

Shell Shock Doctors

Shell Shock Doctors:

Neuropsychiatry in the Trenches, 1914-18

By

A D (Sandy) Macleod

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On 13 October 1917 twenty seven year old, recently married, architect from Christchurch, New Zealand, 2nd Lieutenant Murdock Keith Macleod died of wounds inflicted the previous day during the Battle of Passchendaele. He has lain for over a century in Nine Elms British Cemetery, near Poperinghe, Belgium, visited periodically by members his antipodean family. His tragic death, and those of many other Kiwi soldiers, devastated a colony of the British Empire, yet founded a nation. The First World War still reverberates through the generations of ANZAC descendants. A personal connection enticed my interests in the medical history of that war and to my grandfather's brother I belatedly gift this manuscript in his memory.

To those who supported me in this endeavour I am appreciative and grateful. The subtle influences of my neurologist father, Keith Macleod, and the many colleagues, most particularly Peter Miller and Sandy McFarlane, who advocated persistence. My employers over the decades, Canterbury District Health Board, the University of Otago and the University of Canterbury provided the opportunities for my scholarship and research. Janet Chambers kindly directed me to her grandfather's extraordinary cartoon of shell shock and Paul Lumsden created the maps. The Imperial War Museum provided permissions to use several illustrations. My wife, Mary Fairhall, and my children never wavered in their support. Cambridge Scholars Publishing completed the project with great patience and skill.

GLOSSARY

ADS	Advanced Dressing Station
AEF	American Expeditionary Force
ASD	Acute Stress Disorder
BEF	British Expeditionary Force
BMJ	British Medical Journal
CCS	Casualty Clearing Station
CO	Commanding Officer
DAH	Disordered Action of the Heart
DGAMS	Director General Army Medical Services
Holder	Report of the Conference of Neurologists and Representatives of the Service Departments: Compensation in Cases of Neurasthenia and Psychosis.
HQ	Headquarters
MD	Medicine & Duty
MO	Medical Officer
MP	Member of Parliament
NCO	Non Commissioned Officer
NYDN	Not Yet Diagnosed Nervous
PCS	Post Concussion Syndrome
PIE	Proximity, Immediacy, Expectancy
POW	Prisoner of War
PTSD	Post Traumatic Stress Disorder
Queen Square	The National Hospital for the Relief and Cure of the Paralysed and Epileptic
RSM	Royal Society of Medicine
RAMC	Royal Army Medical Corps
RMO	Regimental Medical Officer
Southborough	Report of the War Office Committee of Enquiry into “Shell Shock”
VC	Victoria Cross

INTRODUCTION

During the First World War British soldiers introduced the pithy and evocative lay term “shell shock” to describe the mental states caused, they believed, by the shelling and horrors of trench existence. Shell shock, the signature wound of the Western Front, was briefly and formally recognised as a medical diagnosis, before being banned by the military authorities. Yet it remains in current use today as a literary metaphor of the futility of war and an attractive symbol of collective trauma and victimhood (Loughran 2017, 24). Modern military conflicts involving high-intensity explosive devices have reactivated medical consideration of shocking physical and psychological injuries, encouraging reviews and reconsideration of the psychiatric casualties of the appalling slaughter in France and Flanders 100 years ago.

There have been written many accounts of what was often called the Great War by participants and historians. These histories have tended to only cursorily deal with the complexities of shell shock. The psychiatric performance of those attending these casualties has generally been that they were ignorant, inadequate and intolerant. Historical memory regards shell shock as the psychological response to the devastating actualities of the war. Only a few modern psychiatrists have published in the area—Harold Merskey, Simon Wessely, Stephanie Linden and Peter Howorth. As a psychiatrist, with an interest in history, and a clinical commitment to military veterans, police and traumatised civilians, I was drawn to the original publications of those doctors who served in that conflict. It soon became apparent that the shell shock doctors’ conceptualisations and management of the mentally wounded were informed and sophisticated. But they struggled, and essentially failed, to devise effective treatments for the enduring post-traumatic states some of the soldiers evolved. Yet though scientific and technological advances have improved our understanding of many psychiatric states, for the clinician at the coal face with victims of trauma, little has changed since 1914–18. Over recent decades a huge wealth of literature about post-traumatic stress disorders and mild brain injuries has actually contributed relatively little to the management of these conditions. The First World War did much to transform psychiatry, to legitimise it as a medical specialty and to address the stigmata attached to the sufferers and the carers. It was also a missed opportunity to formalise

the sub-specialty of neuropsychiatry whereas other specialties such as cardiology, plastic surgery, modern anaesthesia and rehabilitation medicine were born in the era. Many of the doctors involved endured danger and hardships during their service which significantly determined their professional life and subsequent career opportunities. Some suffered mental injuries, and all were manifestly influenced by trench experiences. The “forgetting” of the psychiatric knowledge acquired during “the war to end wars” was professionally unforgivable, but perhaps understandable for men who, after the Armistice, just wanted to get on with civilian life.

Chronology matters when considering shell shock (Shepherd, 1996b). A soldier blown up by a shell in 1914 would have been believed, but not in 1917. A man shot for cowardice in 1916 would probably have been spared in 1918. Shell shock did not exist as a medical term before the war, or after 1916. What was written in 1915 was very different to that of 1918. Military events, casualty rates, availability of medical expertise, medical politics, governmental policies and chance circumstances all influenced the evolution of knowledge about the mentally wounded and the medical profession’s clinical response. Publication delays, scientific and editorial biases, the general reticence of the predominantly junior medical staff at the front to publish, and the intellectual and psychological avoidance of dwelling on service experiences resulted in further chronological inaccuracies. The potpourri of clinical states initially considered by the soldiers to be shell shock gradually became limited to those of hysterical (conversion) states and neurasthenia (anxiety). No adequate overall account of shell shock was ever written. Probably the best contemporary medical overview was that of Australia’s official medical historian, Arthur Butler, though it received scant attention. Relying on secondary sources and publications within the English language, this account predominantly considers the medical print of the journals of the era. Shell shock in the field was rather different clinically to shell shock in London or Edinburgh. Most of the medical publications were composed by senior doctors, miles from the action and attending cold cases, those relieved not to be at the front. The vast majority of doctors of the era were not specialised, and the major sources of medical literature were in generalised journals such as *The Lancet* and the *British Medical Journal (BMJ)*. These journals throughout the conflict published occasional French and German commentaries about the casualties. Several American doctors were working in Germany prior to their country’s entry into the war, keeping the English-reading medical world in touch with the practices there, as did the regular “Letters from Berlin” to the *Journal of the American Medical Association (JAMA)*. Though the vast body of professional literature about shell shock was British, as reflected in this manuscript, similar

refining of the knowledge of the psychiatry of warfare was occurring in the other combatant countries, though emphases varied. In Britain, as Tracey Loughran concluded (2017, 4), the medical understanding of “shell shock” evolved, rather than ruptured, during the years 1914-18. This evolution tilted a predominantly dualistic theory of mind and body towards a biopsychosocial one.

The 1922 Report of the War Office Commission of Enquiry into “Shell Shock” (the Southborough Report) and the 1939 report of the Conference of Neurologists and Representatives of the Service Departments: Compensation in Cases of Neurasthenia and Psychosis (the Horder Report) both essentially affirmed the medical prejudices and opinions held before 1914. Most modern English language accounts of shell shock and related phenomena are based on individual survivor’s biographies, superficial interpretations of the medical literature, a few film clips of shell shock victims and pension records. An exception is Linden’s review of a sample of actual clinical files from Queen Square, London and the Charité Hospital, Berlin (Linden et al., 2012). But even this method struggles to translate the psychiatric symptoms and diagnoses of a century ago into contemporary psychiatric knowledge and diagnostic fashions. Particularly later in the war, the original medical literature about shell shock was richer and more sophisticated than has been appreciated.

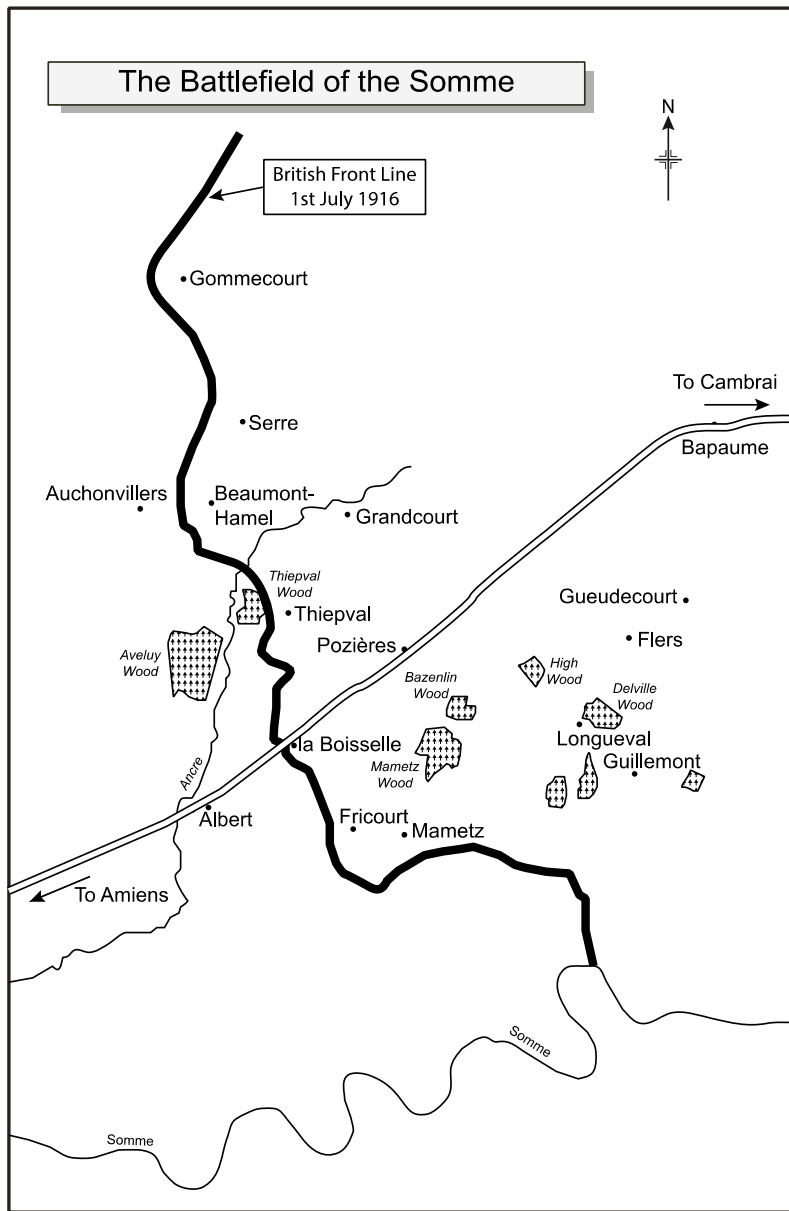
During the conflict the specialty of neurology, in all the belligerent forces, dominated medical opinion, and maintained a strict dualistic approach to brain and mind disorders. However, as the man-power wastage crises at the front evolved, the role of psychology and the practice of psychiatry assumed increasing importance. British medicine had always prided itself on its empiricism and therapeutic pragmatism. First World War medicine obliged. Cowardice and malingering were not really forgotten, though, physical causes and the physical shock of high explosives were disregarded, phylogenetic theories acknowledged (despite providing no management strategies), and multiple psychogenic aetiologies entertained. Ultimately the fledgling discipline of psychoanalysis claimed intellectual supremacy, based on little or no actual performance as therapy for the mentally wounded. Yet the clinical states considered to be those of shell shock, hysteria and neurasthenia, were actually accepted by the shell shock doctors to be compilations of organic, psychological, sociological, phylogenetic, cultural, and situational causative and reinforcing stressors.

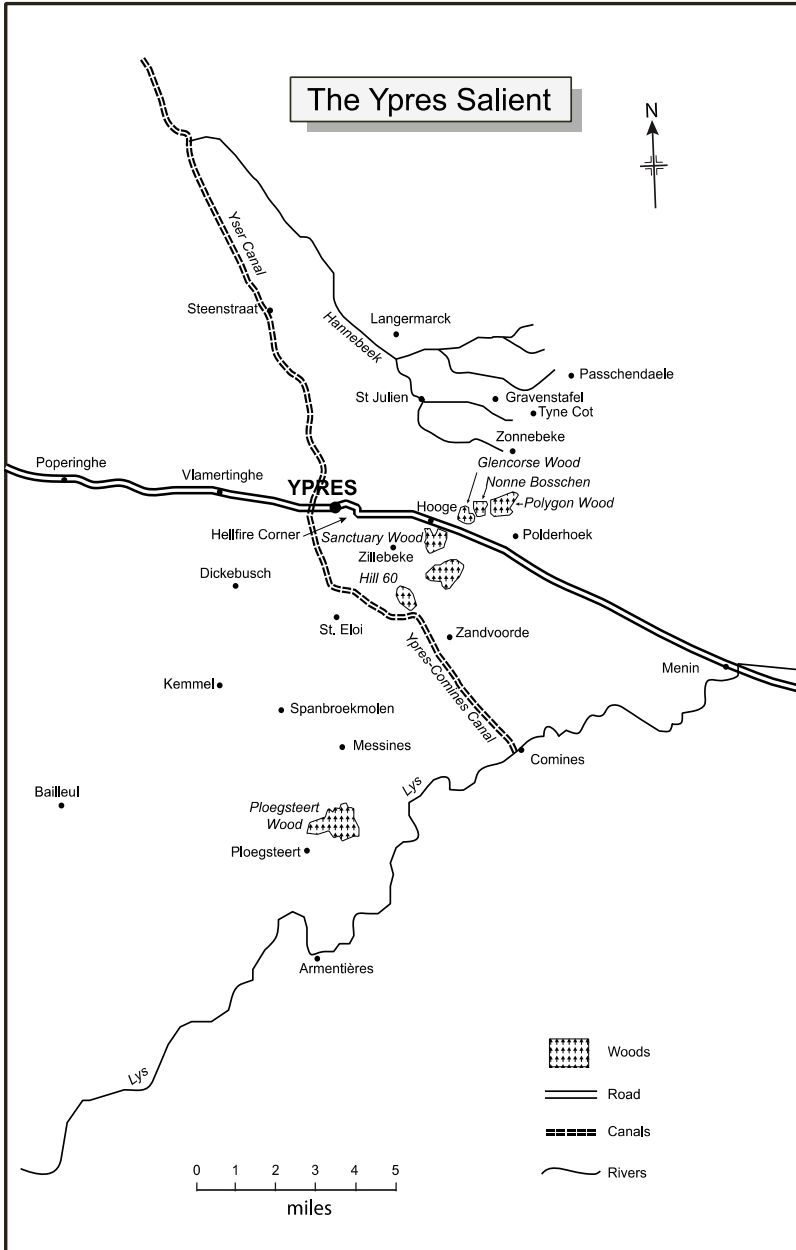
A vast literature on post-traumatic mental states has emerged over recent decades. Others have documented and written of the survivors’ plights. My own interest in the medical literature of the First World War was originally to access the rich information recorded in the journals and

books of the day. Having had the privilege of caring for hundreds of more recent military veterans in New Zealand and Australia, and many conversion patients in general hospitals, I was drawn to read this literature to assist in my own practice as a psychiatric clinician. Much of what I found is now being affirmed by modern clinicians and researchers, but there has been a paucity of medical reconsiderations of this literature. Modern psychiatry still grapples with the clinical complexities presented by traumatised people, whether they are civilians or in the military. This book aims to address some historical inaccurate and unfair interpretations of shell shock doctoring and to demonstrate not only the courage of the individual doctors but also their intellectual curiosity and desperate attempts to find an effective treatment. After a war is over, much is forgotten, not by the participants, but by the society that they live in. Military conflicts still blight the modern world, soldiers (and civilians) continue to be physically and psychologically maimed, and frequently those of us who work with the traumatised remain therapeutically impotent. Traumatic experience cannot be ablated from the brain and the mind but its sufferers deserve improved supportive and palliative interventions. The shell shock doctors felt the same, and their theories and experiences, as they endeavoured valiantly to help the wounded combatants of the First World War, require reconsideration and respect.

The Western Front: The British Sector







CHAPTER ONE

MILITARY MADNESS: PSYCHIATRY IN THE MILITARY BEFORE 1914

The mental illnesses of warriors have long been anecdotally described. Gilgamesh, Odysseus and Henry IV were all troubled by violent military pasts. Alcohol, syphilis and tropical diseases were acknowledged occupational risks for soldiers. Disloyalty and congenital mental weakness were the accepted explanations for cowardice and poor performance on the battlefield. There was little recognition that the weapons of war or the environment of active service caused mental illness. Army doctors did recognise, however, that soldiers feigned deafness or blindness in order to evade military service. In 1843 Hector Gavin had published a book on military malingerers and the ruses they used to simulate paralysis, epilepsy and insanity. But such behaviours were not deemed to be symptoms of mental illness. The incidence of mental injury at war was reported only sporadically until the Industrial Revolution. From the nineteenth century onwards British military authorities held some statutory obligation for the mental health of their men. “Lunatic” soldiers could not be discharged from service, and under the King’s Regulations had to be referred to an asylum for care.

The British military historian, John Fortescue, dismissed the occasional reports of war neurosis before the First World War, doubting their trustworthiness. He acknowledged that, in the British Army: “Tired old soldiers in former wars used to mysteriously disappear for periods of rest and recovery from the nervous strains of battle”. He did, however, concede: “No doubt there were men who, from one cause or another, broke down in every campaign; and I have little doubt that this was one of the causes that led to desertion. But such break downs, when they are recorded, were not very sympathetically treated, and unless a man has proved himself of good courage earlier in action are dismissed as not differing greatly from cowardice” (Southborough, 1922, 9).

Insanity in War

Until the twentieth century psychiatric issues were of little importance to mainstream military medicine. The Crimean War (1853–56) was one of the greatest British military medical disasters (Gabriel and Metz 1992, 169–71). Continuous artillery bombardment, Minié's new canoidal bullet (a heavy, soft bullet), intolerable living conditions, rampant infections, inadequate and disorganised medical staff, drunkenness and (for the British) inept command, led to horror and misery for all concerned. Florence Nightingale was credited with introducing the first female military nursing corps and a significant reduction of the mortality rates, and the Russians deserve similar credit for innovation, particularly in the area of military psychiatry. The Tsarist Army perceived mental illness as shameful, and only six Russian soldiers were evacuated from the battlegrounds because of some kind of ill-defined mental illness, yet this war served to encourage the establishment of a military psychiatry school in 1859. The founder, Ivan Mikhailovich Balinskii, the "father of Russian psychiatry", gave military psychiatry a sense of respectability. Male hysteria was recognised, though A. V. Timofeev in 1896 observed that hysteria was rare among attacking units and considered that mentally ill soldiers only rarely required to be isolated or intensely supervised. In 1891, A. I. Ozeretskovskii published *Hysteria in the Military*, which described the symptomatology of war hysteria, emphasising that pre-war vulnerability and heredity could be unmasked by the stress of battle. The reaction of the brain to physical trauma and mental stress was considered to be on a continuum ranging from a mild, irritable response to a severe psychotic or paralytic response. As treatment Ozeretskovskii advised work therapy, good sanitary conditions and nutritious food. Russian doctors considered war neuroses not new illnesses but extreme forms of pre-existing conditions already known within society (Wanke 2005, 5–16).

The American Civil War (1861–65) heralded modern industrial combat. Huge civilian armies able to be rapidly mobilised by rail clashed in set-piece battles with heavy artillery. Casualties were horrific, wounds mutilating and often fatal. The violence was often intimate, with frontal assaults and hand-to-hand fighting common, and row after row of dead littered the battlegrounds. A retrospective archival study of nearly 18,000 Civil War veterans suggested that (psychological) trauma, youthful exposure to war and being wounded increased the incidence of developing signs of nervous disease by 64 per cent (Pizarro et al. 2006). The prevailing very narrow concept of insanity, the practice of discharging men directly from the field, the propensity for desertion and the tendency

to view mental symptoms as cowardice or attempts to shirk duty undoubtedly minimised the recognition of mental disorders during this conflict. Many, probably psychiatrically ill, soldiers simply deserted, often carrying a wounded man off the field and then just disappearing. Interestingly, psychiatric casualties were recognised as more pronounced in the eastern theatre of war, where static and trench warfare had developed (Dean 1991). Those with “mind wounds” (there was no medical label used) were sent home and left to fend for themselves. They died of hunger, alcohol abuse and exposure, they could be hanged as malingerers, or, if they were lucky, sent to an asylum for the rest of their natural lives (Holden 1998, 9). “Insanity” (or psychosis) accounted for only six per 1000 discharges (Deutsch 1944, 377–84). Opium pills were easily available and the invention of the hypodermic syringe allowed its intravenous use. The widespread prescribing of opioids and the endemic use by the troops may have been a therapeutic factor containing post-traumatic and neurasthenic symptoms (for opioids may prevent post-traumatic psychiatric states), but it is estimated that by 1900 there were 200,000 drug addicts in the United States, many of whom were old soldiers (Gabriel and Metz 1992, 186). In the Confederate Army the honour of service, the massive casualty rates and the punitive attitude of the victors probably suppressed the presentation of many psychological complaints. In addition to the high rates of opioid use in Civil War veterans, there was a massive post-war increase in crime, attributed at the time by some reporters to disturbed veterans (Dean 1991).

The outstanding medical event of this war was the establishment of neurology as a specialty (Deutsch 1944, 377). Silas Weir Mitchell, G. R. Morehouse and W. W. Keene described *causalgia*, the neuropathic pain that followed gunshot wounds to the limbs. Never one to underestimate his own work, Weir Mitchell also developed his famous Rest Cure during his Civil War hospital work. This treatment of neuroses entailed weeks of enforced rest, isolation from family and a rich, fatty diet. Field ambulance services were formed and the excellent Northern railway system was able to rapidly transport casualties to urban hospitals. Another achievement was the creation of a medical pension systems, in the North, to cater for returning soldiers. In 1863 the War Department had ordered that no soldiers should be discharged from the army on grounds of insanity, though this regulation was widely ignored (Deutsch 1944, 377–84). It was the field-discharged, sick, wandering veterans who led to the public demands to create an asylum. In 1863 the first military hospital devoted to the treatment of military psychiatric casualties, eventually called St Elizabeth's, was founded in Washington DC. Yet barely a single article or

book was published on the psychiatric casualties of the Civil War (Gabriel and Metz 1992, 199).

The German soldier in the Franco-Prussian War of 1870 was the recipient of the best organised and efficient military medicine service yet developed. With unification under Bismarck and the establishment of attractive commissions in a reserve army, the nationalised German Army was easily able to call upon medical talent. An independent medical corps was created. Recalling their difficulties in the Austro-Prussian War of 1866, and learning of the importance of forward treatment and transport of casualties from the Americans, ensured a competent medical staff independent of line command, and a focus on hygiene and sanitation resulted in a greatly reduced death rate. As swords and cavalry were superseded by the rifle, machine gun and heavy artillery, the lethality of war had escalated. This was the first conflict in modern history in which more casualties were caused by hostile fire than by disease (Gabriel and Metz 1992, 203). The physician in charge of the Provincial Asylum in Orel (Oryol), Russia, Paul Jacoby, who was an observer of this war, called for “a special psychiatric service for soldiers on campaign” and predicted that the explosive power of warfare would “produce new forms of neurosis and mental disorder” (Anon 1904).

Small-scale colonial wars in the later quarter of the nineteenth century, such as the South African (Boer) War (1899–1902), were dominated by sickness rather than wounds caused by weapons. The Royal Army Medical Corps (RAMC), officially in existence for only a year before the war, was critically short of personnel and resources. Infections, though not of wounds, overwhelmed the medical resources in southern Africa. The light, high-velocity rifle bullets used caused small, clean wounds that allowed for conservative surgical management in the dry environment of the veldt. Psychiatric cases were infrequent.

The first “modern” war of the twentieth century, the Russo-Japanese War of 1904–05, attracted the close interest of other nations who appointed military and medical observers and attachés to both armies. Wastage from disease was expected to be the main problem, and indeed it was. Hand grenades and heavy artillery emerged as effective weapons, though the vast majority of wounds were still inflicted by bullets. In times of need, the Japanese were able to infiltrate civilian doctors, many trained by German professors, with reserve military experience and status, into the regular army (Herrick 1999, 99, 106). Military hygiene and disease prevention were their major interests. While the Japanese brilliantly reduced casualties of disease, military psychiatry was evolved and refined by the Russians. From their experience in the Crimea, they anticipated that

there would also be cases of war-induced mental illness. But the position assigned to medical officers was subordinate and in areas other than psychiatry their medical care was disastrous. They had no ambulance corps, scurvy and typhoid were endemic, the hospitals were dismally run and the only item in great supply was vodka. Bombardments produced alarming numbers of casualties from psychiatric collapse and self-inflicted wounds (Gabriel and Metz 1992, 235–38). Men were discovered on the battlefield “suffering from confusion and terror and deep-seated delusions” (Richards 1910). A fully developed plan to provide psychiatric services was never formulated, though a brilliant student of Professor Vladimir Bekhterev, the esteemed neurologist who advocated objective psychological study, was sent east to organise the Russian Red Cross. P. M. Avtokratov established a military hospital in Harbin, Manchuria. He recognised that mass evacuation of psychiatric casualties from the front was not ultimately therapeutic. Despite crude diagnostic systems, haphazard treatment and soldiers treated like “rows of cattle” (Wanke 2005, 15, 17–28), Avtokratov was able and allowed to create the first special psychiatric service established in any military force (Sirotkina 2002, 34). Once hospitalised at Harbin, close behind the battle lines, only about 20 per cent of officers and 5 per cent of enlisted soldiers were ever returned to duty (Gabriel and Metz 1992, 235–38). Avtokratov advocated placing psychiatrists near the front line and discouraged medical evacuations. As a result, the hopelessly over-burdened, under-resourced and low-status Russian military doctors and feldshers (paramedical emergency practitioners) evolved the principles of frontline psychiatric treatment: proximity and immediacy (Jones and Hales 1987). The foundation of modern military psychiatry had been laid. About half of the 12,000 Russian neuropsychiatric casualties suffered “hysteria and nervous exhaustion”, yet only 2–5 per cent of those hospitalised had these diagnoses (Wanke 2005, 18). Very few hospitalised patients recovered. About 85 per cent needed to be sent home, though by the time they had reached Moscow, a month later, their symptoms were less dramatic and less specific and the predominant diagnosis, for 24 per cent of them, was nervous exhaustion. Along the Trans-Siberian railroad small psychiatric clinics had been established to provide care on route and it appeared that with rest, proper food and a ticket home the initial psychiatric symptoms would burn out, leaving a residual state of physical and mental exhaustion (neurasthenia) (Wanke 2005, 22–25). This profound observation was possible only because the war was fought 5,000 miles from the Russian capital. The Russians came to appreciate that the military disruption such patients could cause could be lessened by adequate frontline psychiatric

services, but despite international observers coming from the West, these lessons were largely ignored. One such observer, Captain R. L. Richards of the American Medical Corps, made the prescient comment: “A future war will call at least equally large numbers of men into action. The tremendous endurance, bodily and mental, required for days of fighting over increasingly large areas, and the mysterious and widely destructive effects of modern artillery fire, will test men as they have never been tested before. We can surely count then on a larger percentage of mental diseases requiring our attention in a future war” (Richards 1910).

Military psychiatric conditions

Though considerable symptom overlap is apparent, three major syndromes emerge from these historical medical reports. These have assumed a variety of names throughout history. In modern terminology, they could be considered affective, psychosomatic and pseudo-neurological syndromes. In 1678 a condition of emotional fatigue in the Swiss armies was formally described by physicians as nostalgia (Rosen 1975). The symptoms included excessive physical fatigue, an inability to concentrate, an unwillingness to eat or drink, feelings of isolation, frustration and an inability to function in a military environment. Nostalgia was characterised by a state of deep despair, overtiredness, anorexia, anxiety and homesickness experienced particularly in conscripted troops sent to foreign territories where they had little prospect of leave. The Spanish used the term *estar roto* (to be on the point of breakdown), the German condition *heimweh* was similar, and the Napoleonic soldiers retreating from Moscow experienced a similar mental state named *maladie du pays* (Binneveld 1997, 3). This was recognised not to be a physical condition, but a disease of a disordered imagination. If attempts to improve digestion (thereby freeing up vital spirits), promises of leave, the provision of diverting company and the remedying of insomnia by “narcotic mixtures” failed, then repatriation cured these soldiers, according to the seventeenth-century Swiss physician, Johannes Hofer. Otherwise it could be a fatal affliction (Rosen 1975). By 1800, except in America, nostalgia was generally considered to be a form of melancholia (Anon 1914c). *Nostalgie militaire* enjoyed a longer diagnostic career in that country. During the Civil War the “home feeling to a morbid degree” was noticed particularly in youthful soldiers and in married men parted from their young families. Inexperienced Northern troops had this disorder with a prevalence rate of 3.3 per thousand, and approximately 1.5 million troops suffered nostalgia during this conflict (Babington 1997, 15). In 1863 official statistics reported 12 fatalities from nostalgia. If kindly

and supportive remedies proved ineffective then in order to save life the man was discharged from service (Deutsch 1944, 377–84; Binneveld 1997, 3). Nostalgia never appeared as a diagnosis in British medical textbooks (Jones and Wessely 2005, 3). In Britain, affective states were to become the preferred diagnoses for negative emotional reactions. In the late 1880s 0.6 per cent of the war pensioners at London's Chelsea Hospital were diagnosed as melancholic (Taylor 1994). It was apparent that servicemen were not immune to depression, but the cause was believed to be predisposition and homesickness rather than combat.

Before the Crimean War, when battles were sharp and short, it was a rarity for soldiers to suffer prolonged and severe states of exhaustion (Babington 1997, 10). In the Crimea, however, there were soldiers "too tired to take the trouble to shave and wash" (Taylor 1994), and there were reports of men suffering palpitations, though subsequent investigations showed no underlying physical or cardiac pathology. Irregular heartbeat, chest pain, shortness of breath and general debility could lead to invalidity and discharge from the forces (Jones and Wessely 2005, 4). This condition, referred to as Crimean fever, was often associated with dizziness, headache and diarrhea; one such soldier was "utterly unnerved and agitated violently by the merest trifles" (Jones 1855). The soldiers' diet was poor and sanitation appalling, but the British Army attributed these symptoms to overwork or the carrying of improper heavy accoutrements (Jones and Wessely 2001). Changes in equipment did not, however, reduce the incidence of palpitations and fatigue. As the aetiology appeared uncertain, these symptoms came to be referred to as a functional heart disorder or disordered action of the heart (DAH). During the American Civil War, Jacob Da Costa (1833–1900), one of the physicians at the new military hospital for nerve disease in Turner's Lane, Philadelphia, reported on this syndrome, in which breathlessness, episodic palpitations, tachycardia and paroxysmal chest pains could be accompanied by headaches, fatigue, insomnia, dizziness and diarrhoea (Da Costa 1871). Da Costa reported that over a third of these patients had endured hard field service and excessive marching, and almost half seemed to have their symptoms precipitated by infection (Bynum 2001). For most, these symptoms either gradually subsided or passed by degrees into cardiac enlargement. The hostile climate of many colonial wars was considered the cause of tropical asthenia, the chronic, low-grade fatigue and listlessness suffered by some veterans. Diarrhoea, dehydration, heat, and poor diet were predisposing factors, together with the demands of brief but testing military skirmishes. In the South African War, DAH was regularly diagnosed, more commonly in non-combatant troops (Jones and Wessely 2001). According to official

statistics, 3631 servicemen were hospitalised with DAH and 41 per cent of these were invalided to Britain and discharged. The poor physique of the recruits, hereditary unfitness, poor diet and smoking were considered causes. Though not considered at the time an influence, rheumatic fever and rheumatism affected over 24,000 troops in this Southern African campaign (Jones and Wessely 2001).

Possibly the first recorded case of battle hysteria concerned Epizelus, who was fighting valiantly at the Battle of Marathon in 490 BC when he suddenly lost the sight of both eyes. He had not been wounded, though the soldier next to him had been killed. According to the historian, Herodotus, he never regained his sight. During the Napoleonic Wars, soldiers suffering from unusual paralyses and torpors, and those close to the passage of cannon balls were said to suffer from “wind contusions” (Jones and Wessely 2001). These, though, were relatively isolated wounds of war. The most life-threatening conflict ever fought, the American Civil War, confronted medicine with the horrendous physical, and mental, dangers of industrial warfare. The Minié ball caused 94 per cent of the casualties, the artillery shell only about 6 per cent (Gabriel and Metz 1992, 181). Rifling of the barrel of guns to improve the stability of the projectile exposed many more to actual hits and near misses. The latter were clearly audible. Some medical authorities considered that the wind of a shell, passing close to the spine, was a cause of limb paralysis. Others thought it was violent muscular spasm elicited by a near miss that caused the damage (Babington 1997, 18). Medical opinion remained divided about this condition, which became known as windage, a term used in firearm parlance to refer to the horizontal correction a marksman must make in his aim to compensate for a cross-wind. Windage was considered a possible explanation for a variety of tremors, lameness, visual and auditory impairments recognised at the time as non-neurological conditions. Many, including Weir Mitchell, believed that the “vicious habit” of malingering accounted for the intentional simulation of pains, paresis (partial paralysis) and epilepsy by “thieving and lying scoundrels”. Differentiating windage from malingering was particularly challenging. Weir Mitchell wrote: “The great majority of malingerers consist of men who exaggerate real maladies of trifling character” and proceeded to suggest that few feigned symptoms to escape military duty, but rather to exploit the bounty system (Keen et al., 1864).

In 1865 George Burr, a former army surgeon who was by then professor of anatomy at Geneva College in Pennsylvania, reported on three cases in whom “symptoms of nervous suffering ... were met with, without the body receiving either wound or contusion”. Burr cited the case

of a captain who was severely stunned by an explosion in his immediate vicinity, leaving him paralysed down one side and with difficulties of articulation. It was several months before he was able to resume his duties. Another captain was carried to the rear insensible following an artillery near miss. He was deaf, unable to speak and helpless because of chest and back pain, and paralysed in his right arm and leg. Despite a severe headache and profound fatigue, his strength slowly returned over three months. Suggesting that these near misses could induce mental disorder, Burr reported the case of a brave regimental adjutant close to a bursting shell, who was unable to dismount his horse and, on reaching a field hospital, “appeared stunned, bewildered, unsteady in his movements and half-conscious of his whereabouts”. He disappeared and was next heard of at his home. Burr believed that this complete “perversion of character” was caused by the explosion. These cases, in Burr’s view, demonstrated the pathogenic influence of shell explosions on the mind and body in the absence of active physical injury (Burr 1865). The official medical history of the Civil War, published between 1870 and 1888, recorded 16 cases of windage, 11 with paralysed limbs and one paraplegic. In the words of surgeon D. L. Huntington of the Union Army, “modern surgeons” conceded that “without the actual contact of the projectile, injuries can occur; on the other hand, it is admitted that slight contact from the grazing or brushing of a projectile, or the rolling motion of a cannon ball over the surface of the body, may by the weight and momentum, aided by the elasticity of the skin, effect most serious results, while little or no external evidence of such contact is left” (United States Surgeon-General’s Office 1870–1888). Of every 100 men discharged from the Union Army, 21 were paralysed in one or more of their limbs (Deutsch 1944, 377–84).

During the South African War, pseudo-neurological disorders were recognised, though they were referred to within the spectrum of neurasthenia cases. In 1901 Dr Charles Morris reported on one patient who, when he first saw him, “could not move his right leg or flex any of his joints, and if they were flexed by force it caused great pain. There was a loss of sensation below the knee and slightly above it ...”. A colleague considered it “a case of functional paralysis ... treatment had no effect ... and he left for his home unimproved”. Morris added: “A most remarkable evidence of the deprivation, exhaustion, and mental strain that many had to pass through was seen in the cases of neurasthenia... It was terrible to see the condition of fine strapping men, produced in this way, which led them to shrink from the slightest touch and to shed tears like children” (Morris 1901). Dr Morgan Finucane, who described a case of functional impairment of sensation and motor power in a disabled soldier whose

gunshot wounds had healed, suggested these cases were akin to those observed after railway accidents (Finucane 1900). Anthony Bowlby (1885-1929), who became the chief surgeon during the First World War, reported several functional cases in South Africa. A private in the Scottish Regiment had his helmet lifted off by an exploding shell. "He was not wounded or hurt, but he lay on the ground for two hours, unable to rise." He then complained of a constant headache. Another soldier became deaf and dumb after being near a shell explosion. After several weeks, and on-board ship on the way home to England, he suddenly recovered. As Bowlby would suggest: "The boundary between neurasthenia and certifiable mental unsoundness is often ill-defined and easily over-stepped. It is not surprising, therefore that a number of cases of mental unsoundness should occur. In fact, considering the extremely harassing nature of military operations, it is rather remarkable that we did not see more of such cases" (Bowlby 1901). A civilian surgeon, L. G. Irvine, sent to South Africa to report to the War Office on skull fractures during the campaign, saw concussion of the spinal cord and even pulping, where nerves pass between the vertebrae, at autopsies, despite a lack of direct injury and fracture. He concluded that the changes must have been due to the vibratory concussion communicated to the spinal cord by the passage of the bullet at a high rate of velocity (Blair 1998, 72). Though recognised, neither neurasthenia nor concussive injuries attracted much medical attention.

In the Russo-Japanese War, Dr Avtokratov reported on acute disturbances that he described as hysterical or neurasthenic. Though these were often dismissed at the time as being pretended or faked, Avtokratov thought them genuine (Sirotkina 2002, 34). Russian psychiatrists, using German nosology, recorded cases of hysterical excitement, fugue (dissociation and reversible amnesia), hysterical blindness, surdomutism (anxiety-induced inability to speak), local paralysis and neurasthenia (Gabriel and Metz 1992, 235–38). A German physician named Honigman considered that some wounded Russian officers exhibited symptoms similar to traumatic neurosis, and even coined the term *kriegsneurosen* (Jones and Wessely 2005, 17). Fifty-six per cent of Russian battle casualties were diagnosed as being due to traumatic damage to the brain (Gabriel and Metz 1992, 235–38). "Brain shock" was thought to account for the behavioural and neuropsychiatric symptoms, but medical evacuation was not considered necessary unless a few days' rest failed to make a difference. The clinical phenomenon of cerebral blast injury was clearly identified and confirmed subsequently by RAMC observers in the First Balkan War of 1913. It was in this conflict that Brussels surgeon

Octave Laurent, who was engaged in the conflict for 11 months, coined the term “cerebro-medullary shock” to describe cases the tingling, twitching, partial paralysis, catalepsy and torpor seen in some soldiers who had been close to a shell burst, but not wounded (Jones and Wessely 2005, 17). Laurent hypothesised that the speeding projectile vibrated the air violently so that sudden variations of atmospheric pressure acted on the middle ear (Laurent 1916).

Military Psychiatry, 1913

Before the First World War military physicians had reported in the international scientific literature that soldiers could also develop melancholic and functional cardiological and neurological complaints, but few were expecting these conditions to so sorely test the fighting viability of their armies. The armies of the combatants consisted largely of fairly young men and the environmental extremes of equatorial warfare were not likely to be a problem. Therefore, nostalgia and DAH should not be medical problems. *Vent du projectile* or windage injuries might have been expected were a major European war to erupt, though few in the British or German military appeared to anticipate or plan for this medical possibility. Pre-war military psychology was still based on the hopeful belief that courageous, well-trained and loyal soldiers would not suffer adverse mental injuries in war. Russian military doctors and civilian French neurologists though might not have been so surprised for they knew of soldiers’ hysteria before the First World War. The forthcoming war was expected to be brief, and over by Christmas anyway.

CHAPTER TWO

ANTEBELLUM HYSTERIA: PRE-WAR CIVILIAN PSYCHIATRY

Before the First World War the military medical fraternity barely recognised neurasthenia and functional cardiological and neurological disorders, despite these conditions being well known to some civilian physicians. British psychiatry was occupied in attending those involuntarily confined to the asylums dotted on the outskirts of urban centres. These individuals were predominantly suffering organic psychotic disorders caused by epilepsy, syphilis, alcohol, genetic abnormalities and poor nutrition. They were attended to by the few alienists, as psychiatrists were then known, dedicated to this type of medical practice and who were interested in control, rather than care or cure. Ideas of irreversible hereditary decline and Darwinism hung dankly over these vast institutions. Milder mental dysfunctions were not considered medically relevant, except for those of privilege and wealth who might seek the opinion of a private specialist physician. Diseases with unknown physical aetiologies, such as epilepsy, chorea, tetanus and exophthalmic goitre were considered to be functional disorders. Functional then meant the absence of demonstrable physical injury or pathology, not as it more recently came to presume, psychological. But a diagnosis of a functional disorder could equate to a diagnosis of hysteria, if the symptoms mimicked a physical disease, or neurasthenia, when fatigue was the dominant complaint. The mind was rarely considered and psychological approaches were regarded with suspicion for they might encourage morbid introspection and egoism, heighten suggestibility and aggravate an existing deficiency of willpower (Jones and Wessely 2001). Treatments were neither known nor offered, though a large array of traditional “cures” was available. For the wealthy these often involved spa therapies and a great deal of quackery. The war was to challenge this neglectful attitude of conventional medicine.