

Chapter 7

Colonialism as shell-shock:

W.H.R. Rivers' explanations for depopulation in Melanesia

Tim Bayliss-Smith

After the Great War

On 12 March 1920 William Rivers reached his fifty-sixth birthday and, despite some persistent health concerns, he was arguably in the prime of life. Transformed by his experiences in the Great War, Rivers was no longer the diffident and reclusive young scientist whose stammer and shyness had once made lecturing at Cambridge University something of an ordeal. After a five-year absence his colleagues and friends welcomed back to St John's College a more confident and much happier man (Myers 1923; Bartlett 1937, 1968; Slobodin 1978; Langham 1981; Whittle 1997). Since his return from Melanesia in 1915 Rivers had developed an overriding interest in theories of the unconscious, dreams and psychoanalysis. Meanwhile Cambridge had become the centre in England for research into 'abnormal psychology' and a centre in the movement for reform of the lunacy laws that constrained the treatment of mild forms of mental illness through psychoanalysis (Forrester 2008: 38). In short, the university provided for him an ideal base (Figure 1).

The outbreak of the Great War in August 1914 had found Rivers in Australia on his way to Melanesia to carry out fieldwork, but after returning to England in 1915 he joined the Royal Army Medical Corps. From then until 1919 Rivers worked as an army psychotherapist, treating soldiers and airmen for neuroses that came under the popular heading of 'shell-shock'. His pioneering methods of psycho-therapy were widely discussed and in many cases had been successful. His reputation in experimental psychology and neuro-physiology was already

established -- the work he carried out before 1908 had gained him the prestigious title 'F.R.S.' and the award of a Royal Society Gold Medal in 1915.

His reputation in the new discipline of social anthropology was also high. In the year 1920 he was elected president of the Folklore Society, and in 1920-21 he became president of the Royal Anthropological Institute. Having resumed his fellowship of St John's College in 1919, he took up with enthusiasm a new teaching role in Cambridge and renewed his interactions with colleagues in the natural sciences, ethnology and the humanities. At the summit of his powers and with every opportunity to climb new peaks, in what direction would Rivers turn next?

It is perhaps not surprising, given his restless intellect and polymathic tendencies, that during the four post-war years before his sudden death on 4 June 1922 Rivers continued to research across a bewildering range of disciplines and topics. In these four years 1919-1922 he also became much more widely known. He invited to St John's College several visitors including missionaries, politicians, novelists and poets, some of them his former patients. He gave numerous public lectures, was active in learned societies and on government committees, visited the U.S.A., became involved in Labour Party politics, and of course published extensively, including articles and book reviews in journals ranging from *Lancet* to *British Journal of Psychology* and *Psycho-Analytic Review*, and from *Church Missionary Review* to *American Anthropologist*, *Man in India*, *Folklore* and *History*. His curriculum vitae shows the appearance of 25 substantive articles in these four years of which two relate to neuro-physiology, eleven are on topics in psychology and psychiatry, and the remaining twelve are primarily in anthropology.

There was also the book *Instinct and the Unconscious* that Rivers published in 1920 (2nd edition 1922), in which he combines the insights of Sigmund Freud with his own observations from a lifetime spent observing individuals and analysing societies, and based especially on his years of wartime clinical practice. The underlying aim of this book was to present an integrated view of the various forms of psycho-neurosis, and to provide a biological explanation that was consistent with evolutionary theories of the sensory nervous system that he had followed throughout his career (Myers 1923; Young 1999; Loughran 2007; Pearce 2008).

Rivers's continuing interest in Melanesian anthropology has been presented as something quite separate from his work in psychology (Bartlett 1920: 207; Costall 1999), but I shall argue that there was in fact a substantial overlap. In this chapter I focus on a small part of his late anthropological writings, the four papers that relate to the impacts of colonialism on Melanesian

society and in particular its effects on population (Rivers 1917a, 1920a, 1920b, 1922b). These writings culminate in Rivers's last important paper (Rivers 1922b) which formed one chapter in the book that he edited entitled *Essays on the Depopulation of Melanesia*. In this paper he repeated the detailed arguments he had already presented regarding the psychological factors affecting Melanesians (Rivers 1920a), and he provided in addition a quantitative analysis of the historical demography of Simbo and Vella Lavella, western Solomon Islands.

We should not forget that these writings on colonialism reflect only one strand of his research, nor that they were written alongside many papers in other fields. Rivers's wartime experiences had strengthened his belief that 'suggestibility' was an important means whereby patients could be cured of anxiety neuroses. He had witnessed indigenous healers in the Solomon Islands produce cures through faith and suggestion, and he 'now believed that these mechanisms, properly adjusted to local conditions, produced similar effects in England' (Young 1999: 375). According to his literary executor Grafton Elliot Smith (1924: v), Rivers continued working on the relationships between medicine, magic and religion during the last six years of his life, amassing 'a vast collection of bibliographic references' and evidence from other fieldworkers, but he did not write anything new on this topic. His posthumous book *Medicine, Magic and Religion* (Rivers 1924) was a reprint of the 1915-16 FitzPatrick lectures.

After the war Rivers's Melanesian interests focused mainly on colonialism and cultural diffusion. By the 1920s his passion for kinship systems, which had culminated in the two-volume *History of Melanesian Society* (1914), seems to have abated. In 1919-1922 he published just two papers on kinship, both relating to India, whereas cultural diffusion was the subject of at least six papers. His work in this field developed with encouragement from his friend Elliot Smith and his former student William Perry, but even at the time this work was judged by most anthropologists to be weak, lacking in empirical support and excessively speculative. The work on cultural diffusion took Rivers far from his academic roots in medical science, neuro-physiology and psychology, and we might hope that his late work on the psychological basis for population change in Melanesia would be more firmly rooted.

I shall argue in this chapter that the quality of Rivers's work on depopulation in Melanesia is just as uneven as his other late work in anthropology. From genealogies he generated some remarkable historical data, but his interpretations of these data are generally unconvincing. I review first of all the information that he produced that enabled him to

reconstruct the historical demography of Simbo and Vella Lavella. Using these data he was able to show that low fertility rather than high mortality was the proximate cause of rapid population decline, and he recognised that probably the same process was happening all across Island Melanesia. The vital statistics that he used were based on a careful analysis of the genealogies from Simbo and Vella Lavella that he had collected with Arthur Maurice Hocart in 1908, and since the raw materials for this analysis survive in the Haddon papers in the Cambridge University Library, the calculations can be checked.

Secondly I consider Rivers's interpretations of these data, and the 'psychological factors' that he invoked in order to explain the scale and timing of the catastrophic decline in the numbers of children born and surviving in Simbo and Vella Lavella. I conclude that these psychological factors are not convincing, verging indeed on 'conjectural anthropology' (Miller 1972: 76). However, I suggest that Rivers's explanation makes sense in the context of his advocacy of neo-Freudian theories of psychology and his views about the disturbing effects of war and the post-war tensions in his own society.

Rivers was unwilling to erect sharp boundaries between the psycho-neuroses of the people he had once called 'savages' and those of so-called civilised mankind. However, he recognised that in the colonised world of Melanesia, psychological 'disturbance' probably had arisen in different ways. In his various articles on depopulation Rivers is not explicit about the processes of 'disturbance' to the unconscious mind that resulted from colonialism, but in *Instinct and the Unconscious* (1920c) he had already outlined a general model of disturbance and the role of suggestion in the spread of psycho-neurosis.

From these writings we can infer that, in the aftermath of enforced pacification, the labour trade and missionary intervention, Rivers believed the psychic equilibrium of Melanesians had become unbalanced. In their own way Simbo islanders were victims of a form of 'post-traumatic stress disorder', or 'shell-shock' in the jargon of the time. Their case was somewhat parallel to the British soldiers and airmen who survived the mass slaughter of the First World War only to become victims of shell-shock, those conditions diagnosed at the time as 'hysteria' and 'neurasthenia' or 'anxiety-neurosis' as Rivers preferred to call it (Loughran 2008). Broken soldiers suffered symptoms of amnesia, motor disorders (tremor and paralysis), anxiety, delusion, depression, and suicidal tendencies. As in the case of Solomon Islanders, some of the primary instincts had become unbalanced and their self-preservation was at risk.

Did Rivers really see colonialism as a form of shell-shock? In his own writings there are no direct comparisons between the two forms of 'disturbance'. Had he lived beyond his fifty-eighth year he might have provided us with a more explicit account of the links between the two sources of traumatic experience. What follows is my attempt to interpret the colonised world of the Solomon Islands in 1908 through the lens of Rivers's own writings about instinct, the unconscious, the power of suggestion to cause 'suppression' of psychic contradictions, and the negative effects that resulted both for the individual and for society.

Vital Statistics for Simbo and Vella Lavella

It was his work on Melanesian genealogies provided for Rivers the factual basis for his concerns about depopulation in the western Solomons. He had proposed at the outset of his career in social anthropology that genealogies not only revealed aspects of social organisation, they also had the potential to generate 'vital statistics' (Rivers 1900). Population decline was something that Rivers had already encountered in Torres Straits in 1899, and again in the Nilgiri hills of south India in 1902. Although Rivers says little about historical demography in *The Todas* (1906), a Cambridge colleague made creative use of the Todas genealogies that he had collected and demonstrated the value of this approach for historical demography (Punnett 1904; Rivers 1904).

Rivers's intention during the Solomon Islands expedition of 1908 was therefore to collect genealogies that were both accurate and complete. This aspiration was spurred by a discovery that he had made in 1899 when working in the Torres Straits islands:

I discovered that people preserved in their memories with great fidelity a complete and accurate record of their descent and relationships. It was possible to collect pedigrees so ample in all collateral lines they could serve as a source of statistical enquiry into such features as the average size of family, infant mortality, and other subjects that furnish the basis for conclusions concerning the fluctuations of population. (Rivers 1922b: 96-7)

For these reasons collecting genealogies became one of the first tasks that Rivers, Hocart and Wheeler set themselves when they arrived in Solomon Islands. After just one month of preliminary fieldwork on Simbo Rivers reported to his sponsors in London that '[t]he social organisation has been worked out to a great extent, though there is still much detail to fill in'

(Rivers, n.d. a). The ‘genealogical method’ provided the main basis for this statement and Rivers and Hocart later carried out similar work on Vella Lavella, generating insights that Rivers summarised in his expedition report a year later (Rivers, n.d. b; see Appendix, this volume). It was a summary of the sociology of western Solomon Islands that far from reflected the complex realities of social organisation in the region (see Hviding and Berg; Hviding; this volume).

It is significant that Rivers made almost no mention of demography in this 1909 report, nor in the big book that followed (Rivers 1914). It would seem that Rivers’s interest in the connections between psychology and demography did not fully emerge until his FitzPatrick lectures in 1915-16, at a time when he was engaged in full-time war work. Rivers may have analysed the genealogies from Solomon Islands soon after the 1908 fieldwork so as to generate ‘vital statistics’, but it seems more likely that he left this task until after the Great War. It was then that Rivers needed ethnographic material to support his argument about the links between psycho-neurosis, reproductive instincts and population change. It was only in the early 1920s that Rivers managed to use the information gained from the Simbo-Vella Lavella genealogies for what became his last publication on the depopulation of Melanesia (Rivers 1922b: 98).

I have discussed elsewhere Rivers’s methodology and the validity of his interpretations (Bayliss-Smith 2006). The genealogies for the two sample populations in western Solomons provided Rivers with aggregate data for the number of ‘marriages’, how many children were born per marriage and the mortality rate of these children. These data he calculated for three reconstructed generations, called I, II and III (Rivers 1922b: 98). Rivers did not put these generations into a chronology, but from the ages of sample individuals we can estimate that marriages in Generation I involved women who were born about 1830-1850, Generation II about 1850-70, and Generation III about 1870-90. Unlike the women in Generations I and II, the women in Generation III were still in their reproductive years at the time of the 1908 fieldwork (Table 1). I have checked the allocation of individuals to generations and the numbers of children born by analysing the original genealogies, all of which are preserved in the Haddon papers in the Cambridge University Library, and found that Rivers’s figures are accurate apart from a few trivial errors and minor repetitions.

Rivers claimed for Simbo that his genealogies included almost the entire living population of around 400 as well as their ancestors, in a population that numbered about two thousand individuals during the past three generations. Summary tables that he produced (Rivers n.d. d)

show that the women in Generation I gave birth to 267 sons but only 180 daughters, an apparent imbalance in the sex ratio at birth that cannot be real. It could result from a process of selective infanticide or neglect of female infants, or – Rivers’s preferred explanation – it may have arisen because many girls who died young and without issue had been forgotten – at least by male informants – and so are left out from the genealogies, whereas dead boys tend to be remembered.

These 180 daughters of Generation I parents constitute the female part of Generation II. According to Rivers’s data some of them died young (8 persons) or died before the age of marriage (16 persons), and 8 women were recorded as ‘unmarried’, a term not explained by Rivers but perhaps meaning ‘women never in a socially sanctioned permanent relationship’. The remaining 148 females in Generation II became married, the great majority (134 women, 91 per cent) having only one marriage, 13 women (9 per cent) marrying twice, and one with three marriages (Rivers n.d. d). The sex ratio of the children born to these 180 women in Generation II is almost balanced (195 sons, 184 daughters, total 379), which suggests that the genealogical data for this time period are more complete than those for Generation I. By 1908 the Generation II women had finished child bearing but were mostly still alive, so that they, or more likely their husbands, were in a good position to provide Rivers and Hocart with complete and accurate information.

Rivers (1922b) calculated an average of 1.3 children ‘per marriage’ in Generation II (see Table 1), but a more revealing statistic is the average fertility per woman. The 180 women in Generation II gave birth to 2.1 children per woman, which is below the replacement rate in a society where at least 13 per cent ‘died young’ or before the age of marriage and there was further mortality among infants and others whose births and deaths had been forgotten. By comparison the women of Lesu, a declining population in New Ireland studied by Powdermaker (1931: 357) using the same genealogical method, had an average fertility of 2.1 for the generation born about 1855-1880 and 2.6 for the generation born about 1880-1905.

As well demonstrating low fertility, Rivers also showed that childlessness was remarkably common on Simbo, although his data refer to the proportion of childless marriages, not childless women. From his data it appears that in Generation II almost half of all marriages had no children (Figure 2), and the proportion on Vella Lavella was almost as high (Rivers 1922b). Childlessness could therefore explain some of the population decline on Simbo – the fertility rate was simply too low for population replacement.

What about mortality rates? Among adults, deaths during epidemics may have left many widows and widowers who failed to re-marry, but the scale of adult mortality cannot be estimated from the genealogies. For non-adult mortality, Rivers suggests that his figures may be underestimates for the earliest generations. In the genealogies he included information about the deceased, with the phrase ‘died young’ attached to many names on the handwritten charts, but he admitted that, ‘[t]here is the possibility that male children who died young would be remembered better and that some female children who died in infancy may have been forgotten and therefore omitted’ (Rivers 1922b: 100). The data indicate that this is mainly a problem in Generation I, where Rivers recorded 267 male issue but only 180 female issue. If we assume a normal 1.05 male:female birth ratio, the 267 males reported should have been accompanied by about 254 females, implying that about 74 female infants or children died and were ‘forgotten’. If we add these 74 forgotten births to the mortality that Rivers was able to record (‘died young’ plus ‘died unmarried’), then total mortality before marriage for Generation I amounts to 168 persons or 32 per cent of all births. This represents a high death rate but not an impossible one for mothers to replace by new births.

For Generation II, although the data may also under-estimate the death rate somewhat, again we do not find that infant and child mortality rates were dramatically high (Table 2). Women in Generation II were giving birth mainly in the 1870s and 1880s, Rivers (n.d. d) reported that 69 out of 379 children born had died before the age of marriage, a death rate of 18 per cent (see Table 2). The equivalent rate for Generation III, its reproduction still incomplete but with the best record of births and deaths, was higher at 26 per cent, reflecting perhaps the impact of recent epidemics. We can conclude that in all three generations deaths could easily have been compensated by more prolific births, but these births were lacking. With this lethal combination of moderate or high mortality and low fertility, the Simbo population was clearly heading for extinction.

Explaining depopulation: the ‘psychological factor’

It would be easy to dismiss the demographic information that Rivers derived from the genealogies as unreliable because it derived from fieldwork methods that were inaccurate. For example, apart from some young men in Generation III who provided precise ages, the information on age that Rivers and Hocart recorded was based on estimates (e.g., ‘45-50’). No

doubt some estimates were misleading or ages had been forgotten by Simbo informants, and in the process of translation there were many opportunities for misunderstandings.

There seems no reason, however, to doubt the general picture that this analysis reveals, as it merely represents in statistics for two particular islands what was, by 1908, widely recognised as a general pattern throughout Island Melanesia. Populations in the region were generally in rapid decline and most contemporary observers believed that the decline resulted from the introduction of new diseases (Bennett 1987: 151, and this volume). Charles Woodford, a long-term resident of Solomon Islands and head of the British administration, spoke in his public writings only about his fear of labour shortages in the future (e.g., BSIP 1911: 47). However, in 1910 Woodford wrote in a confidential report that ‘nothing in the way of the most paternal legislation or fostering care, carried out at any expense whatever, can prevent the eventual extinction of the Melanesian race from the Pacific’ (cited by Hilliard 1978: 157).

For Simbo it seems likely that a rapid decline of its population began in the 1860s and 1870s, following the rise in trade and labour recruitment (Bayliss-Smith 2006). We may be able to see an impact on mortality at this time in the genealogies, where there are estimates of the ages of 154 people (127 men and boys, 27 women and girls). The age cohorts of those under 30 and those over 40 years old are well represented, but people in their thirties (born about 1858-69) are few in number with only five men and one woman in the age category 35-39 years. What had happened to deplete this cohort?

The evidence suggests that around 1870 foreign ships began to visit Simbo more frequently, and ‘blackbird’ labour was recruited for Queensland. The growing stream of foreigners and returning plantation labourers interacted with a population no longer living inland in scattered hamlets but now clustered in a few coastal villages, and thus vulnerable to more effective disease transmission. A number of direct shipping connections to Sydney can be documented involving cargoes of sulphur that almost certainly were derived from the Simbo volcano (Bennett 1987: 365-7; Bayliss-Smith 2006: 34-5). There are also several records of labour recruiting, for example in 1884 (Rannie 1912:22-9). White men were visiting more regularly, and traders became resident on Simbo after 1896 (Bennett 1987: 386).

More trade meant more contact, which in turn increased risks of infection. In Roviana, the Methodist leader George Brown noticed in 1899 ‘a great apparent decrease in the population from that which I had seen twenty years before’, an impression which traders like Wickham

confirmed (Brown 1908: 516). The District Commissioner reported in 1906: ‘There has been a tremendous amount of sickness among the natives, both in Simbo and Rubiana [Roviana]. They have been dying every day and are still doing so. It is carrying off all the old men and women’ (Edge-Partington 1907: 22).

Despite all this evidence, by 1922 Rivers had convinced himself that there was no clear evidence of epidemics of introduced disease in the western Solomons: ‘There is no record of any very severe epidemics. Tubercle and dysentery, the two most deadly diseases in Melanesia, do not appear to be, or to have been, especially active; and though both the chief forms of venereal disease exist on the island, they do not seem to have done any great amount of mischief’ (Rivers 1922b: 101). Furthermore he believed that several of the other factors commonly cited in Melanesia, including changes in clothing, house type, alcohol use and firearms, were also absent on Simbo or negligible in their effects. Because of this diagnosis, and confronted by the data on low birth rates that he generated from his genealogies, Rivers concluded that what he called ‘the psychological factor’ had to be invoked. Suggested effects were the reluctance of women to conceive, their eagerness to secure abortions, and their neglect of babies. By the 1870s these practices were seen as having a severe effect on population replacement, as shown by the reduced family size and high infant mortality rates. His overall conclusion has often been cited:

We have here only another effect of the loss of interest in life which I have held to be so potent in enhancing mortality. The people say to themselves: ‘Why should we bring children into the world only to work for the white man?’ Measures which, before the coming of the European, were used chiefly to prevent illegitimacy have become the instrument of racial suicide. (Rivers 1922b: 104)

Beyond one dubious anecdote (‘The people say to themselves...’), what evidence could Rivers find to support this thesis? He and Hocart had invested much effort in documenting the perceived causes of disease and death on Simbo. He was clearly impressed by ‘about a hundred examples of... conjoined processes of taboo and medicine’ that they had recorded (Rivers 1924: 32-48). They documented sixty such cases in detail, including magical spells and ritual practices connected to conditions like insanity and epilepsy as well as remedies for introduced infections like pneumonia and dysentery. Epidemics were attributed to a spiritual power called Ave, whose

coming was indicated by broken rainbows, shooting stars, red clouds, raindrops falling during sunshine, and also by the presence of fever, headache and cough (Rivers 1924: 47). These accounts convey an impression of a community in which much psychic and ritual effort was expended in gaining protection from the many sources of morbidity and mortality.

However, what this ethnography cannot provide is any real support for the ‘colonialism as shell-shock’ thesis. Rivers and Hocart had as their main object the documentation of pre-contact medical beliefs and practices rather than the study of new challenges to that world view. Most of their information about medicine and magic reflects strong male bias, and it tells us little about women’s knowledge of conception, pregnancy, birth and child care. Did Rivers investigate how far women were complicit in his hypothetical process of ‘racial suicide’, through their supposed practices of contraception, induced abortion and bad mothering? Did Rivers and Hocart actually talk to the women of Simbo at all?

The impression is conveyed in the Rivers-Hocart writings that Solomon Islands in 1908 was a man’s world of chiefs, headhunters and sorcerers. It was certainly a world in which European men would normally not approach Melanesian women except to ask for sexual favours. Rivers was far from being that kind of man, being shy and unused to heterosexual contacts in his own English world of all-male schools, societies and colleges. Despite a brave attempt at intensive fieldwork Rivers’ knowledge of Simbo women’s beliefs and practices was not adequate to support his thesis about the psychology of depopulation. By the 1920s Rivers’s ideas about psycho-neurosis and reproductive instincts had expanded well beyond his 1908 fieldwork agenda, and he developed an explanation for depopulation that he struggled to support with ethnographic data.

Sexually Transmitted Infections

As an alternative explanation, the demographic impact of sexually transmitted infections (STIs) was hardly mentioned by Rivers (1922b: 101), even though he reported their presence on Simbo (‘both the chief forms’). The symptoms were published in clinical detail by Hocart (1925: 237) with graphic descriptions which demonstrate a close knowledge by Simbo men of the effects of both gonorrhoea and syphilis (S. Ulijaszek, pers. comm.). However, given the widespread prevalence among Solomon Islands children of yaws, a disease spread by *Treponema pallidum* ssp. *pertenue*, the impact of syphilis (*T. pallidum* ssp. *pallidum*) may have been diminished by

acquired immunity (Pirie 1972: 188-9). Gonorrhoea was probably the more important STI, as was the case in New Ireland (Hamlin 1932; Scragg 1954). After her many months of intensive fieldwork in Lesu, New Ireland, Powdermaker (1931: 374) asserted that '[i]f three or four boys leave their village to work in the white man's capital or on some large plantation and return with [STIs], it would not take long for the disease to spread, in view of their rather promiscuous sexual life'. Rivers's (1926: 71-96) own account of Simbo sexual beliefs and practices before and after marriage indicate that STIs, if present, would have quickly infected most of the unmarried population. He considered it 'exceptional and almost certainly unknown in the past' that a woman remained a virgin before marriage, and having multiple sexual partners was an accepted and integral part of a young woman's puberty rituals.

It seems unlikely that white men in the nineteenth century were in any way excluded from sexual relations with unmarried women, and the likely outcome was widespread STI infection of both women and men. Rivers alludes to contraceptive and abortion practices, but his evidence consists of hearsay about rituals, spells and the ingestion of plants with unknown pharmacological properties, with no evidence at all for their efficacy. Instead, STI-infection itself can account for many of the cases observed by Rivers of childlessness, as suggested for other populations in the region (Hermant and Cilento 1929; Powdermaker 1931; Hamlin 1932; Scragg 1954). From studies in West Africa it is well known that gonorrhoea leads to sterility among both men and women. Syphilis also increases the rate of miscarriage, and many of the women who suffer a spontaneous abortion become permanently sterile. In one rural area of Upper Volta 31.5 percent of women had syphilis, 28 percent of women aged 50 and over were childless and 24 percent of their pregnancies ended in miscarriages or stillbirths (Retel-Laurentin and Benoit 1976: 280, 291). In this case the proportion of women who were childless appears very comparable to Simbo and Vella Lavella in the late nineteenth century, but whereas Rivers was inclined to blame women for securing their childlessness through induced abortion or contraception, STIs could easily have achieved the same result.

We can conclude that in the western Solomons the effects of STIs on spontaneous abortion (miscarriage) and sterility were combined with the effects of epidemic disease on mortality rates. Among adults such deaths resulted in many marriages being terminated by the loss of one spouse, so fewer children were born and inevitably there was some neglect of orphans. Moreover the high infant mortality rate among the small numbers of children born

further reduced the population's capacity for replacement. The result was a decline that probably started before 1850 and accelerated in the last two decades of the nineteenth century.

The demographic data derived from the Simbo and Vella Lavella genealogies are wholly consistent with this model, but it contrasts starkly with Rivers's own preference for an explanation based upon the psychological state of Melanesians. Both men and women, he believed, were suffering from a kind of 'shell-shock' as a result of colonial traumas. In the remainder of this paper I explore the reasons for this insistence by Rivers on the primacy of 'the psychological factor' in the depopulation of Melanesia.

Instincts and Suggestion

His book *Instinct and the Unconscious* (1920c) provides the key to understanding the highly original if somewhat perverse line of argument that Rivers pursued in his explanations for the depopulation of Melanesia. The book is based on a series of lectures that he gave in Cambridge in the summer term of 1919 and repeated at Johns Hopkins Medical School in Baltimore in the spring of 1920. Added to the main argument of the book are six appendices based on articles on war-neurosis and Freud's psychology that Rivers had already published between 1917 and 1920.

In the book Rivers (1920c) makes some use of anecdotal evidence for 'suggestion' among Solomon islanders, but most of his empirical material derives from his clinical experience of 'shell-shock' cases plus some analysis of his own repressed childhood memories. Basic to his argument is the distinction that Rivers and Henry Head made between 'protopathic' (emotional, instinctive) and 'epicritic' (rational, refined) sensibility, based on the nerve regeneration experiments they carried out from 1903-07. The book begins with a discussion of instinctive behaviour, within a framework that closely follows the model developed by his former colleague on the Torres Strait expedition, William McDougall (1908).

Both Rivers and McDougall thought instincts were innate rather than acquired, and they saw each primary instinct as having an associated emotion – for example, the instinct of flight from danger is associated with fear as an emotion (Table 3). McDougall had been a student of experimental psychology under Rivers in the 1890s, and he had spent five months on the Torres Straits expedition before undertaking his own anthropological fieldwork in Borneo. While following McDougall, Rivers places more emphasis on the so-called 'herd-instincts' and, as usual, he pursues an evolutionary explanation for instinctive behaviour. He proposed that all

instincts derived ultimately from the ‘protopathic’ sensibility that he and Henry Head had proposed was linked to an early stage in mankind’s evolution, being attributable to the primitive thalamus of the brain’s physiology (Rivers and Head 1908).

Jonathan Miller (1972) has shown how the basis for this model was originally developed by John Hughlings Jackson, a consultant neurologist working at the National Hospital for the Paralysed and Epileptic where Rivers first met him in 1891. However, the ideas can be traced back even further to Herbert Spencer: ‘Spencer... had developed a fairly elaborate notion of the nervous system in which he saw, as it were, a double animal in each living creature. There was the higher, well-integrated, organised animal at the summit of its own evolutionary branch, and within it an older, more incoherent animal which represented its ancient incapable ancestry’ (Miller 1972: 74). Rivers and Head equated the more highly evolved nervous system with the ‘epicritic’ and the more primitive one with the ‘protopathic’.

The ‘double animal’ or split personality was not an idea restricted to neurology. It was also a trope within the Romantic imagination, and it inspired the gothic novel *Dr Jekyll and Mr Hyde* by Robert Louis Stevenson which first appeared in 1886, the same year that Rivers qualified in medicine from St Bartholomew’s Hospital. During the 1890s Rivers discussed these ideas with Henry Head who worked with him at the National Hospital for the Paralysed and Epileptic (Langham 1981; Young 1999; Pearce 2008). In the Rivers-Head model of human psychology it was the task of epicritic sensibility to regulate protopathic forms of perception. To adopt Miller’s (1972) metaphor, ‘the dog beneath the skin’ needed to be kept in check. When Rivers came to study Freud’s writings at Maghull Military Hospital while working there on shell-shock cases (Costall 1999:350), he decided that ‘neurosis’ in the Freudian sense was the outcome of an unbalanced relationship between protopathic and epicritic sensibilities. If we use the Jekyll/Hyde metaphor, Rivers saw psycho-neurosis as a state of mind that developed when ‘the dog’ of protopathic instinct (Mr Hyde) tried to escape from the epicritic control exerted by his master (Dr Jekyll).

For Rivers all instincts are rooted in this protopathic realm, with instinct being defined as ‘a set of dispositions to behaviour determined by innate conditions’ (Rivers 1921: 101). At the same time he recognised that only rarely is human behaviour purely instinctive because every instinct undergoes modification through experience. He divided human instincts into three main types (Rivers 1920c: 5, 52-60):

(1) Instincts associated with *the self-preservation of the individual*, including those satisfying the appetites of hunger and thirst, and also those that are instinctive reactions to danger and serve to protect the individual by provoking flight, aggression, manipulative activity, or immobility. In his book Rivers pays particular attention to these various reactions to danger, which he suggests are very neglected in the Freudian interpretation of neurosis with its exclusive focus on sexual instincts.

(2) Individual instincts associated with *the continuing of the species*, which Rivers divides into sexual and parental instincts. In both cases emotions of attraction and tenderness are generated, with positive outcomes for the reproductive success of the group.

(3) So-called gregarious or 'herd instincts' maintaining *the harmony of the group*, which were analysed by Rivers under the headings of mimesis (unwitting imitation), sympathy, intuition and suggestion. Taken together these represent 'the process which makes every member of the group aware of what is passing in the minds of the other members of the group' (Rivers 1920c: 91). Communication and imitation are regarded as cognitive aspects of the gregarious instinct, and leadership magnifies their affect. To a large extent, however, the herd instincts act unwittingly, Rivers suggests, and processes like suggestion are part of the unconscious mind.

It is important to note that Rivers was proposing a classification of instincts that would apply to humanity as a whole, although he allowed for the possibility that in certain societies some instincts might be more strongly experienced than others:

There is reason to believe that [the] superiority of the unwitting process of suggestion over intellectual process remains good among the different varieties of Man. [However,] existing families of Mankind differ greatly in their degree of gregariousness and with this there seems to be different degrees in the potency of suggestion as a means of producing uniformity of social action. Thus the Melanesian is distinctly more gregarious than the average European. His whole society is on a communistic basis, and communistic principles work throughout the whole of his society with a harmony which is only present in certain aspects of the activity of our own society, and even there the harmony is less complete. (Rivers 1920c: 94)

This statement appears to be the main exception that Rivers allows to the universality of his scheme. However he qualifies the exception at once, suggesting that ‘a speculative Melanesian who watched the traffic in the streets of a great English town would be greatly struck by the harmony of the passage of people on the pavements, in which the rarity of jostling is to be explained by an immediate intuition of the movements of others which takes place unwittingly with all the signs of instinctive behaviour’ (Rivers 1920c: 96). In other words, basically Melanesians and Europeans share the same psychology, and in both cases the processes of mimesis, sympathy, intuition and suggestion help to promote group welfare.

In *Instinct and the Unconscious* Rivers examines the ways in which an unbalanced relationship emerges between instinct and consciousness, focusing mainly on modern warfare as the source of disturbance to the instincts of self-preservation. His four years of clinical practice among ‘shell-shock’ patients uniquely qualified him to mount a formidable critique of the Freudian emphasis on repressed sexuality as the key to psychic disturbance, and to suggest instead a more comprehensive understanding of psycho-neurosis (Table 4). Disturbance to the parental instincts are not discussed in the book, but in other writings from this period Rivers implies (rather than states) that the parental instinct had become deficient among islanders in those colonised parts of Melanesia that were experiencing rapid population decline (Rivers 1920a, 1920b, 1922b).

In the case of ‘shell-shock’ among soldiers, Rivers identified the normal controls on the instincts of self-preservation as processes that were amplified in young men by education and training. For most army officers, their previous education had typically discouraged the expression of emotions, especially fear, or sublimated it through sport. In the army these controls were reinforced in training by means of suggestion, repression and sublimation, in order to promote notions of discipline, honour, shame and *esprit de corps*. Under the trauma of modern warfare, which most men experienced after only brief and inadequate training, up to 10 per cent of soldiers proved unable to reconcile instinct with experience and consequently suffered from breakdowns (Rivers 1918). Some of them were assisted towards recovery by psychotherapy, dream analysis and hypnotism, all of which Rivers used in his clinical practice.

The maternal instincts

Breakdown of the parental instinct under the traumatic impacts of colonialism is also included in Table 4, but here the analysis of Rivers's position has to be reconstructed because on this subject his writings, or perhaps what he was able to put on paper before his sudden death in June 1922, are not so explicit. It is clear, however, from his diagnosis of the causes of Simbo's depopulation that he envisaged a traumatic disturbance to the maternal instincts in particular.

Rivers considered that the normal and instinctive desire of women was to conceive, to sustain and protect their infants and young children, and to maintain the family including the elderly. These innate and instinctive feelings, which to some extent were shared by men, had somehow become distorted in the western Solomon Islands. In pre-colonial times the instinct towards maximum fecundity was regarded by Solomon Islanders as almost a threat, given their limited means for increasing island resources (Rivers 1920a: 44). In normal times this instinct therefore needed some regulation by social controls on promiscuity, the age of marriage, and sexual practices within marriage. With colonial contact the situation had changed, cultural norms had been overturned and new diseases had been introduced.

As usual Rivers and Hocart view the process of colonial impact through men's eyes. Hocart quotes their main Simbo informant Njiruviru as saying: 'No one is mighty now: they are all alike, they have no money; they cannot go headhunting; they all "stop nothing" [tok pisin: "stay at home doing nothing"]' (Hocart 1922: 79). Inevitably the women were also caught up in these changes, but their views do not emerge from the ethnographies. Yet it was the neglect of maternal care that Rivers invoked as the main factor to explain the observed patterns of low fertility, a high incidence of childlessness, and alleged practices of contraception, abortion and infanticide.

Bringing 'the savage mind' of the men and women of Solomon Islands into an integrated biological explanation for psycho-neurosis was a project that appealed to Rivers. Throughout his life he drew attention to minor differences yet basic similarities in the perceptions of people in all the places that he visited. Psychology, ethnology and medicine should, he believed, be combined, 'working with a common purpose, and with common principles, towards the better understanding of that which makes man what he is, which makes human society what it is – the mind' (Rivers 1919: 892). My version of his universal model of psycho-neurosis, in which the traumas of colonialism, sexuality and warfare are included within one integrated scheme, is shown in Figure 3. Its logic is based on the power of the epicritic mind to maintain a balance over more primitive

protopathic instincts through processes of ‘suppression’, which is the underlying argument of *Instinct and the Unconscious*. Individuals or groups experience a loss of normal equilibrium when the suppressed experiences overwhelm the capacity of the unconscious mind to cope with them (Figure 3).

Almost all of Rivers late work in psychology and anthropology is therefore an expansion of the two sentences with which Rivers and Head concluded their account of the famous experiment on severed nerves in Head’s left forearm: ‘We believe that the essential elements exposed by our analysis owe their origin to the developmental history of the nervous system. They reveal the means by which an imperfect organism has struggled towards improved functions and psychical unity’ (Rivers and Head 1908: 449). Twelve years later Rivers felt able to extrapolate these interpretations far beyond the recovery of sensation in Head’s left forearm to encompass the whole human psyche. He now considered that damage to ‘psychical unity’ was what Sigmund Freud had been observing among the Viennese bourgeoisie, whose symptoms of neurosis were the outcome of repressed sexual instincts. Rivers believed that his own wartime patients had experienced severe psycho-neurosis because of extreme battlefield experiences that awakened their instincts for self-preservation. When these memories were suppressed they caused hysteria, anxiety-neuroses or more extreme symptoms of disturbance.

I believe that in Rivers’s view the islanders of Simbo and Vella Lavella fell into a third category, but in their case it was a traumatic experience of colonialism and a consequent disturbance to the parental instincts. In former times these maternal and paternal emotions were in balance with social norms that maintained the balance of populations, or ‘the continuance of the race’ as Rivers termed it, but in the late nineteenth century epidemic mortality, the suppression of warfare, the labour trade, and an overturning of cultural norms resulted in a pathological disequilibrium. Women in particular began to behave in ways that threatened the populations with imminent extinction.

From individual to universal psycho-neurosis

For Rivers to be able to extrapolate a model of psycho-neurosis from his clinical insights into the minds of particular soldiers to whole societies, he needed to invoke the gregarious instincts. He believed that unwitting ‘suggestion’ was the principal means through which psychic processes could spread among groups rather than just reside in the minds of individuals. He needed

attitudes and beliefs to be transmitted collectively, even among groups that lacked overt forms of leadership.

Rivers recognised that leadership was an efficient way for groups to acquire a common world-view and sense of purpose, but in the case of Melanesia he could not invoke this form of social organisation. Mankind had inherited from its evolutionary history both individualistic and ‘communistic’ tendencies, and he considered the latter tendency to be more prominent among ‘lowly’ peoples like Melanesians. Rivers travelled to Melanesia in 1908 via the islands of Hawai’i, Samoa and Fiji where he observed the continuing power of chiefdoms. In contrast to Polynesia he saw relatively weak forms of leadership prevailing in most of Melanesia. For example, he wrote that ‘when studying the warfare of the people of the Western Solomons I was unable to discover any evidence of definite leadership’ (Rivers 1920c: 95).

Leadership in Melanesia was a topic that Rivers and Hocart had been discussing in correspondence during the First World War. In one letter to Rivers, Hocart had written:

Going through the account of chieftainship makes me wish more than ever that there was a decent account of that subject in print. It is a fundamental thing in a large part of the South Seas and where it is not fundamental socially it is of great historical importance on account of its survivals. Chieftainship in Eddystone [Simbo] was mostly in a state of survival; there were many things we should have understood much more readily and many clues we might have followed if we had before us an account of the real thing as it exists in Fiji and elsewhere. (Hocart, n.d.)

With chiefdoms in Solomon Islands being weak and lingering in this ‘state of survival’, Rivers needed an alternative process to create and maintain the complex mosaic of cultures in the region. He was interested in both the mosaic of traditional cultures and the new patterns being produced by colonialism. This problem may have pushed Rivers towards his conclusion that the gregarious instincts, although common to all mankind, flourished most strongly in places like Solomon Islands (Rivers 1920c: 94). Here the processes of suggestion, intuition, sympathy and mimesis (unconscious imitation) were particularly effective, enabling groups to share psychic norms and pursue common cultural practices. In this respect Melanesians, it seems, were different.

On the other hand in a prestigious public lecture that he gave in 1919, later published, Rivers presented some powerful arguments in support of a universal model of gregariousness. The occasion was his presidential address to the British Association for the Advancement of Science, Section on Physiology, Sub-section Psychology (Rivers, n.d. c). He included this text, with some changes of wording, as a new appendix to the second edition of *Instinct and the Unconscious* (Rivers 1922a).

In the lecture in 1919 Rivers suggested that people in England had seen their whole society threatened with destruction during the war and its aftermath. In some cases, for example children subjected to air raids, the ‘danger instincts in their cruder form’ had been activated, but for most people it was the ‘danger instincts as modified by gregarious influences’ that had been aroused:

For the last five years we have all been living under the shadow of a great danger... It was the danger of the destruction of the social framework, in which each one of us has his appointed place, which acted as the stimulus to reawaken tendencies connected with the instinct of self-preservation... [T]he alteration in the internal [British] social order which is evidently approaching is keeping danger instincts in a state of tension, while the fatigue and strain which few have escaped during the war is at the same time giving these aroused instinctive tendencies a wider scope than would otherwise be open to them. Since this reawakening of the danger-instincts affects nearly every member of the population of the world, it is producing a state which may be regarded as a universal neuro-psychosis which explains much that is now happening in human society. Owing to the different conditions under which the danger-instincts have been aroused in different nations, the social disorder is taking different forms in different countries. We should hardly expect that a disorder of the national life should follow exactly the lines taken by the psycho-neurosis of the individual, but we should expect to find analogues of the chief forms of solution adopted by the individual organism. (Rivers, n.d. c: 17-18)

In other words the ‘social disorder’ prevailing in Simbo in 1908 was somewhat different from the disorder in, say, Ireland or Germany or Russia in 1920, because its external causes were different. However, the outcome was the same – a state of ‘universal neuro-psychosis’ provoked by

perceived threats to self-preservation and maintained by the instincts of gregariousness. In the published paper Rivers changes ‘universal neuro-psychosis’ to ‘universal psycho-neurosis’, and it is a state he would restrict to ‘the more civilised populations of the world’ (Rivers 1922a: 256), but his global intentions are still clear. The development of the individual is mirrored in the development of society, both follow the same evolutionary path, and any theory of mind is also a theory of society.

Evidence for psychosomatic malaise

In his speculations about a ‘universal psycho-neurosis’ in post-war western society Rivers makes no mention of colonised peoples. However, his separate writings on depopulation are based upon an argument that Rivers twice reiterates, that Melanesians were particularly susceptible to colonialism because of ‘the enormous influence of the mind upon the body amongst the Melanesians and other lowly peoples’ (Rivers 1920: 109; 1922b: 95). This racial explanation was consistent with the prevailing beliefs in British psychiatry, that hysteria and neurasthenia were illnesses that lacked any identifiable pathology but were certainly linked in the individual to his or her ‘neurotic temperament’, while temperament itself had a national or even a racial aspect (Loughran 2008):

[Before the First World War] hysteria and neurasthenia were both viewed as evidence of the biologically determined neurotic or neuropathic temperament... The construction of neurasthenia as a malady fostered by the conditions of modern life was undoubtedly present in the pre-war literature ..., but commentators were equally likely to refer more generally to the increase of all nervous disorders as a concomitant of the ‘rise in the general level of culture and civilisation in a race’. [...] Hysteria and neurasthenia were therefore framed as indicators of national and political health. (Loughran 2008: 39-40)

One commentator, writing in 1910 in the *Lancet*, took the racial argument one step further, by arguing against the view that emotional shock was the main causative factor in the development of hysteria. Instead this anonymous author argued that both as individuals and collectively ‘the Latin races’ were less emotionally stable than the ‘Teutonic’ ones. He felt that the prevalence of both hysteria and social upheaval in France, for example the volatile character of the Parisian

mob, could all be linked to this fact. Other authors suggested that Jews were also emotional and more liable to hysteria, whereas neurotic behaviour was essentially un-English (Loughran 2008: 40).

Rivers aspired to a universal model of the psyche, yet by identifying colonised Melanesians as especially vulnerable to psycho-neurosis he was echoing (but inverting) some of the explicitly racial explanations prevalent in psychiatry at the time (see Dureau, this volume, for other examples of Rivers' racial thinking). However, the main emphasis of *Instinct and the Unconscious* is to subsume national or racial differences within a general scheme, and the underlying explanation is always the evolutionary theory that Rivers developed in the early 1900s with Henry Head. Even some of Rivers's contemporaries had doubts about his research method. Near the end of his life Frederic Bartlett (1968), a former student of Rivers and also a fellow of St John's College, wrote an appreciation of his mentor in which he points out that although Rivers began and ended his life as a psychologist, he preferred to work by logical deduction rather than through induction from experiments or observations. Rivers would adopt some general principle, then search for illustrative material, and finally by scrutinising this material 'with complete fairness' he would reach a conclusion:

In this manner it is quite extraordinary how practically everything of length that [Rivers] wrote followed closely the scheme of the general [epicritic/protopathic] theory worked out by Head and himself in their experimental study of cutaneous sensibility. There is a basic primitive organisation, little differentiated and subject to an 'all or none' type of expression. Then bit by bit this is invaded by incoming elements or influences which are 'integrated' with the primitive organisation, and may appear to transform it or even supplant it. But the foundation organisation is still there, and may be revealed by shock, disease, long continued stress, experiment or analytical study. This theme appears over and over again in Rivers's writings, whether sociological, anthropological, or psychological. (Bartlett 1968: 156)

Even after the Great War 'the method of his lectures remained the same: from general principle, through specific illustration, and back to general principle' (Bartlett 1968:158).

Mary Douglas (1987) has pointed out the difficulties intrinsic in this method, especially when the individual is regarded as a valid analogue for society at large:

Evading any tough technical analysis, Rivers was able to float around. He was successful in his generation because instead of an analytical tool he had a magic wand that he used to vanquish his opponents and to develop fashionably acceptable metaphors of mind and society. His favourite metaphor, which recurs in everything he wrote, is a model of control in the nervous system extended to control of the mind and extended to social control. (Douglas 1987: 85)

In the Rivers model logical thinking by the epicritic mind exerts control over the unconscious, which is the 'lower level' where both dreams and myths are formed (Rivers 1917b). If we extrapolate by analogy, then according to this model civil society becomes 'a structure dominated from the top by a refined elite, holding in restraint an incoherent, raucous mob of savages' (Miller 1972: 76). And perhaps in the societies of Simbo and Vella Lavella, with their institutions in a state of collapse following the suppression of headhunting, chiefs had become weak, men could no longer exert control over women, and women's disturbed maternal instincts and reckless behaviour were leading to rapid population decline. In all Rivers's writings on depopulation in Melanesia this model is implicit rather than explicit, but nonetheless his line of argument is perfectly clear.

Unfortunately it was not possible for Rivers to support this argument with hard evidence. As Forrester (2008: 56) suggests, by 1919 'River's ethnology was deeply entangled with his preoccupation with psychoanalysis'. However, in contrast to what he knew about other forms of psycho-neurosis, no clinical evidence was available to Rivers regarding the psycho-neurosis of Melanesians. One could even say that the evidence available to him in support of his psychological explanation for depopulation was verging on the impressionistic (Table 5). His travels in colonised parts of the world had been extensive, including Australia, Egypt, India, Hawai'i and Melanesia, but his 'intensive' fieldwork was restricted to a few weeks on a few islands in the western Solomons and northern New Hebrides. In the absence of his own diaries or those of Hocart, we cannot reconstruct in detail Rivers's four and a half months on Simbo island (but see Berg, chapter 4, for a tentative reconstruction of the Vella Lavella fieldwork). However

it is clear that for Rivers the work of recording Simbo genealogies, investigating sorcery and magic spells, and physical anthropological measurements occupied most of his time.

Hocart's investigations in the western Solomons in 1908 had been more wide-ranging but ten years later the two men may not have found collaboration easy. For example, both attended the British Association meeting in Bournemouth in September 1919, but by that stage their projects had diverged considerably. On 9 September, Rivers gave his presidential address to the Psychology Sub-Section on 'Psychology and the War' (Rivers 1922a), while on 11 September Hocart spoke to the Anthropology Section on 'Death ritual in Eddystone Island of the Solomons' (Hocart 1922). While Hocart's interests remained rooted in ethnography, the anthropology of Rivers was becoming more and more conjectural.

One of Rivers's problems in discussing women's role in depopulation was a lack of first-hand information. In the western Solomons it is clear that male informants had been his prime source of information, while Rivers's shyness and his avoidance of heterosexual relationships may have inhibited him from interviewing women (see Berg, chapter 4, regarding the absence of women from the physical anthropology data sets). As a result he simply lacked any reliable knowledge of topics like abortion and contraception. All of his work was done in pidgin English, which few women spoke, or by using male interpreters.

Rivers struggled to overcome these difficulties, and he was assiduous in collecting information in the local language particularly kinship terms, magic spells and the names of spirits, but inevitably his investigations were biased towards men's knowledge. In the manuscript genealogies that survive in the Haddon Papers there are some estimates by Rivers and Hocart of the age of people living on Simbo in 1908. It is striking that out of the total population of about 400 there are 127 males for whom an age estimate was assigned but only 27 females, and only nine women who were aged over 30. For women's knowledge of abortion and contraception Rivers partly relied on anecdotes sent to him in letters by Fred Green, an English trader resident on Simbo and married to a local woman (Green, n.d.). Rivers was therefore in a weak position to provide evidence for the supposed deficiency in the Melanesian maternal instinct.

In published accounts Rivers does not reflect upon his position in Solomon Islands, and he does not discuss the difficulties that he faced in fieldwork, as a white man, as a non-native speaker, and as a representative of the colonising force in Melanesia. However, in a letter to his sponsors the Percy Sladen Trust, he admits frankly that Simbo in 1908 was initially a difficult

place for the type of ‘intensive’ fieldwork that he wanted to achieve. Sitting in his tent in Narovo Bay on 14 June 1908, and using his portable typewriter, Rivers made the following rather gloomy report:

Circumstances have not been very favourable so far: the south-east season has been very late in setting in and in consequence we have had a great deal of rain; the people are very reticent and were at first very suspicious; the whole district is very unsettled, and all three members of the expedition [Rivers, Hocart and G.C. Wheeler] have had fever, but in spite of this we have done very well. (Rivers, n.d. a)

He reported that his team had largely ‘worked out’ the social organisation of Simbo ‘though there is still much detail to fill in’. A start had also been made in physical anthropological measurements and the investigation of technology, magic and religion. This was indeed a brave attempt to go beyond ‘survey methods’ and achieve a more ‘intensive’ type of fieldwork, and Hocart and Rivers continued this work on Simbo for a further three months.

One hundred years later it seems churlish to criticise this pioneer fieldwork and to expect different kinds of information (see Dureau, this volume). What Rivers, Hocart and Wheeler achieved in western Solomons is very impressive, but it was a programme of fieldwork that offered only limited opportunities for observer-participation of everyday lives, especially women’s lives. It was certainly the first professional project of social anthropology in Melanesia, but it did not provide a credible basis for Rivers to make bold statements 14 years later about the impacts of colonialism on the psycho-neuroses of Simbo islanders, especially not those of women. None of Rivers’s interviews in Melanesia were the equivalent of his repeated psychotherapy sessions with soldiers in army hospitals, generating the insights that became the basis for his tentative ideas about a ‘universal psycho-neurosis’ emerging in British society. Despite his openness to the views of missionaries long-resident in the islands, such as Charles Fox in Solomons and William Durrad in New Hebrides, Rivers simply did not have enough information to make a soundly based diagnosis of psycho-neurosis in Melanesia. Invoking ‘suggestion’ as the process through which the thoughts of individuals could be shared by others, indeed by whole populations, is another assertion that Rivers could not support from convincing ethnographic evidence.

From intensive fieldwork to wild speculation

We can contrast Rivers's bold, one could say wild, speculations about the causes of depopulation on Simbo and Vella Lavella with his extreme care in compiling genealogies and calculating vital statistics, or indeed his meticulous early work on colour perception, fatigue, the effect of alcohol and other drugs on muscular function, and protopathic/epicritic sensibilities in the nervous system. For example, we can cite the celebrated experiments in Rivers's rooms in St John's College that were carried out between April 1903 and December 1907. Rivers measured the gradual recovery of 'epicritic' feeling in Head's left forearm after a surgeon had severed the nerves, and they involved thousands of precise readings during 167 different days of measurement. Unable to measure with any precision the impact on the Melanesian psyche of colonialism, Rivers seems to have gone to the opposite extreme of imaginative reconstruction, as happened also in some of his late writings on cultural diffusion (Langham 1981: 160-199).

Rivers must have realised that his evidence for the breakdown of the parental instinct among Solomon Islanders was inadequate. This realisation may account for his failure to make explicit in any published papers his model of Melanesian psycho-neurosis. In the context of the general neglect in England of Freudian psychology, Rivers (1920c: 4) commented that 'few will find it worthwhile to study the details of a structure resting on foundations they reject'. In the case of Freudian psychology the shaky foundations stemmed from Freud's insistence on repressed sexuality as the principal basis for psycho-neurosis. Might Rivers have feared that anthropologists and colonial policy-makers would reject his interpretation of the 'psychological factor' in Melanesian depopulation if they realised how shaky were its foundations? In what he published, Rivers was cautious, and he did not make explicit his model of how colonial impacts in places like Simbo had induced 'universal psycho-neurosis' through suggestion, with consequent disturbance to maternal instincts. If Rivers had been more explicit it would have demonstrated to his readers that his model was largely deductive, intuitive and speculative, and therefore it would have revealed how inadequate was the fieldwork upon which his assertions were based.

Because academic caution and a strong respect for evidence had characterised so much of River's professional work, it is slightly shocking to discover this other side to his academic personality. Yet Rivers in his later years was still capable of common sense and caution. For

example, in relation to the merits of psychotherapy, he suggested in 1917 that ‘Freud’s psychology provides a consistent working hypothesis to aid us in our attempts to discover the role of unconscious experience in the production of disease’ (Rivers 1917a: 914, reprinted 1920c: 169).

Unfortunately the psychological factor in the depopulation of Melanesia was not presented by Rivers (1920a, 1922b) as ‘a consistent working hypothesis’, but rather as fact. In relation to all of his post-war work in anthropology, there is significance in some remarks that Rivers made at this time, and which were twice recalled in later years by Bartlett:

He [Rivers] would dash in at all sorts of times with new ideas. [...] He abounded in schemes. He said to me often that his real work was finished, and that he would just ‘let out’ ideas and leave them to live or to die. (Bartlett 1937: 106)

He was back with a bang to psychology and [public] affairs. He said to me ‘I have finished my serious work (he meant the Melanesian studies) and I shall just let myself go’. This he emphatically did. (Bartlett 1968: 158)

Charles Myers, a colleague and friend from the Torres Straits expedition and Cambridge experimental psychology, wrote about the ‘distinct change in his personality and writings’ that occurred in Rivers during the war:

[H]e became another and a far happier man. Diffidence gave way to confidence, hesitation to certainty, reticence to outspokenness, a rather laboured literary style to one remarkable for its ease and charm... It was a period in which his genius was released from its former shackles, in which intuition was less controlled by intellectual doubt, in which inspiration brought with it the usual accompaniment of emotional conviction.... (Myers 1923: 167-8)

We must conclude that in the case of depopulation in Melanesia Rivers’s ‘intuition’ and ‘inspiration’ exceeded the bounds of careful science and sensible scholarship. While his reconstructions of nineteenth-century demographic change on Simbo and Vella Lavella have

lasting value as a unique record of the impact of European disease in the colonised islands of Melanesia, Rivers's speculations about the psychological causes of depopulation cannot now be afforded the same respect. Undoubtedly European contact had some devastating impacts on Melanesian society, but Rivers's model of 'colonialism as shell-shock' should now be viewed as a speculative hypothesis that when tested later by others was found to be implausible (see Bennett, chapter 8). This type of 'conjectural anthropology' was a throw-back to nineteenth century ways of thinking, and despite its impact on contemporaries it is not surprising that Rivers's 'psychological factors' have been largely ignored by later scholars.

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TABLE 1. Fertility on Simbo for three generations -- people born approximately 1830s and 1840s (Generation I, married and fertile *c.* 1850-70); those born approximately 1850s and 1860s (Generation II, married and fertile *c.* 1870-90); and those born approximately 1870s and 1880s (Generation III, married and fertile *c.* 1890 until 1908). Data sources: Rivers (1922b:98; Rivers, n.d. d; Bayliss-Smith 2006:29, with corrections).

Rivers's 'Generation' (1)	Estimated period of women's fertility (2)	No. of marriages of women in their child-bearing years during the period of the Generation (3)						No. of children born	
		Total no. of marriages	Child-less	1-2 children	3-5 children	6 or more children	No. of children unknown (4)	Total number of children born (5)	Average number of children per marriage (5)
I	<i>circa</i> 1850- <i>circa</i> 1870	207	40	90	68	9	0	447	2.2
II	<i>circa</i> 1870- <i>circa</i> 1890	295	136	85	56	10	8	379	1.3
III	<i>circa</i> 1890- 1908	110	58	36	6	0	10	72	0.7

- (1) Rivers divided his genealogies into three successive generations numbered I, II and III, Generation III being families recently completed or nearing completion in 1908. He stated that 'the division into generations was necessarily rough, but was effected before any attempt was made to estimate fertility' (Rivers 1922b:198).
- (2) Based on an estimated 20 years between generations apart from the 18 years of the incomplete Generation III.
- (3) Numbers are calculated from the statistics provided by Rivers (1922b:98) for the percentage of marriages in each category.
- (4) Rivers (1922b:95) admits that the apparent changes in birth rate between Generation II and III 'may be illusory owing to certain families [10 in the Simbo case] being still incomplete'. In contrast the 8 families in Generation II where the number of children is 'doubtful' apparently reflects some gaps in the data.
- (5) Rivers admits that these figures are likely to underestimate fertility: 'There is the possibility that male children who died young would be remembered better and that some female children who died in infancy may have been forgotten and therefore omitted' (Rivers 1922b:100).

TABLE 2. Mortality on Simbo for three generations, showing children of parents in Generation I, II and III respectively who either ‘died unmarried’ or ‘died young’. There is male bias in the reported mortality in Generation I (see text), and mortality in Generation III was still incomplete in 1908. Data source: Rivers, n.d. d.

Rivers’s ‘Generation’	Approximate chronology	A BIRTHS No. of children born to parents in GI, GII and GIII M + F = total [no. per marriage] (1, 2)	B INFANT DEATHS No. of children who ‘died young’, M + F = total [% of births] (1)	C OTHER DEATHS No. of children who ‘died unmarried’, M + F = total [% of births] (1)	D TOTAL DEATHS B + C = All children dying ‘young’ or ‘unmarried’ [% of births]
I	People born <i>circa</i> 1830s-40s; women fertile <i>circa</i> 1850-1870	267 + 180 = 447 [2.2]	17 + 8 = 25 [6%]	53 + 16 = 69 [15%]	94 [21%]
II	People born <i>circa</i> 1850s-60s; women fertile <i>circa</i> 1870-1890	195 + 184 = 379 [1.3]	36 + 15 = 51 [13%]	11 + 7 = 18 [5%]	69 [18%]
III	People born <i>circa</i> 1870s-80s; women fertile <i>circa</i> 1890-1908	45 + 27 = 72 [0.7]	14 + 4 = 18 [25%]	1 + 0 = 1 [1%]	19 [26%]

- (1) Rivers admits that some of these figures are likely to be underestimates: ‘There is the possibility that male children who died young would be remembered better and that some female children who died in infancy may have been forgotten and therefore omitted’ (Rivers 1922b:100).
- (2) These figures comprise the two categories established by Rivers (1922b:98), ‘children [who] died young’ and ‘children [who] died unmarried’, and they represent mainly deaths before the normal age of marriage. His other categories are ‘children [alive in 1908 but] unmarried’, ‘sons [who] married’ some of them alive in 1908 and some dead, and ‘daughters [who] married’, again some alive and some dead.

TABLE 3. Rivers's (1920c: 5, 52-60) classification of the instincts.

Instincts	Conscious states (reactions)
<p>1. SELF-PRESERVATION</p> <p>(a) Appetitive instincts – the satisfaction of nutritional needs, hunger and thirst.</p> <p>(b) Danger-instincts – protection from danger (flight, aggression, manipulative activity, immobility), or collapse if the danger seems overwhelming.</p>	<p>Attraction to the useful (eating, drinking). Repulsion from the harmful (avoidance). Acquisition (hunting, collecting).</p> <p>Fear (flight). Anger (aggression). Absence of affect (manipulative activity). Suppression (immobility). Terror (collapse).</p>
<p>2. CONTINUING THE SPECIES</p> <p>(a) Sexual instinct.</p> <p>(b) Parental instinct.</p>	<p>Attraction (sexual interactions). Tender emotions (caring for children and the elderly).</p>
<p>3. MAINTAINING THE HARMONY OF SOCIETY</p> <p>Gregarious instincts.</p>	<p>Imitation, Sympathy, Suggestion, Intuition (both cognitive and unwitting ways through which group norms are communicated, especially in groups with leaders).</p>

Note

Rivers believed that ‘as in most branches of psychology, there are no sharp lines between the three branches of instinct’. For example, the instinct for construction overlaps categories (1) and (2), and the instinct for play overlaps categories (1) and (3) (Rivers 1920c:53).

TABLE 4. Summary of the main processes in Rivers’s (1920c) model of psycho-neurosis, showing the various disequilibria that stem from traumatic disturbances of the sexual instinct and the instincts of self-preservation. In the third row the model is extended to disturbance of the parental instinct under the traumatic impact of colonialism, which is implicit rather than explicit in Rivers’s various papers on depopulation (Rivers 1920a, 1920b, 1922b).

Instinct	Normal controls (the equilibrium that is maintained by suggestion, repression and conformity to social forces)	Disturbances to the normal controls	Symptoms of disequilibrium
Sexual	Social taboos, prohibitions and kinship rules. Repression by individuals in conformity with social norms.	Puberty, incest, illicit love, etc.	Psycho-neurosis (<i>sensu</i> Sigmund Freud).
Self-preservation	Education that discourages the expression of emotions especially fear. Army training that promotes notions of discipline, honour, shame and <i>esprit de corps</i> through suggestion, repression and sublimation.	War	‘Shell-shock’, i.e. warfare-induced hysteria, anxiety-neurosis and psychosis.

TABLE 5. The scientific basis for Rivers's models of psycho-neurosis.

Origins of trauma	Rivers's first-hand experience	Other sources available to Rivers
Sexuality	Probably limited; his own sexuality seems to have been strongly repressed. During the Great War he commented on 'those sexual repressions which are so frequent... among the more leisured classes of the community', in contrast to the sexual lives of ordinary soldiers which he described as 'wholly normal and commonplace' (Rivers 1917c: 913-914).	Wide reading, especially Sigmund Freud (e.g., 1912, 1913, 1914) and others (e.g., Prince 1914; Jelliffe & White 1915; Holt 1915; Ferenczi 1916).
Warfare	1915-19: psychotherapeutic treatment of male soldiers and airmen at Maghull and Craiglockhart Military Hospitals, Royal Flying Corps Central Hospital, and Empire Hospital for Officers.	Discussions of case histories with colleagues at military hospitals, and wider reading (e.g., MacCurdy 1918).
Colonialism	Observations during anthropological fieldwork in Torres Straits (1898), Egypt (1900), south India (1902), Hawaii, Fiji, New Hebrides and Solomon Islands (1908), and New Hebrides (1914-15). However his only prolonged period of 'intensive' fieldwork was with Hocart on Simbo island, western Solomons, for five months in 1908.	Interviews with indigenes, mostly men, in English or pidgin English; discussions and correspondence with ethnologists, missionaries and administrators; reading the anthropological literature in English, German and French.

LIST OF FIGURE CAPTIONS

Figure 1. Portrait of William Rivers by the Scottish artist Douglas Gordon Shields. This picture was bequeathed by Rivers to St John's College, Cambridge in his will, and it was subsequently hung in the college's Senior Combination Room (Bartlett 1923). Rivers probably sat for this portrait in 1917, during his period of Royal Army Medical Corps service at Craiglockhart War Hospital for Officers in Edinburgh. Lieutenant Douglas Gordon Shields (The Royal Scots, Lothian Regiment) was 'honourably discharged due to wounds or sickness' in 1917, and he may have been one of the shellshock patients treated by Rivers at Craiglockhart.

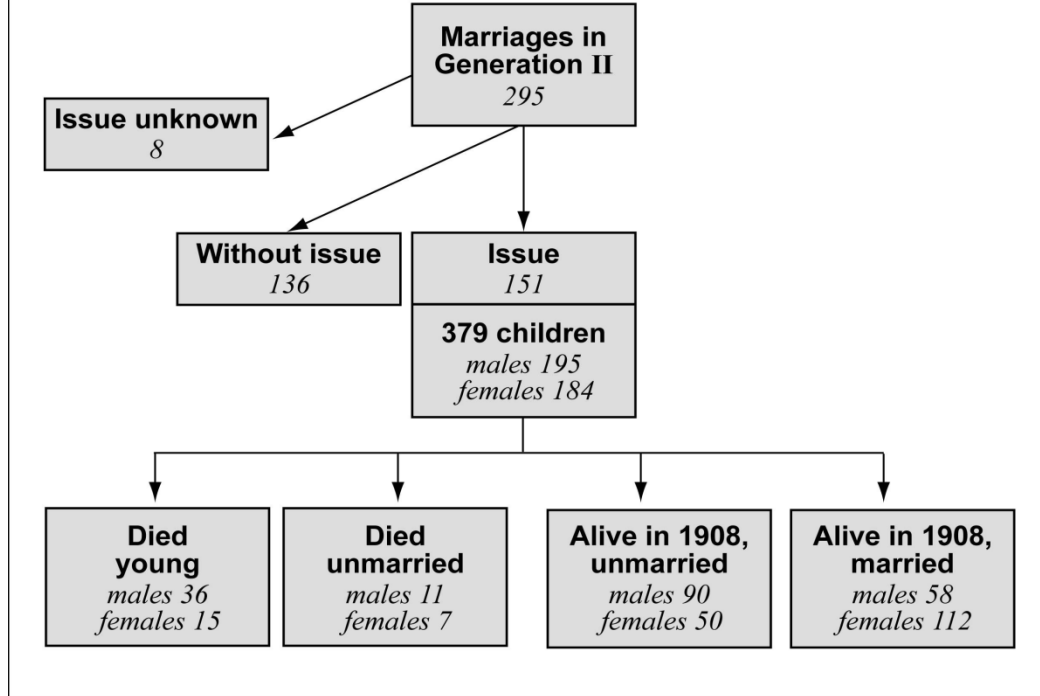
Figure 1. Rivers's 'vital statistics' for Generation II on Simbo, based on the genealogies collected by Rivers, Hocart and Wheeler in 1908. While Generation I may have been too far back in time for accurate recall of all details, and Generation III had not yet completed their child-bearing years, Generation II may represent a tolerably complete reproductive cohort. The women in these marriages were born c.1850s-60s and were in their child-bearing years c. 1870s-80s. (Source: Rivers 1922b: 98; Bayliss-Smith 2006:29).

Figure 2. Rivers's model of psycho-neurosis in diagrammatic form. In traumatic circumstances (sexual conflicts, warfare, colonialism), and in the minds of vulnerable individuals, there is a breakdown in the normal balance between conscious 'epicritic' controls and unconscious 'protopathic' impulses. As a result certain persons individually experience various forms of psycho-neurosis. If the disturbance that caused this condition is sufficiently severe and prolonged, then through the operation of the gregarious instincts (suggestion, imitation/mimesis, intuition and sympathy) all members of society begin to share a state of collective psycho-neurosis.

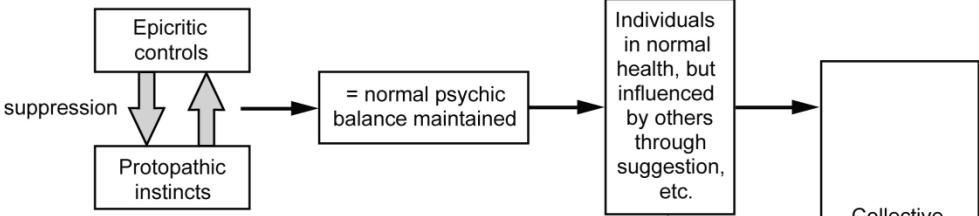


Generation II

Women born c. 1850s-60s,
fertile c. 1870s-1880s



**1. During periods of stability,
and in persons
not vulnerable to disturbance:**



**2. During periods of stress
(sexual, warfare, colonialism) and
in persons vulnerable to disturbance:**

