000 for boys, versus 210/1000 for girls. If girl babies are twice as

likely to survive infancy as are boys, one might expect to find a set of beliefs that intertwines with local biologies wherein girls as stronger, hardier, and more resilient than boys, and boys are less hardy and need more care and attention than girls⁵⁸. This pattern might make parents more inclined to seek out medical care if their boy falls ill. The day-to-day reality of high infant mortality rates combined with high male mortality sets the groundwork for a symbolism that builds on an ethic, if not of fragility at least of uncertainty and unease about the innate abilities of boys to thrive as easily as girls, lending substance to the argument that "symbolisms proliferate and change qualitatively in response to their hard-world actualizations" (Knauft 1993:133).

Throughout many parts of highland New Guinea, a similar ethos prevails: girls are "naturally" hardy, holding in them all that is necessary to attain a fertile adulthood, whereas boys and men must seek strength elsewhere: in external substances, in semen (Herdt 1984a), in flutes (Gillison 1993), in headhunting (Knauft 1993; van Baal 1984), in food, and in circumspect bodily practice that minimizes wastage of precious bodily fluids. By controlling intake and output, men may hope to achieve the innate strengths of women. In these societies, birth rates favours males, and the high male infant mortality that accompanies skewed birth rates is a "local biology" that might also shape symbolic practice. While I do not go as far as Knauft in arguing that "hard world realities such as demographic deficit...drive the existing symbolic gestalt to further intensity and elaboration" (Knauft 1993:171), sex ratios may well have their place as one of the factors that help build, and then feed off, patterns of highly divided gendered lives.

In the landscape of the Baliem valley, where birth rates are low and mortality rates are high, the symbolic constructs of gender difference beginning before conception,

⁵⁸ For a reference point grounded in physiological measurements, of the 25 infants whose upper arm circumference was measured as part of the UNCEN/WATCH medical anthropology seminar, we distinguished no difference between infants with high scores from those with low on the basis of gender. On the contrary, the size of the infants is correlated to the age and health status of the mother. In addition, in *posyandu* weigh-ins, I could distinguish no noticeable difference in size and growth patterns between male and female infants, although the weighing system used at *posyandu* was not accurate enough to allow me to measure weight gains to the level of accuracy needed to test differences in actual growth patterns (see Andriastuti et al. 1995).

and persisting even in the face of cultural values about infants as less than full persons, suggests that demographic sex ratio patterns do play a foundational role in cultural practice. It is not just how many children are born--the question guiding most demographic theory (Greenhalgh 1995)--it is who dies, who gets sick, and why, that contribute to which local symbolic realities take on shape and meaning.

Conclusion

This chapter has shown that "instead of being tethered to demographic facts, people try to tinker with them, to create or undo them, or to construct 'official'...versions of them" (Bledsoe 1995:130). Overall, Dani men and women try to give their children the opportunities to thrive. However, men and women do not do so in necessarily the same ways. It is one of the weaknesses of sex ratio studies to focus attention on how it is that boy infants number more than girls, rather than looking to the complexity of parents' roles to understand how it is that girls thrive as well as they do. The centrality of male favoritism within discussion of sex ratios may say more about an unreflective position reflecting values in Euroamerican societies than it does sociocultural realities in the communities under study. If cosmologies, political practice, and concepts of the body favor males, then we need to scrutinize the effective tactics that women use to counter-attack these beliefs. The division of labour allocates to women the task of "nurturing." Women look after their girl children, pay for their medicine, and slip them nuggets of food partly because men have to look after men and because men slip boys pieces of pork at feasts, teach boys how to hunt, and give them the skills to become leaders. When women provide for their daughters and sons equally they may be engaging in a small act of resistance by which they attempt to offer their daughters the best possible life within a limited set of options.

Parents may look out for their children in specific ways because demographic patterns of survival help shape the inequalities that then prompt the differential treatment to redress those inequalities. This interdependence between male vulnerability, cultural patterns, *and* resistance to those patterns reinforces the links, not the separation, between deliberate action and the inchoate way rules get produced and reproduced in the first place (Carter 1995:61). Parts of child-rearing conform to the "unspoken authority of habit" (Comaroff cited in Lock 1993b:384) but tactical responses to habits are also important and may become habits in themselves. What happens between parents and their young offspring is a vital part of demographic constructions. These negotiated relations reinforce the importance of early childhood as a zone of intense political action. Early childhood is neither a time of unproblematic socialization, as Bourdieu intimates (1977), nor a time of demographic patterns asserting themselves on a passive, culture-bound society (see Carter 1995 for critique). On the contrary, early childhood, for populations with skewed mortality and morbidity patterns, may be one of most important times in the life cycle for validating cultural beliefs about gender and for perpetuating and challenging the inequalities that power relations engender (Kelly 1993). The fact that we find any skewed patterns at all lends support to the position that relations of inequality are present in early relations and are fostered and perpetuated in the minutiae of the everyday routines and rituals of child care.