

# GENDER, POWER AND SOCIAL CHANGE: YOUTH SUICIDE AMONG FIJI INDIANS AND WESTERN SAMOANS

**Heather Booth**

Demography Program, Research School of Social Sciences,  
Australian National University

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## **Abstract**

Pacific suicide is mainly youth suicide. It is widely believed to be predominantly male. Among the Indian population of Fiji and Western Samoans, female youth (ages 15-24) suicide exceeds male youth suicide. This analysis of the factors contributing to the sex balance in youth suicide in these two high suicide populations identifies gender and power as underlying causes operating in the context of social change. These factors operate through different mechanisms for females and males, but they are similar in the two populations. For females, the mechanisms are sexuality, marriage and childbearing, while for males the mechanism is socio-economic status. Among Western Samoans, gender and power also operate through method of suicide (paraquat ingestion) to contribute to high female suicide.

## **Introduction**

Suicide is not a new phenomenon in the Pacific. Cases have been documented in many communities since colonisation began. The topic began to receive greater attention in the late 1970s when it was noticed that increases in suicide rates were occurring in several populations. Other populations have also experienced increases since that time. A major characteristic of contemporary Pacific suicide is the young age at which most suicides occur. For some Pacific Islands, suicide is a leading cause of death in youth,

and rates have not only reached epidemic proportions but are among the highest in the world.

It is commonly assumed that Pacific youth suicide is predominantly male. While this is true of most populations (Booth, forthcoming(a)), there are two<sup>1</sup> important exceptions: the Indian population of Fiji and the population of Western Samoa. These are both high suicide populations, and both experience slightly higher female youth suicide rates than male. This paper examines youth suicide in these two populations. In particular, it addresses the question of why youth suicide rates among females exceed those among males. The paper is therefore concerned with relative, rather than absolute, levels of suicide and seeks to explain age patterns by sex.

## Definitions and Data

Suicide is defined as death due to intentional self-inflicted injury. Attempted suicide is defined as intentional self-inflicted injury not resulting in death. Strictly speaking, both involve intent to cause death (Farmer, 1982), but drawing the distinction between intended and unintended death is often impracticable. A suicidal act is defined in this paper as an act of intentional self-inflicted injury regardless of the outcome. Suicidal acts are thus the sum of suicides and attempted suicides.

It is universally the case that the reporting of suicide suffers from omissions, though this varies in extent and does not preclude analysis (Sainsbury, 1983). In the Pacific, under-reporting arises from incomplete official statistical systems as well as from omissions related to the event of suicide. In some cases, a suicide may be reported as an accident or natural death so as to conceal the true cause and avoid associated shame (Macpherson and Macpherson, 1987). In other cases, uncertainty of intent in inflicting self-injury precludes distinction between accidental death and suicide. Whatever the extent of omissions, there seems no reason to suspect significant sex or age selectivity.

The data on suicides for Fiji Indians are from police records. Two periods are covered: 1982-83 and 1989-90. For both periods, all drownings are omitted because of uncertainty of intent. The data for 1982-83 may be regarded as otherwise complete (Deoki, 1987). The data for 1989-90, which are unpublished, also omit some months and are thus incomplete. The data for Western Samoa cover similar periods: 1981 and 1988-91. Those for 1981 were obtained from a special study of health, coroners' and police records and are regarded as largely complete (Bowles, 1985). Those for 1988-91 cover only deaths in hospital (including dead on arrival) and are thus incomplete (Western Samoa, 1994)<sup>2</sup>. For both populations, the earlier more complete data are used to indicate levels, though it is recognised that these are minima. The more recent, incomplete data are used only for internal comparison.

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<sup>1</sup> Female suicide rates also exceed male in some areas of Papua New Guinea (Buchbinder, 1991; Pataki-Schweizer, 1985) and Solomon Islands (Gegeo and Watson-Gegeo, 1985).

<sup>2</sup> Unpublished data provide the breakdown by sex.

Data on attempted suicide are of lesser reliability than those on suicide *per se*. Omissions arise from the fact that they are hospital-based and from concealment of intent in inflicting self-injury. This is the case for both Fiji Indians and Western Samoans. Again, such incomplete data are used mainly for internal comparison. However, they are also used in the calculation of fatality rates, defined as the percentage of suicidal acts that are fatal. The lower coverage of attempted suicide than suicide normally results in the overestimation of fatality rates especially for less efficacious methods of suicide. For Western Samoans, however, the fact that data on suicides in 1988-91 are also hospital-based results in the under-estimation of fatality rates for more efficacious methods.

The levels of suicide reported in this paper are expressed as suicides per 100,000 population in the relevant age group. Youth rates refer to ages 15-24, following international definitions. It is recognised in discussion, however, that 'youth' is defined more widely in Pacific societies. The youth suicide gender ratio compares the female youth suicide rate with the male rate, that is the ratio equals the female rate divided by the male rate. It is therefore a function of the age-sex pattern of suicide only and not of absolute suicide levels. Relative suicide rates, used for internal comparison in Figures 1 and 2, similarly describe only the age-sex pattern of suicide since the level is removed; in each case, the sum of male and female rates is 100. For valid comparison of patterns over time or between populations, identical age groupings are necessary.

## Levels of Youth Suicide

In comparison with world norms<sup>3</sup>, the level of youth suicide reported in the early 1980s is exceedingly high for both Fiji Indians and Western Samoans (Booth, forthcoming(a)). For both females and males, rates in these Pacific populations far exceed experience elsewhere<sup>4</sup>. The female youth suicide rate for Western Samoans in 1981 was 70 per 100,000; for Fiji Indians in 1982-83 the rate was 60. These compare unfavourably with reported rates in other populations: 37 in China (rural), 17 in Mauritius and 12 or below elsewhere (World Health Organization, 1994). For males, youth rates of 64 among Western Samoans and 57 among Fiji Indians compare with a maximum elsewhere of 45 in Lithuania. In global terms, therefore, female rates in these two Pacific populations are more extreme than those for males.

Gender-specific suicidal behaviour normally results in lower suicide rates for females than for males. In most of the populations reported by WHO (World Health Organization, 1994), the youth suicide gender ratio ranges from 0.1 to 0.7. In only four populations does the gender ratio exceed unity: China (rural), China (urban), Mauritius and Tajikistan (which has low suicide rates). With youth suicide gender ratios in the 1980s/early 1990s of 1.04-1.09 for Western Samoans and 1.05-1.11 for Fiji Indians, these two populations are clearly unusual in this respect.

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<sup>3</sup> Comparison is made with current rates reported in WHO (1994). These provide a recognised benchmark.

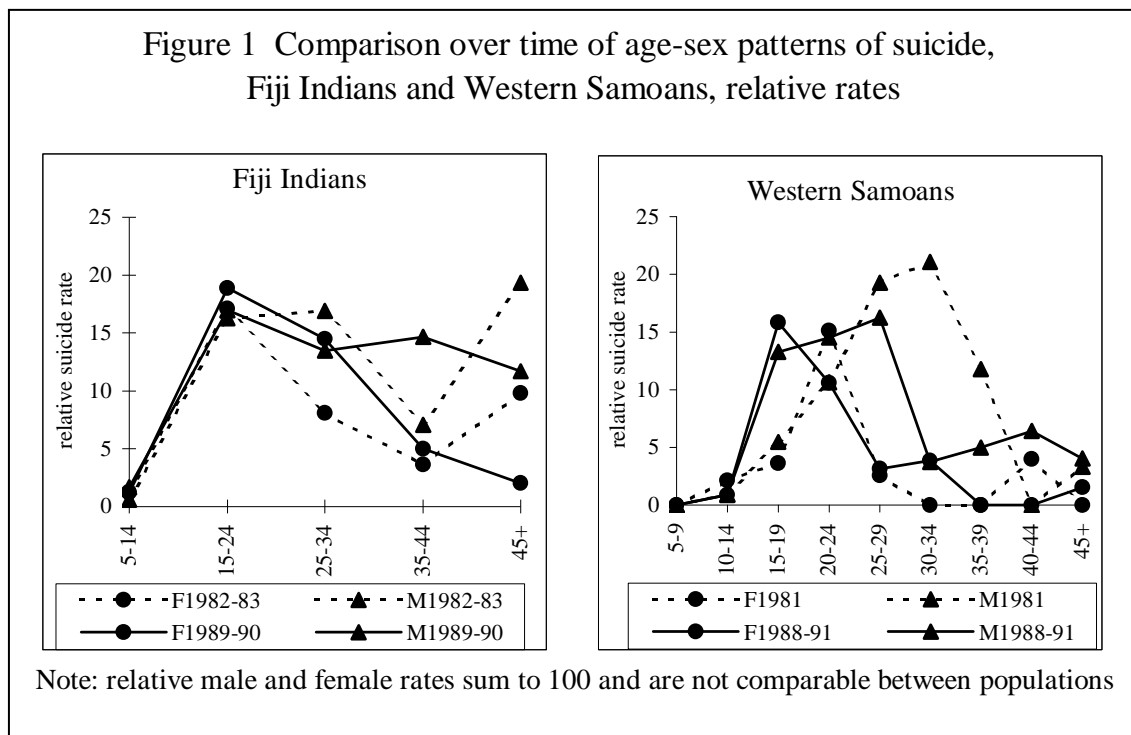
<sup>4</sup> Male youth rates in Micronesia and Guam also exceed non-Pacific experience.

The extremity of these female youth suicide rates has not been fully recognised in the populations in question. While it is true that female suicide among Fiji Indians has been acknowledged, in Western Samoa it has been largely ignored. As a social issue, female suicide has been overshadowed by male. The tendency to focus on male suicide derives in part from a consideration of absolute numbers for all ages, thus overlooking relevant comparisons (Booth, forthcoming(a)), and in part from the gender biases of the relevant cultures.

## Age-Sex Patterns of Suicide

While Samoan and Fiji Indian suicide gender ratios are extremely high in youth, they are relatively low at older ages. This is a function of the age-sex distributions of suicide. Figure 1 shows age-sex patterns (not levels) of suicide for Fiji Indians in 1982-83 and Western Samoans in 1981 (dotted lines). In both populations, the female age pattern peaks at a younger age than the male. For Western Samoans, this is concomitant with the female rate exceeding the male rate at age 20-24. For Fiji Indians, the female suicide rate is slightly higher than the male rate at age 15-24.

These age-sex patterns of suicide have changed somewhat during the 1980s. Figure 1 also shows age-sex patterns for Fiji Indians in 1989-90 and for Western Samoans in 1988-91 (solid lines). For Western Samoans, there has been a clear shift



towards younger suicide among both females and males, with the female rate slightly exceeding the male rate at 15-19. For Fiji Indians, the distributions have broadened. The sex differential in rates at 15-24 has widened slightly while that at 25-34 has been reversed: thus female rates exceed male rates at 15-34.

These sex differentials and changes over time are reflected in the median ages at suicide seen in Table 1. In the late 1980s, 50 per cent of female suicides among Western Samoans occurred at less than 20.5 years of age, and among Fiji Indians at less than 24.3 years of age. These compare with male median ages of 24.5 and 27.3 years respectively. As in other Pacific populations (Booth, forthcoming(a)), female suicide is clearly associated with adolescence and young adulthood to a greater extent than male.

## Method of Suicide

The relative frequency of use of different methods of suicide varies between the two populations. It is seen in Table 1 that hanging is the most common method among Fiji Indians. In contrast, the most common method employed in Western Samoa is ingestion of paraquat, a highly toxic herbicide<sup>5</sup>.

Table 1 Median age at suicide by sex, method of suicide (% distribution) and fatality rates (% of suicidal acts resulting in death) by sex, Fiji Indians and Western Samoans

	Fiji Indians		Western Samoans	
	1982-83	1989-90	1981	1988-91
	Median age (years)			
Female	22.7	24.3	21.7	20.5
Male	27.8	27.3	27.2	24.5
	Method of suicide (%)			
Hanging	60	73	4	?
Paraquat	32	24	82	73
Other	8	3	14	?
	Fatality rate (%)			
M&F	-	37-39 <sup>a</sup>	52	57
Female	-	-	52	56
Male	-	-	52	59

<sup>a</sup> 1986

The relative frequency of different methods of suicide is related to fatality rates or the probability that a suicidal act results in death. Fatality rates for hanging are normally high. At the other end of the spectrum, fatality rates are low for the ingestion of toxic substances such as medicinal drugs, kerosene or household bleach. Paraquat ingestion, however, carries a high fatality rate: among Fiji Indians in 1976-81, for example, 56 per cent of suicidal acts involving paraquat were fatal (Ram and Rao, 1983). Among Western Samoans in 1988-91, the paraquat fatality rate was 58 per cent (though, as noted above, this is likely to be an underestimate). This high paraquat fatality rate combines with a high proportion of Samoan suicidal acts involving paraquat to produce an

<sup>5</sup> Paraquat is imported and distributed as a concentrated solution. One mouthful of this concentrate can kill, even if immediately expectorated. A diluted solution is used in agriculture. Most survivors have ingested a small amount of diluted solution (Imo and Grigor, 1974; Taylor et al., 1985).

overall fatality rate of over 50 per cent (see Table 1). This is a much higher fatality rate than in other populations (Booth, forthcoming(a)). For Fiji Indians, the overall fatality rate in 1986 was almost 40 per cent (see Table 1), though this is likely to be an overestimate.

In most populations<sup>6</sup>, suicidal behaviour is typically gender-specific (Dublin, 1963; Farmer, 1982; Halbwachs, 1930/1978; Kessler and McRae, 1983; Pritchard, 1995:79). Females are held to make more suicidal acts, but less successfully, because they are more likely to be making a plea for help. Males, on the other hand, are generally more intent on ending their lives. Thus, females are more likely to use less efficacious methods such as toxic ingestion, while males prefer more violent and effective means. Fatality rates for females are thus relatively low, leading to low suicide gender ratios.

Among Western Samoans, no statistically significant sex differences in choice of method or fatality rates are found. In 1988-91, 75 per cent of female and 73 per cent of male suicidal acts involved paraquat ingestion, with fatality rates of 64 and 54 per cent respectively, and overall fatality rates were correspondingly similar (see Table 1). As a result of this equality, the main determining factor in the suicide gender ratio for Western Samoans is the gender balance in suicidal acts. This is seen in a comparison of suicidal acts and suicides *per se*. In 1988-91, 46 per cent of youth suicidal acts were female, with a youth gender ratio for suicidal acts of 1.05. This is virtually identical to the distribution of youth suicides *per se*, where females also comprised 46 per cent of the total, with a gender ratio of 1.04. The reported data suggest, therefore, that relative to females in many other populations, Samoan female youth are under-represented in suicidal acts<sup>7</sup> but over-represented in suicides *per se*.

Little is known about gender and the frequency and method of suicidal acts among Fiji Indians because data on suicide attempts by sex and method are not available. Data on method of suicide *per se* suggest only a small difference between the sexes: in 1989-90, 78 per cent of female suicides were by hanging compared with 70 per cent of male, with paraquat ingestion accounting for 20 per cent of female suicides and 27 per cent of male. However, the likelihood that females use less efficacious methods (that do not result in hospitalisation) to a greater extent than males would lead to gender ratios for suicidal acts being greater than those for suicides *per se*.

## Causal Factors

According to Durkheim (1897/1952), the collective inclination to suicide of any society depends on the basic conditions or social structure of that society and remains fairly constant as long as those conditions remain the same<sup>8</sup>. Within a society, rates vary between different groups according to their social environment as determined by a

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<sup>6</sup> Most studies of suicide are of Western populations.

<sup>7</sup> The gender ratio for suicidal acts will be underestimated if, as is likely, females use methods not resulting in hospitalisation to a greater extent than males.

<sup>8</sup> It is not the purpose of this paper to examine the three types of suicide (egoistic, altruistic and anomic) discussed in detail by Durkheim. For a discussion of altruistic and anomic suicide in Western Samoa, see Macpherson and Macpherson (1987). A fourth type, fatalistic suicide, mentioned by Durkheim in a footnote (p 276) might also be relevant, especially for females (see (Lukes, 1972:207).

complex of factors. Suicide rates change ‘abruptly and completely whenever there is an abrupt change in social environment’ (p.138). Halbwachs (1930) explains this in terms of the social hiatuses created by social and cultural disorganisation, hiatuses in which some people cannot maintain the will to survive. Such hiatuses are particularly common ‘when passing from an old and traditional style of life to a new and more complex type of civilisation’ (p.289).

While these theories have not proved universally conclusive, their relevance to the Pacific is supported by previous research. Studies of suicide in Western Samoa (Baker et al., 1986; Macpherson and Macpherson, 1987) and in Micronesia (Hezel, 1987, 1989; Rubinstein, 1983, 1987, 1992a, 1995) point to societal transition as the broad underlying causal theme of increased levels of youth suicide. Social change resulting from developmental influences involves a challenge to traditional structures, particularly on the part of youth. Hence, intergenerational conflict and pressures on the younger generation are prominent features of the transition (Rubinstein, 1992b). However, in that these studies address theory, they have concentrated on how social change translates into high suicide rates among male youth. Female suicide has been largely ignored.

How then can high female youth suicide in the Pacific societies of Western Samoa and Fiji Indians be explained? In particular, what role does gender play in determining youth suicide gender ratios? The theory expounded by Durkheim does not adequately explain sex differentials *per se*, nor indeed age differentials (Gibbs & Martin, 1964:9; Halbwachs, 1930/1978:46). Even if it did, the pattern of experience of these contemporary Pacific populations with respect to age and, in youth, sex is the opposite of that of the late 19th century European populations on which the theory is based. Durkheim does, however, consistently reason (though without elaboration) that since the causes of suicide are social, lower female rates arise from women’s lesser involvement in ‘collective existence’ or the social functions of society (e.g. pp299 & 341)<sup>9</sup>. Certainly, gender roles among Western Samoans and Fiji Indians would lead under this assertion to the expectation of lower female rates. It would appear, therefore, that in as far as they define societal involvement gender roles cannot explain the high gender ratios found.

Two important and inter-related factors that Durkheim (1897/1952) and Halbwachs (1930) identified as protective against suicide are marriage<sup>10</sup> and parenthood: marriage protects males more than females, but the effect of marriage is largely, if not entirely, due to parenthood. Halbwachs (ch.8) also demonstrated the protective effect of increasing parity within marriage, especially among females. More recent studies (e.g., Charlton et al., 1993; Trovato, 1991; Veevers, 1973) have verified the protective effect of marriage regardless of parity, but the absence of data on parity precludes examination of the separate effects (Veevers, 1973). Marriage and parenthood

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<sup>9</sup> Durkheim also reasoned that suicide rates increase with age because of increased involvement in society at older ages (p.102).

<sup>10</sup> The comparison here is between never-married and married persons. It is also the case that married persons have lower suicide rates than the widowed, divorced and separated.

might therefore be expected to be associated with suicide patterns and hence youth suicide gender ratios.

Among Western Samoans and Fiji Indians, suicide rates by marital status and parity are not available<sup>11</sup>, but possible effects can be discerned from overall patterns. The fact that females in both populations marry and attain parenthood at younger ages than males (Fiji, 1989; Western Samoa, 1991) might in part explain the differentials in median age at suicide and the earlier decline in female suicide rates after the initial peak. However, the higher proportions of females than males who are married and parous at age 15-24 would, *ceteris paribus*, be expected to lead to lower female suicide rates and hence low youth suicide gender ratios, rather than the high ratios found. Furthermore, the possibility of a greater protective effect of marriage and parenthood for males than for females, as suggested by Durkheim, would contribute to high gender ratios at ages beyond which most people are married, which is clearly not the case.

In view of these seeming contradictions, there is clearly a need to examine suicidal behaviour among Western Samoans and Fiji Indians in greater detail to determine the factors leading to high youth suicide gender ratios. This is done in the following sections. For Fiji Indians, the analysis is discussed in relation to suicides *per se* since data on suicide attempts are not available. For Western Samoans, however, available data permit the analysis to be framed more appropriately in terms of the factors separately underlying suicidal acts and fatality rates. In that it is gender ratios that are the primary focus of interest, the analysis is concerned with explaining age-sex patterns of suicide rather than absolute levels. This in fact involves explanation of the separate age patterns by sex, with implicit recognition that these factors will also influence relative levels by sex.

## **Fiji Indians**

Given the central importance of marriage in Indian cultures, with arranged marriage still very much the norm in Fiji Indian societies<sup>12</sup>, marriage might be expected to be a major protective factor in Fiji Indian female suicide. This does not appear to be the case, however. Indeed, various studies have suggested that the early years of marriage are positively associated with young adult female suicide because of disharmony with husband and/or relatives-in-law (Deoki, 1987; Haynes, 1984; Karim and Price, 1975; Ree, 1971). Even before marriage, issues relating to marriage and sexuality lead to suicide in female youth: these include familial disputes and tensions concerning proposed marriage, whether arranged or 'love', and problems relating to pre-marital relationships (Deoki, 1987; Haynes, 1984; Karim and Price, 1975). Female suicides due to pressures to succeed at school also highlight the tensions surrounding marriage, since education is the passport to a 'good' marriage and/or avoidance of arranged marriage. Within marriage, evidence of the protective effect of parenthood against female suicide

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<sup>11</sup> Deoki (1987) obtained marital status and parity for a subset of 1982-83 Fiji Indian suicides.

<sup>12</sup> There are several distinct communities within the Fiji Indian population. These include three main Hindu communities (Gujaratis, 'North Indians' and 'South Indians'), Muslims and a small Sikh community. Inter-marriage is not practiced except between North and South Indians.

was found in several early studies (Haynes, 1984; Ree, 1971). Again, however, this factor was more positive, in inducing suicide (among the nulliparous), than protective (among the parous), since childlessness was often a direct cause (Haynes, 1984; Ree, 1971). However, Deoki (1987) found no such association, possibly suggesting a diminishing effect.

In contrast, for males the causes of suicide are more varied. The most common causes reported are economic and family conflict (Haynes, 1984; Karim and Price, 1975). The absence of a formal transitional marker between adolescence and adulthood commonly leads to intergenerational conflict about status and treatment (Brenneis, 1990). Other causes include status concerns such as the shame of legal action or of financial or academic failure (Haynes, 1984; Karim and Price, 1975), indicative of the importance of reputation to social status (Brenneis, 1990). Haynes (1984) points to the emphasis on education and achievement, as well as to the frustrations of the family farm, including isolation and authoritarian paternal control. Furthermore, the element of choice in marriage and the tendency to apportion blame for childlessness (or sonlessness) on females (Wilson, 1978) suggest that marriage and parenthood would have, if anything, a protective effect, albeit at somewhat older ages due to later marriage. The differing age patterns of suicide between the sexes are clearly influenced by these different causal profiles. For females, the association of sexuality, marriage and childbearing with suicide results in a clear focus on youth. For males, the causes are less focussed on any particular age group. Thus, the male distribution is less peaked than the female, as Figure 1 shows, and the median age is somewhat older (see Table 1). The greater female focus on youth contributes to the high youth suicide gender ratio.

These different causes of suicide point to gender as an important determinant of the high youth suicide gender ratio. Further, the manner in which sexuality, marriage and childbearing influence female suicide would appear to point to the low status or powerlessness of women as an underlying cause. Indeed, low status was identified as such in several studies (Haynes, 1984; Karim and Price, 1975; Ree, 1971) and this accords with studies of Indian communities elsewhere (Freed and Freed, 1989; Mehta, 1990). The fact that gender ratios are highest at young ages would therefore appear to stem from the focus of women's powerlessness on sexuality, marriage and childbearing. This focus is culturally-determined: in all Indian societies, the centrality of female virginity in maintaining family honour and of women's roles in arranged marriage and the reproduction of (male) labour lead to restrictive and punitive measures to ensure women's compliance (Wilson, 1978:1-15). In the early years of marriage in particular, the status of women is especially low (Haynes, 1984).

However, while the low status of women may contribute to female suicide, it cannot in itself account for high suicide gender ratios. If low status were the sole underlying cause, then high suicide gender ratios would be the norm rather than the exception because of the universality of lower female than male status. Furthermore, if low status can be equated with lesser involvement in collective society, Durkheim's assertion would lead to the expectation of low gender ratios. The explanation for these seeming contradictions lies in the context of social change. As in any population

undergoing development, contemporary Fiji Indian society has undergone considerable transition in recent decades. Based on Durkheim, Halbwachs and studies of other Pacific populations, such transition would be expected to lead to increased levels of suicide. While the data to monitor absolute levels are not available, the gender dimensions of social change can be examined in relation to suicide patterns and gender ratios.<sup>13</sup>

For females, the main focus of social change has been a rapid transition to later marriage, accompanied by rising levels of education and employment. During the period 1956 to 1986, the female average age at marriage increased from 18.1 to 21.6 years (Fiji, 1989). Proportions married declined correspondingly: at 15-19 from 46 to 16 per cent and at 20-24 from 91 to 66 per cent. Major increases in female literacy and educational attainment took place in 15-24 year olds and female participation in the labour force at this age reached 20 per cent (Fiji, 1989; Fiji, 1994). Such a transition has clear implications for sexuality and childbearing. The changing pattern of suicide accords with this transition. Increasing age at marriage implies both later marital/familial disharmony and later childbearing and may in part account for the broadening of the peak in Figure 1 and increasing median age at suicide seen in Table 1. At the same time, later marriage and rising levels of education and employment increase exposure to the possibility of premarital relationships, maintaining relatively high suicide rates at 15-24. Furthermore, the apparent diminishing importance of nulliparity may be partly due to increased age at first birth, itself due to later marriage (Booth, 1994), since teenage subfecundity will have a reduced effect and women facing nulliparity will be somewhat more mature.

In contrast to this major transition among females, only a relatively minor transition occurred among males during the period in question. Gains in literacy and educational attainment were relatively modest since initial levels were high. Similarly, the labour force participation rate remained fairly constant at 80-90 per cent (Fiji, 1989). Furthermore, though the male average age at marriage increased from 21.7 to 24.3 years (Fiji, 1989), this did not affect those aged 15-19 since the proportion married in 1956 was only 7 per cent, declining to 3 per cent in 1986. The only transition for male youth was thus in the proportion married among those aged 20-24, which declined from 62 to 36 per cent, but its significance for youth suicide would be expected to be small because marriage does not feature as an important cause. Thus not only has recent social change been less pronounced for males than for females, but it has also been less focussed on youth. Both contribute to the high youth suicide gender ratio.

The greater significance of social change for suicide in females than in males is supported by examination of its timing in relation to youth suicide gender ratios. The most rapid changes took place in the 1950s and 1960s with continued but slower changes thereafter<sup>14</sup>. Re-examination of early data for Macuata Province (Haynes, 1984;

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<sup>13</sup> The coups of 1987 imposed an additional element of stress on the Fiji Indian population. The effect on suicide and on the youth suicide gender ratio is unknown.

<sup>14</sup> Female average age at marriage was 20.3 in 1966 and 21.1 in 1976; corresponding male values are 23.4 and 23.5. Female labour force participation (aged 15+) was 12 per cent in 1976 and 18 per cent in 1986 (Fiji, 1989).

Ree, 1971), where suicide rates were particularly high, shows that the youth suicide gender ratio was roughly 3.3 in 1962-66 but declined to 1.7 in 1979-82. At the national level, the ratio declined from 1.44 in 1971-72 (calculated from data in Karim and Price (1975)) to 1.05 in 1982-83, with a slight increase to 1.11 in 1989-90. Youth suicide gender ratios were thus higher during the period of most rapid social change for the young female population.

This transition towards later marriage and increased education and employment has not involved a commensurate change in attitudes towards females, especially with regard to sexuality, arranged marriage and reproduction. Daughters are still regarded as liabilities, the expense of their marriage reflecting family social status (Haynes, 1984). The greater importance attached by parents to arranged marriage and the control of female sexuality than to female education is seen in the withdrawal of girls from school. Females are under-represented in Forms VI and VII (ages 17-18) despite higher female school attendance rates up to Form V and lower class repeater rates at both primary and secondary levels (Fiji, 1988; Fiji, 1994). The persistence of arranged marriage underlines its continued importance in building patriarchal social networks, which now extend to Fiji Indian emigrant-destination countries such as Canada, USA and Australia. Further evidence of unchanging social attitudes is seen in the constancy over time of the average interval between marriage and first birth (Booth, 1994): this one-year interval is indicative of the importance attached to childbearing immediately after marriage.

These unchanging attitudes in the face of social change clearly hold the potential for considerable intergenerational conflict for female youth. Furthermore, the fact that social change is focussed on the same issues on which women's powerlessness is focussed, namely sexuality, marriage and childbearing, can only serve to heighten that conflict and to focus it more clearly on those issues. It is to be expected, therefore, that female suicide is associated with sexuality, marriage and childbearing. Thus, the association between suicide and sexuality, marriage and childbearing is not a result of low female status *per se*, even when focussed on these issues, but the result of the increase in female status (which is focussed on the same issues) without a commensurate change in relevant attitudes. It is young women's challenge to gender and power relations, through the expression of their sexuality and the questioning of arranged marriage and their reproductive role, that leads to intergenerational conflict and ultimately high youth suicide rates. The fact that over the same period only a minor transition occurred in males, with correspondingly less potential for conflict and without a focus on youth, leads to high youth suicide gender ratios.

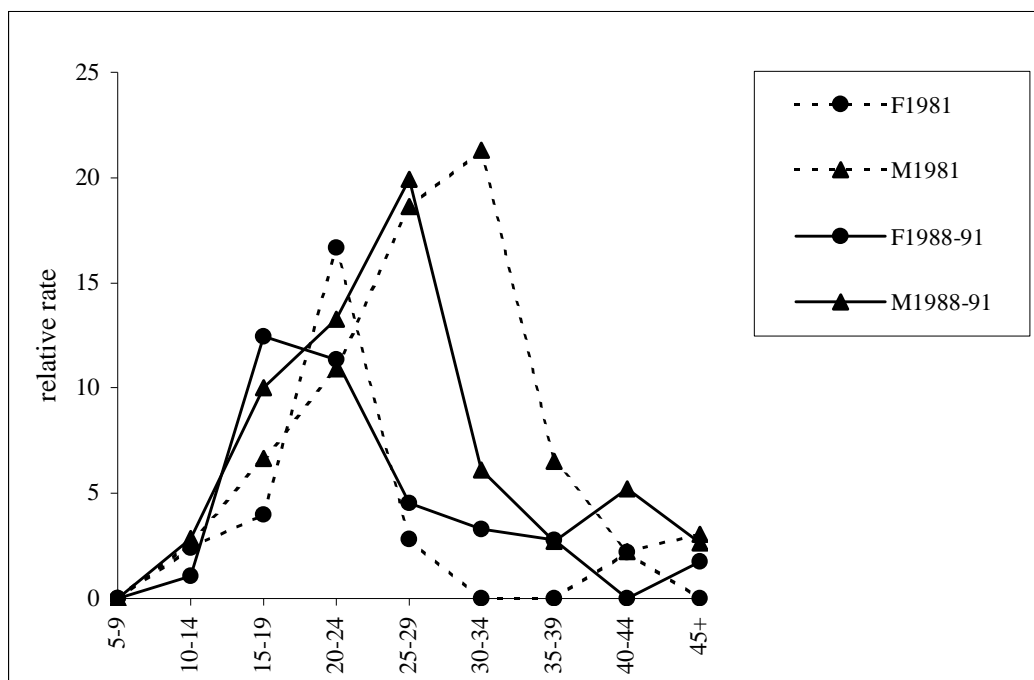
## **Western Samoans**

Little is known about the social dimensions of suicide in Western Samoa. Available data give no information on the possible correlates of suicide or of suicidal acts and studies are few. There is abundant evidence, however, that the population has undergone, and continues to undergo, considerable social change as part of the transition to a modern economy (Baker et al., 1986; Cote, 1997; Macpherson and Macpherson, 1987; Yamamoto, 1994). The following analysis seeks to relate suicide

patterns and the youth suicide gender ratio to socio-cultural factors in the context of social change. Since it has been shown above that the youth suicide gender ratio for Western Samoans is essentially determined by the gender balance in suicidal acts, the analysis is focussed first on the likely determinants of the patterns of suicidal acts and second on the determinants of paraquat ingestion. Patterns of suicidal acts are shown in Figure 2.

Examination of the status of women in Western Samoa does not immediately point to gender and power issues as significant determinants of suicide gender ratios. Neither available indicators (Western Samoa, 1993) nor cultural factors would indicate that the status of women is particularly low. This is not to deny that traditionally formal power lies almost exclusively with men (Meleisea, 1987:ch1) nor that women have lost power relative to men since European contact (Cote, 1997), but women do play an important role. Within the extended family or *'aiga*, females derive their status from their *'aiga* and are held in higher esteem as sisters than their brothers. After marriage, their status in their husband's *'aiga* derives from their outsider status and from their husband's status. The former is low by definition, but the latter increases with age. Thus, women hold power formally and in their own right as sisters, and informally

Figure 2 Comparison over time of age-sex patterns of suicidal acts, Western Samoans, relative rates



Note: relative male and female rates sum to 100

as wives through the influence they exert on their husbands (Schoeffel, 1979:ch 9-11).

Marriage is clearly a significant social landmark for females. The low status attached to being a wife and outsider might be considered a possible determinant of

patterns of suicidal acts. Indeed, the profound transformation in status that marriage represents (virilocal residence being the norm), and the dual status that married females hold might be considered ancillary determinants. If low status can be equated with lesser involvement in the functions of society, then Durkheim's assertion would lead *ceteris paribus* to rates that are low in young adulthood and increasing with age because of the status gained. Figure 2 shows that this is clearly not the case. Nor does the pattern of suicidal acts accord with the notion of low wifely status being somehow linked to high suicide, as in the case of Fiji Indians. Rather, it would appear that marriage, and subsequent childbearing, are protective from suicide: not only do rates decline as proportions married and parous increase (at ages 20-29) but the smaller relative decline in 1988-91 also accords with increasing age at marriage and first birth<sup>15</sup>. The fact of choice in marriage and the absence of imperative in relation to childbearing<sup>16</sup> would support such a protective effect. However, the high rates among those aged 15-19 in 1988-91, most of whom are unmarried, remain thus far unexplained.

For males, marriage would appear to be largely irrelevant as a factor in suicide levels. The rates in Figure 2 suggest neither a protective nor causative effect: this is true of the separate patterns shown and of comparison over time since male age at marriage is also increasing<sup>17</sup>. The absence of an effect is supported by the fact that marriage represents only a slight change to male status (Schoeffel, 1979:531).

Concern with recognition and status is central to Samoan society, producing tensions and possibly influencing suicide gender ratios. As Schoeffel (1979:122-3) states: 'In contemporary Samoa, people's behaviour seemed to me to be largely characterised by a more or less silent struggle for personal recognition. "Good deeds", innovations and precocious achievements are highly valued, but the pursuit of public approval and recognition via personal achievement is also clouded by a widespread fear of failure and of public mockery'. Such fear stems from the use of mockery, shame and aggression, both verbal and physical, as the main coercive elements of child discipline and socialisation (Mageo, 1988; Patterson, 1983; Schoeffel, 1979:125-127). Punishment and status are closely connected in Samoa (Mageo, 1988), and status strongly conditions child-parent relationships, rendering them 'formal and reserved' (Schoeffel, 1979:124). Enforced submissiveness in childhood leads to aggression and a strong desire to dominate in later life (Mageo, 1988). The denial of any right to express their concerns can produce extreme tensions in young people, with suicides triggered by seemingly trivial events (Schoeffel, 1979:158).

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<sup>15</sup> As far as data accuracy permits estimation, the average age at marriage for females was about 23 years in 1981 and about 24 years in 1991 (calculated from data in Western Samoa, 1981, 1991). Fertility rates at 15-19 and 20-24 decreased over roughly the same period (Western Samoa, 1983, 1990).

<sup>16</sup> Childbearing or parenthood is the expected greater effect. Samoans value children, but do not denigrate childless women. Indeed, childlessness is perceived as a male shortcoming (Mageo, 1988). Adoption is not uncommon and is considered the normal response to childlessness (Grattan, 1948:11; Ritchie and Ritchie, 1979:34).

<sup>17</sup> For males, these averages were 27 in 1981 and 28 in 1991 (calculated from data in Western Samoa, 1981, 1991).

Undoubtedly the most significant factor in the determination of status in Samoan society is age. In a gerontocracy such as Samoa, the status of youth is low. The role of adolescents and youth is to serve: service (*tautua*) is the path to recognition and power, especially for males, and deference to power must be observed (Macpherson and Macpherson, 1987; Schoeffel, 1979). Traditionally, males render service in the form of labour for subsistence activities, though educational attainment and cash income, often earned abroad, form the more modern rites of passage (Cote, 1997; Norton, 1984; Ritchie and Ritchie, 1979:93). Females also render service in this way, but their main role is to uphold the honour of the *'aiga* through their dignity, purity and grace (Freeman, 1983:ch.16; Patterson, 1983; Schoeffel, 1979:139). However, while this role is central to the status of sister and determines behavioural norms, it is mainly ceremonial and secondary in everyday affairs to the lowly status of youth.

These roles of service and deference, coupled with the exclusion of youth from decision-making, mean that youth (and therefore low) status can be equated with lesser involvement in the functions of society. Again, however, the suicide patterns seen in Figure 2 refute the notion that low status leads to low suicide rates, suggesting instead a possible link to the high rates found in youth. The existence of such a link is explained by the context of social change. In such a context, the significant status differential between youth and those in positions of power and the authoritarian and punitive exercise of that power (Baker et al., 1986:157; Booth, unpublished; Freeman, 1983:219; Gerber, 1975:ch.2; Macpherson and Macpherson, 1987; Mageo, 1988), hold the potential for considerable intergenerational conflict, as evident in the increasing numbers of discontented youth (Cote, 1997; Norton, 1984). Thus, suicide rates would be expected to be highest at the ages defining youth. This is in fact the case: the different patterns of suicide between the sexes can be broadly attributed to the differing definitions of youth.

For males, the status of youth is synonymous with that of being untitled (a member of the *'aumaga*) and thus having no control over land. The gaining of a title, or *matai* status, typically occurs in 'middle age' (Schoeffel, 1979:531) and represents a major change of status. Since all Samoans are eligible for a title through their genealogy but succession is not automatic (though usually bestowed on males) and since the ranks of titles vary, *matai* status is an honour to which every male aspires and can expect eventually to attain (Meleisea, 1987; Norton, 1984; Yamamoto, 1994). The Samoan male therefore spends his youth essentially striving to gain recognition; and thereby to gain permission to dominate others (Mageo, 1988). In the context of social change, this increasingly involves reconciling traditional and modern value systems. The tradition that untitled men follow the orders of their *matai* is challenged by education and by the modern market economy that rewards initiative and individuality (Cote, 1997; Norton, 1984). Further, the modern economy raises expectations, but offers little guarantee of success. Indeed, the complexities of the modern economy, not least the interrelatedness of national and foreign economies, especially for migrant labour, render individual success more dependent on the vicissitudes of those economies than on individual effort. It is the growing gap between individual expectations and actual opportunities

that Macpherson and Macpherson (1987) have highlighted as the main cause of male youth suicide.

Certainly, the emergence of a body of urban underemployed youth<sup>18</sup> is symptomatic of the problems that Samoan youth face in the modern economy. The conflict between modern and traditional value systems is seen in the fact that 36 per cent of male urban underemployed youth gave land-related responses on being asked what they needed to improve their economic life (Western Samoa, 1995). These responses referred to control over land-use for individual gain rather than the provision of unpaid labour in the traditional way. Thus, the control of land by the *matai* and the cycle of *tautua* are implicitly questioned. Indeed, for many youth the cycle of *tautua* has already been broken: it is no longer tolerable to render service since it is clear that service will never be rendered in return by succeeding generations of youth (O'Meara, 1990:162). In this respect, contemporary male youth are inevitably caught in the maelstrom of social change: they are both the agents and victims of that change.

On several levels, therefore, the Samoan male youth is powerless. As a member of the *aumaga*, he must traditionally<sup>19</sup> defer to power. At the same time, the erosion of this institution as the path to recognition has served only to diminish its members' power (Cote, 1997). In addition, the complexities of the modern economy afford youth less personal power than did the traditional. Further, the inevitability of the breakdown of the cycle of *tautua* reinforces their powerlessness. The disillusionment, alienation and intergenerational conflict that ensues (Cote, 1997; Macpherson and Macpherson, 1987; Norton, 1984) contributes to high levels of suicidal acts in youth. The rates in Figure 2 suggest that the frustrations involved in this process increase to age 30 or 35, after which a sharp decline occurs, broadly marking the end of the period of major striving and the beginning of the period when titles are gained. The pattern of male suicide can thus be attributed to the definition and status of male youth.

Youth status in females is less well-defined than in males. Females tend to be regarded as youth until after marriage and their first or second birth. Thus, youth status for females is confined to adolescence and young adulthood. To the extent that youth status is synonymous with the never-married state, its meaning is principally derived from the role of female sexuality in maintaining family honour (Schoeffel, 1979:167). This 'burden' of honour is especially onerous in a shame-based culture such as Samoa (Cote, 1997; Macpherson and Macpherson, 1987), and is made all the more oppressive by the fact that male sexuality is indulged as 'belonging to nature' (Schoeffel, 1979:532). The sexual exploitation of young women has its roots in the traditional practices of *moetotolo*<sup>20</sup> (Freeman, 1983:244-249; O'Meara, 1990:103-109; Schoeffel, 1979:178-190) and the ceremonial digital defloration of virgins prior to marriage (Freeman, 1983:230-1; Mageo, 1988) and in the male prestige involved (Freeman, 1983:236; O'Meara, 1990:107; Schoeffel, 1979:178). Data on reported offences against

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<sup>18</sup> Aged 15-34 in neither full-time study nor full-time employment. 94 per cent spend most of their time engaged in family work (Western Samoa, 1995).

<sup>19</sup> 86 per cent of the population were 'under *matai*' in 1991 (Western Samoa, 1991).

<sup>20</sup> Literally 'sleepcrawling'. The sleepcrawler would digitally rape a sleeping virgin thereby obliging her to elope with him or publicly suffer the shame of losing her virginity (Schoeffel, 1979:182).

morality suggest that sexual exploitation in Western Samoa is relatively common (Freeman, 1983:249&262; Western Samoa, 1996). That these data are deficient, in that they exclude cases where the perpetrator is accepted as husband to avoid shame (O'Meara, 1990:107), cases not made public (O'Meara, 1990:107) and cases dealt with by traditional means, merely underlines the frequency of offence. Thus, the burden of honour is considerable and would be expected to heighten the significance of sexual assault and abuse as determining factors in suicidal acts (Davidson et al., 1996; van Egmond et al., 1993), especially in the context of social change. Very little evidence on cause of suicide is available, but case studies suggest that female suicide is frequently associated with shame and in particular with offences against sexual morality (Macpherson and Macpherson, 1987:316)<sup>21</sup>.

An important consequence of the burden of honour is restriction. Young unmarried females are closely guarded and constantly chaperoned (Cote, 1997; Mageo, 1988; O'Meara, 1990:108; Schoeffel, 1979:139&167). Any transgression on their part is met with severe punishment, which is usually physical (Freeman, 1983:237; Gerber, 1975:97; O'Meara, 1990:108). Thus despite, or because of, her high ceremonial status as sister and upholder of family honour, the young Samoan female is powerless<sup>22</sup>. Such powerlessness, restriction and punishment would also be expected to be associated with suicide (Counts, 1984; Fergusson and Lynskey, 1997; Mageo, 1988). Both the burden of honour and the restrictions it entails would therefore point to suicide being associated with the never-married state. There are no available data to verify or refute such an association directly. However, the fact that a large part of the burden of honour, the maintenance of purity, disappears on marriage would explain, in part at least, why marriage (and subsequent childbearing) appear to protect from suicide.

In many ways, the powerlessness and restriction of young females do not end on marriage: 'young women, whether single or married are surrounded with restrictions and have the least opportunity to express anger, resentment or aggression' (Schoeffel, 1979:415). Indeed, the transformation in status that marriage represents contributes to the continuation of the lowly status of youth after marriage. It is not until the Samoan female has reached her thirties that freedom of movement and action is attained (Schoeffel, 1979:252). Thus, in as far as suicide is a result of restriction and powerlessness, relatively high rates continue into the early years of marriage. Suicide is therefore associated with youth status rather than the never-married state *per se*. This association is reinforced by the fact that youth status is loosely conterminous with childbearing in the early years of marriage, which in itself is expected to protect from suicide. As in the case of males, the age pattern of suicidal acts among females is determined by the definition and meaning of the status of youth.

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<sup>21</sup> Macpherson and Macpherson actually report a lack of sex bias for shame suicides. Given the larger number of male suicides overall, this would mean that shame is a relatively more common cause in females than in males.

<sup>22</sup> The erosion of the *auluma*, the traditional institution of unmarried females, has served to increase this powerlessness. This and other Western influences have resulted in a loss of status of females relative to males (Cote, 1997).

It is in the context of social change and demands for greater freedom that the burden of honour and the restrictions placed on young females form the basis of increased intergenerational conflict<sup>23</sup> and resultant suicide. Parental shame arising from expressions of female sexuality are not only central to this conflict, but are also inevitable in the context of changing norms (Mageo, 1988). In addition to the direct effects of conflict, the centrality of sexuality involves further risk of suicide. The young female's response to conflict is sometimes the rebellious violation of the boundaries of accepted sexual behaviour so as to bring shame to her *'aiga* (Gerber, 1975:237; Mageo, 1988; O'Meara, 1990:108), but also to herself. Further, any freedoms gained increase the exposure of young women to the risks of dishonour, in particular the irresponsible sexual behaviour of young males (Freeman, 1983:236; O'Meara, 1990:107; Schoeffel, 1979:178).

For both males and females, therefore, youth status can be associated with suicide. The sex difference in age patterns of suicidal acts is thus attributable to the different definitions of youth. This association is also seen in the changing age patterns of suicidal acts over time. The broadening of the female distribution towards older ages has already been associated with later age at marriage and first birth. For males, the marked reduction in the relative rate at age 30-34 between 1981 and 1988-91 may be partly influenced by changes in the availability of titles. Title-splitting and the creation of new titles for political gain<sup>24</sup> resulted in a rapid increase in titles during the 1960s, but about 2000 were deregistered in 1969 (Meleisea, 1987:200-205; Norton, 1984). The greater competition for the legally valid titles that remained would have led to titles being gained at older ages. Continued title-splitting during the 1980s would have eased the competition, with the age at which titles were gained being reduced. In addition, the shift to younger suicide among both females and males, seen in Figure 2 in the higher relative rates at age 15-19 in 1988-91, is consistent with the general tendency for modernising influences to affect younger and younger people, a tendency that Samoa has not escaped (Booth, unpublished). This shift to younger suicide is the only feature of Samoan suicide to have changed in recent years (Booth, forthcoming(b)). The more marked relative increase in suicide at age 15-19 among females may also be related to increased restrictions as a result of the continuing transition towards the nuclear family and modern housing styles (Cote, 1997; Mageo, 1988).

From the above discussion, it is clear that youth status is a function of gender and power. It would follow, therefore, that in the context of social change the age-sex pattern of suicidal acts and hence the youth gender ratio are also determined in part at least by gender and power. The importance of these underlying factors in determining gender ratios has in fact been demonstrated with respect to suicidal acts at all ages. Detailed examination (Booth, forthcoming(b)) of data for 1981-83, when a suicide prevention program designed to change power structures took place (Oliver, 1985), showed a greater reduction in suicidal acts among females than among males. Further,

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<sup>23</sup> Among female urban underemployed youth, 49 per cent cited improving their relationship with their parents as necessary for improving their social life (Western Samoa, 1995).

<sup>24</sup> Until universal suffrage was introduced in 1990, voting rights were restricted to *matai*.

gender and power were shown to interact. For females, the reduction was due mainly to improved communication, indicative of the significance of the gender division of society and the structural lack of opportunities, especially for young females, to have their voice heard (Schoeffel, 1979:ch.10). For males, communication was less important, the initial, male-biased focus of attention on the issue of suicide having the greater effect in reducing the frequency of suicidal acts.

As determinants of the youth gender ratio for suicidal acts, gender and power also contribute to the youth gender ratio for suicides *per se*. The total effect of these factors on suicide *per se*, however, also derives from their role in determining the fact of sex-equality in choice of method and fatality rates. This second part of the analysis is now addressed.

Given the general propensity for females to be making a cry for help and to choose toxic ingestion as method of suicide, the high proportion of Samoan female suicidal acts involving toxic ingestion is not unusual. Evidence from 1981-83 suggests that Samoan females are indeed more likely than males to be making a cry for help (Booth, forthcoming(b)). However, when the toxic substance is paraquat, fatality rates are high, translating many cries for help into tragic mistakes. Thus, paraquat ingestion can be implicated in high female suicide rates relative to male and hence high suicide gender ratios. The reason why males also choose paraquat ingestion in high proportions is unclear. Possible explanations include knowledge of the high toxicity of paraquat, its ready availability, and a 'suicide culture' of paraquat ingestion. Further, the use of poisons in suicide (and in punishment) is not without precedent (Freeman, 1983:222). It would appear that paraquat ingestion is used by males as an effective alternative to more violent methods such as hanging or overt bodily harm.

Clearly, the availability of paraquat is a major determinant of its use. Numerous studies have shown that choice of method is largely determined by the methods at hand (e.g., (Charlton et al., 1993; Clarke and Lester, 1989; Kreitman and Platt, 1984; Oliver and Hetzel, 1972). Paraquat was introduced into Samoa in 1972 (Bowles, 1985), and as such represents an agent of development and social change. Its introduction and the subsequent control over access are effectively a function of gender and power concerns. When in the early 1980s it was realised that paraquat was the leading method of suicide, representations were made by health authorities to ban its importation, but without success. At this national level, the predominantly male economic and agricultural concerns took precedence over the mainly female health and social concerns. Similarly at the community level, gender and power determine access since the distribution and storage of paraquat is largely the responsibility of *matai*. Thus, not only do gender and power determine access to paraquat, but the greater propensity of females to be making a cry for help results in that access being instrumental in determining high female suicide levels and hence high gender ratios.

In total, therefore, gender and power contribute to the determination of the high youth suicide gender ratio among Western Samoans in two distinct ways: first through the definition of youth status and hence the age-sex pattern of suicidal acts, and second through control over access to paraquat and the determination of fatality rates. Both are

important: the high youth suicide gender ratio would not be achieved if the effect of gender and power through either were diminished. In other words, without the existing pattern of suicidal acts, equality of fatality rates would not result in the high youth suicide gender ratio; nor would the existing pattern produce the high ratio if female fatality rates were lower than male, as would in all likelihood be the case if paraquat were not accessible. The fact that the youth gender ratio for suicidal acts is low compared with other populations<sup>25</sup> underlines the critical role of accessibility of paraquat in determining the high youth suicide gender ratio.

## **Gender, Power and Social Change**

The above analysis has sought to explain high youth suicide gender ratios through an understanding of the factors underlying the age-sex patterns of suicide. For both Fiji Indians and Western Samoans, the high youth suicide gender ratio is a function of a concentration of female suicides in youth (ages 15-24) compared with a later and/or less peaked distribution among males, despite the overall level of female suicide being lower than that of male. It has been argued that these sex differences in the age patterns of suicide are to a large extent determined by the closely inter-related factors, gender and power.

Gender and power lead to high suicide and high suicide gender ratios, however, only in the context of social change. In traditional societies, gender and power structures are closely integrated into cultural norms and practices and are readily maintained. It is the challenge to these structures, particularly on the part of youth, the section of society most influenced by social change, that results in intergenerational conflict and increased suicide rates. Thus, gender and power alone are not sufficient as underlying causes of suicide. This is in fact demonstrated by the low pre-1970 suicide rates in Western Samoa when essentially the same gender and power relations existed as in the 1980s. Furthermore, the requirement of social change for high levels of suicide is supported by the persistence of high suicide rates among Fiji Indians during their short and difficult history since indenture began in 1879 (Haynes, 1987). It is the context of social change that explains the seeming contradiction between Pacific experience and Durkheim's assertion that lower female suicide is due to women's lesser involvement in the social functions of society. The recent experience of Samoan and Fiji Indian females is one of considerable social change in comparison with that of females in late 19th century Europe, though the Pacific female's involvement in the functions of society is at least as slight as was the European.<sup>26</sup>

From the above analysis, it is evident that gender and power operate through markedly different mechanisms for the two sexes. Between populations, however, their similarity is striking. For females, gender and power operate through the mechanism of female sexuality, marriage and childbearing. This is seen most clearly in the case of Fiji

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<sup>25</sup> Any underestimation (see footnote 7) would be counterbalanced by the corresponding overestimation of the female fatality rate. Such errors in reporting are separate to the effect of reducing access to paraquat.

<sup>26</sup> A parallel argument holds true for age.

Indians, but it is also true of Western Samoans since it is essentially sexuality, marriage and childbearing that define female youth status. The similarity with respect to sexuality is clear: in both cultures, family honour is invested in the purity and virginity of their daughters, with institutionalised control of sexuality through restriction and punishment. Similarities with respect to marriage and subsequent childbearing are also in evidence. In both cultures, the early years of marriage define a period when females are subject to further control. In the case of Fiji Indians, the young wife is constrained to serve her in-laws and prove her fertility, to the extent of a positive effect on suicide. The young Samoan wife is constrained due to her lowly outsider status and only begins to gain status and greater freedoms after one or two children have been born. In both cultures, females lose the status invested in their virginity on marriage, leaving only the lowly status of the female gender (Fiji Indians) or of youth (Western Samoans<sup>27</sup>). In both cultures, women gain status through childbearing, either directly (Fiji Indians) or as a marker of age (Western Samoans).

For males, gender and power operate through the mechanism of socio-economic status or achievement.<sup>28</sup> The expectations of society are that young males achieve: only through achievement is status gained. This is clearly seen in Western Samoa where status is highly institutionalised in the *matai* system. It is also seen among Fiji Indians, where economic and status concerns feature explicitly in stated reasons for suicide and implicitly in much of family conflict. While less focussed on any specific age than the mechanism pertaining to females, and remaining of some concern through much of adult life, this mechanism operates mainly at young adult ages, that is at the age of major striving to achieve.

It remains, of course, the case that this discussion of these male and female mechanisms concerns suicide among Fiji Indians and suicidal acts among Western Samoans. Comparison between the two populations would ideally focus on suicidal acts in both, but this is precluded by the absence of such data for Fiji Indians. However, the above comparison of the mechanisms between populations is valid on two grounds. First, identification of the mechanisms determining suicide among Fiji Indians is based on stated reasons for suicide and not on consistencies between suicide patterns and possible related factors. Second, the age patterns of suicide and suicidal acts within sex differ only to the extent that fatality rates vary by age, which is unlikely to be significant.

The fact that the mechanisms differ markedly between the sexes underlines the importance of gender in determining suicide patterns. In focussing on this difference, three important gender distinctions are made. The first is in the degree of autonomy traditionally involved. The male mechanism is active: socio-economic status is achieved, active participation is required and a degree of autonomy is enjoyed. In contrast, the female mechanism is passive: sexuality, marriage (especially arranged marriage) and childbearing eventualise, passive participation is the norm and the degree

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<sup>27</sup> In everyday affairs, assuming virilocal residence. High sister status remains operative in her own *'aiga*.

<sup>28</sup> Females seeking to achieve socio-economic status in the modern economy are subject to this mechanism in addition to sexuality, marriage and childbearing.

of autonomy is slight. The second distinction concerns conformity to the roles prescribed by gender and power. The female challenge is a challenge to the norm of passivity, a refusal to conform to prescribed female roles in sexuality, marriage and childbearing. The male challenge, however, involves no such refusal to conform to prescribed roles since status continues to be actively sought. The third distinction is in the extent of the challenge to power. For males, the challenge is only to power, but for females it is to both gender and power. For females, the challenge involves a struggle not only for new intergenerational power relations, as for males, but also for new gender relations.

These gender distinctions serve to clarify and distinguish between the processes through which the male and female mechanisms lead to suicide. For females, social change renders conformity to traditional gender roles and their lack of autonomy increasingly unacceptable. The resulting challenge to both gender and power is considerable. The authoritarian and punitive response on the part of patriarchal power serves to heighten the perception of powerlessness on the part of female youth. In contrast, social change does not immediately lead male youth to challenge traditional social structures. This is seen in their relative autonomy, the absence of a challenge to gender and their conformity to prescribed roles. Nevertheless, their perception of powerlessness is heightened. In the context of social change, the achievement of socio-economic status is dependent less on individual effort and more on the economic environment in which that effort is made. Thus, autonomy is diminished and powerlessness increased. More significantly, the shortfall between individual expectation and achievement heightens the perception of powerlessness among male youth.<sup>29</sup>

The perception of powerlessness is a necessary part of the process of suicide. Just as gender and power do not lead to suicide in the absence of social change, it is the perception of powerlessness rather than powerlessness *per se* that leads to suicide. This is seen in the female mechanisms where the perception of powerlessness is increased, though the challenge to gender and power in fact stems from increased female status as a result of social change. This is not to deny that powerlessness is real, but rather to emphasise its lack of acceptability in the face of social change. It is the perception of powerlessness that leads both male and female youth to challenge existing power structures. The result is intergenerational conflict, both furthering perceived powerlessness and contributing to suicide. Indeed, the act of suicide is part of the challenge: as Oliver (1985:81) states, suicide is essentially ‘a cry from the powerless to the powerful’.

Clearly, the extent to which powerlessness and the perception of powerlessness are gender-based will influence suicide gender ratios, though the relative effects on female and male suicide levels cannot be ascertained from available data. The relative levels of female and male suicide, and indeed absolute levels, thus remain unexplained.

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<sup>29</sup> Males not conforming to the role of achievement risk conflict and hence suicide. Females seeking to achieve through this mechanism are essentially non-conformist, adding to the difficulties in meeting individual expectation.

In this sense, the high youth suicide gender ratios cannot be fully addressed. It is, however, clearly the case that any factor influencing age patterns of suicide must also influence levels. If gender, power and social change contribute to suicide among, for example, female youth as opposed to females at other ages or to males, then gender power and social change must also contribute to the overall level of female suicide and hence to the female level relative to male.

Again, it must be recognised that these underlying causal factors apply more appropriately to the suicidal act rather than to suicide *per se*. In the case of Western Samoans at least, the youth gender ratio for suicidal acts is not unusually high and in fact appears to be low in comparison with other populations. Thus, there is no evidence to suggest that the high youth suicide gender ratio is due to underlying causal factors that are somehow unique to, or exaggerated in, Western Samoa. Rather, the unusual feature of Samoan suicide is the sex-equality in fatality rates. It is here that method of suicide plays a crucial role. It is the use of paraquat ingestion as predominant method of suicide by both females and males that results in fatality rates being equal<sup>30</sup>. Since it is the combination of the age-sex pattern of suicidal acts and fatality rates that produces the youth suicide gender ratio, paraquat ingestion is a significant factor in the determination of that ratio. It is paraquat ingestion that translates the low youth gender ratio for suicidal acts into the high youth gender ratio for suicides *per se*. Since, as has been shown, gender, power and social change also underlie paraquat ingestion, the high youth suicide gender ratio can be largely attributed to the interaction of the separate effects of gender, power and social change on the age-sex pattern of suicidal acts and on paraquat ingestion.

The significance of method of suicide in determining the youth suicide gender ratio for Fiji Indians remains unknown due to the absence of relevant data on suicide attempts. Clearly, if the sex-balance in fatality rates conforms to norms (i.e., significantly lower fatality rates for females), this would imply a higher gender ratio for suicidal acts than for suicides *per se*, underlining gender in causal factors to a greater extent. On the other hand, an unusual degree of sex-equality in fatality rates would suggest similar levels of use of effective methods in suicidal acts by both females and males. While it is noted that almost all suicides of both sexes are by hanging or paraquat ingestion (Table 1), this does not imply sex-equality in fatality rates.

To conclude, this analysis has identified gender and power operating through similar gender-specific mechanisms in the context of social change as important determinants of age patterns by sex of suicide among Fiji Indians and of suicidal acts among Western Samoans. These factors also influence relative levels by sex, and are thus determinants of the youth gender ratio. Among Western Samoans, method of suicide is instrumental in determining sex-equality in fatality rates and hence contributes to the youth suicide gender ratio. Since method is also influenced by gender, power and social change, these factors are doubly important in determining suicide patterns and suicide gender ratios. It follows that solutions to the problem of suicide in

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<sup>30</sup> Paraquat ingestion is rarely used as method of suicide in other Pacific populations (Booth, forthcoming(a)).

these populations must encompass gender and power issues in the context of social change.

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