

Shell shock, Gordon Holmes and the Great War

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Gordon Holmes (1876–1965), an athletic choleric Irishman, was appointed consultant neurologist to the British Army in France in early 1915 and served until soon after the Armistice. After the war he established himself as a leading British neurologist and a master of systemic clinical neurological examination.¹ Holmes wrote nothing of his views or experience with shell-shock patients in this war; his submission to the Committee of Enquiry into shell shock in 1922 was negligible.² Yet McDonald Critchley's last conversation with Holmes indicated that, even at the age of 89, memories of these experiences were still upon him.³

It was on the battlefield that he began his work on the representation of vision in the cerebral cortex, perhaps his greatest achievement.⁴ His medical role in the army was an important one, for it was neurologists who attended the nervous patient—not psychiatrists, who worked in the asylums with the psychotic and organically impaired. We know from the bitter memoirs of Dr Charles Myers,⁵ whom Holmes appointed as 'specialist in nerve shock' and subsequently clinical psychologist to the British Army, that Holmes was highly influential in the management of shell-shock cases. This article proposes that Holmes participated in, and may have masterminded, a radical change of clinical practice.

QUEEN SQUARE

Gordon Morgan Holmes, born in Dublin of Protestant and Yorkshire heritage, was a shy, solitary, dyslexic child, a lover of the countryside and of nature.¹ His intelligence was recognized by the village schoolmaster, and examination success paved his way to medicine at Trinity College, where he graduated in 1897.¹ A scholarship in mental and nervous disease enabled him to study comparative and human anatomy under Edinger in Frankfurt for two years. Holmes' artistic skills and perfectionism were early recognized, as were his remarkable powers of observation and concentration.⁶ He was appointed house physician to Hughlings Jackson at the National Hospital, Queen Square, and there he subsequently completed his clinical neurology training. By the age of 30 he had been appointed director of research

at Queen Square and at the outbreak of war in 1914 he was on the staff of four London hospitals and had published 55 papers.¹ Critchley described him as 'a big man in stature, brusque, and demanding.'³ Never the philosopher, he tended to distrust speculative thinking and relied rather on accurate recording of clinical observation and its correlation with pathological data.⁶ He was according to Critchley 'no ogre although many would have said rough, even terrifying, and yet he was so warm hearted that he could never understand why he was regarded as a bully, as indeed he was.'³

NEUROLOGIST TO THE ARMY

When war broke out, Holmes applied for a commission in the Royal Army Medical Corps (RAMC) but was rejected on account of myopia. Determined to serve in France he and Percy Sargent, a surgical colleague, joined the staff of a Red Cross Hospital just behind the front line. Sargent was a dextrous surgeon with a special interest in brain surgery, and his results with Holmes soon attracted the attention of the War Office.¹ Holmes' medical disqualification from military service was revoked and he and Sargent set up a neurosurgical unit in No. 13 General Hospital just south of Boulogne. Harvey Cushing, a visiting American surgeon, wrote an account of this appalling and busy hospital environment with 900 acutely ill soldiers, lice, maggot infestations, giant rats and an overwhelming number of head and spinal wounds.⁷ While Sargent operated, Holmes clinically assessed, documented and recorded the neurological findings. In the evenings he wrote his articles, wrapped in a thick great coat with mittened hands.¹ He even provided smoked-drum illustrations for his paper on the effect of gunshot wounds of the cerebellum.⁸ A particular neurological interest was the effect of occipital lobe trauma on vision, culminating in his classic papers on the subject.⁸

AN EPIDEMIC OF SHELL SHOCK

It was estimated that, by December 1914, 7–10% of all officers and 3–4% of other ranks in the British Expeditionary Force were 'nervous and mental shock' casualties.⁹ Holmes' self-proclaimed ineptness with psychological problems⁵—and perhaps the early influence of Edinger, who had established a psychological department in Frankfurt—persuaded him to seek the support and

psychological expertise of Dr Charles Myers (another Army reject, in this case because of age) who was practising in a private hospital in France. Myers had published three case reports of shell shock in *The Lancet*,¹⁰ and this paper doubtless suggested to Lieutenant Colonel Holmes that Captain Myers was the appropriate expert to address the burgeoning crisis.

Shell shock referred to a clinical spectrum of neuropsychiatric conditions ranging from 'concussion to sheer funk.'¹¹ Concussion, confusional states, hysterical (conversion) neurosis, neurasthenia, exhaustion and malingering represented this spectrum. Probably 60–80% of shell-shock patients displayed 'acute neurasthenia', subsequently termed acute war neurosis (and the major focus of this paper), about 10% had conversion symptoms such as mutism, fugue, paraplegia, and abasia astasia, and 5% were considered to have concussive brain injuries.¹² Dr Aldren Turner, dispatched by the War Office to investigate this 'new disorder', submitted in May 1915 the following description. Shell shock he said is:

'... a form of temporary "nervous breakdown" scarcely justifying the name of neurasthenia, which would seem to be characteristic of the present war... ascribed to a sudden or alarming psychical cause such as witnessing a ghastly sight or a harassing experience... the patient becomes "nervy", unduly emotional and shaky, and most typical of all his sleep is disturbed by bad dreams... of experiences through which he has passed. Even the waking hours may be distressful from acute recollections of these events. Recovery is satisfactory, especially if the patient is sent home for complete rest.'¹³

This brilliant description of acute stress disorder (the DSM III term) can be criticized only for the opinion on management. Such medical viewpoints, and more particularly pressure of public opinion, persuaded the Army Council to classify shell shock as a 'wound' late in 1915 and rather than risk 'lunatics at the loose in their rear' it organized rapid evacuation of these cases.⁹ The epidemic of acute psychiatric casualties, which nearly paralysed the British Army after the Battle of the Somme in July 1916, forced upon the medical establishment the desperate need for prevention and rapid treatment. The British Army could not cope with this 'human wastage'. In the year to April 1916, 24 000 of these casualties had been sent back to Great Britain.⁹ Some 40% of casualties in the Battle of the Somme were shell shocked,¹⁴ adding enormously to the loss of manpower. Myers was struggling to dissuade the Army from their evacuation policy and to establish 'receiving centres' near the front where specialist medical officers could formally diagnose, initiate treatment and determine who should be evacuated.

IMMEDIATE TREATMENT

The principles of immediate treatment, in the front-line, of acute psychiatric casualties had been established by Russian doctors during the Russo/Japanese War of 1904–1905, and the French Army had in place a system that intentionally obstructed the easy evacuation of such casualties; they subscribed to the theory of Babinski that suggestion was the predominant aetiology and were not experiencing in the difficulties afflicting the British (and indeed German) armies. Myers set up four receiving centres and, having discarded the term shell shock, introduced methods of individual psychotherapy, including hypnosis, as acute treatment. These measures created considerable distrust in the Army hierarchy; toughness had been replaced by tenderness,⁹ yet neither the war effort nor the nervous casualties were doing well. A solution was desperately needed and as consultant neurologist to the British Army in France Holmes must have been a critical adviser to General Haig and his staff. The British Government had another reason for alarm—the huge impending pension bill entailed by those who did not recover. It favoured a psychological model that blamed the individual rather than the external factors, and by mid-1916 the Army viewed shell shock as a contagious psychological response of the 'weak' to protracted fighting. But Holmes had himself witnessed the pitiful breakdown of loyal and brave soldiers. Impatient with psychological interpretation he must have struggled to comprehend the various states of shell shock and their clinical fluidity (commented upon by Wiltshire in June 1916),¹⁵ its association with states of exhaustion and the intensity of battle, its recognition in soldiers who had not even served at the front, its attractiveness as a 'wound' and the rarity of such symptoms in soldiers seriously physically wounded. During this period he would have been compiling the clinical data on spinal injuries and the disorders of the visual system caused by traumatic brain injuries. Holmes concluded in his paper on visual representation 'it is not uncommon... in France where the early stages of gunshot injuries to the head can be observed to find a complete hemianopia or a large area of total blindness disappearing during the course of a few days or weeks. To what can these defects which tend to recover, more or less quickly, be due?'.⁸ Holmes argued (correctly) the role of secondary oedema around the anatomical lesion. Monakow's concept of 'diaschisis', proposed in the early 1900s, and referring to a period the damaged neurons required to adjust before subsequent spontaneous recovery, would have been familiar to Holmes. In his daily neurological practice he was observing a physiological state with obvious similarities to the observed natural history of many of the shell-shock soldiers. The dangerousness of the oedema for the traumatized brain may have been considered analogous to

that of suggestion. After a few hours, days or weeks, symptoms usually resolved spontaneously with rest and time, and irrespective of physical and psychological therapies, provided that the symptoms had not been behaviourally reinforced.

In June 1917, with the Battle of Passchendaele looming, General Routine Order 2384 was issued by General Haig's adjutant Lt General Fowke. This order determined that diagnoses of mental symptoms were not to be made on the battlefield. A definitive diagnosis could be made only after several days of observation and only by a specialist (neurologist). The natural history of acute fear responses was by then being recognized, as was that of acute stress disorder and acute post-traumatic stress disorder. Holmes' position of influence at this period, his current neurological research and his belief that suggestion could fixate and reinforce post-traumatic symptoms, may well have been a factor in the decision of the Director General of Medical Services in France, Sir Arthur Sloggett, to support this tougher approach. Though the British Army briefly toyed with the possibility that shell shock was psychogenic, it was more comfortable with a biopsychosocial conceptualization (with a neurological emphasis).

The acute management strategies practised during the Battle of Passchendaele were temporary respite from battle, sleep, food and (relative) comfort followed by return to active duty. 'Without the rum ration we would have lost the war' claimed Colonel JSY Rogers, 4/Black Watch, an experienced front-line medical officer, for alcohol was freely used to combat fear and to prevent the storage of traumatic memories.¹⁶ Evacuation was only contemplated after several weeks of treatment at a forward receiving hospital, such as Casualty Clearing Station (CCS) No. 62, which was located within earshot of the trenches. At Passchendaele (generally regarded as the culmination of horror) Holmes and his associate William Johnson orchestrated, from the medicodisciplinary standpoint, a successful battlefield psychiatric service.¹⁷ Butler¹⁸ claimed that a specific battle, Broodseinde, was the climax of the RAMC's acute management and evacuation procedures evolved for shell shock. Shell-shock casualties were much lower than at the Somme and an astutely crafted service was operated with remarkable success and a very low rate of evacuations to England.¹² The Fifth Army centre during the four months of the Battle of Passchendaele was sent 5346 cases of shell shock, of whom 90% were first time shell shock victims. This army of 22 divisions comprising about half a million soldiers thus had a shell shock rate of about 1%. Of these 60% were acute neurasthenia, 10% hysteria and 4–10% confusion or 'commotional' cases.¹²

Cases actually became less frequent as the battle continued, though shell fire never slackened.¹⁸ 3963 of those cases treated at CCS 62 were sent back to the line,

normally after a very brief period, though sometimes up to one month's agricultural work was needed for full recuperation.¹² Discipline and forceful 'encouragement' to return to the line was needed according to Captain Johnson.⁹ 16% were evacuated to specialist based hospitals and 10% were eventually returned to England.¹⁸ Holmes subsequently claimed that about 10% of shell-shock casualties relapsed once and 3% relapsed twice or more.² Cushing, never an admirer of Holmes, stated at Passchendaele that 'none of the doctors knew or cared about psychiatry';⁹ however Colonel Rogers claimed it was in that battle that control over shell shock was regained by the medical profession (and the Army).¹⁸ The epidemic had been arrested, and in the subsequent year a very effective Allied Army, after an anxious reversal, defeated its enemy. The crucial ingredients incorporated in this change of medical practice were to allow an individual's coping skills the opportunity to heal (to 'normalize' the reaction) and to minimize any possible secondary gain from the symptoms. Holmes' physiological knowledge, his clinical observations and his Victorian and patriotic beliefs combined to support, or possibly orchestrate, these changes in practice.

A POST-WAR SILENCE

After the Armistice came a decade of forgetfulness. The survivors were reluctant to discuss or write of their experiences for fear of rekindling traumatic memories. The exceptions were the literary and poetic publications during the 1930s, though Bond¹⁹ has challenged the biases of some of these contributions. Like most of the shell-shock doctors Holmes, the author of 174 scientific papers, remained essentially silent, contributing but a few curt written comments to the Committee of Enquiry in 1922.² He was consulted, when William Johnson was unavailable, on one known occasion during the Second World War.⁹ However, his emphasis on the infective influence of suggestion, in a Dunkirk survivor, appalled his younger colleagues.

By 1918 a pragmatic and eclectic understanding of shell shock was held by the regimental medical officers in the trenches. Shephard commented, that if anything, the theoretical understanding of shell-shock evolved further at the end of the war, away from a simple psychological point of view.⁹ Cannon's work linking fear and rage to hormones²⁰ further hastened the end of a simplistic mind or body view. The evacuated and chronic cases were appropriately conceptualized in a more psychological and analytical manner and treated, if they were officers, in accordance with such theories (Freudian theory was gaining an academic foothold).

Acute emotional reactions to traumatic experience and acute conversion disorder are to the clinician very different psychopathological states from their chronic forms. In the

field in the last year of the war the acute treatment of emotional cases was, as summarized by the Prideaux Report, 'reassurance combined with an appeal to personal and patriotic pride and a large dose of bromide.'²¹ Colonel Rogers commented:

'... do not send your cases down the line... when you get these emotional cases, unless they are very bad... give him a rest at the aid post if necessary and a day or two's sleep, go up with him to the front line, and, when there, see him often, sit down beside him and talk to him about the war or look through his periscope and let the man see you are taking an interest in him, [and] you will not have nearly so many cases of anxiety neurosis'.²

In the aftermath of the September 11 World Trade Center disaster LeDoux and Gorman²² recommended 'active coping' and if necessary medication—suggestions remarkably similar to those evolved in the Great War.

Gordon Holmes, a very unlikely psychiatric investigator and certainly an unempathic clinician, may well have had a pivotal role in conceiving a modern view of the management of the acute psychiatric casualties of war. Though the change of practice was probably initiated by doctors in the field, he clearly did not stifle these changes, which were cognizant with his own views. His subsequent silence and that of his shellshock-doctor colleagues allowed this knowledge to slip away. Contrary to popular myth the Army was generally well led,¹⁹ and neither the generals nor the medical staff were 'donkeys'. Half of the 22 000 doctors in Great Britain served the military and 1000 died.²³ They attended in France 129 675 injured or sick officers and 2 525 350 other ranks.²⁴ They may not always have been popular, and their task of balancing the health of their patient and the welfare of their army was profoundly difficult, yet the experience and clinical knowledge they acquired was vast and remains relevant to this day.

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