

'Someone to Take My Place': Fertility and the Male Life Cycle among Coastal Boiken, East Sepik Province, Papua New Guinea

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INTRODUCTION

This piece seeks to contribute to an emerging cross-cultural literature on the meaning and experience of male fertility by outlining the cultural context of sexuality and reproduction among Coastal Boiken men in Waviö village, East Sepik Province, in Northwest Papua New Guinea.* The nature and meaning of male fertility to local actors was intimately connected to their location in chronological and genealogical time, and in structural and genealogical space. The former issue pertained to topics such as Boiken concepts of reproductive health and masculinity and how these, in turn, characterized various parts of the male life cycle. The latter concerns pertained to kin-oriented duties of watching out for clan lands, and customary networks of debt and exchange relations that grew and multiplied over the course of an individual's life. The ethnographic case material from Waviö also contributes to a discussion of how fertility and sexuality relate to cultural hierarchies among men, and to questions about the interdigitation of principles of social organization, processes of exchange, gender and historical forces of context and change in Melanesia.

For Boiken men, sexuality lay at the center of a cultural paradox: it was seen to be both inimical and necessary to the attainment and maintenance of manhood. Sex resulted in the accumulation of 'bad blood' and the consequent loss of male capacities of strength, the abilities to work, fight, and hunt. Nevertheless, men regarded fertility and children as a fundamental part of their personal development, and essential to their full participation in clan life and in extended networks of customary debt and exchange. From the perspective of men in Waviö, fertility was far more a matter of consequence with regard to clan and land than it was an expression of individual virility or strength. Marriage was the only social institution in which fertility was sanctioned; widely shared beliefs concerning the physiology of conception provided young men with ways of avoiding acknowledgement of paternity outside of marriage, while leaving young women to deal with the consequences. Infertility was handled through a number of techniques including adoption, divorce and remarriage, or polygyny.

STUDY OBJECTIVES AND METHODS

This study was undertaken as a component of a larger interdisciplinary research project conducted by the Papua New Guinea Institute of Medical Research on the health effects of rapid deforestation in the Hawain River Valley of East Sepik Province.¹ The objectives of the study component on reproduction were to conduct an ethnographic appraisal of the social and cultural context of fertility and sexuality in villages within the study area, to provide an ethnographic account of major themes in marriage among men and women, and to explore variation in attitudes and experiences of marriage and reproduction according to gender and age. The part of the study area in which Waviö lies was not heavily affected by commercial logging in 1994 and 1995. In conjunction with a cross-sectional STD survey conducted in the project area between October and November, 1994 the study also sought to provide information about patterns of behaviour that may be associated with risk of sexually transmitted diseases (STDs).

The data for this piece come from three periods of focused ethnographic fieldwork conducted by the author between August 1994 and March 1995.² The methods employed in conducting this research included structured, open-ended interviews administered to members of the sexually active population in all hamlets of the village, and unstructured interviews conducted with key informants. In addition to basic demographic data about informants, the author recorded observations at and participated in ceremonies such as bride-price payments, payments made for new-born children, and the removal of a young woman from the menstruation hut after her first period. All interviews were conducted in Melanesian Pidgin (Tokpisin). Additional sources of data, particularly for descriptive

demographic statistics included: the project census and reproductive history databases, the STD survey (Lupiwa 1995),³ and reports by the project ethnographer (Leedom 1994, 1995a, 1995b).

Kinship and customary exchange played a critical part in men's perspectives on fertility in Waviö. Therefore, it has been necessary to report these relations and local kin-terms in some detail. In describing relationships, I employ the following conventions: 'Fa' for father, 'Mo' for mother, 'So' for son, 'Da' for daughter, 'Si' for sister, 'Br' for brother. Thus 'mother's brother,' for example, is represented in the text as 'MoBr.' Where appropriate, I have included Coastal Boiken terms for specific relationships and specific types of customary payments. Other Coastal Boiken terms included in the text refer to local constructions of masculinity, reproductive physiology, and stages of the life cycle. Lastly, in order to avoid representing dynamic cultural realities as static and unchanging, this piece eschews the narrative convention of 'the ethnographic present' and the ethnographic sections have been written in the past tense. Thus, it describes and analyses the field situation as it was encountered between mid 1994 and mid 1995.

THE VILLAGE OF WAVIÖ⁴

Location and Population

The village of Waviö is located on the perimeter of mixed lowland rain forest, approximately 40 kilometers by road, west from the town of Wewak in the Hawain river valley of East Sepik Province. The village lies approximately 120 meters above sea level in the foothills of the Prince Alexander Mountain Range. In 1993-1994, Waviö was comprised of eight hamlets and had a population of 289. Completed fertility among women in the entire Hawain project area was 6.7 on average (Jenkins 1995:4); 2 per cent of women were using modern contraception, with tubal ligation as the most common method. The residents of Waviö are speakers of the Coastal dialect in the Boiken language group, which represents more than 40,000 people (Roscoe 1989a). Although they have had a long history of contact with German missionaries, Japanese occupying forces, and the Australian colonial regime during the twentieth century, little systematic ethnography has been conducted among Coastal Boiken speakers in this part of East Sepik. Earlier in the century, the German missionary/ethnographers Aufenanger (n.d., 1975) and Gerstner (n.d., 1953)⁵ published descriptions of Coastal Boiken culture and society. Roscoe's work in the 1980s on reproduction and population dynamics among Yangoru Boiken, as well as Boiken ethnohistory and historical demography (1984, 1988, 1989a, 1989b) suggests a large degree of consistency between Coastal and Yangoru Boiken.

The movement and proliferation of Boiken speakers in the Sepik has been reconstructed from a systematic study of myth and legend concerning the founding of Boiken villages (Roscoe 1989a). It appears that the principal historical population movement consisted of an expansion out of a 'mixing area' in riverine fens on the southern side of the Prince Alexander Mountains into various ecological zones to the West and North, including the hilly environs that Waviö and neighbouring villages currently occupy. Thus Waviö clans are not autochthonous, but arrived in the area perhaps 90 to 100 years ago. The pre-World War II population is not known; there are no known pre-War village books from the area. Like many Sepik groups, however, the male population seemed to be heavily involved in labour migration. The War itself was devastating to the population of Waviö, which was abandoned by its residents and occupied by the Japanese until their surrender at nearby Wom Point on the coast. A combination of meningitis and dysentery epidemics were blamed for mortality estimated at six to seven deaths for every birth during the occupation (McIntyre 1946).⁶ In the 1940s and 50s common causes of reported morbidity were skin diseases (ulcers, *tinea imbricata*, scabies), malaria, yaws, chickenpox, and respiratory infections (Littler 1955/56; Wetzel 1957/58). In terms of Boiken nosology, sorcery and the

malevolent action of spirits once played a greater role in categorizing disease and disorder than they do at present. *Sanguma*⁷ (a potentially deadly spirit who preys primarily upon those who walk forest paths alone) and the curses of certain magically-empowered kin have remained elements of local etiologic theory.

Patrol reports after World War II put the Waviö population at 77 in two hamlets, with significant absenteeism due to labour migration and gradual in-migration from surrounding areas (Foster 1949; Wetzel 1957/58). Patrol officers were optimistic about the recovery of the population from the effects of the War and about the prospects for growth (McIntyre 1946:2). Indeed, by 1952, recorded births were outnumbering deaths by three to one (Wenke 1952:2). The village's growth in the mid 1950s was primarily due to the request of several neighbouring hamlets and villages to combine with Waviö to form a new village; some of these former villages were still considered hamlets of Waviö in 1994-1995. By 1956, the enumerated population of the agglomerated village was close to 400, with a continued absentee rate of 60 per cent of men aged 16-45 due to labour migration (Littler 1955/56).⁸

The post-War years saw changes in marriage and movement among Coastal Boiken. Improvements to coastal roads, and colonial administration support for copra, rice, and cacao cash cropping inspired a general shift of the population towards the coast (Lulofs 1952; Mater 1957/58). High levels of young male mobility reported shortly after the War were accompanied by reports of increasing prostitution in the But Boiken and Wewak local areas (Anderson 1949/50:9). Probably due to the sustained absence of young and middle-aged men, there seem to have been increasing stresses on marriages and customary patterns in the formation of reproductive unions. Wewak town became increasingly important as a marriage market for young men and women (Littler 1955/56), and adultery accusations and bride price conflicts featured more prominently in local court cases (Mater 1957/58:9).⁹

Subsistence and Division of Labour

The subsistence system of agricultural production in Waviö has been widespread in East Sepik Province (Allen, Hide, Bourke, et al. 1993:21). The key food source was obtained from the starch of the sago palm, some stands of which were planted, others of which were managed as they occurred naturally. Swidden agriculture was practised, with large, co-operatively cleared gardens providing a succession of food crops for one or two years. Aside from sago, staples included banana, Chinese taro, taro, sweet potato, and yam. Although pigs were kept in the past, they were not an important daily food source in the mid-1990s; feral pigs were an occasional dietary addition, however. Hunting and fishing further diversified the diet of people in Waviö. Forest and aquatic protein sources included fresh water prawns, fish, eels, flying fox, birds, sago grubs, bandicoots, tree kangaroos, and megapode eggs. Other forest foods included breadfruit, ficus leaves, mangoes, *galip* (*Terminalia impediens*), *ton* (*Pometia pinnata*), and *okari* (*Terminalia kaernbachii*) nuts. In addition, cacao cash cropping, marketing of garden produce, betel nut selling, copra production, and some poultry keeping and coffee growing contributed to the cash incomes of Waviö families. A road built in the 1970s linked Waviö to the coastal highway, providing easy access to town and markets.

Among men, the primary productive activities included gardening, cocoa cash cropping, 'meetings,' and house construction, which together accounted for 75 per cent of time allocation during 213 person-days of reported time expenditure in 1993 (Leedom 1995b). Their remaining time was spent on unspecified activities in Wewak town, hunting and fishing, sago production, and marketing; wage labour accounted for 1 per cent of men's time allocation. Among women, gardening, cocoa cash cropping, firewood collection, fishing, and collecting forest foods accounted for 77 per cent of productive activities during 262 person-days over the same time period. Other activities included marketing, unspecified activities in town, and sago production.

The nutritional status of the population was assessed as part of the larger health and deforestation project. 3 per cent of children under 5 years of age who were measured in the Waviö area were classifiable as severely wasted, and 25–33 per cent of all children showed evidence of chronic undernutrition (Jenkins 1993:6–7). Among adults, some women showed evidence of chronic undernutrition and negative energy balance. The leading causes of morbidity in 1993–1994 were diarrhoeal diseases (among children), malaria, accidents and respiratory and skin infections (Jenkins 1993; author's observations). In terms of reproductive health, examination of a non-random sample of 154 women from all project villages in late 1994 revealed the presence of the following reproductive tract infections: *Trichomonas vaginalis*, bacterial vaginosis, candidiasis, and *Chlamydia trachomatis* (Lupiwa 1995).

Social Organization and Residence Patterns

In Waviö, nearly all residential houses were constructed from forest materials, primarily from varieties of palm that provided wood and thatch for floors, walls, and roofing. Hamlets ranged in size from two houses to 26 in Waviö (the hamlet from which the village takes its name), although houses were constantly being built, rebuilt, or destroyed. Four exogamous patrilineal clans formed the basis of social organization within the village. The two more populous of these clans maintained control over much of the land and political process within the village. The smallest of the three clans that considered themselves 'native' banded together with an 'immigrant' clan from Yangoru; the two have used their combined efforts to protect interests in land and forest resources. The male component of household composition shifted based primarily on the life cycle events associated with moving into a hausboi, and marriage. Young boys slept in the same house with their parents until they reached their early teens, whereupon they either moved into a hausboi with friends or clansmen, or they constructed a house of their own. Youths who lived in hausbois continued to rely upon the labour of sisters and mothers for their meals, and for marketing vegetables which the young men had grown and harvested. Women usually remained part of their natal-households until they went away to high school or married. Children of both sexes, however, spent significant amounts of time with relatives in other villages. Marriage has been principally patrilocal, although uxorial residence was not uncommon, comprising nearly 20 per cent of all marriages in nearby Nagum Boiken villages (Leedom 1995a:7).

Despite the decrease in labour migration, there remained a deficit of men relative to women in the reproductive ages (Jenkins 1995:3–4). Men who did leave Waviö for work or adventure elsewhere in Papua New Guinea almost always did so in their late teens and early twenties, before they were married and had children. Those who left Waviö almost always stayed with an older Waviö man who had established residence elsewhere in Papua New Guinea. Aside from nearby Wewak, the three most common destinations for Waviö men have been Rabaul and Kimbe in East New Britain Province, and Madang town in Madang Province. Unmarried women and girls stayed with parents, older brothers or sisters, or maternal or paternal relatives outside the village. Married and unmarried brothers and sisters did not occupy the same house, although for many purposes—such as gardening, managing cash crops, or receipt of bride wealth—they often comprised a single household. Many smaller hamlets in Waviö were comprised of a single household, which often consisted of several houses of individuals at various points of the life cycle.

Waviö has had at least three generations of exposure to Christianity (primarily Catholicism), which coexisted with local Boiken religious practice that centered on the *tambaran* society prior to World War II. The practice of *tambaran*, which was abandoned after the War, once played a large part in ordering the male life cycle and structuring cultural programmes of fertility, sexuality and abstinence. Nevertheless, key elements of Boiken cosmology have been carried forward and have continued to inform notions of reproduction, gender, and personhood. Between the 1950s and 1960s, people in Waviö also participated

in small millenarian movements, or so-called 'cargo cults.' In recent years, the Assemblies of God (AOG) Church has won many adherents from among the Waviö population. For a large subsection of men, the AOG played a central role in reproductive ideologies and gender relations. As a social institution it quickly found a role in mediating courtship and solemnizing marriages, providing an articulated code of marital duties. In some nearby villages, women desired AOG members as husbands, and claimed that the church's strong values have altered previous patterns of gender relations (Stritecky 1994).

FERTILITY AND SEXUALITY IN THE MALE LIFE CYCLE PRIOR TO MARRIAGE

The birth of a child heralded entry into a web of customary exchange and debt relations that surrounded an individual in shifting ways throughout his or her life. While Waviö men may not have engaged in the full range of these relations at all times, some level of participation in most of them was widely seen as necessary. As a young man grew older, customary debt and exchange relations took on more importance and multiplied through the marriage and fertility of sisters. Upon his own marriage, the establishment of affinal relations with a spouse's clan and family brought into play additional types of relationships that were considered fundamental to the male life cycle. Before men married, however, sexuality was an issue quite apart from reproduction. In the career of one's manhood it was often the fertility of sisters that first became of importance.

Birth through Early Adolescence

Entry into customary exchange and debt relations at birth was signalled by the payments owed by an infant's father to his/her maternal grandmother (*Papo*); the payments, which 'buy the child's head', were usually between K50 and 200,¹⁰ and did not differ according to the sex of the infant. From birth, boys and girls were differentiated terminologically. Until they were able to comprehend speech and obey their parents, however, they were not treated especially differently; both were cared for by men, women, or elder sisters, and all children slept together, usually with their mothers. Birth order has been significant; each child up to the sixth was referred to by a term that denoted its place relative to siblings of the same sex. The first-born son, called by the term *mandöfoik* as an infant, was in a more advantageous position than his brothers. Not only did he 'stand close' to all his father's affairs, but later in life he usually stood to receive a larger allocation of land than his siblings. 'I go first in everything, and then deal it out to my brothers,' stated one informant who is the first-born in his family. The eldest son was also meant to marry first, and had first claim on any bride price generated by his sisters. In addition, eldest sons were recognized as leaders and controllers of land when their fathers died or became very old.

At about five or six years of age, males entered their cultural 'boyhood' in which they remained until they married. Younger boys were called *tuwö nyöng* or *fo nyöng*, while post-pubertal males were called *pari tuwö* or *pari nyöng*. Young boys and adolescents were not expected to contribute much to household labour or subsistence agriculture. Pre-adolescents and youths in this phase of the life cycle were also given a great deal of autonomy in their movements; they were free from contributing more than minimal labour and resources to the household, and established associations with other youths at their own discretion, and largely without parental interference. After 12 or 13 years of age, men moved from the houses in which the rest of their family slept and resided together with friends in a *hausboi*.

Men internalized gender ideology throughout the first years of their lives; as babies many were encouraged to beat their elder sisters if they were left by themselves and became frightened. They were aware that every few weeks their mothers and other women secluded themselves and did not work or cook. At older ages they became aware that—ideally—sisters eventually moved to live with the men they married, and that they and their brothers stood to benefit from a sister's marriage. After they took up residence in a *hausboi*, young men

educated each other and become acquainted more formally with local knowledge concerning gender, sexuality, and their maturing bodies.

Loose Skin, Bad Blood: Sexual Ambivalence, Body Fluids, and Gender

Men were exposed to the topic of sex through a number of sources including older peers, school, the church, parents, and pornographic videos and magazines. School instruction taught about the mechanics of human reproduction and childbirth, while the pornography that young men had access to allowed them to fantasize about sexual 'styles' (it cannot, however, be considered formative in terms of broader expectations for their sexual lives). Parents, older relations, and peers were the information sources through which most adolescent men said they acquired knowledge about their sexual health, and the place of sex in male/female relationships.

The two most significant aspects of sexual knowledge that men discussed pertained to instilling 'proper' values regarding sex, marriage, and adulthood and to imparting Boiken ideas about the connection between masculinity and the deleterious effects of sexuality upon the male person. This latter set of values was expressed through idioms that pertain to the body: 'skin' and 'blood.' When Waviö men made statements, as they often did, about the state of their skin or blood, they employed a fundamental, shared system of somatic symbols that acted as a technique for monitoring and expressing psychic and personal well-being. For example, one frequently heard statements such as '*skin bilong mi lus*' (literally 'my body/skin feels loose'). Such utterances that employ the term *skin* are well established body idioms in Melanesian Pidgin (see Mihalic 1971:176). Their particular manner of use in Waviö, however, pointed to a way of reading and reporting on self-perceived states of personal health experienced through a set of constructs that connected the body, body fluids such as blood and semen, gender, and sexuality. Sexual contact with women, and any social contact with menstruating or parturient women, were the principal mechanisms that produced conditions of '*skin i lus*' (*qag logwök*) and related complaints such as '*skin i les*' (*pöngö qiyak*, 'lethargy/laziness'). The mechanism that triggered the sensation of less than optimal health was the accumulation of 'bad blood' (*blut nogut*, *yandö fondö wing*) which resulted from this contact.

The detrimental effects of accumulated bad blood and 'looseness of body/skin' included excessive somnolence and the loss of some essential capacities of manhood such as the desire and energy necessary to perform garden work and the abilities to hunt and to fight. The remedial action necessary to correct this bodily state was penile purging (*sutim kok* or *walengu yägwä*); roughly half the adult men in Waviö engaged in this practice.¹¹ The surgery was entirely self-prescribed, and usually carried out alone or in the company of a single close companion. The preferred location for penile purging was an isolated spot on the river that supplied Waviö with most of its water. Men removed their clothing, entered the water, and masturbated until their penises were erect. A razor blade was used to make two small, stabbing cuts into the top of the glans penis. Blood was then allowed to flow freely into the water. According to the men who performed this act, the bleeding stopped fairly quickly, and the cool water soothed the wounds. Nothing was applied to the wounds, nor were they bandaged. Upon leaving the water, men located a young tree of a particular species that has white sap and grows near the river bank. They then lodged the used razor blade in the bark of the tree as close to the crown as they could reach; as the tree grew, so would their strength.

Bad blood and its effects upon one's capacities for action as a man have been a fundamental and universal part of Waviö Boiken culture. These beliefs, however, have not been unchanging and they are not an entirely straightforward example of what Melanesianists have termed 'female pollution' (e.g. Meigs 1984). Men have developed strategies other than penile purging to counteract the accumulation of bad blood, including eating 'strong foods' such as tinned beef or meat from forest animals. Moreover, their statements about the aetiology of their diminished condition indicated that bad blood may

be more related to sexuality than to gender *per se*.¹² This latter point is significant insofar as it demarcates sexuality rather than women as a source of personal disorder. In other words, the power to 'pollute' stemmed from persons as they were constructed through their actions, rather than from capacities inherent in the fixity and oppositionality of 'male' and 'female' attributes.

Bad blood in both women and men resulted from the 'filth' of sexual intercourse, and especially from the process of insemination: 'When we sleep with them [women] we pollute their bodies. When we ejaculate inside of them, we pollute inside their bodies... This is our customary belief. [So sperm pollutes the bodies of women?] That's right, that's right' (author's fieldnotes, interview with 48 year old man). The combination of men's sperm and women's blood in sexual intercourse caused bad blood to accumulate in male and female bodies. While sperm (*kuu*) differs from blood (*wing*) terminologically, informants classed sperm as either a blood product or a substance very closely related to blood. Again, menstruation was seen as a woman's opportunity to rid her body of bad blood. Men, lacking an opening from which to purge themselves, have had to create one or, more recently, they have had to ingest strong foods to counteract bad blood. The paradoxical nature of sex and the close association between blood and fertility, however, were clearly emphasized by the fact that most of the 28 men and 26 women interviewed for this study stated that a woman's period is her most fertile time.

Thus the idea of sex itself contributed to ambivalence about acting on and perhaps even experiencing the kinds of desires often thought of as common among young men cross-culturally. Though Roscoe indicated that similar outlooks on the effects of sex among Yangoru Boiken (configured there as 'blood loss' rather than 'bad blood') were never explicitly 'mentioned as a reason for moderating intercourse' among younger men (1988:110), 'fear of blood loss, or whatever deeper anxiety it represents, appears to have some effect on sexual activity' (ibid.:111) and may have factored into decisions regarding the termination of men's reproductive careers. Ambivalence among Coastal Boiken was heightened by the cultural paradox that sex simultaneously produced life for the clan, and security for the individual while also generating ill health and pollution. The following interchange with one young man was typical of many conversations on the subject: '[All this talk about bad blood makes me think that sex is dangerous for men.] Yes, I really worry about sex. If I do it, I go to the water the next day' (author's fieldnotes, interview with 22 year old man).

The Sexuality of Young Men: Mobility, Relationships, and Avoiding Paternity

There was a great deal of variation among unmarried men in Waviö in terms of numbers of intimate/sexual relationships with women; furthermore, the role of sexuality and fertility in these relationships was often difficult to assess. One issue related to this topic was time spent away from the village. Although labour migration had greatly diminished by the mid 1990s, younger men (20-34) in the sample spent nearly as much time away from the village as older men (35-44)—the mean number of years away from Waviö was 5.1 years in the former case (N=14) and 5.7 in the latter (N=9). The men who were in their mid-30s and 40s at the time of the study left Waviö in their youth to participate in the 'circular migration' that once drew more than half of Waviö's men away—usually to oil palm plantations near Rabaul and Kimbe. These older men stated that prior to leaving the village there were few opportunities for establishing sexual relationships—young women were too closely watched by brothers, illicit affairs were too easily discovered, and the sanctions were too severe for men to take the risk often of pursuing non-marital liaisons locally. For those who did not migrate, Wewak town, larger marketplaces, and small clubs or dances offered opportunities for pursuing affairs or buying sex.

For men who migrated, the distance from Waviö afforded them something in pursuing relationships or marriage they often did not have at home: courtship. It has been

noted since early in the century that among Boiken, ‘one can hardly speak of true courtship’ (Gerstner 1953:436)¹³ and marriages were often concluded with very little contact of any kind between the couple prior to cohabitation and payment of the initial instalment of the bride price. Many men who married from outside the immediate environs of Waviö and neighbouring villages met their wives fewer than five or six times before ‘taking’ them. In 1994–1995 the relationships and venues in which younger men were flirting and pursuing sex were highly situational. If they became involved in ‘friendships’ with women of Waviö and nearby villages, they relied upon a great deal of secrecy—especially if their intentions were explicitly not to marry. ‘Being promiscuous’ (*wokim pasin pamuk*) in Wewak or at locally arranged dances—a major leisure activity for youth—may have largely been a function of taking advantage of whatever opportunities presented themselves on any given occasion.

What should be emphasized, however, is that having sex has not been not a key element of forming a strong masculine identity for young men in Waviö. In some ways, the young man who eschewed women was at the height of his masculinity, but not his manhood. In other words, he exemplified and embodied elements of male purity but did not have the status of a man who was fully engaged in the complete range of social and clan networks, and had not yet contributed his fertility to the clan. Men who remained *pari tuwö* into their late twenties were seen as ‘big heads,’ too absorbed in selfish pursuits and eschewing the adult responsibilities entailed in marriage, house building, reproducing, and gardening.

Some young men employed *marila* (often glossed as ‘love magic’) in order to enhance their prowess and attractiveness to women. Marila has been used to attract women whom one intends to marry, as well as those with whom one wishes to have a sexual affair. Particularly among AOG church-goers marila was unpopular, and its use throughout the village was probably decreasing. Even among those who did employ it, it was treated with care; if improperly handled it could cause insanity or otherwise harm those for whom it was not intended. Not surprisingly, perhaps, one of the most historically powerful ingredients in some formulas for Waviö marila has been the blood from penile purging. More recently, the practice of circumcision can be seen as a reconfiguration of love magic and some of the cultural themes that young men imagine to have been part of initiation in the *haus tambarans* early in the century. Circumcision in Waviö was something of a fad among young men in 1994 and 1995, with at least four operations being performed by one youth who learned the procedure through being circumcised himself. Again, by referring to caring for one’s *skin*, the circumciser summed up several male life cycle themes connected to sexuality, sexual health, and gender by linking the importance of penile purging, maintaining a social distance from women, and performing circumcision. The value of circumcision, he reasoned, was that it simultaneously performed the function of purging and increased sexual desirability. It was also ‘our secret. It is a mark of the youths; the women can’t know’ (author’s fieldnotes). Like circumcision, residing in the *hausboi* may be seen as a strategy for maximizing masculinity and male sexual health prior to marriage.

[Why do young men live in *hausbois*?] Because then you are far from the women. You take care of your skin, and your skin will be good. Before if I stayed in the *hausboi* it would help me win fights. [How?] That was just our custom. [And why did you need to stay far from women?] Women make your blood cold. [When do you move to the *hausboi*?] When men start with men’s work, then you must look out for your skin (author’s fieldnotes).

Given this context of cultural ambivalence about sexuality, unmarried men built a great deal of ambiguity into their presentations of romantic and sexual contact with women. For example, in Tokpisin, the terms *pren* (‘friend’) or *prenim* (‘to befriend’) may or may not be euphemisms for ‘girlfriend’ and for ‘having sex.’ Young men reported having had many ‘girlfriends,’ but may not have had sexual intercourse with more than one or two of them.¹⁴ When an encounter or a relationship did entail intercourse, most men did their best to keep

the relationship secret or to engage in sex with women from town or from other villages who attended dances.

Unmarried men reported having long-term 'pren' who were also sexual partners (often called '*stedi*'), although more commonly they abandoned women after one or two sexual encounters. By keeping sexual affairs to one or two episodes, men have had a culturally legitimated way of denying paternity of children born in non-marital unions. Boiken notions of the physiology of conception have held that many acts of sexual intercourse are necessary for conception, especially for young and newly married women who have not had children. Indeed, some men interviewed denied that women even menstruate prior to having sexual intercourse. Such beliefs extended to Yangoru Boiken in the 1970s and 1980s (Roscoe 1988) and appear to have been widely prevalent in Papua New Guinea (NSRRT and Jenkins 1994). Young women, however, were sometimes cautioned not to be taken in by this theory:

[Do (your parents) ever talk to you about pregnancy and childbirth?]
Yes, they tell me to avoid boys who just make girls pregnant and don't take responsibility for the child. [According to your knowledge, how does a woman become pregnant?] She sleeps with a man and gets pregnant. [How many times with a man can make her pregnant?] I think it can take only once...but many boys deny this saying that only once will not make her pregnant (Setel and Lemeki 1995:12, interview with 20 year old woman).

Young men, it seemed, were not always protected by Boiken theories of conception. Due in large part to the constant presence in Waviö of expatriate staff of the PNGIMR since 1993, condoms have been made readily available to village men and women. Married and unmarried men requested them from project staff because they were aware of STDs, but primarily because they wanted 'to stay out of trouble.' The use of contraception by young unmarried men was sporadic and seemed to be limited to condoms. They appeared to be more likely to use condoms explicitly for avoiding STDs when attending dances in hopes of having the opportunity to have sex with a woman 'from town' or from 'along the road.' Women who were categorized in this manner were thought to be more likely to carry STDs.

One reason for seeking the protection of furtive encounters and taking advantage of local ideas about conception was that for most intents and purposes, fertility defined marriage—both for men and women. In Waviö there was a middle-aged man who was universally recognized as 'unmarried'; he was referred to as a *pari tuwö*, a 'young man,' not simply *tuwö*, 'man'. He protected his marriageability in the increasingly Christian communities of Waviö and nearby villages, however, by concealing from all others in the village the fact that he had two children in another part of Papua New Guinea. This suggests something of the difficulty of terminating a relationship that has been acknowledged as a marriage once a couple has had a child. For young women, even if there was no one to accept paternity (and pay bride price), a birth signified that she was 'already married' (*em i marit pinis*).

Several characteristics pertaining to sexuality and fertility demarcated stages in the lives of young men in Waviö. Certain elemental properties of masculinity, such as strength and hunting prowess inhered in the bodies and constitutions of young men who resided together 'away from women' in the hausboi. Young men were generally very concerned about the state of their bodies and about their 'strength' and so found a certain amount of tension in balancing sexual desires against the negative effects of acting upon them. When sexually active they often employed techniques such as marila or circumcision aimed at heightening their masculine power and attractiveness, while simultaneously structuring their encounters in such a way as to avoid having to acknowledge parentage of any resulting offspring. Young men were often uncomfortable even discussing their own fertility outside the context of marriage; when asked about his desires for children, a 26 year old, unmarried man stated: 'I feel that I would like just two—when I'm married. [What if you aren't

married?]) If I'm not married...ach...forget it! I can live fine without them!' (author's fieldnotes).

'Your Sister is Your Bank': Young Men's Investment in Marriage and Fertility

Given the foregoing context of young male sexuality, it might be expected that fertility would not have been of great concern to unmarried youth. This was not the case; fertility and marriage were of fairly large importance to young men. However, it was not their own reproduction in which they were invested, but that of their sisters. The marriage and fertility of sisters generated benefits to men in both immediate and long-term ways. In the short run, first payments of bride price gave brothers access to wealth for their own affairs or funding their own bride prices. The marriage of sisters also immediately entered them (and their spouses) into debt relations that were structured in favor of women's brothers. Later, a sister's fertility guaranteed a higher second payment of the bride price. Her children were also entered into a customary exchange relation with their mother's brothers through which the latter stood to benefit over the course of many years.

Some men have exploited the debt relationship called into play upon the marriage of a sister (or FaSi, FaSiDa, etc.) to the greatest extent they have been able. Under this system anything provided to a sister and her husband had to be tallied and repaid to the brother at double the value of the original prestation. The kinds of things that could be used to generate debts with married sisters included store-bought food, garden produce, bush-meat, clothing, labour, or money. Debts had to be repaid in cash, although the debt-holder could decide to accept settlement in either gifts in-kind or shell money and dog-tooth necklaces.¹⁵ If the debts mounted too rapidly, married men might hold a feast and make one large payment to debt-holding affines in order to convince them not to continue heaping debts upon sisters and their husbands. At the same time, some AOG church-goers regarded this debt system as exploitative and contrary to a Christian work ethic that emphasizes self-reliance in individual pursuits. The importance of this customary debt relationship as a means for generating wealth, however, was underscored by one 35 year old AOG church member who decided not to participate in the system:

[Why haven't you worked this debt system with your sisters?] I think this would be hard for them and they won't have money to pay me back. [How do you plan on getting money, then?] Yes, this is hard. We don't have a good way of getting money. But I can't go giving money to my sister because then she will have problems paying her children's school fees and buying her kerosene...[Have you ever used this system with them?] Once they asked me for sago. I gave it to them and when they paid me back I stopped giving them things. Now I felt it wasn't good. [Why?] ...I felt that if a man doesn't have feeling for others, he could easily give them a lot of problems by doing this. Also, if a man can't be bothered taking the hard road to getting money, then he will use this system. I didn't like it when she paid me for the sago. I wanted to give the money back, but she wouldn't take it. This custom is still here, and she would feel that if her brother gave her something and she didn't pay, she would truly be ashamed. Now I just give if I want to. I like to give just to help, but I'm finished with this debt system (author's fieldnotes, interview with 35 year old man).

The economic importance of customary debt relations (such as those between brothers and married sisters) in relation to other modes of wealth acquisition was not determined during the period of fieldwork, although the qualitative statements made by informants indicated they were indeed one of the more established means for acquiring cash and traditional currency. An economic survey in Waviö and a neighbouring village during a two week period in 1993, however, revealed that 12 per cent of all cash expenditures in an 18 household sample went into customary exchange payments (Leedom 1995b).

The way in which young men are invested in the fertility of sisters is also two-fold. Again, sisters' fertility in and of itself ensured a higher second instalment of the bride price. Of longer-term significance were the benefits that flowed from a brother's entry into debt and exchange relationships with his sisters' children. The MoBr/SiSo relationship in Waviö was said by some informants to rival the importance of that of children and fathers. Mother's brother, *wawo*, was entitled to establish the same kind of 'double value' debt relationship with sister's son, *rawa*, that he had with his sister. In addition, wawos have had the ability to curse the sanity and business affairs of rawas with whom they have been displeased, an attribute that has led to the appellation *devilman* for the wawo.¹⁶ Payments called *kamba*, or 'ridding the devilman,' have been a pre-emptive means of placating the wawo and keeping his potential interference at bay. Furthermore, the wawo has been entitled to any compensation payments ('blood wealth,' or *wing bri*) made to his rawas for physical injury they might have suffered as a result of fights or accidents. Lastly, upon the death of either parent, children have had to assume any outstanding debts to the parent's wawo, and make a final settlement on their father's or mother's behalf.¹⁷

Although marriage has been the only context in which fertility is culturally sanctioned, pre-nuptial fertility was by no means absent; in 1995 there were several reported cases of pre-nuptial childbirth in Waviö's neighboring village, and in Waviö itself the author and his counterpart/research assistant were approached by a young, unmarried couple who were concerned that their secret relationship had resulted in pregnancy. In part because it can be difficult to get young men to acknowledge paternity outside of marriage, a common technique for handling pre-nuptial fertility has been to foster the child out to a married sister; if a young woman were to keep the child, it would imply that she were married. Abortion was reported to be uncommon, although it has occasionally been practised.

Thus it has generally been the case that fertility and marriage as a concern of men in early adulthood pertained at least as much to sisters and female agnatic kin as to young men themselves. Furthermore, the kinds of debt and exchange relations in which young men began to participate emphasized the enduring linkages between customary modes of wealth generation and a clan-based, rather than individualized, notion of fertility. In addition to the symbolic importance of these debt relations, their economic significance has continued to be substantial, despite increasing contributions to household incomes of cash cropping of cacao, sale of garden surplus, wage labour, and the potential of logging royalties.

'SOMEONE TO TAKE MY PLACE': FERTILITY WITHIN MARITAL UNIONS

Men were usually married in their mid- to late twenties. Once men felt that they had made the transition from their 'youth' to 'adulthood' marriage often quickly followed. The nature of this transition was usually explained by men as a self-perceived 'readiness' to move along into adulthood. Clearly, however, several contextual forces were acting upon them as they approached what was conventionally thought to be a suitable age for marriage. In general, before having children, men have had to establish a garden, complete house building, and acquire goods for their households. The major reasons given by men for the importance of having children centered upon ensuring their security in old age, and the need for someone to assume ownership over and 'look out for' the land and waterways they inherited from their fathers. The stated need for 'someone to take my place' points to deeper meanings connected with fertility that are shared by other Boiken groups: 'This concern...for a living replacement to survive one's death, was reiterated by villagers of both sexes as an important motive for having at least two children—a son to replace his father, a daughter to replace her mother' (Roscoe 1988:113). Having a son to take one's place is not only a statement about replacement in genealogical time, but in genealogical space.

In Waviö, one's place in genealogical space has had a double meaning. The first was as a connection, through fathers and sons, to locations on clan lands. The second was one's

'place' in the latticework of debt and exchange relations that surround individuals over the course of their lives. Thus, the need for continuation in both male and female children—as far as the idiom of 'looking out for the land' (*lukautim graun bilong mipela*) goes—was rooted in clan concerns for strength in numbers (*strongim lain*). This bolstered the political machinations of men in exerting control over land and waterways, and helped them sustain the numerous exchange relations within and among clans. Not only did parents rely upon the labour of girls and the eventual assistance of their married sons, but it was evident that children were needed to help parents and extended kin meet the social obligations that devolved upon them through relations up to two generations preceding their own.

Whereas unmarried men were reluctant to specify much related to marriage and less related to children, married men could be quite specific. Given a context of (primarily) patrilineal residence, and inheritance customs that often disenfranchised daughters, it is not surprising that the mean desired sex ratio of male to female children was 2.1:1, with a range of 0.6:1 to 4:1 (N=10). Nevertheless, a 'balance' of boys to girls was important, and several men stated that they would moderate their fertility objectives in order to achieve the proper mix of male and female children. In terms of overall family size, 15 ever married men desired an average of 4.4 children, with a range of 2 to 7. Some men in Waviö had exceeded their fertility objectives; in one case by four children. Among women, the desired sex ratio was not collected. The mean ideal number of children reported by 13 ever married women was 3.7, with a range of 2 to 5. While infertility has been a hardship and put severe strains on a marriages, it has been handled through adoption, divorce and remarriage, or polygyny.

The Timing of Marriage and Methods of Establishing Reproductive Unions

In Waviö, marriage by the mid- to late twenties was almost universal for both men and women. Among a non-random sample of 28 men in Waviö (39 per cent of men aged 17–45), 17 were ever married, and ages at first marriage were obtained in 15 cases. The mean age at first marriage among these 15 was approximately 24 years of age, with a range of 18 to 35 years.¹⁸ Men might marry at later ages, but a woman's prospects of marriage diminished rapidly after her mid-twenties, particularly if she had younger sisters who married before her. Theoretically, there have been two ways for a man to find a wife; 'according to his like' (*long laik bilong en*), and by 'custom' (*long kastom*). Despite a widespread belief that 'customary' marriages were diminishing, that they were less desirable, and that they were more likely to fail than those concluded according to the wishes of the actors, interviews in Waviö indicated no universal lessening of customary marriages; conversely, marriages by 'laik'—which were thought of as innovative—have been acceptable for some time. In both types of marriage, initial and secondary bride price payments (often delayed until after the birth of at least one child), have served to legitimate a man's authority over his wife and paternity over his children (Leedom 1995a). The viability of both methods of obtaining a wife was highlighted by one 25 year old:

[In Waviö there is a custom of parents 'marking wives' for sons] Yes.
[Did they do that for you?] They did not choose, but they will make an arrangement with her parents...my parents will go to her parents. [Has this been done for you?] I will wait till they make arrangements for me to get a woman...[So are you going to wait?] Yes, but if I want to get married according to my own choice, it's up to me. Like if I have a girlfriend now and we both want to get married, that won't be a problem. [So what do you think? Will you wait for your parents to make arrangements or will you marry according to your own choice?]...I can't say right now...If I want to marry a woman I choose, I will tell my parents (author's fieldnotes).

Many older men (over 40) stated that they were encouraged to select their own wives, while several younger men (under 30) were manipulated, persuaded or coerced into their marriages by fathers or brothers.¹⁹ In both cases, the desire to marry often came about

through a combination of familial pressures and self-perception of readiness. For their own part, men represented their readiness to marry as a result of the fact that they no longer considered themselves to be youth, but had become men ('*mi man pinis*') and so had to begin 'to think about their lives.' Such self-realization may have been influenced by the marriages of peers, and pressures from siblings and parents. At a certain point, a young man's lifestyle and deportment may no longer suit his parents' idea of how he ought to be progressing as a social person. What parents have perceived to be defects in his character and behaviour might become less tolerable, and marriage—any marriage—it was thought would 'cool him down.'

Men are commonly thought of as being the ones 'in control' of marriage and sexual unions. In a broad sense this may well be the case. Yet intra-gender power dynamics rooted in men's relative positions in the life cycle and their structural position within clans were a key to understanding the formation of many reproductive relationships, even unions of 'like.' Prior to the introduction of cash into bride price payments, for example, older men who controlled the external trading links necessary to obtain the shell rings, pig tusks, turtle shell arm bands, and dog tooth necklaces needed for a bride's purchase (and who controlled these forms of currency once they entered the village) could influence the timing of entry of sons, brother's sons, and sister's sons into reproductive unions.²⁰ In Waviö, not all men entering into marriage were able to exert autonomy in deciding on marriage partners; other men, either fathers or brothers, were the ones who had the power to determine whether a union formed or not, and thus exerted a great deal of control over their social and familial juniors. The main elements of coercion that men discussed during interviews included the pressures exerted by parents or brothers to participate in 'sister exchange' marriages or to marry to a woman who had been 'marked' for a man, impatience by younger brothers to marry (sons are supposed to marry according to their birth order), and the common idea that marriage could serve as a tempering influence on a young man whom parents believed had remained unmarried too long.

Marriages often took place quickly, and, as alluded to above, with little pre-marital contact between the couple. Within what people in Waviö reported as the 'customary' kinship system, there was a preferred marriage partner, the *yai rawa* (FaMoBrDaDa, FaSiDaDa, FaSiSoDa), to whom a man could legitimately make claim; in practice, however, marriages to *yai rawa* were very infrequent. More common among marriages of 'custom' were arranged/coercive marriages involving women who were selected by parents, or those who were designated in 'sister exchange' with other Sepik groups. Men who were coerced into marriage were generally not happy. Two men involved in sister exchange marriages terminated the unions in less than a year; both men remarried partners of their own choosing shortly thereafter. Another young man who was in a coercive marriage vented his frustration and resentment about his predicament by neglecting and abusing his pregnant wife. In marriages of 'like,' church membership was an increasingly important issue for men, and something they sought to impart to their sons as a key to a good marriage:

he should marry a woman who goes to church, who fears God and observes the teaching of the bible...I will have to teach all the boys that they must marry a church woman, and all the girls that they must marry a church man because we believe that if both go to church, then both will be OK (author's fieldnotes, interview with 35 year old man).

Polygynous unions, discussed below, were not common and were becoming less popular with increasing Christianization.

In terms of preferences for both marriages of like and custom, men preferred to marry women either from allied clans, or from far away from Waviö—the rationale being that in these situations, the bride price was not likely to be set very high. Non-allied clans from the surrounding area, however, may have tended to set a high price for consenting to a marriage. In one case of elopement in which a woman ran away from her village and convinced her intended husband to allow her to stay in Waviö, the bride price was set at

K4,000, which some of the man's kin felt was exorbitant. The effect of bride-price inflation on village endogamy is difficult to assess; it appears to have been common practice for men to marry at some distance from Waviö since at least the mid-1950s (Littler 1955/56). Among a non-random sample of 19 current marriages, the village endogamy rates were 50 per cent for those marriages of more than 10 years in duration (N=6), and 39 per cent for those concluded less than 10 years ago (N=13). This is comparable to figures cited for one group of Yangoru Boiken, where the village endogamy rate has fluctuated between 38 per cent and 56 per cent since early in the century (Roscoe 1991:389).

Fertility Desires and Contemporary Fatherhood

The issue of having children to look out for the land was both a clan and a personal concern. After all, parents were not the only ones with claims on the wealth and energies of young people—they could be called upon to aid maternal or affinal relations (Roscoe 1988:114). Furthermore, children assisted in tipping the balance within customary debt and exchange relations by helping to erase debts more quickly in certain contexts while increasing them in others. As in Yangoru, men stated that the minimum acceptable number of children was two; a boy and a girl. Girls, one man stated succinctly, 'help their mothers and help refund the money you spent on their mother [i.e. through bride price]' (author's fieldnotes, interview with 27 year old man), while boys were charged with the preservation of social, cultural and clan integrity.

He will stay with you and care for you. He will marry a woman and still be with you. A daughter will only come to see you when you're really sick. She can't just come visiting for no reason; she has to look after her own man. If she comes for no reason, her husband will be cross (author's fieldnotes, interview with 32 year old man).

The duty to watch out for parents in old age was augmented by the responsibility to protect clan land interests—a task rich in cultural meaning and, in light of increasing incursions of exploitative international timber operations in the Hwain river area, surrounded by increasing practical complexity. The colonial assertion of the *pax Australiana* along with Christianity may have contributed to this contemporary expression of the duties of sons towards their fathers' clans. Men stated without much nostalgia that sons were once required for fighting, but that more recently, sons protected their fathers from the indignity and cultural effacement of being posthumously robbed of their lands.

I must have children to look out for the ground. [And is even one child enough to satisfy this?] Just one boy...other men are happy if I don't have children because they will steal all I have when I die...If I don't have children, people cannot say that I am not a man. They would just be terribly sorry for me because they would say "Oh, when you die, thieves will eat everything you worked so hard to plant here. They will take this ground" (author's fieldnotes, interview with 48 year old man).

The techniques by which men raise their children to assume these responsibilities were felt to be part of God-given, ancestral knowledge that 'belongs to this place.' Men cited their own parents, community leaders, the church, and schools as sources of information about parenting. Most, however, said they simply followed the examples of men whose children have 'come up' well. Aside from the provision of material needs, instilling good *pasin*, which can loosely be glossed as 'character,' was said to be one's primary duty towards one's children. The job of molding the character of children fell heavily on parents, as they were believed to be the only ones with the power to undertake this task. Other relatives or community members were thought not to have the bond of blood that would enable them to influence another's child. The key ages at which such shaping must take place were roughly between 4 and 11 years, after which time young men in particular were into their youth and the period of life during which they assert autonomy and independence and were not expected to be especially obedient.

Given the culturally acceptable minimum of one son and one daughter, what have been the forces that have influenced men's overall fertility objectives? In terms of reproductive ideology, it seems that the kind of charismatic Christianity represented by the AOG church has been influencing the way men think about the notion of 'family.' For the more devout, the idea of family has been moving away from the clan, or *lain*, toward a much more nuclear model of 'father, mother, and children.' Thus men spoke of the need for many sons to watch out for and help one-another—a function that was once provided by an extended network of agnatic kin. The development process has influenced conditions in which men have been formulating their fertility objectives, primarily through the gradual move from complete subsistence and some trade to significant reliance on a cash economy. This is what people in Waviö called 'the money life' or 'the money side'—the need for cash to buy clothing, 'store food,' transport, medicine, trade goods such as bush-knives, kerosene lanterns and building materials, and pay for school fees. An older man described how changes in the economy of Waviö influenced his ideas of an appropriate number of children:

[You have five children. Is that good for you?] Five has been too many for me. [Why?] When my father was alive there was another system. We didn't have money, and all the food we got was what we grew from the ground. When I was young, I didn't know what money was. We were happy eating bush meat, yams, taro, all this. We didn't need anything from the store. So when you had a big family, it was easy to look out for all of them. But with the money life, it's hard to care for them all. If I only have a little money from coffee or cacao, there won't be enough to share it among the children. There won't be enough for clothes and food. So bringing down the size of the family would be better—so the family doesn't have problems (author's fieldnotes, interview with 52 year old man).

These are precisely the kinds of concerns to which young men referred when they expressed a desire for relatively few children (two or three). Those who expressed higher fertility desires pointed out that there was plenty of land to support large families, and that the extent of their clans' holdings required large numbers of men to stand guard.

An extension of the beliefs connected to bad blood and the injurious effects of sexuality also informed reproductive choice. In addition, these beliefs about gender and sexuality were related to what some saw as damaging effects of development, and the tension between custom and change. During pregnancy, it has been held, bad menstrual blood accumulates in the bodies of women. This not only 'weakened' them drastically, but contributed to their highly 'dangerous' parturient condition, during which time they were not permitted to cook for or handle the food of any family member (other than nursing the newborn infant). Allowing women sufficient time to recover from the ordeal of pregnancy and childbirth, in fact, has been one ideological cornerstone of birth spacing practice. Ultimately, however, repeated childbirth has been thought to exact a cumulative toll on the constitutions of women; they become prematurely aged and unable to work (*ol i bai lapun hariap tru*). The changes brought by modern life, people in Waviö perceived, have accompanied a fall in the age of menarche. By encountering the forces of bad blood earlier in life, they reasoned, women have aged that much earlier and that much more quickly.

Now, in this time, young women start menstruating so young, and they also marry young. They get two children and [makes a wheezing sound] they're out of breath. They're old now because they don't follow our customs. [And why, again, has the age of menstruation come down?] Because they aren't strong...As I said, before, in the time of our grandparents/ancestors, a girl like D. wouldn't be allowed to wear clothing; she would walk naked because she would still be a child. At her age her breasts would still be very small. But now, one-two—they have breasts, they get their period, they get married right away, children—and they're already old (author's fieldnotes, interview with 48 year old man).

Once they had born three or four children, women were entitled to express their desire to cease childbearing and even to opt out of sex—often through expressing their exhaustion in the terms outlined above. Many couples, though, continued to be sexually active even when one or both partners considered that they had had enough children. Some form of contraception was often used in these circumstances. The idea of premature ageing extended to men and so may have acted as an inducement to use a modern contraceptive method. As the informant quoted above stated, '[Family planning] is good because it helps you space your children. It helps men not to grow old too fast. It helps you keep your strength and work a big garden...'

Thus, it was clear that men and women discussed, decided upon and used family planning to limit overall fertility, even though they may not always succeeded in doing so. In Waviö it was not uncommon to hear stories of failure of family planning. Traditional methods, which usually involved the manipulation of plant substances and the singing of special songs (*singsing bilong maus*), were becoming regarded with increasing scepticism. Modern methods, however, often fared poorly in helping men and women limit fertility. Two male informants had exceeded their fertility desires by two children each, and one man had four more children than he wanted. In all cases, the men reported using some form of contraception other than traditional songs, including the rhythm method, birth control pills, and Depo-Provera injections. In two cases the men had subsequently had vasectomies, largely, both reported, at the insistence of their spouses and their spouse's clan.²¹

Birth spacing through abstinence was by far the most common technique cited for limiting fertility in contemporary Waviö. Prior to the War, however, there were several culturally prescribed periods of abstinence. As one informant stated, 'our ancestors didn't have too many children; there were much more important things to do.' Prohibitions on men having sexual contact with women included: the period prior to marriage, the periods of yam planting and yam harvesting, during menstruation, when preparing 'fight magic,' and for two to three years after the birth of a child. Of these, only the period of post-partum abstinence has remained widespread. In addition to beliefs that have to do with premature ageing, birth spacing has also been supported by the notion that sperm contaminates breast milk and will harm a nursing child.

Based on the analysis of 280 birth intervals drawn from the reproductive histories of a non-random sample of Waviö women aged 22–62 years, the mean birth interval for all intervals was calculated to be 2.78 years (SD (in years)=1.374).²² As Roscoe found in Yangoru, the duration of intervals generally rose with parity (Table 1).

Table 1. Birth Intervals in Waviö (1994) and Yangoru (1970–1987).

Interval	Length of Interval (years)			
	Waviö		Yangoru ^a	
1	2.3	N=73	2.8	N=32
2	2.4	N=57	3.0	N=52
3	2.7	N=46	3.1	N=50
4	3.5	N=35	3.2	N=43
5	3.0	N=24	3.4	N=28
6	3.7	N=14	3.5 ^b	N=30
7	2.7	N=13	-	
8	3.5	N=9	-	

^a Source: Roscoe 1989:125.

^b Intervals 6 & 7 combined.

Adoption, Divorce and Polygyny: The Cultural Handling of Infertility in Marriage

Infertility in marriage was usually considered to be due to a 'problem' on the woman's part—either a secret and stubborn refusal to conceive or some illness or physical defect. Childlessness for men and women, however, could be rectified through adoption or, for men, through divorce and remarriage, or polygyny. In 1994–1995 there were two men in Waviö who had been in childless marriages for several years—long enough for them to consider options. One took a second wife, while the other had been content with his first wife and two adopted children. Infertility was frequently very disempowering for women. They were often reviled by their affinal kin, and suspected of intentionally and irresponsibly taking measures to remain childless. When asked about contributing to the second instalment of bride price for a brother whose wife had had no children, one older man stated bluntly that he would not be very pleased; 'after all, you have to have some reason to part with that money' (author's fieldnotes, interview with 57 year old man). Women who were childless had little power, though, to nay-say their husbands in their chosen course of action to redress their state of childlessness.

Adoption was seen by all informants as an entirely legitimate strategy for acquiring children. Both girls and boys could be adopted, although there was the same preference for boys in adoption as in fertility objectives. The sex of an adopted child also depended upon the sex of an available or offered child. In the second case cited above, the man's brother offered his third son for adoption, while previously a mother's sister from another village had offered a daughter. Ideally one adopted the children of brothers or close agnatic kin. The payment that 'buys the head of the child' was made by the adoptive parent to the biological mother of the infant and then passed to the mother of the woman who gave her child in adoption. In cases in which a child was adopted in from another village, the identity of his/her parents was usually concealed—the fear being that upon learning of the existence of 'true' parents, the child would abandon the adoptive parents.

Divorce and remarriage was another strategy for handling infertility. In practice, the termination of relationships was very uncommon after a couple had children; this was also the case in Yangoru (Roscoe 1991:389). Divorce was so difficult once a child was born that in order to terminate a coercive sister-exchange marriage one Waviö man appeared to have created a fiction about his wife aborting their child out of her own unhappiness with the arranged marriage.²³ The fiction of the abortion gave this man a culturally legitimate reason for driving his wife away; he later married a woman of his own choice. In two cases of divorce between couples who have had children, the men were forced to relinquish all rights to and contact with their offspring; both men renounced all claims to the children and sent them away with their mothers. In these instances the women were from outside Waviö; there were no cases recorded of an intra-village marriage ending in divorce when children had been born.

Polygyny has been another technique for men to pursue their fertility objectives. It should be stressed, though, that polygyny in Waviö has not been limited to addressing infertility. Other reasons for acquiring more than one wife included extending a man's fertility when his first wife wished to stop having children, or increasing a man's household size and the labour available to him. Polygyny was becoming less common in Waviö, and women who were married to AOG church members in particular felt that they had some legitimacy in attempting to veto their husband's plans for obtaining a second wife.

CONCLUSIONS

In the mid 1990s, fertility among Coastal Boiken men in Waviö was shaped by life cycle stages, by customary social relationships of debt and exchange, and by changing cultural concepts of sexuality, masculinity and reproductive health. In general, reproduction first

became an issue in the lives of men with the marriage and fertility of their sisters. Not only were they immediately enriched by bride price payments, but through the double-value debt system that pertained to sisters and their spouses and children, they had the opportunity to begin actively participating in the web of exchange that expanded throughout their lives. For unmarried men, sexuality and fertility were distinctly different concerns. While they came to understand that both sex and reproduction were paradoxically necessary and deleterious, fertility was explicitly the domain of the married.

To young men, masculinity revolved around bodily idioms of strength, skin and blood, social expressions of independence from women, and unity with age-mates. Sex was an adventurous, dangerous and mystical zone of somatic practice requiring remedial measures of penile purging, or the powerful agency of substances such as *marila*. In their sexual encounters, unmarried men appeared increasingly to be using condoms to avoid pregnancy. However, they were often able to side-step the issue of paternity by relying upon local definitions of conception. As men entered their mid to late twenties their own desires and the expectations of extended family members moved them towards marriage, the only context in which fertility was sanctioned. In addition, as men moved through life, they assumed more prominent roles in the affairs of familial and social juniors, in village and clan affairs, and became more embedded in customary networks of debt and exchange.

Fertility was seen as important, but not essential, to one's sense of being a man. As an informant cited above indicated, if a man had no children people 'cannot say he is not a man.' If, however, one lacked a 'place' in customary exchange, the same individual went on to say, 'You are nothing. You are a rubbish man. You have no name. You cannot do anything.' One of the main points of this paper, then, has been to suggest that in some senses, 'masculinity' and 'manhood' were not coterminous among Boiken men in Waviö. 'Masculinity' was related to self-perceived states of fitness and strength and personal well-being, while 'manhood' pertained to one's social position and the efficacy of one's actions relative to others. Thus, in Waviö, accomplishing the task of replacing oneself was not so much an ideological extension of cultural constructions of self and sexuality, but of principles, obligations, values, and practices that were inherently and explicitly supra-individual.

As Strathern has noted elsewhere in Melanesia, although reproductive relations and the meaning of reproduction for men and women vary greatly across the region, the importance of fertility has often explicitly been expressed as 'not simply the production of children but social reproduction, the perpetuation of certain social identities' (1984:19). If, as she suggests, one purpose of male institutions in Melanesian contexts has been to 'convert fertility individually manifested into fertility for the clan' (*ibid.*:21), the question remains 'what is fertility for the clan about?' Carrier and Carrier, in their effort to disentangle and re-integrate questions of structure and process in Ponam exchange and kinship, suggest that exchange—perhaps a quintessentially processual phenomenon—may be a key to unlocking the dynamics of Melanesian practice at the level of social reproduction in bounded communities and clans (1991:228–230); that through kinship and marriage, exchange may represent what Lesthaeghe (1989:13) might term a 'group strategy' for exerting 'a complicated control over the process of social reproduction itself' (Carrier and Carrier 1991:21). The way in which gender relations are played out from society to society, then, may be partly explained by where men and women stand in relation to the means of production (and modes of redistribution) of the kinds of wealth used in the most important forms of customary exchange. Yet, through male and female agencies that seem somehow culturally irreducible, gender is also embedded within the fabric of more mundane exchange processes that, in turn, contribute their own meaning and value to productive and reproductive life (cf. Weiner 1976).

The material from Waviö lends some support to such a perspective, albeit with several caveats. If, as one informant stated (seeming to echo Strathern), having children 'isn't

so important for each and every family, it's important for the clan' (author's fieldnotes, interview with 57 year old man), one must bear in mind that the practical definitions of institutions such as 'clan' have been in flux. In addition, fertility for men in Waviö was all but explicitly articulated as an *individualized* form of inter-generational transaction or exchange; this was particularly evident in men's concerns about adoptive children abandoning them without 'paying back their hard work.' Thus there were transactions across genealogical time as well as genealogical space that were configured as individual strategies from the perspective of local actors. Furthermore, such an approach implicitly draws attention to the way inter-generational debt and exchange may bolster culturally defined intra-gender power dynamics, and so constitute a heterogeneous set of competing interests within a clan's male members at a given moment in time.

Thus, there are many potential components in an interpretation of the cultural need for reproduction in the context of men's life cycles—for ensuring that there is someone to 'take one's place' in Waviö. The practice of fertility in the context of individual lives is responsive to factors such as cultural notions of reproductive health, bad blood, and the effect of repeated childbirth on the rate of male and female 'ageing'. In the longer view, changes in the basic modes of generating wealth and income, increasing reliance on cash, and increasing Christianization have had ongoing and indeterminate consequences for ideas about the very definitions of 'family,' 'clan,' and 'marriage,' and similarly, for notions about the material environments in which these social and cultural units exist. A model of 'fertility as group strategy for control of social reproduction' through synchronic networks of exchange among clans and kin, and through diachronic transactions between successive generations, then, must possess not only resonance to contemporary cultural circumstance, but also be accountable to historical context. For fertility and the male life cycle among Waviö men will inevitably reflect effects of definitional and practical shifts in basic institutions, the changing material, political and symbolic value of land, and the apparently ever-increasing incursions of 'the money-life' into life cycle expectations and gender relations. Finally, if Waviö fertility is, indeed, inherently involved with longer term strategies for the control of social reproduction, the case raises an issue pertaining to fertility and social change that might fruitfully be explored in the context of a longer-term study of reproduction and life-cycles—both male and female—in the late twentieth century; namely, it seems possible that given contemporary circumstances of rapid social change and development, 'fertility' may be an increasingly generational concern, that what applies within the span of one's own reproductive horizons may not encompass the forces that will shape the demographic and reproductive vistas of one's daughters and sons.

NOTES

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¹ The Principal Investigators for this project were Carol Jenkins and Michael Alpers.

² The counterpart/research assistant, Madeline Lemeki, was present on two of the three field-trips and conducted interviews exclusively with women; the author worked primarily with men in the study village.

³ The Principal Investigator for the census, reproductive histories, and STD study was Carol Jenkins.

⁴ The true name of the village and the names of individuals referred to in quotations have been changed and/or abbreviated to protect their confidentiality ("waviö" is the Coastal Boiken word for "bird"). Other details (e.g. ages, numbers of children, other place names, etc.) are as recorded by and reported to the researcher.

⁵ Gerstner's writings are currently being translated from the German by C. Smith for a volume to be entitled *The Boiken People of East Sepik Province, Papua New Guinea: The Writings of Andreas Gerstner*. R.J. May and P.B. Roscoe (eds), and these translations are at present un-citable.

⁶ very high mortality from what the Australians termed 'Jap' dysentery occurred in several parts of the East Sepik region during the War (Allen 1983).

⁷ Words in the text that appear in *italics* are Melanesian Pidgin, or Tokpisin; words that appear in *italics with an underline* are Coastal Boiken as spoken in Waviö.

⁸ The process of village fusion in the late 1950s and 60s was related to Australian sponsored rice-cropping activities (Wenke 1952) and machinations of one particularly charismatic Boiken leader, Peter Simogun. Simogun had a significant effect on pre-independence population dynamics in the But Boiken area. Through a variety of promises, including a cargo ship, and wealth to be had through the rice cultivation scheme sanctioned by the colonial administration (Lulofs 1952; author's fieldnotes), he exploited the general movement towards the coast and convinced the residents of Waviö to abandon their village and relocate on the banks above the Hawain river. As Waviö men recount, the village was re-established on its old site when his promises turned out to be empty; many families re-occupied previously inhabited house-sites.

⁹ It may have been that the reported increase in local court cases involving infidelity and bride price conflicts did not reflect a change in these issues as a source of conflict, but in culturally sanctioned techniques for handling accusations of infidelity and clashes over bride price.

¹⁰ In 1994 K1 ≈ US\$0.85.

¹¹ The bad blood beliefs and purging described to the author are very similar to those reported by Tuzin among Ilahita Arapesh (1991:871)—even to the point of being compared to a male version of menstruation. As one informant told me:

Our elderly men believe that this menstrual blood is women's bad blood. They [women] remove this every month so men should not stay close to them when this bad blood is coming out or they will be contaminated. Women remove their bad blood through menstruation but men do not have a way so they have to do this by *sutim kok* at the river in order to gain new strength (author's fieldnotes).

¹² Roscoe (1988:110) makes almost the identical point for Yangoru Boiken.

¹³ “*Von einer richtigen ‘Werbung’ umeinander von seiten der jungen Leute, die sich heiraten werden, kann man kaum sprechen.*” Translation in text by Paul Roscoe.

¹⁴ Most men interviewed in Waviö report having had fewer than five lifetime sexual partners, although they may have had many more ‘girlfriends.’

¹⁵ These types of traditional currency (*tumbuna moni*) have a fixed equivalent in kina and usually form part of bride-price payments.

¹⁶ A man's birth order is significant in the wawo/rawa relationship; it is the eldest brother who has the power to curse and who has first claim on payments made by rawas.

¹⁷ For his part, the wawo must contribute substantially to the two initial bride price payments of all his male rawas. It is in his interest to do so, however, as all such contributions are added onto the tally of debts between rawa and wawo.

¹⁸ These figures are close approximations as reliable birth dates for the informants were obtainable in only 20 of 28 cases. In the 8 cases where exact birth dates were unavailable, year of birth was determined by self-reported age, a local events calendar, or enumerator's estimate.

¹⁹ In Nagum Boiken villages, women (in particular MoBrWi), may also play a significant role in the establishment of reproductive unions—often as intermediaries in marriage negotiations (J. Leedom, personal communication).

²⁰ Thanks to John Leedom for suggesting this insight.

²¹ Despite having been the most prevalent modern contraceptive technique in the study area, tubal ligations are increasingly unpopular. They are thought to cause permanent exhaustion and structural weakening of women's abdomens so that under heavy loads their stomachs may burst.

²² The mean birth intervals were calculated using the formula $j \cong t(1 - i\psi^2 \div (\omega - t))$ used in Wood, Johnson, and Campbell 1985, where j =the closed birth spaced interval calculated as the mean of all closed birth intervals in the sample, t =to be solved for open intervals, ψ =the coefficient of variation, and ω =the length of the age span for sampled women.

²³ The man's sister, who has relocated virilocally to the Sepik River, claims that there was no abortion and that her brother's estranged wife (i.e. her husband's sister) is raising their child alone.

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