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Precocious Pregnancy, Sexual Conflict and Early Childbearing in Remote Aboriginal Australia

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Abstract: Ideas from evolutionary theory and a consideration of social and cultural factors are used to argue that teenage pregnancy in three remote Aboriginal communities represents a strategic response to current environments characterized by pervasive and sustained risk and uncertainty. Ethnographic studies of the communities find that these environments both provoke and enable the reproductive strategies of adolescent boys and girls but raise the question of the effects of father absent socialization.

Keywords: *Aboriginal Australia, Life History Theory, Risk, Teenage Pregnancy, Parenting*

Introduction

Various Australian government and public health entities, along with Aboriginal adults, have expressed concern about the ages at which some adolescents in Aboriginal communities are bearing children. Focusing on three remote Aboriginal communities, we argue that given the current circumstances in which these adolescents find themselves, early childbearing may be a sensible strategy. Our thesis that early childbearing is a consequence of an environmental message that the future is a risky and uncertain one necessarily entails a description of Aboriginal behaviour that is not always flattering. We assure readers with little knowledge of remote Aboriginal Australia that the picture we paint tells only part of the story; positive features such as family solidarity, hard work and creativity have a notable presence in these communities as well. In this paper, however, we seek to understand more about the components of an environment that speaks of risk and uncertainty to its inhabitants and the precursors of what some in the larger polity see as premature parenthood. We begin by drawing upon ideas from evolutionary theory, largely those from life history theory. This body of theory seems particularly well suited to our purpose for sex and reproduction are often at the center of its concerns. In taking this approach we offer a perspective that does not compete with, but rather complements, treatments of Indigenous life that emphasize subordination and control of Aboriginal people by outsiders for we believe that much of the behaviour we describe can also be laid at the door of these experiences (e.g. Burbank 2011).

We are a species that reproduces sexually. We know that some humans do not procreate at all. Some choose not to, some are infertile. Many of us know same-sex couples who do have children and increasingly we recognize transgender people and acknowledge the psychological reality of their optative sex. But none of this changes the fact that to reproduce our species we must bring into contact two gametes, a small one and a larger one, that originate in small gamete and large gamete individuals whom we call men and women. Evolutionary theory has, beginning with this foundational sex difference, delineated sex specific reproductive strategies characteristic of the life course of specific animals, including human ones (e.g. Trivers 1972; Hrdy 1981; Daly et al 1982; Wilson and Daly 1985). Increasingly, it has become clear that for humans these become gender specific strategies as the male or female infant is conceived, developed, born and acculturated into a particular sociocultural setting. We are also coming to see that these strategies, which vary with sociocultural environments, account for many aspects of human behaviour, and that, in spite of sociocultural differences, they appear to be patterned. We elaborate on evolutionary theory throughout this paper but first introduce readers to our focus: the sexual behaviours of many, but not all, Aboriginal Australian adolescents played out in what are often highly challenging circumstances.

Adolescent Sexual Behaviour

The following texts represent a conversation Senior had in 2011 with two young Aboriginal women, both in their early twenties, residing in the remote community of Ngukurr:

I used to do that walking about stuff, but those boys, they are like the devil. They force you. Sometimes they bash their girls, if their girl won't let them. . . . Boys are wanting that thing all the time; it's like an addiction to them . . . [Then the girls] they realize, they go to the clinic and they found out that they have something. That's what happened to me, I fell pregnant when I was 18. . . . I felt like, I felt like I was not me anymore. I was worried thinking about all that backstabbing, all those people talking about me. That's what happens to all the young girls, nobody minds their own business... I thought about not having him, but then I thought he is gift from God. I didn't want anything to do with the father. The father was married already. He was talking and saying, 'That baby not mine'. (Woman1, age 24)

They go and cheat on their girl, if they don't like you, because you don't open your legs. . . . All the boys are like that. When their girlfriend is pregnant they won't have sex with her, they want someone else. They couldn't even wait two weeks to have sex . . . There are lots of girls falling pregnant, it's really bad for that. They go with older or married men. The man has got a good family so why do they do that? . . . If that girl's boyfriend knows she has been going with other boys, he'll turn around and bash her, hit her and start swearing at her. Boys are really jealous. They won't let you have a job, too jealous of the people you are working with. (Woman2, age 23)

Adolescents are a notoriously difficult group to study, Aboriginal adolescents may be particularly shy of non-Indigenous outsiders and sexuality is not a comfortable topic of conversation for most of the adolescents we know. Nevertheless, each of us has been able to gather ethnographic material on the sexual lives of some, primarily female, adolescents in three remote Aboriginal communities, the

aforementioned Ngukurr, Numbulwar in southeast Arnhem Land and Borroloola, a township located on the McArthur River, near the Northern Territory/Queensland border. In this paper we focus on teenage girls in these three communities, though we argue that the tensions, if not battles, between young men and women, arise largely from incompatible interests in sometimes competing reproductive concerns.

The choice of these three communities is both fortuitous and strategic. As a PhD student on the Our Lives study of adolescent sexual decision making [2], McMullan has spent the least amount of time in the field: at Borroloola for six months over a three year period between 2011 and 2013. However, she worked for an additional five years as a community nurse at Numbulwar. Burbank has worked at Numbulwar between 1977 and 2007, Senior at Ngukurr since 1998. Because we are addressing topics that are not easy to study in these populations and because we want to contextualize adolescents' sexual behaviour, we present a collage of our experience on the basis of our observations that much of what takes place in these communities, especially with regard to adolescents, is quite similar.

Each of the different communities arose for a different purpose, Ngukurr in 1908 as a mission refuge for the remnants of a number of different language groups whose populations had been displaced by 'European' intruders (Bauer 1964; Merlan 1978). Numbulwar was established in

1952 by the same missionary group, when, among other things, it proved difficult for Wubuy speakers to live peacefully with the people of Ngukurr (Cole 1982). Borroloola was established in 1885 as a way station for cattle drovers and settler Australians or European adventurers on their way to the goldfields at Pine Creek in the Kimberley (Barker 1999). In addition to these different beginnings, the three communities are dominated by different language groups, though today all include many who speak Aboriginal English, or a 'light' (O'Donnell 2007) version of an English-based Kriol. The originally Yanyula, Garawa and Mara speakers that predominate at Borroloola, and some of the people at Ngukurr have had a more extensive experience of pastoral life than the majority of people at Numbulwar, once having served as cooks, domestics and drovers on the cattle properties occupying the lands where they had lived (Baker 1999). Borroloola is a 'wet' community, that is, a community where alcohol is sold and consumed legally, whereas Ngukurr and Numbulwar have always been, at least officially, 'dry'.

In spite of these differences, there have long been links between the three populations, and links between their ancestors who once took their young initiates to visit in the others' 'country', shared ceremonies and traded items such as red ochre and hook boomerangs. According to Heath (1978:18) 'interlinguistic marriage. . . has always been common' in this area of Australia. Today a number of people from Numbulwar are married at Ngukurr and people have long circulated between the three locations, sometimes settling for extended periods of time in a community that is not regarded as theirs, though they will, inevitably, have kin residing there. Most pertinent here, the three co-authors recognize the similarity of behavior on the part of adolescents and the responses of the adult population. Thus by using these communities together we are able to present a fuller picture of adolescent sexual behaviour and its context than we would by focusing on a single community.

We are also able to draw on conversations held with groups of Aboriginal teenagers in the 'Our Lives' study. Here are some of the comments made by a group of young mothers in Broome, a town in the Kimberley region of Western Australia:

A: I had my child when I was thirteen.

B: I had two by the time I was fourteen, it didn't worry me because my parents, they were very strict, but I was not that worried. (Young mothers, Broome)

Q: So George comes home from the pub and wants to have sex. . .

A: He'll probably be humbugging [harassing] her for it.

B: And she says she's sick, he'll most probably go back to the pub, get drunk and see someone else.

C: Or probably force her. (Young mothers, Broome)

Such conversations, along with ethnographic evidence from communities elsewhere in Australia (e.g. Tjitayi and Lewis 2011; Tonkinson 2011), suggest that sexual activity, teenage pregnancy and the tension between young Aboriginal men and women portrayed by the young women of Ngukurr and Broome may be widespread experiences for Aboriginal youth. This is definitely the case in the three communities. At Numbulwar, ‘young boys’ and ‘young girls’, may become sexually active, in some cases, for girls, at least, with marriage in mind. Marriage, however, does not inevitably follow and at least as early as the 1980s the population has included a number of ‘single mothers’, a previously unknown status. Some of these adolescents may have actually seen their pregnancy as a means of becoming a mother without becoming a wife (Burbank 1988; Burbank and Chisholm 1998). At Borroloola, adolescent girls ‘walk around at night’ looking for boys, just as they do at Ngukurr. Some see sexual intercourse as an inevitable part of finding and keeping a partner, in particular as a means of preventing a partner from responding to the invitations of other young women. Though most of these girls are hoping to marry and have children, some appear to be less interested in forming partnerships and more in the alcohol, drugs and other goods that they may receive by having sex, often with married men or non-Indigenous men. The community regards 16 as a normative age for girls to marry and begin their families, though some of the girls appear to consider age 14 the time for a first pregnancy. These young girls acknowledge that their attempts to find a partner are risky: they may become pregnant, the relationship with the boy difficult and they could end up as an unwed mother. Some pregnant teens, however, choose not to live with the baby’s father, or cannot identify the father, especially if they have had intercourse while intoxicated. Instead they live at home, supported by welfare money.

More than one survey has revealed early sexual contact and pregnancy for Aboriginal youth across Australia. For example, a Western Australian, study conducted in urban, rural and remote locations between 2000 and 2001, reported that 74.5% of 17 year olds, 43.9% of 16 year olds and 33.4% of 15 year olds had engaged in sexual intercourse (Blair et al 2005:435). A 2009 survey in Queensland conducted by its Department of Health (2010), found that 82% of 15 to 19 year old Indigenous youth had engaged in sexual intercourse with 62% reporting an age of less than 16 years for this event. Of this group, 7% of females and 34% of males were reportedly under 14 years of age. In the Northern Territory, 60% of Aboriginal mothers gave birth for the first time under the age of 20, and 11.7% under the age of 16 (Thompson, Zhang and Dempsey 2012). Country wide, Aboriginal teenagers, especially the youngest teens, ‘are over-represented among teenagers giving birth’ and ‘are less likely to terminate their pregnancy’ (Skinner and Hickey 2003).

The Northern Territory Government- initiated ‘Little Children are Sacred’ Report (Wild and Anderson 2007) focused on child sexual abuse across the Northern Territory, in settings both urban and remote. However, it also presents examples of the kinds of behaviors we are interested in here. For example:

Girls in some communities had become empowered by refusing older men who wanted sex with them, and were themselves actively pursuing young men in the community. . . In other communities the Inquiry was told that the girls were sexually aggressive and actively ‘tempted’ and ‘teased’ the boys. In some communities, groups of girls as young as 12 years, would encourage one another to have multiple sex partners (2007:66).

Although these surveys indicate that early sexual behavior and early pregnancy are common experiences in Aboriginal populations, their figures also indicate that the behavior we describe is characteristic of only a segment of Aboriginal adolescents. Regrettably, we cannot here address the question of what makes the difference between teens who do or do not have early sexual contact. [3]

Life History Theory

Life history theory is a body of evolutionary thought that focuses on species-specific lifespan patterns of birth, development, reproduction and death (e.g. Stearns 1992). In accord with evolutionary theory more broadly, its standard of value is 'fitness', 'the representation of an individual's genes (relative to unrelated individuals) in future generations' (Belsky et al. 1991:648). One of its most basic assumptions is that the developmental schedule of events leading to reproduction in an organism's life course represents a process of past selection, one that in the human case is characterized by considerable plasticity. Our species manifests variation in the timing of developmental events, for example, genital maturation and menarche (Tanner 1990:60-65), and much of this variation is attributed to environmental factors (e.g. Worthman 1999). We find it a particularly useful way to approach our material, for life history theory, with its focus on the phenotype, requires inclusion of developmental processes, including mental processes. It also invites the inclusion of social and cultural factors in considerations of any particular human life course pattern (Chisholm et al 2005; Worthman 2003).

The timing of first pregnancy, which requires attention to male behaviour too, is a topic of substantial interest in life history theory. Two distinct reproductive strategies have been proposed for both sexes, what may be labelled 'the precocious' and 'the delayed'. The former has been associated with early and, for both males and females, promiscuous sexual activity, early pregnancy and risk taking; the latter with a relatively delayed sexual initiation, later age of first pregnancy and greater subsequent parental investment in offspring (e.g. Belsky et al 1991; Draper and Harpending 1982). Draper and Harpending (1982) first suggested that different reproductive strategies were contingent upon experience in a father absent or present family. Later theorists (e.g. Belsky et al 1991; Chisholm 1993, 1999) have argued that early caretaker-child attachment experiences are significant precursors of reproductive strategies. Strong and positive 'secure' attachments are thought to be associated with delayed, more invested reproduction, while insecure attachments are thought to convey to the young that their environment is a risky and uncertain one in which early and frequent reproduction may make sense. More recently, the idea of a continuum has been employed to look at the timing of first reproduction (Chisholm et al 2005). Still a 'precocious' strategy may be an apt description of the sexual behaviour of some individuals if not populations, as we argue is the case in these three remote Aboriginal communities. Ellis et al (2009) have proposed that both direct and indirect perceptions of environmental factors, which, in the human case, always include social and cultural ones, may predispose individuals to specific reproductive strategies. Providing a succinct summary of these two theoretical positions and an empirical challenge to their hypotheses, Copping, et al's (2013) work suggests that both early family based experience and more immediate experiences of the environment are relevant to an understanding of human sexual and reproductive behaviour. While this is a position we find persuasive, in this paper we focus primarily on the latter set of influences. [4]

Risky and Uncertain Environments

From the perspective of life history theory, none of what we have described of the sexual behaviour of Aboriginal adolescents is particularly surprising. It is now accepted by many in this field, that all other things being equal, early attempts at reproduction are to be expected from humans who have spent their childhoods in risky and uncertain environments as any reproduction, even though it may be far from optimal, is better than none (e.g. Brumbach et al 2009; Chisholm et al 2005, Chisholm and Burbank 2001; Copping et al 2013). Most remote Aboriginal communities can certainly be described in this way. Deaths, especially premature deaths, violence and substance abuse all, arguably, create environments where it is easy for a person to imagine that their future is far from safe and secure; these environmental features characterize each of the three communities.

Premature deaths and illnesses appear to be events that humans attend to as indicators of their own life prospects (Chisholm 1993, 1999). At Ngukurr, with a population of about 900 people, 'there are 4.5 times more deaths. . . than would be expected if the mortality profile observed of the total Australian population applied' (Taylor et al 2000:80). Ngukurr is also a place where 'sorcery. . . is the most common interpretation for almost every death that occurs. . . because the majority are premature' (O'Donnell 2007:278-9). Numbulwar and Borroloola are similarly plagued by unexpectedly early deaths with accompanying concerns about 'black magic' which may well strengthen the messages that early deaths bring about the risk and uncertainty of one's future (Burbank 2011:93-6, McMullan 2013:88).

Premature deaths, however, are only one source of the kinds of population pyramids to be found in Aboriginal Australia. A disproportionate number of births may also be a factor prompting 'precocious' reproduction if Nettle et al (2012) are on track when they argue that 'psychological mechanisms for calibrating life-history strategies' (372) respond to visible indicators in a given sociocultural environment such as the relative absence of older people. These indicators, in turn, may provide 'extremely accurate cues to local mortality rates' (382), indicative of a safe and secure or risky and uncertain environment, when it is one in which most people are usually in view. As much of life in these communities is lived out of doors, their inhabitants are likely to have observed this 'social diet' (377) from infancy onwards. [5] As in the case with Indigenous communities across the continent, Numbulwar, Ngukurr and Borroloola are characterized by population pyramids with a very broad base. According to the Australian Bureau of Statistics, in 2006, 50.8% of Numbulwar's population was age 24 or younger while only 9.7% was age 55 or older. At Ngukurr, Australian census data for 1998 reveals that 41.6% of the population was under the age of fifteen (Taylor et al 2000) while 26 is both the median and average age at Borroloola, 11 years younger than the Australian average (Australian Bureau of Statistics 2011).

Drinking practices create an aura of disruption and dysfunction. At Borroloola, children and teenagers may find adult drinking so dangerous and disturbing that they vacate the house until early morning (McMullen 2014:209). When surreptitious supplies of alcohol are available at Numbulwar and Ngukurr, violence may follow (e.g. Burbank 1994: 2011). When it is not available locally, many adults, especially men, leave town, sometimes for long periods of time. The trade off, then,

would seem to be between the kinds of violence that often accompany heavy alcohol use or the absence of older men. Both the absence of men on drinking excursions away from the communities (cf. Nettle et al 2013) and alcohol fuelled violence may signal the uncertain futures of the populations of these townships. A similar argument could be made about family members who are imprisoned, although these tend to be younger rather than older men. In 2005, the rate of imprisonment for Indigenous people was 12 times greater than that of non-Indigenous Australians (Australian Bureau of Statistics, 2005); remote communities regularly contribute to the prison population.

Young people at Numbulwar are less likely to have access to alcohol as most of it is consumed outside of town. Like the youth of Ngukurr, however, they are sometimes able to obtain petrol for sniffing, though cannabis, or 'ganja', is currently the drug of choice:

I've been talking to young boys who been with ganja, "What if you stop this drug, what if we stop this drug coming in?" They say, "We go back to petrol sniffing", some of the boys said to me. (Man in Burbank 2011:89)

Adolescent activities can, in themselves, create a frightening environment for other adolescents and younger children. At Borrooloola, people are kept awake by loud music and cars driving by their houses (McMullen 2014:78). At Ngukurr, petrol sniffing has been, until the recent past, an integral part of 'walking around at night' an activity where mostly teenage boys and girls 'create their own defined space' (Senior 2003:192). Petrol sniffing, as the quote above suggests, comes and goes at Numbulwar, but meeting boys and girls at night has long been a regular teenage practice (Burbank 1988). Such activity may be accompanied by bursts of music from portable CD players, shouts, shrieks, the cries accompanying violence and the crashes of vandalism. Petrol sniffers may be especially frightening. According to two teenage girls who were sniffing petrol at Numbulwar in the early 1980s, it "makes you mad; screaming and laughing" (Burbank 1988:130,ff 8). At Ngukurr, young people said petrol sniffers were frightening because of their unpredictable behaviours:

They are a bit scary and stinky from that petrol. They don't care, they think they are clean but when they come closer, their clothes stink. We don't like them to come close.' (Senior 2003:195)

Similarly, cannabis use, which at Ngukurr and Numbulwar continues into adult life, can lead to violence that is likely witnessed by the young as this activity may take place in the home:

When your mother and father smoke Ganga [sic] and then your mother and father went back to the house and you are there sitting and doing nothing. If you don't cook dinner for your mum, your mum going to smash your face and your dad is going to drag your hair and smash your face. (Child in Senior and Chenhall 2008a:77)

Some people looking for money and if no money they look for fight. They growl at them wife and tell them to go look for marijuana. It's hard. And they bash them wife and go to hospital and ring some cops. Like two weeks ago [man's name] tell [his wife] to go looking for marijuana, and to go and ask anybody. He told her, when she didn't get any, "Don't sleep here, go away, go sleep outside". It make them angry when they can't find ganja. . . You can't tell *allabut*, "Leave ganja". If you tell them they can't listen to you. . . If they can't get it, they angry, they go off. (Woman in Burbank 2011:91)

It is not, however, only the most dramatic, and traumatic, aspects of life that may create a sense of risk and uncertainty. Aboriginal people of all ages face an intercultural domain where the rewards of the non-Indigenous culture, largely unavailable to them, are visible, long due to the presence of 'whitefella' in their midst. Whitefella possessions and whitefella power over Aboriginal lives are apparent not only in daily life but are also experienced via media such as films, television and the Internet. These rewards are hard for Aboriginal people to come by not only because, in terms of the larger society, they are impoverished, but also because the means of achieving them are often incompatible with a hierarchy of value in which local relationships take precedence over material goods and activities such as going to work and to school (Burbank 2011:45). The majority of people in these communities do not have the education, language skills and work habits necessary for integration into the non-Indigenous world, nor do many desire to leave their families and familiar surroundings (Burbank 2006, 2011; McMullen 2014; Senior and Chenhall 2012:10). Leaving, however, is a necessity for most forms of employment for there are few jobs in the townships and, as yet, few signs of entrepreneurial activity. Most people lead a subsistence way of life: gathering, fishing and hunting, supplemented by welfare checks and the local grocery shop. The juxtaposition of the power and wealth that Aboriginal people see in the larger community and their experiences of subordination and poverty might in itself be a source of uncertainty, if not risk.

Culture: Complex Environments

There is more, however, than risky and uncertain environments to consider when trying to understand the sexual behaviour of adolescents in these remote communities. Sex specific reproductive strategies and how these interact with past and present cultural practices and expectations must also be taken into account.

At least in theory, a fertile human male can impregnate a female every day of his maturity. In contrast, a human female may be able to bear children for three decades, at most. This time is further shortened by the nine months of each pregnancy, which is then possibly followed by a

period of lactational amenorrhea, indicating infertility (Lancaster 2008). In the three communities female fertility may also be cut short by premature mortality. Each child, thus has a greater reproductive value, that is, an anticipated contribution to overall fitness, for a woman than for a man (Fisher 1930). Females, to a far greater extent than males, can also be certain that a child is actually theirs (Trivers 1972). These sexual asymmetries are thought to underlie the disparate childcare contributions that males and females generally make, though it should be kept in mind that human young need more than a single carer to survive and a variety of caring arrangements that may involve both males and females of varying ages is characteristic of the human condition (Hrdy 2010). Nevertheless, if we begin with these basic asymmetries we can start to see a major source of conflict between adolescent boys and girls in these communities.

Relationships are different for boys and girls. Boys just want to have sex. (Young Indigenous Man NT, rural)

Focusing on conflict between males and females arising from incompatibilities in their respective reproductive interests, Borgerhoff Mulder and Rauch (2009) have emphasized that whether or not, or the extent to which, such conflict is manifest depends on the environments in which the sexes mate, reproduce and parent or desert their mates and offspring. In the human context, sociocultural arrangements are paramount in determining whether or not such conflict occurs and what its outcomes may be. Numbulwar, Ngukurr and Borrooloola are all environments which appear to invite sexual conflict, at least in the early reproductive years. They are also characterized by sociocultural arrangements that encourage a male reproductive strategy that may frustrate some female desires. However, as will be seen, arrangements are in place that enable both male and female strategies in spite of their seeming incompatibility.

In past times, whatever strategies might have been implemented by adolescents were precluded by the social arrangement of adults who, largely, ensured that girls were placed with appropriate marital partners long before reproduction was possible. Adolescent girls whose descendants now live in these communities were married early, while marriage for boys was delayed. Older women at Borrooloola remember the stories their mothers told them about their grandmothers' or great grandmothers' marriages. These might begin before puberty, especially if the man that a girl had been bestowed upon already had a wife, though sexual relations would not begin until the girl was post pubertal (McMullen 2014:139). At Numbulwar, older women speak of the days when girls were bestowed as mother-in-laws, meaning that their daughters had a 'promise' husband before they were even born, an arrangement described by Shapiro (1981) for northeast Arnhem Land as well. Unlike the girls whose descendants are now living at Borrooloola, Wubuy speaking girls from the lands around Numbulwar would ideally join their husbands before menarche and might well begin some kind of sexual activity before the occurrence of this physiological event. Women living on the settlement in the 1980s told Burbank (1988) that this early age of marriage was a deliberate strategy to prevent a young girl from forming a sexual relationship outside of marriage with an inappropriate partner. W. L. Warner, who worked at Milingimbi just a few years after it was established, reported a similar tactic:

A young girl often starts living in her husband's household before menstruation. The *due* ' [husband] usually takes her for fear of having her stolen from her parents by some other *due* ' (Warner 1937:65: italics added).

Arrangements such as these -- versions of a common pattern in hunting and gathering communities more generally -- are more likely to implement the reproductive interests of the parents than those of a daughter . Parents, for example, in opposition to an adolescent girl's wishes, might choose an older man who would provide them with more resources than a young man could, benefiting all of their children, not simply their daughter (Apostolou 2007).

As Worthman (2003) has pointed out, life history models are abstractions which by their very nature cannot capture the details of specific historical circumstances. Nor does life history theory insist that a specific reproductive strategy be a conscious one. More likely it is expressed in the timing of neurophysiological changes; for example, a relatively early age of menarche has been associated with improved health and nutrition (e.g. Worthman 1999).

Women at Numbulwar named girls between the ages of nine and fourteen as exemplars of the age at which girls joined their husband in the past. None of these girls displayed the breast development associated with menarche according to local understanding and we should note here that this was likely reliable, based on centuries, if not millennium, of observation. Indeed sexual maturation was attributed to sexual activity, both in the past and in the present:

Last year Elaine got her period because she was going with some man. If a girl goes with men she gets her period. Some take a long time before they get it, but some get it quick if they go every day with a boy. (Woman in Burbank 1987:227)

Information about both pre and post contact ages of menarche is, unfortunately, not generally available for Indigenous Australia. Rose (1960:127), working on Groote Eylandt, located just 60 kilometres or so from the southeast Arnhem Land coast, estimated that girls began menstruating between the ages of thirteen and fourteen on the basis of his work there in the 1950s. Burbank (1988) arrived at a similar conclusion on the basis of a small retrospective sample collected at Numbulwar in 1981. Given the known environmental effects on age of menarche, however, we cannot assume that the girls who joined husbands in the past actually were between the ages of nine and fourteen. As noted above, energetic shifts such as those that can be expected from the changes to diets, workloads and the impact of disease that have taken place since settlement (Burbank 2011), may be associated with an earlier age at menarche. Worthman (1999:137) has noted the 'dramatic decline in age of menarche' accompanying rapid social change for the Buni. In this group of New Guinea horticulturalists, over a period of less than twenty years age at menarche dropped from 18 to 17.2 for girls who remained in rural settings and to 15.8 years for girls who had moved to urban ones. Early menarche and sexual activity have also been associated with psychosocial stress (Chisholm et al 2005:96-97).

In a study of the natural fertility of a hunting and gathering group of Ju'/hoansi in Botswana, Howell (2010:34), recorded an average age of menarche of 16.6 and an average age at first birth of 21.4. Persuasive arguments have been made by Cowlshaw (1981) and Saggars and Grey (1991) for using Howell's fertility profile to model that of precontact Aboriginal Australians (Burbank 2011:76,173). If this age of nearly 17 does indeed approximate that of the past, then Aboriginal adolescents joining their husbands in earlier times were likely to be older than is suggested by the ages of sexually active adolescents today. Given that the known age range of menarche is between 12.0 – 12.5 and 18.0 – 18.6 (Worthman 1999) -- a relatively short interval compared to the length of time women may bear children -- a shift in age at menarche from nearly 17 to an age between 13 and 14 and pregnancies occurring in the early teenage years suggests a notable change in local life history profiles. These changes also suggest that early sexual intercourse represents a strategy in the reproductive interests of adolescents, not their parents.

Teenage pregnancy may be complicated by the choices that some girls are making, however, especially when their choice is a young man who is not regarded as an appropriate marriage partner. Competition between men, especially between younger and older men, appears to have long been a problem for Aboriginal societies particularly in areas where the practice of gerontocratic polygyny gave some men many wives, and some none, at least when the latter were 'at their physical and sexual peak' (Rose 1968:207 in Shapiro 1979:85). More than one anthropologist has seen the resolution of this problem in the prolonged initiations of young males (e.g. Hiatt 1985; Howitt n.d.; Rose 1968) but Shapiro (1979:86-87) has pointed out that initiation alone does not appear to have banished all possibility of heterosexual activity for them. Instead they have affairs with, presumably young, married women. Although this activity has been the cause of many fights, and some deaths (e.g. Warner 1937; Hart and Pilling 1960; Hiatt 1965), various acts of ritualization that accompany the practice [6], suggest its ubiquity as does the past practice of sending young girls to live with their husbands at an early age. The belief that adultery may be punished with sorcery also suggests it was persistent enough to warrant a countering ideology:

Sometimes if a young boys takes a girl away, maybe an old man makes a fight just because that girl doesn't like him and maybe that man says, "Oh, she doesn't like me, I'm going to do something to her, get her dress or thongs [sandals] and put them somewhere [use sorcery on them] to take that girl's life away, maybe. (Woman in Burbank 1994:174)

At Ngukurr, it is expected that teenage boys will 'move freely between relationships' (Senior and Chenhall 2008b:275). This kind of behaviour, according to people at Numbulwar, is due to the loss of authority entailed by the incursion of 'whitefellas' into their lands. Without this authority, initiation and other ceremonial activities no longer have the efficacy of control they might have once had:

There are reasons why our young kids have gone on their own path. They broke away from our culture, they can do anything. . . . They can choose whatever woman they want to meet during the day or the night. And all these other things that young people does that I see them do, it's completely out of my reach. I can't hold them up and say to them, "You should be doing that". Us mob today, we don't have any power to do anything. Our power system was lost as soon as we lost the elders to control the community. (Man in Burbank 2011:40-41)

Adolescent boys are placed in an environment that invites early and frequent reproduction subject as they are to the risk and uncertainty of their communities, diminished control over their activities, diminished expectations of a safe and secure future, a population abounding with teenage girls and outside support (welfare and a collective of female kin) for any offspring they might sire. There is little to discourage their sexual behaviour and their offspring will likely survive. If only in this aspect of their lives, these communities provide a safe and secure environment for young men. It is, of course, within this environment created, in part, by their behaviour, that adolescent girls become pregnant before an age that may be physically and socially optimal, and before marriage. Marriage, however, is something that young girls, expect, if not always desire. Along with child bearing and child rearing, it is what, in their experience, women do (Burbank 1988; Senior and Chenhall 2012; McMullen 2014). Indeed, at both Ngukurr and at Numbulwar, pregnancy may be sought as a means of marrying, especially a man of one's choosing:

Most young women get pregnant before they get married. Sometimes young girls have been promised when they are little girls, but young girls don't want to marry old men, they want to go with teenagers like themselves. (Girl, age 19, in Senior and Chenhall 2008b:276)

Sometimes a family here don't like a girl in the first place. But when they get pregnant and they have that little baby and when they see that baby is true for their son, that baby has their son's face, they won't growl at that girl. They will feel ashamed [and let] them marry. (Girl, age 18, in Burbank 1988:109)

At both Borrooloola and Ngukurr, adolescent girls appear to think that keeping a boyfriend requires sexual activity (McMullan 2013:92; Senior and Chenhall 2008b:275). But we are mistaken to think of the adolescent girls in these communities simply as victims of their circumstances. The discussion above should have made it clear that they too have desires and goals which they are enacting as best they can. They are, however, enacting these in an environment, which, largely due to male actions, may frustrate female desires for marriage:

'Young boy, he's good enough to give a baby to a woman and then leaves her behind nursing that kid. He just goes, makes her pregnant and then when she delivers, is nursing it in her arms, he doesn't pay any attention to her now. He starts fooling around with another girl (Woman in Burbank and Chisholm 1998:63)

This frustration, however, does not mean that adolescent mothers are without support. Marriage and childbearing practices have clearly changed in these three communities. There is, however, a continuing tradition of family based care. Scelza (2009) details the additional assistance that Martu children receive from their grandmothers and Shapiro (2009:15) notes that among resident groups of close kin in northeast Arnhem Land ‘there is a certain amount of co-parenting’. Co-parenting is clearly the case at Numbulwar, Ngukurr and Borroloola. ‘Family’, the kindred, ‘an egocentrically defined field of close kin’ (Shapiro 1981:41), is a social arrangement that provides much of the care that children need, whether or not a mother is married and receives a parenting contribution from the child’s father. Grandparents, older siblings, aunts and uncles, all contribute to the wellbeing of a woman’s offspring. In past times, female children would even receive care from their promised husbands. The continuity of what in evolutionary theory is referred to as ‘cooperative breeding’ (e.g. Hrdy 2010) enables both the male and female reproductive strategies that appear to be in play in these communities today.

Fathers and Others

The cycle need to be broken, them young girls, them young mothers, need to bring up their little kids right way and teach them boys not to go after them young girls for sex. They [young men] growl if someone chase after their sister, but OK for them to chase someone else’s sister. (Woman in McMullen 2014:173)

There appears to be a resigned acceptance of early and out of wedlock childbearing in each of these communities. Many young people are not prevented from ‘walking around at night’ and marriages are not forced on unwilling partners, nor allowed when partners are seen as incorrect. We do, however, find some opposition to these premature pregnancies as the quote above suggests. At Numbulwar, for example, older women have begun taking their daughters and granddaughters to the clinic for a contraceptive implant that only needs changing every three years. At Borroloola, however, older kin appear not to have devised such a strategy and young men reportedly encourage their partners to remove their implants (McMullen 2014:134). At Ngukurr, some families ‘lock up’ their teenage daughters:

It’s a strict family, the girls are not allowed to make trouble with boys. The girls are surrounded by their brothers, they are always watching her. (Woman, age 20 in Senior and Chenhall 2012:7)

We might, however, consider that neither past forms of marriage and childbearing nor the conventions surrounding these in non-Indigenous Australia are feasible, or necessary, in these communities today (cf. Macdonald and Boulton 2011). Arguing that humans are cooperative breeders, that is, a species that requires ‘alloparental assistance in both the care and provisioning of the young’ Hrdy (2009:30) has observed that a great many of the world’s households are headed by women without partners and that these are arrangements that have likely characterized the human family throughout our species’ history; a great many fathers across human societies ‘die or defect or divert’ resources to other women (149). Surveying various societies, she also notes a range of contributions from human fathers, some quite indirect. The utility of a paternal contribution

depends on the circumstances in which a group lives. Where protection is critical or if hunting provides the main source of calories, the most important way a father can look after his child may take him kilometres away from home for extended periods of time. It may also be the case that where paternal care makes little difference to offspring quality, men's interests are best served by devoting their energies to mating rather than parenting efforts (Chisholm 1999).

The absence of fathers does not have to condemn children to an unhealthy and unsatisfying life. As Burton (1990) has argued of the teenage mothers of Gospel Hill, a family of women may be the best thing going for children in certain circumstances, particularly those of poverty and high unemployment. None of this is to say that mothers do not need help but that help can be provided in a variety of ways. What matters is that children survive and flourish, not who provides them with the means of doing so. What, however, might we ask, are Aboriginal children in these communities missing if they are nurtured and socialized largely by women? While a 'single baby' may have older 'brothers', 'cousins', uncles and grandfathers as well as a father, these men may be equally absent from a household, away on ceremonial business, on a drinking spree in Katherine, on dialysis in Darwin, or focused on the households of their own wives.

Reviewing a variety of research on fathers in hunting and gathering societies, Hewlett and Macfarlane (2010) conclude 'that hunter-gatherer societies tend to have higher father involvement than farmers or pastoralists' (420), in part because of the relative absence of warfare and the requirement for groups to move as a whole. Hamilton's (1981) study of child rearing in north-central Arnhem Land, paints a picture of fathers as warm but somewhat distant figures in a young child's life, a figure who ensures that a mother treats her child well and interacts with the child more as an adult than a caretaker in a 'warm and supportive' (46) fashion. If the fathers in our three communities are, or once were, as involved as those in north-central Arnhem Land, children with little paternal input may currently be deprived of important lessons about themselves and about human sociality more generally.

Fathers, as Lamb (2010) has observed, can be important to their children's wellbeing in multiple ways. Among other things, they may have effects on child development by affecting 'other people and social circumstances' (9). Control of aggressive behaviour provides one example. On the basis of an extensive cross cultural investigation, Broude (1990:120) has observed that 'the inhibition of [boys'] aggression is hard to accomplish without the exertions of a physically present male authority'. The absence of adult males may be contributing as much as other factors to the conflict that plagues many of the relationships of young Aboriginal people, conflict that undoubtedly affects their children, and, not incidentally, may well teach them that their environment is a risky and uncertain one. We also note, especially in light of Hamilton's (1981) description of fathers' contributions, that their absence may remove an important buffer against such perceptions. At least at Numbulwar, while grandmothers seem to have taken over, or to have always had a supervisory role with a new mother, improving the chances that a child's needs will be met (Burbank and Chisholm 1998), fathers, or their male surrogates, might have the additional role of protection. In communities like these, the presence of a man who can contribute materially and socially to vulnerable children might militate against the messages sent by conflict, early death and threats of sorcery. His absence might accentuate them.

Notes

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2. Our Lives is a multi sited project focusing on adolescents in urban, rural and remote communities in Australia (see ARC Linkage in Note 1).
3. Much of the literature on this topic is summarized in Chisholm (1999).
4. Simpson et al (2012) have found that unpredictability as measured by changes in a mother's employment, residence, and cohabitation patterns was significantly correlated with a relatively early age of first intercourse and number of sexual partners when unpredictability was characteristic of the environments of 0 to 5 year olds, but not with those of 6 to 16 year olds, suggesting a critical period at play in the development of human life history strategies. While we do not focus on experiences that are necessarily family based, although they may well be, this does not mean that that 0 to 5 year olds do not perceive the sources of trauma and disruption that we detail. In these communities, families are not disconnected from the encompassing sociality in the ways families usually are in non-Indigenous communities. Nor are small children excluded from most adult activities. While efforts are made to protect children from harm, they may, sometimes, even be a part of highly emotional, even threatening, events. For example: at one funeral at Numbulwar, a man's display of grief included brandishing a sword and a knife and an infant whom he held in his arms at the same time (Burbank 2011:37). The contrast in spatial and social connections between family and community we may presume for the Minnesota sample used by Simpson et al (2012) and those of these Aboriginal communities challenges the idea of a narrowly circumscribed critical period. Would, for example, the experience of school in Minnesota, as opposed to school experience in the three communities, be more likely to militate against the effects of harshness and unpredictably experienced by the 6 to 16 year olds in that study?
5. Air conditioning, televisions and other media may today be keeping more people inside more often than was the case a few years ago.
6. In northeastern Arnhem Land, for example, Shapiro (1979:86) says that a man wishing to have an affair will signal this by placing a cord, usually used in ceremonies, in a woman's food-carrying container.

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