

# ABORIGINAL FERTILITY AT THE TIME OF EUROPEAN CONTACT: THE DALY RIVER MISSION BAPTISMAL REGISTER

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When European colonists first came into contact with Aboriginal Australians, no anthropologists, demographers, sociologists or missionaries described the structure of Aboriginal families as they existed at the moment of contact. On the Aboriginal side, ceremony, tradition and myth were certainly centred on creative processes and kinship, but on a higher plane than the mundane matters that interest demographers. It is also unfortunately true that by the time European interest in Aboriginal society first became evident, the demographic structure of Aboriginal communities had already been affected by contact: when the first European settlers arrived in Brisbane in 1825, old Aboriginal men there carried the marks of a death-dealing smallpox epidemic that 'had come amongst them long before the time of the European people, killing off numbers of their comrades'.<sup>1</sup> Not until about this time was there even any move to have missionaries work exclusively among Aborigines, the first missionary with the specific task of ministering to Aboriginal people having come to the Sydney colony only in 1821, thirty-three years after European settlement.<sup>2</sup>

An attempt to discuss Aboriginal demography before contact with Europeans therefore raises a serious historiographical problem: direct sources, Aboriginal or European, are hard to come by. It also passes over the question of why anyone would want to determine Aboriginal fertility patterns at the time of first contact or before first contact, and perhaps this question ought to be answered before trying to come to grips with knotty historiographical problems.<sup>3</sup> Certainly, an attempt to describe Aboriginal fertility before European contact should not be seen as one of finding out something about 'traditional' Aboriginal society, as if this was ever something unchanging. It would be as wrong to have expected 'traditional' Aboriginal society to remain unchanged after 1788 as it would be to expect that European society now should bear a close resemblance to European colonial society in 1788.

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<sup>1</sup> Petrie 1904:65 (A recent book by N.G. Butlin, describing depopulation as a result of smallpox epidemics, appeared after this article was written.)

<sup>2</sup> Woolmington 1973:86.

<sup>3</sup> When demographers refer to 'fertility' they are referring to birthrates, not the capacity to bear children, which they call 'fecundity'. The two measures of fertility which are mentioned in this paper are: (1) the crude birth rate, which is the number of births in a year divided by the mean population in that year (and usually multiplied by 1000); (2) the total fertility rate, which is the number of children that a woman would bear in her life if she experienced each of the age specific birth rates applying in the population as a whole.

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The matter is nevertheless important. Smith proposes a set of parameters within which to discuss the history of Aboriginal population decline, resulting from massacre, epidemic and dispossession, and its later resurgence. Depopulation is as central an issue in Aboriginal contact history as the dispossession which prompted it. Smith believed that it was 'almost certain that Aboriginal populations in pre-European times maintained their numbers relatively constant as a result of a balance between a fairly high birth rate and a fairly high death rate', each of which he estimated to have been about forty per thousand population per annum.<sup>4</sup> He went on to discuss the subsequent fall in the birth rate to the levels first recorded, and the more recent increases during the middle part of the twentieth century. If Smith is right, Aboriginal fertility in recent times can be seen as a recovery to pre-contact levels.

The trouble is that almost all the evidence from anthropologists points to Aborigines having once had low fertility. On the basis of evidence drawn from many different parts of the country, Cowlshaw has recently disputed Smith's assumptions and concluded that fertility was traditionally low.<sup>5</sup> Earlier, Malinowski had cited a long string of statements concerning the structure of families, from which the following points emerge:<sup>6</sup> according to most observers, the norm for a family was approximately two living children under the age of puberty at any time; although infanticide was reported to have been practised in order to maintain this family size, and infanticide rates of thirty per cent were reported with much substantiation, high incidence was probably unusual;<sup>7</sup> breastfeeding was extended, to at least three years and sometimes up to six years. There is said to have been a population explosion following the establishment of a settled pattern of life at Yirrkala in north-east Arnhem Land in the 1940s.<sup>8</sup> Another source maintains that tradition-oriented Aborigines had norms of three or more children in some groups and a limit, per wife, of two in one desert tribe.<sup>9</sup> The large family size that younger Aboriginal women have more recently achieved is said to have caused dismay on the part of older women.<sup>10</sup> The fact is that the hunter-gatherer way of life is not compatible with large family size.

The common characteristic of these pieces of evidence, all of which appear to contradict Smith's assumption, is that they refer to family size rather than fertility. The size of families is determined by mortality rates as well as fertility rates, and by family formations and reformations. The purpose of this paper is to draw on data from

<sup>4</sup> Smith 1980:226.

<sup>5</sup> Cowlshaw 1981.

<sup>6</sup> Malinowski 1913:234 ff.

<sup>7</sup> See Cowlshaw 1978. Reported incidence must be regarded with suspicion, as direct evidence would not generally have been available. Infanticide is the kind of thing that another tribe does (because its members are considered to be barbarians). Some early reports may be of that nature. For the area which is the subject of this paper, MacKillop 1893 reports that cannibalism of infants is extensively practised, but then says that 'a blackfellow will always deny that his tribe practices cannibalism, but accuses every other tribe of the same'.

<sup>8</sup> Berndt 1970.

<sup>9</sup> Connon 1975.

<sup>10</sup> Connon 1975.

one locality at a particular point in time in order to demonstrate how small family size can in fact be reconciled with high fertility. It will be shown that a pattern of high fertility, apparently unmodified by fertility control measures, existed among Daly River tribes in the 1880s and 1890s – but that mortality was also high in infancy and early childhood. The result was that actual family size conformed closely to the ethnographic descriptions obtained from so many parts of the country.

The evidence is provided by the Daly River baptismal register, maintained over a period of thirteen years by the fathers of the Society of Jesus at the Daly River Mission Station between 1888 and 1901. This is of course one hundred years after the establishment of the first European settlement in Australia, but the Daly River, halfway down the coast between Darwin and the Cambridge Gulf, was at the frontier of European settlement. This is not to say that the Aboriginal people there were unaffected by European contact; indeed, the baptismal register is a product of it. But contact had been very recent and the Aborigines in the area were probably not under any concerted pressure at the time the register was written.

The mission had been founded about November 1886.<sup>11</sup> The earliest European penetration into the area had been by the McMinn party surveying the route for the overland telegraph in 1871, and gold diggers were in the area east of the Daly River by about 1874.<sup>12</sup> By the early 1880s the Daly River Station was operating in the district and a sugar plantation on the Daly had been started and abandoned.<sup>13</sup> There may have been intermittent violence in this period but no massacres of Aborigines were reported until 1884. In that year, a copper mine was established near the site of the former sugar plantation, and Aborigines killed four miners. In the words of Hill, there was prompt retaliation in the form of 'riding Queensland style' – massacre.<sup>14</sup> This undoubtedly affected more than the 'Wilwonga' people who had been held responsible. The copper mine and another nearby were worked intermittently until the early 1890s, but despite early hopes on the part of government officials they appear never to have become large-scale operations, and employed only a few dozen men in 1886.<sup>15</sup>

This contact history is important. There emphatically was contact on the Daly River before 1886 when the mission was established, and the history of other places leads us to suspect that this contact would have carried with it disease that particularly affected Aborigines, who generally had low resistance to the particular bacteria and viruses responsible. Intermittent violence around the edges of the Daly area undoubtedly persisted too. But the contact was very recent and hardly extensive by 1886. The vice-Superior of the Mission reported that lack of contact was the reason

<sup>11</sup> Holtze 1886. The writer was Government Gardener in Palmerston (Darwin).

<sup>12</sup> Hill 1951.

<sup>13</sup> Reports of the Government Resident 1883.

<sup>14</sup> Hill 1951.

<sup>15</sup> Report of the Government Resident, 30 June 1886. See also Flynn 1957, for a description of the reasons for establishing the mission and a summary of its history from the missionaries' point of view. Even though the missionaries wished to move beyond the frontier of settlement, by doing so they were of course pushing it further.

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he held out so much hope for the mission.<sup>16</sup> The mission Superior spelt out the reasons:

The land, our share of it at least, is very poor, but game abounds. The uninviting character of the soil may prevent the only thing we fear — the occupation of the country by our white brethren. However loyal to what is held to be the good of Australia, in the interests of the natives whom Australia dispossesses, and to whom out of her abundance she cannot afford even one small native territory, we do fear this.<sup>17</sup>

The Daly River baptismal register kept by the Society of Jesus may therefore be as close as exists to a register of vital events for an Aboriginal society at the time of first contact with Europeans.<sup>18</sup> Few missions to the Aborigines began as this Jesuit one did — as an attempt to introduce Christianity directly into the tribal context. A more common pattern was the one provided by the Bathurst Island mission of a slightly later era. There, children were removed from the tribal way of life and raised institutionally. As these children grew to adulthood and other adults came into association with the mission, it would more and more closely resemble a complete society. But its vital records, however extensive, could never be used to examine demographic characteristics at the time of first contact.

The Daly River baptismal register is, of course, only one source document for one particular locality. There is as little reason to suppose that demographic characteristics such as birth and death rates were the same in different parts of the country as there would be to suppose that they did not change over time, that populations did not rise and fall and migrations, expansions and contractions take place.

What the baptismal register can do is to throw some light on the apparent conflict between the descriptions provided by anthropologists on the one hand, and demographic likelihood on the other, by trying to reconcile the outcome of small family size with actual fertility behaviour.

For each baptism, the register recorded: a serial number; date of birth; date of baptism; name of father; name of mother; christian name of baptised; tribal name of baptised; place of birth; home country ('patria'); sponsor (godparent); minister; date of death, where applicable, for deaths occurring at any time in the remaining life of the register; and notes. There are 363 of these line entries between 13 November 1888 and 12 December 1901, after which there are a small number of other entries scattered in time (1904, 1905, 1911, 1912) which seem to have been made on visits to the area and which may be disregarded for current purposes. A note concerning a death in about February 1902 says that news of the death was received in March 1902. The missionaries were probably no longer present by that time: Flynn wrote that the mission was closed by decisions of 'authorities in the south' and the last of the missionaries left in 1902.<sup>19</sup>

<sup>16</sup> Society of Jesus 1888.

<sup>17</sup> Society of Jesus 1889.

<sup>18</sup> It is, however, not intended to suggest that it is unique. A number of other registers exist but may not refer to situations as close to the pre-contact situation.

<sup>19</sup> Flynn 1957:211.

Most of the baptisms, which are recorded in Latin in the register, are in the same meticulous spidery hand, and the short notes the writer made against some of the events contain much illuminating information in themselves.

In this way we learn that many baptisms occurred '*in periculo mortis*', in peril of death. Some were '*in putato periculo mortis violentae*', thought to be in peril of violent death. One entry referred to a man '*lanceis 5 percussus*', struck five times with spears. The note '*patre polygamo*', polygamous father, recurs frequently. Some were baptised, '*in gravi morbo*', in grave illness. Two were '*morsus a serpente Tyut*', bitten by a Tyut snake. Then, as for Aborigines nowadays, worry about snakes entering camps would have been a significant concern. Four entries referred to babies that were '*castae mixtae*' with Chinese fathers from the copper mines. A number of babies were said to be illegitimate, but what standard of legitimacy was being applied is not clear.

One note near the start of the register translates as follows: 'Three important matters are to be noted and changed so that what the baptismal register will contain will not be alien to the laws and practices of the church.

1. A boy should never be the sponsor of a girl of the same age, and generally speaking a sponsor should be of the same sex as the person to be baptised because of the requirement that their kinship should be spiritual, and because of other inconveniences which easily arise from the way the natives live together, as is obvious'.<sup>20</sup>

At first sight this says that a person of the same age and opposite sex should never be the sponsor (godparent) of the baptised, because of the likelihood of kinship other than spiritual, meaning carnal. But it is unlikely that the missionaries could have thought that sexual unions were likely to exist between any such opposite sex pairs. Throughout Aboriginal society, marriage was permissible only between strictly defined categories of people. On the Daly River, some of the tribes had kinship rules different from the more usual subsection and moiety kinship systems of northern Australia. In these Daly River tribes, marriage could not take place between classificatory parallel cousins, actual cross cousins, or closer relatives. To further regulate this, all members of the third preceding and third succeeding generations were classified as a person's brothers and sisters.<sup>21</sup> It is possible that the prohibition by the missionaries was in response to an attempt by the Aborigines to superimpose some actual kin relationship on the baptismal relationship between godparents and godchildren, and that they disapproved of the innovation.

Another interesting entry concerns the only multiple birth recorded, which happened to be of triplets. All were baptised on the day of their birth, with the note '*in putato periculo mortis violentae*', thought to be in danger of violent death. One in fact died four days later, the other two nine days after that. The note substantiates the practice of infanticide in cases of multiple births, reputedly with the purpose of

<sup>20</sup> He then refers to examples in the register where the requirement was not met. The other two 'important matters' are administrative matters only. I am grateful to Dr C. Mayrhofer of the Department of Classics, Australian National University, for his help in translating this and other parts of the register.

<sup>21</sup> Stanner 1933:391-392.

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leaving only one child. Causes of death were generally not recorded in the register, and were not on this occasion.

An early entry refers to an '*abortivus*'. This almost certainly means stillbirth, not abortion. But it is still interesting to note that in this case the Jesuits gave the still-born child a Christian name, while no tribal name is recorded. One can only speculate about what the Aborigines thought of the insistence of the missionaries on naming a child born dead, and administering a sacrament to it. There are strong prohibitions on even mentioning the names of Aboriginal people who have died, let alone giving them names.<sup>22</sup> No other still-born children were recorded in the register.

As a direct source of ethnographic information, the register can yield no more than these scattered pieces of information that have been mentioned. But a detailed internal comparison and analysis is much more fruitful.

Details from all the entries except for the small number against which no mothers were recorded were transferred onto index cards, one for each couple who had had children baptised, alphabetically arranged according to the mother's names. Each person baptised was recorded on his parents' card with location in the register, date of birth, name and date of death, where applicable. Names of persons baptised were also crossreferenced to principal entries so that the dates of birth and death of some mothers are recorded.

This arrangement yielded some additional sociological data. There were no cases of women taking more than one husband at once — none would be expected in an Aboriginal community — but polygyny appeared to be quite common, as would also be anticipated. There were six cases recorded of birth sequences to fathers which definitely established non-serial polygyny in the sense that first one wife bore a child, then another wife did, then the first did again.

A total of 211 children were baptised in the 1888-1901 period who had also been born during the period, and in each of 48 cases the mother had herself also been baptised, so that her age at time of giving birth was known. The ages of these mothers was as follows:

Less than 15	1
15-19	10
20-24	8
25-29	12
30-34	9
35-39	3
40-44	4
45-49	1

Although the ages of only a minority of mothers were recorded, their age distribution seems to indicate that childbirth took place right throughout the fecund years of a woman's life according to a pattern of natural fertility; that is, without fertility control.<sup>23</sup>

<sup>22</sup> But see Stanner 1934:11. Names given by Europeans were exempt from this prohibition on the Daly River in the 1930s.

<sup>23</sup> Fertility patterns are said by demographers to be 'natural' if they deviate little from the pattern in populations known to practise no fertility control — particularly the North American Hutterite religious sect. See Coale and Trussell 1974:187 ff.

Few births were recorded as having taken place in the first few years of the register, but this does not necessarily indicate any increase in the rate of birth during the period of the register. It is possible that the acceptance of the missionaries was less in the early days, and in any case their efforts at first were largely directed towards baptising adults. It is clear that the missionaries were in no rush to make conversions, since the first recorded baptism took place two years after the mission had been founded.

Of course, the register is not strictly a birth register. Many baptisms were of adults not babies, and in any case a baptism may have taken place sufficiently long after a birth for some infant deaths to have been missed. A number of children would not have been baptised at all, including any infanticide cases. The true number of births to Aborigines in contact with the mission is therefore unknown, as is their exact population.

Reports to the Territory's Government Resident were made by the mission annually from 1887 to 1898 and are included as appendices to the Resident's Reports.<sup>24</sup> These give population figures that refer only to the numbers of Aborigines actually living at the mission station (about 80 in 1897 for example), but the true population in contact with the mission and covered by the register was much larger.<sup>25</sup> In addition, the mission was centred at three different places during the period, admittedly not far from each other but possibly affecting the number of people who were in contact at any point in time.<sup>26</sup> This uncertainty about the size of the population in contact with the mission does not affect the kind of analysis to be undertaken here. This is because estimates of fertility are to be based on the length of intergenetic intervals; i.e. the time that elapses between successive births to individual mothers. It can be assumed with some confidence that if an Aboriginal mother had one child baptised then her subsequent children will also have been baptised, and that if she was baptised then any children she subsequently had will also have been baptised. Expressed in months, these intergenetic intervals had the following distribution:

Less than 12	1	36-38	5
12-14	3	39-41	6
15-17	8	42-44	7
18-20	7	45-47	6
21-23	9	48-50	2
24-26	6	51-53	5
27-29	9	54-56	3
30-32	7	57-59	2
33-35	2	60 and over	4

It can be easily calculated that the mean intergenetic birth interval, where at least two children were born to the mother and baptised during the register period, was quite short: thirty-four months in fact. It might be argued that this result reflects truncation problems in the data, arising from the short length of the period during which the register operated, but these can hardly have been important as only four intergenetic intervals in excess of sixty months were recorded in a total register period longer than

<sup>24</sup> Reports of the Government Resident 1883 and subsequent.

<sup>25</sup> About 500 according to the report for 1897.

<sup>26</sup> Flynn 1957:210.

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twice that. Some women had only one birth/baptism during the period of the register, but in the cases where the mother's age was also known, it was found that two thirds were either less than twenty or more than forty years of age, and were therefore entering or leaving their fertile years at the time. Some would also have died having given birth only once. It is safe to assume that an intergenetic interval longer than the maximum shown in the table was highly unusual among the Daly River peoples.

This indicates that quite a high level of fertility prevailed, but it was moderated to a considerable extent by infecundity: of the women whose ages were known and who were aged between 15 and 49 during the register period (a total of fifty-three), over one third (nineteen) had given birth to no children that had been baptised; and of those, only two had had children born outside the register period and baptised. As the women were themselves baptised, it is reasonable to suppose that any children they were having would be too, and that they were therefore not bearing children. Universality of marriage in this society allows no explanation other than infecundity, since although nine of the nineteen died during the period of the register, only two of these deaths occurred near its start.<sup>27</sup>

Because of the natural fertility pattern, it is possible to use these data to obtain an estimate of the total fertility rate (TFR), using the formula

$$TFR=E(L/I).$$

Here E denotes expected value, L denotes the length of the reproductive period, and I denotes the intergenetic interval. If L is assumed constant at 33 years,<sup>28</sup> and I is expressed in months, this becomes

$$TFR=33 \times 12 \times E(1/I).$$

The total fertility rate was calculated using this formula from the preceding data for the total female population with two or more children born or baptised during the register period, using also an estimate of the number childless (fifty-one, in accordance with the proportion 19/53 obtained for those women whose ages were known). The result was a total fertility rate of 9.0.

This result is high, despite the apparent prevalence of infecundity, and would be consistent with a crude birth rate somewhere in excess of 40 per thousand. Since there is no logical reason to suppose that higher birth rates were associated with higher baptismal rates, this result can be assumed to apply to the total population in the register area at the time. How then does this match up with the anthropological contention that fertility was relatively low? Here the register again provides the answer. Out of the 211 children born and baptised during the register period, 47 died before reaching the age of one year. Although the figures are certainly incomplete, since there must have been many babies who died before baptism could take place, the data nevertheless show a very high infant death rate. A further 15 children died before the age of two.

<sup>27</sup> Stanner 1933 confirms universal marriage among Daly River tribes.

<sup>28</sup> See Brass 1975:20. The mean length of the reproductive period between menarche and menopause varies between 30 and 36 years in human populations, with an overall mean value of 33 years.

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There may have been some epidemic among babies born during the years 1897 to 1899. Over half the children born in 1898 and baptised died within the first twelve months of life. The mission reports for these years do mention health problems, including a skin disease, but there is no reference to an epidemic affecting children in particular.<sup>29</sup>

The following table brings together the high numbers of deaths of children with the high numbers of births. The table records, for each woman of fertile age recorded in the register, how many children she bore and saw baptised and how many of these died, all during the period that the register was kept.

Daly River Mission Register of Baptisms.  
Women of fertile age, by number of births during register period  
and number of these children who died during the period of the register

Number of Births	Number of these who died						Total
	0	1	2	3	4	5	
0	51*						51
1	45	19					64
2	11	13	3				27
3	4	11	7	3			25
4	—	2	—	—	—		2
5	—	—	1	1	—	—	2
Total	111	45	11	4	—	—	171

\* Includes an estimate for the number of childless women who did not appear in the register.

The diagonal and sub-diagonals of this table show what might be called the effective fertility pattern: the number of children born during the register period who remain alive at its end in 1901. The main diagonal (51+19+3+3) records effective issue of zero, the first sub-diagonal (45+13+7) records effective issue of one, and so on. An anthropologist who visited the area in 1901 would have found the following distribution of children under the age of thirteen (under the simplifying but slightly incorrect assumption that none of the mothers had died):

76 women of fertile age with no children under 13;  
65 with one child under 13;  
23 with two children under 13;  
7 with three children under 13.

It can finally be seen that the high fertility assumption of Smith and the anthropologists' reports of low fertility are quite compatible in the case of the Daly River data. It is all a matter of what is meant. The Daly River people did have high fertility, high enough to give a crude birth rate of well over 40 per thousand — probably in the region of 56 per thousand.<sup>30</sup>

<sup>29</sup> Reports of the Government Resident, 1897 and 1898.

<sup>30</sup> This conclusion is based on fitting a model life table to the age distribution of all deaths (not given here) and the total fertility rate calculated above.

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But very high levels of mortality in children under the age of two meant that the number of surviving children under the age of puberty was always small. Although it would be dangerous to generalise indiscriminately from this particular case to all of Aboriginal Australia, the results given here do provide a reasonable path to pursue in explaining the apparent contradictions more generally.

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