## DOCTRINE AND ORGANIZATION IN THE BRITISH ARMY, 1919–1932\*

## DAVID FRENCH

University College, London

ABSTRACT. It is widely assumed that after 1918 the British general staff ignored the experience it had gained from fighting a first-class European enemy and that it was not until the establishment of the Kirke committee in 1932 that it began to garner the lessons of the Great War and incorporate them into its doctrine. This article demonstrates that in fact British military doctrine underwent a continuous process of development in the 1920s. Far from turning its back on new military technologies, the general staff rejected the manpower-intensive doctrine that had sustained the army in 1914 in favour of one that placed modernity and machinery at the very core of its thinking. Between 1919 and 1931 the general staff did assimilate the lessons of the First World War into the army's written doctrine. But what it failed to do was to impose a common understanding of the meaning of that doctrine throughout the army.

The historiography of the development of the British army in the interwar period suggests that almost as soon as the armistice was signed, senior soldiers turned their backs on their hard-won experiences of fighting against a first-class European enemy. Following the demobilization of the wartime conscript army most regular regimental soldiers returned to the cosy familiarities of colonial soldiering. Those few who could bring themselves to contemplate another war against a great power blithely assumed that it would be fought along much the same lines as the campaign of 1918. The only exception to this was the pioneers of the Royal Tank Corps. They embraced modernity, in the shape of mechanization, with fervent zeal, but they were shunned by many of their more conservative colleagues. The outcome was that it was not until the chief of the imperial general staff (CIGS), Sir George Milne, established a committee under Lt.-Gen. Sir Walter Kirke in March 1932 that the army began to ponder the lessons of the First World War and incorporate them into its doctrine.<sup>1</sup>

This apparent complacency, it has been argued, was in stark contrast to the manner in which the Reichswehr reacted. Whereas the British left the task of

<sup>\*</sup> I am most grateful to the Trustees of the Liddell Hart Centre for Military Archives, King's College London, for permission to quote from material to which they hold the copyright.

<sup>&</sup>lt;sup>1</sup> S. Bidwell and D. Graham, Fire-power: British army weapons and theories of war, 1904–1945 (London, 1982), p. 187; J. A. English, The Canadian army and the Normandy campaign: a study in the failure of high command (New York, 1991), pp. 24–5; J. S. Corum, The roots of blitzkrieg: Hans von Seeckt and German military reform (Kansas, 1992), p. 203. The full report of the committee can be found in Report of the committee on the lessons of the Great War, 13 Oct. 1932, London Public Record Office (PRO) WO 33/1297.

re-writing their doctrine to junior officers like Capt. Basil Liddell Hart, the Germans created a plethora of committees staffed by over 400 senior and junior officers. They investigated every aspect of their recent experiences and used their findings to create a new doctrine for the future. General von Seeckt, the commander-in-chief of the Reichswehr from 1920 to 1926, sought to create a small, all-volunteer, professional army, equipped with the most modern weapons and mechanical transport, and able to mount mobile, combined arms operations in defence of Germany's frontiers. The fruits of their labours were incorporated into the army's new operational doctrine, *Army regulation* 487: leadership and battle with combined arms, issued in two parts in 1921 and 1923.

In reality, however, the British army did not wait until 1932 before beginning to ponder the lessons of 1914–18. It reacted just as promptly as its former enemies to the need to re-evaluate its doctrine in the light of the battles of 1914–18. The purpose this article is to demonstrate that the British general staff was not blind to what its army had achieved during the First World War. Far from turning its back on new military technologies, the general staff radically re-wrote its doctrine in the 1920s. It rejected the manpower-intensive doctrine that had sustained the army in 1914 in favour of one that placed modernity and machinery at the very core of its thinking.

T

In 1914 the British army had no real operational doctrine, except to take the offensive in almost all circumstances. Senior officers expected that their forces would experience heavy losses, but hoped to win by combining mobility with high morale. As both sides could generate equally devastating firepower, this last factor would be crucial in distinguishing victor and vanquished.<sup>3</sup> The army's Field service regulations placed little emphasis on the need to produce a combined-arms fire plan. The role of artillery was merely to act as an adjunct to the infantry. It was to pave the way for their attack rather than to neutralize the defenders' fire by covering their advance until the last possible moment. However, the heavy losses their troops sustained between 1914 and 1916 disabused commanders of many of these ideas. By 1917-18 they had come to rely upon the intelligent combination of all arms to overwhelm the defenders by weight of firepower. Artillery was the dominant arm. The range of the artillery, its ability to destroy or neutralize German machine guns and artillery, and to flatten barbed wire, fixed the speed and distance of an advance. The success of operations at Cambrai in November 1917, Hamel in July 1918, and Amiens in August 1918 depended to a great extent upon a veritable revolution in artillery techniques. Better maps, accurate calibration of their weapons, and the systematic collection of meteorological information made it feasible for the

<sup>&</sup>lt;sup>2</sup> Corum, Roots of blitzkrieg, pp. 29–39.

<sup>&</sup>lt;sup>3</sup> General Staff, Field service regulations part 1. (Operations, 1909) (London, 1909), p. 13 (henceforth FSR followed by date).

gunners to register their guns silently on their targets. Tactical surprise, therefore, once again became possible. Developments in flash spotting and sound ranging made it possible for them to conduct successful counter-battery shoots and new fuses enabled them to clear enemy barbed wire without cratering the ground and impeding the advance of their own troops. The result was that in the 'Hundred Days' battles of 1918 the British army in France was able to employ tanks, artillery, and aircraft in co-operation with infantry in a series of successful combined arms operations.<sup>4</sup>

On the assumption that the war would continue for another year, the army planned to do the same on an even larger scale in 1919. Col. J. F. C. Fuller's celebrated 'Plan 1919' was but one of several schemes to achieve this. In May 1918, for example, Sir A. G. Ware, the Controller of the Mechanical Warfare Department at the Ministry of Munitions, wanted to create a new 'Mobile Army' in time for the spring campaign of 1919. Hitherto, the British Expeditionary Force's (BEF's) ability to impose a decisive defeat on the Germans had been impeded by the need first to break through their defences, and secondly by the difficulty of supplying the foremost troops as they exploited their breakthrough. Ware's 'Mobile Army' of a dozen divisions would surmount the first problem by combining infantry, artillery, and tanks, and would overcome the second by using mechanical tractors to replace the horses in its transport echelons. This would enable it to advance sixty miles into the German's rear.<sup>5</sup> The feasibility of such plans has been questioned, but what is apparent is that their proponents, who included the CIGS himself, Sir Henry Wilson, recognized that the future lay with mechanized, mobile, firepower produced by combined arms action.<sup>6</sup>

'We did not check up properly on the lessons of the war.' So said Montgomery in an address delivered to a new generation of field commanders in 1946.<sup>7</sup> The truth of what he said was seemingly borne out by Haig's *Final despatch*, published in March 1919. 'The principles of command, staff work,

<sup>&</sup>lt;sup>4</sup> J. P. Harris with N. Barr, Amiens to the armistice: the BEF in the hundred day's campaign, 8 August to 11 November 1918 (London, 1998); R. Prior and T. Wilson, Command on the western front: the military career of Sir Henry Rawlinson, 1914–1918 (Oxford, 1992); T. Travers, How the war was won: command and technology in the British army, 1917–1918 (London, 1992); Bidwell and Graham, Fire-power, pp. 98–111; J. Bailey, 'British artillery in the Great War', in P. Griffith, ed., British fighting methods in the Great War (London, 1996), pp. 23–49; H. Strachan, 'The battle of the Somme and British strategy', Journal of Strategic Studies, 21 (1998), pp. 79–95; P. Simkins, 'Somme reprise: reflections on the fighting for Albert and Bapaume, August 1918', in B. Bond et al., 'Look to your front': studies in the First World War (Staplehurst, 1999), pp. 147–62.

<sup>&</sup>lt;sup>5</sup> Sir A. G. W. Ware, to DMO, DO, DST, DGTC, 18 May 1918, PRO WO 106/343.

<sup>&</sup>lt;sup>6</sup> D. J. Childs, 'British tanks 1915–1918. Manufacture and employment' (Ph.D. thesis, Glasgow, 1996), pp. 143, 155–8, 165; J. P. Harris, *Men, ideas and tanks: British military thought and armoured forces, 1903–1939* (Manchester, 1995), pp. 126–31, 159–66, 180–6.

<sup>&</sup>lt;sup>7</sup> Opening address delivered by Field-Marshal the Rt. Hon. Viscount Montgomery of Alamein, the chief of the imperial general staff (CIGS), on the occasion of Exercise Evolution, held at the staff college, Camberley, 14 Aug. 1946, London, Imperial War Museum (IWM), Maj.-Gen. R. Briggs MSS 66/76/1.

and organisation', Haig insisted, 'elaborated before the war have stood the test imposed upon them and are sound.'8

But the self-congratulatory and complacent tone of Haig's valediction was not universally shared. Some senior officers did believe that pre-war doctrine required modification. As early as July 1916, with the Somme offensive barely three weeks old, the CIGS, Sir William Robertson, wrote to Sir Henry Rawlinson, whose 4th Army was bearing the brunt of the offensive, that

As you know better than I do each war has its own peculiarities, but one would think that no war was ever so peculiar as the present one, and Field Service Regulations will require a tremendous amount of revising when we have finished with the Boche. Principles, as we used to call them, are good and cannot be disregarded, but their application is a very difficult business, and I think that we still take these principles too literally.<sup>9</sup>

And in a lecture that he gave in December 1919, Maj.-Gen. Sir Louis Jackson, formerly director of Trench warfare at the war office, suggested that operations could be transformed if the army organized the whole of its transport on the basis of trucks and carried its infantry, artillery, and engineers in caterpillar tractors and cross-country trucks capable of transporting them swiftly and safely across the battlefield.<sup>10</sup> It was these kinds of insights that dominated the post-war development of British doctrine, not Haig's conservatism.

The war ended before Ware's plan could be put into operation. But the general staff had learnt two lessons. Military power was no longer based simply upon manpower. It had to take account of machine power and machine power could compensate for the fact that the British army was small by continental standards. Britain needed a small, well-equipped, highly mobile army, organized around the principle that technology should be used to minimize human casualties. As Adjt.-Gen., Sir Robert Whigham, explained in 1927, he favoured mechanization 'because our little regular army has got to be organised and trained in peace in order that we may produce an expeditionary force numerically small but perhaps, we hope, highly trained and equipped with thoroughly up-to-date material on the outbreak of war'.<sup>11</sup>

The British army was not slow to begin to analyse its wartime experiences, and nor did it give the task such a low priority that it left it to junior officers. In November 1918, a year before von Seeckt began a similar policy in Germany, the British started to glean the lessons of the war. Committees of

<sup>&</sup>lt;sup>8</sup> Lt.-Col. J. H. Boraston, ed., Sir Douglas Haig's despatches (December 1915 to April 1919) (London, 1919; repr. 1979), p. 343.

<sup>&</sup>lt;sup>9</sup> Robertson to Rawlinson, 26 July 1916, Liddell Hart Centre for Military Archives (LHCMA), Robertson MSS 8/4/100.

Maj.-Gen. Sir Louis C. Jackson, 'Possibilities of the next war', Journal of the Royal United Services Institute, 65 (1920), p. 74.

<sup>&</sup>lt;sup>11</sup> Report on the staff conference held at the staff college, Camberley, 17–20 Jan. 1927 under the orders and direction of the CIGS, PRO WO 279/57.

senior officers were established to make recommendations on the structure and organization of the post-war army, the staff, the main arms of service, and to re-write the Field service regulations (FSR) and the various arm-of-service manuals.<sup>12</sup> Like the Germans, the British looked far and wide for evidence and information. In November 1918 Wilson established a committee under a former Director of Staff Duties (DSD), Sir William Bird, 'to look at war through that window twenty years hence' and to make recommendations on the composition of divisions, corps, and army troops in the post-war army. 13 (Bird was perhaps not the ideal officer to chair such a committee. In 1920 he published a study of strategy in which he showed himself to be a master of considerable historical knowledge but very reluctant to speculate about future developments.)<sup>14</sup> The Bird committee included amongst its members senior officers from the Australian, New Zealand, Indian, and South African forces and from the GHQs of the BEF and the Egyptian Expeditionary Force. It gathered evidence not only from senior staff officers at GHQ in France and from Haig's army commanders, but also from most of his corps commanders and many divisional commanders. It distributed 1,766 questionnaires (although not all were returned) and examined 366 witnesses. <sup>15</sup> In December 1918 a committee under Lt.-Gen. Sir Walter Braithwaite began to gather evidence about the working of the staff. Braithwaite was a highly experienced officer. He had served as commandant of the staff college at Quetta before the war, as Sir Ian Hamilton's chief of staff at Gallipoli, and as a divisional and corps commander in France. He was assisted by two major-generals and they gleaned evidence from no fewer than eighty-four senior commanders and staff officers in France. In addition the war office collected evidence of the working of the staff from the commanders-in-chief in Egypt, Italy, Mesopotamia, East Africa, India, and Salonika, each of whom consulted their own senior subordinates before replying.<sup>16</sup> The army council gave such a high priority to the future organization of the engineers and infantry that in January 1919 they gave the task of making recommendations about them to committees chaired by two of Haig's army commanders, Sir Henry Rawlinson and Sir Julian Byng. In investigating the future of the royal engineers in the light of wartime experience, Rawlinson was assisted by no fewer than five major-generals. His committee issued a seven-page questionnaire, took oral evidence from ninetytwo witnesses, and written evidence from another eighteen.<sup>17</sup>

 $<sup>^{12}</sup>$  DSD to DCIGS, 21 Nov. 1918, PRO WO 32/11356; secretary, war office, to Maj.-Gen. W. D. Bird, 27 Nov. 1918, PRO WO 32/11357.

<sup>&</sup>lt;sup>13</sup> Gen. Sir Charles Harington, *Tim Harington looks back* (London, 1941), pp. 83–4; Cubbit to Haig, 16 Dec. 1918, and GHQ to Cubbit, 25 Mar. 1919, PRO WO 32/11357.

<sup>&</sup>lt;sup>14</sup> Sir W. D. Bird, The direction of war: a study and illustration of strategy (London, 1920).

Army reorganization committee, 1919, PRO WO 237/2/20/Gen/4646; Bird to Lynden-Bell, 15 July 1919, PRO WO 32/11357.

<sup>&</sup>lt;sup>16</sup> Secretary, war office, to commanders-in-chief France, Egypt, Mesopotamia, Salonika, India, Italy, and East Africa, 30 Dec. 1918, PRO WO 32/5153; Braithwaite, Report of the committee on staff organization, 6 Mar. 1919, PRO WO 32/5153.

<sup>&</sup>lt;sup>17</sup> Wilson to Haig, 31 Jan. 1919, PRO WO 32/11379.

Nor was the preparation of doctrinal manuals left in the hands of inexperienced junior officers. Manuals had multiple authors. The ultimate responsibility for preparing them lay with the DSD at the war office. Each of the DSDs who supervised the preparation of the three editions of FSR that appeared between 1920 and 1929, Maj.-Gens. Sir A. Lynden-Bell, C. F. Romer, and C. Bonham-Carter, were staff college graduates and had extensive experience of operations on the Western front. Romer, for example, had commanded a division and Bonham-Carter had served as a brigadier on the general staff at GHQ. They allocated the day-to-day management of the project to one of their senior subordinates, who in turn either commissioned an officer from outside the war office to prepare the first draft, delegated the task to the relevant arm-of-service school, or perhaps did the job himself. The initial draft of the first post-war edition of Infantry training was, for example, prepared by brigadier Winston Dugan, who had formerly been the assistant inspectorgeneral of training in France. Liddell Hart acted as his assistant. 18 Lt.-Col. Lord Gort prepared the first draft of the revised edition that appeared in 1926, and Lt.-Col. B. L. Montgomery followed suit in 1931. Prig.-Gen. Aspinall, another of Hamilton's former chiefs of staff, prepared the initial draft of the first post-war edition of FSR, which appeared in 1920, and nine years later Maj.-Gen. C. P. Deedes, then commanding a territorial army infantry division, prepared the first draft of the 1929 edition.<sup>20</sup>

The first draft of each manual was circulated widely. Each relevant branch of the war office, the general officers commanding-in- chief (GOC-in-Cs) of all of the home commands, the commandant and staff of the staff college and, if it was an arm-of-service manual, the relevant army school, were invited to comment and suggest amendments. <sup>21</sup> In 1921, for example, a special committee under Maj.-Gen. G. P. Dawnay, who had served on Hamilton's staff at Gallipoli, decided that a chapter on combined operations prepared by Sir Hastings Anderson, the commandant of the staff college, should not be inserted into FSR but should be sent to the admiralty for inclusion in a new manual on combined operations. <sup>22</sup> Gort's edition of Infantry training was vetted by the director of military training at the war office, the senior officers school, the staff college and all of the home commands, and he was made to change at least one section at the insistence of the CIGS and the DSD. <sup>23</sup> Only after all such comments and suggestions had been considered, incorporated, or rejected was

<sup>&</sup>lt;sup>18</sup> Sir B. Liddell Hart, The memoirs of Captain Liddell Hart, 1 (London, 1965), pp. 39-40, 48.

<sup>&</sup>lt;sup>19</sup> Liddell Hart to Gen. Sir E. Barker, 26 Feb. 1951, LHCMA, Liddell Hart MSS 1/39/3; Gort to Liddell Hart, 14 Apr. 1924, LHCMA, Liddell Hart MSS 1/322/14.

<sup>&</sup>lt;sup>20</sup> QMG to?, 31 Dec. 1919, PRO WO 32/4805; report on the staff conference held at the staff college, Camberley, 13–16 Jan. 1930, PRO WO 279/70.

<sup>&</sup>lt;sup>21</sup> Brig.-Gen. A. B. Beauman, *Then a soldier* (London, 1960), p. 82; N. D. G. James, *Gunners at Larkhill: a history of the royal artillery school* (Henley-on-Thames, 1983), p. 56.

<sup>&</sup>lt;sup>22</sup> Interdepartmental committee on combined operations, 1921, PRO WO 237/14/Ref 40/WO/7716.

 $<sup>^{23}</sup>$  Gort to Liddell Hart, 2 Jan. and 5 Dec. 1925, LHCMA, Liddell Hart MSS 1/322/19 and /23.

a manual published.<sup>24</sup> The end product often bore little relationship to the first draft for 'by the time the draft had passed through the barrage of multifarious hands, or rather blue pencils, at the War Office, the Staff College, and the Commands, the author is fortunate if he can recognise his own handiwork'.<sup>25</sup>

Π

The most important fruits of the general staff's collective labours were the three editions of *FSR* that were published in the 1920s. The first post-war edition appeared in 1920, the second in 1924 and the final one in 1929. A comparison between the 1909 manual and its post-war successors demonstrates just how far British doctrine shifted in the decade after 1918.

FSR (1909) was a theoretical treatise about the operational and tactical conduct of land warfare. Its authors were the products of a society convinced that human beings, through the application of rational analysis, could understand and control the natural world.<sup>26</sup> They believed that they could emulate the engineers and scientists who had transformed the natural world in the late nineteenth century, and, by the application of reason, bring order to the battlefield. But whereas the hypotheses of scientists and engineers could be founded upon experimentation, their hypotheses rested upon history. Pre-war operational doctrine was based upon a four-fold model of battle derived from the general staff's understanding of Napoleonic warfare and the British army's experience of colonial warfare.<sup>27</sup> From them, they learnt that 'Decisive success in battle can be gained only by a vigorous offensive. '28 In the first stage of each battle the opposing armies manoeuvred against each other to seize some topographical advantage. In the second phase, they sought to weaken their opponent through 'wearing-out' operations and at the same time massed their own reserves. In the third stage one side or the other mounted a decisive attack to break through the enemy's line and compel him to withdraw. And in the final phase, the victor pursued the vanquished with the utmost vigour in order to destroy his army. <sup>29</sup> FSR (1909) placed comparatively little emphasis on the need for combined arms operations. It asserted that the infantry was the dominant arm, and that the other arms - the cavalry, artillery, and engineers – largely existed to act as their servants. Their tasks were to pave the way for the decisive attack that the infantry would deliver with their bayonets and, in the case of the cavalry, to garner the fruits of their victory by pursuing

 $<sup>^{24}\,</sup>$  Liddell Hart to Gen. Sir E. Barker, 26 Feb. 1951, LHCMA, Liddell Hart MSS 1/39/3.

 $<sup>^{25}\,</sup>$  B. H. Liddell Hart, A science of infantry tactics simplified (London, 1926), p. ix.

<sup>&</sup>lt;sup>26</sup> D. Pick, War machine: the rationalisation of slaughter in the modern age (London and New Haven, 1993), pp. 165-6.

<sup>&</sup>lt;sup>27</sup> For the army's codification of its colonial experiences see Col. C. E. Callwell, *Small wars: their principles and practice* (London, 1899), passim. The analysis of *FSR* (1909) rests heavily upon T. Travers, *The killing ground: the British army and the emergence of modern warfare 1900–1918* (London, 1987), pp. 37–61.

<sup>28</sup> *FSR* (1909), p. 131.

<sup>&</sup>lt;sup>29</sup> FSR (1909), pp. 131-61; see also R. H. Larson, The British army and the theory of armoured warfare, 1918-1940 (Newark, NJ, 1984), pp. 43-9.

the defeated enemy forces. Firepower alone could not encompass the enemy's defeat and 'To drive an enemy from the field, assault, or the immediate threat of it, is almost always necessary.'<sup>30</sup> Superior numbers, organization, and training were important. But a bayonet assault in the face of modern weapons demanded the highest possible morale on the part of the assailants, and so ultimately 'offensive spirit', the determination to close with the enemy whatever the cost, would determine the winner and looser. As Tim Travers has argued, before 1914 the general staff sought 'human solutions to modern firepower'.<sup>31</sup>

The experience of 1914–18 brutally demonstrated the full cost of implementing this doctrine. But it did not cause the general staff to abandon its belief that the conduct of battle could and should be subject to rational analysis and guidance. Unlike the Germans they did not recognize that battles were invariably chaotic, that senior commanders could only hope to exercise a limited influence over their troops, and that it was imperative to develop a doctrine that devolved command downwards. 32 FSR (1909) had posited that order could be derived from the chaos of battle by the application of the 'Principles of War', but had then refrained from defining them. Post-war doctrine tried to increase a commander's control over his troops by making more explicit the intellectual framework within which all parts of the army should operate. None of the three editions of FSR published in the 1920s agreed on precisely the same list of principles and placed them in exactly the same order, but each was posited on the assumption that success on the battlefield depended on commanders implementing them with intelligence and discrimination. They must never be deflected from their main objective, which was the destruction of the enemy's army on the battlefield. Whilst they had at all times to ensure the security of their own forces against attack, they had to remember that victory could only be secured by taking the offensive. Success depended upon concentrating force at the decisive point, economizing it elsewhere, and employing surprise to multiply the impact of the offensive. The ability to take the offensive and to achieve surprise and concentration of force at the decisive point in turn depended upon the ability of the commander to render his force mobile and to ensure that all arms of the service worked in the closest possible co-operation.<sup>33</sup> These were highly generalized principles, but too much should not be made of the fact that British doctrine was bound to be confused in the 1920s because the British army had no clearly defined enemy against which to prepare. The general staff thought that one doctrine could cover all cases. In 1922 the earl of Cavan, the CIGS between 1922 and 1926, told senior officers that 'The present policy is to train for a small war against

<sup>&</sup>lt;sup>32</sup> M. Samuels, Command or control? Command, training and tactics in the British and German armies, 1888–1918 (London, 1995), p. 3.

<sup>&</sup>lt;sup>33</sup> FSR (1920), pp. 14–15; FSR (1924), pp. 2–4; FSR (1929), pp. 6–9. See also J. Alger, The quest for victory: the history of the principles of war (Westport, CT, 1982).

an enemy whose armament is on an equality with our own.  $^{34}$  FSR (1924) stated explicitly that 'The instructions laid down herein cover a war of the first magnitude, but can be modified in their application to other forms of warfare.  $^{35}$ 

The post-war FSRs did not completely renege on the pre-war insistence on the importance of high morale, but they no longer afforded it quite the same centrality it had enjoyed in FSR (1909). The appalling losses suffered by the infantry in the battles of 1914–18 showed the general staff that high morale and the bayonet would not by themselves bring victory. In addition to 'the offensive spirit', between 1916 and 1918 the BEF had developed a combined arms practice that involved the use of artillery, aircraft, machine guns, mortars, and automatic rifles working in co-operation to kill or neutralize the defenders so that the infantry could advance without incurring prohibitive losses. The post-war editions of FSR tried to codify this practice. As FSR (1924) asserted

In all operations there must, in addition, be close co-operation between all arms and services engaged, the task of supporting arms being to prepare the attack and to give the strongest possible support throughout every stage of the action to the attacking infantry, who alone can complete the victory by destroying the last remnants of hostile resistance. Infantry cannot advance against even semi-organised resistance unless that resistance is kept under subjection by firepower.<sup>36</sup>

Or, as the commandant of the staff college put it more succinctly in 1930, 'The keynote of modern tactics is the development of the combined fire plan to provide continuous covering fire for the attacking troops.' <sup>37</sup>

After 1919 the main issue that *FSR* tried to elucidate was how to effect that combination in such a way as to maximize the possibility of victory and minimize the number of casualties it cost. The general staff developed an intellectual and a material solution to this problem. If troops blasted away indiscriminately at the enemy they would only waste scarce ammunition. What was required was careful discrimination to ensure that firepower was directed at particular targets at the moment when it would be most efficacious. The experience of the war seemed to demonstrate that the necessary co-operation between the leading troops and their supporting weapons could only be secured if unity of control prevailed. Planning was, therefore, one key to the problem of how to restore mobility to the battlefield. Only by careful planning could the fire of supporting weapons be co-ordinated with the motion of troops across the battlefield. Commanders at all levels were, therefore, enjoined to produce a 'master plan' to co-ordinate the actions of their subordinates, and the latter were required to adhere to it in both letter and spirit.<sup>38</sup>

Parallel to the adoption of what was essentially a bureaucratic solution to the problem of securing combined arms co-ordination was the general staff's

<sup>&</sup>lt;sup>34</sup> Report on the staff exercises held by the CIGS, 30 Oct.-3 Nov. 1922, PRO WO 279/54.

<sup>&</sup>lt;sup>35</sup> *FSR* (1924), p. 1. <sup>36</sup> *FSR* (1924), p. 98.

<sup>&</sup>lt;sup>37</sup> Gwynn to DSD, 5 Nov. 1930, PRO WO 32/2827.

<sup>&</sup>lt;sup>38</sup> *FSR* (*1920*), pp. 145–6, 155; *FSR* (*1924*), p. 4.

enthusiastic commitment to waging war using the most modern technologies. By 1917–18 the army had demonstrated its faith in technological solutions to operational and tactical problems by creating the world's largest airforce, by being the first army in the world to mount a massed tank attack, and by its growing belief in the overriding importance of scientific gunnery.<sup>39</sup> Many of the doctrinal developments incorporated into the post-war FSRs were the product of the general staff's efforts to understand how new technologies would influence operations. This process of incorporation began in the early 1920s. FSR (1920) only identified two kinds of offensive battle, an 'encounter attack' mounted against an unorganized defence and a 'deliberate attack', mounted against an opponent securely entrenched behind prepared defences. 40 This changed as a result of experiments that were conducted at Aldershot in the early 1920s carried out at the behest of Wilson, and of staff exercises conducted by Cavan in 1922 and 1923. Wilson believed that 'with the advent of aeroplanes, of wireless, of Tanks, of cross country traction, of gas, of smoke, etc. etc. the army will be passing through something of a revolution in its preparations for war, and other things being equal that Army will win which is most in advance of its times and which has most surprises in store for the enemy'. 41 In November 1919 the army council decided to establish an experimental brigade at Aldershot, although demobilization and current troop commitments delayed its formation until 1921. Wilson wanted to use it for

'looking around the corner': in other words trying to decide what the division of the future is to consist of. His thesis is that if in 1914 we had had the division gunned, machine-gunned, gassed and aeroplaned [sic] as it was in 1918 we could have gone to the Rhine, and if that be so it is our business to think out the division that will be equally superior and powerful in the next war.<sup>42</sup>

Almost at the same time it was assembling, the DSD, at the behest of the directing staff of the staff college, was preparing pamphlets on the use of tanks, smoke, gas, aircraft, and machine guns in open warfare. As soon as Wilson's deputy, Sir Philip Chetwode, discovered this he stopped it. Officers had a great deal of experience of trench warfare, but 'no man in Europe or elsewhere has had any real experience of open warfare on a large scale and above all in which all the new weapons and appliances have been used, and, still more important, no experience in which both sides have had the advantage of them'. He wanted the staff college to act as a think-tank to work out theoretical answers that could then be passed on to the experimental brigade for testing on the ground. The students were required to 'consider and discuss the various

<sup>&</sup>lt;sup>39</sup> M. Crawshaw, 'The impact of technology on the BEF and its commander', in B. Bond and N. Cave, eds., *Haig. A reappraisal seventy years on* (London, 1999), pp. 155–75.

<sup>&</sup>lt;sup>40</sup> *FSR* (*1920*), pp. 158–61.

Wilson to secretary of state for war, 9 June 1921, PRO WO 32/11305.

<sup>&</sup>lt;sup>42</sup> Chetwode to Montgomery, 30 Dec. 1920, LHCMA, Montgomery–Massingberd MSS 122/1.

<sup>43</sup> Chetwode to Montgomery, 15 Feb. 1921, LHCMA, Montgomery–Massingberd MSS

problems of tactics, organization, etc., arising out of the development of armaments and other lessons from the war of 1914–1918'. <sup>44</sup> Syndicates of students wrote lengthy essays at the end of their course 'about our ideas on the future conduct of war' in the light of weapons which might be available to the army in ten or fifteen years time. The GOC-in-Cs of the home commands were also asked to submit questions they wished the brigade to investigate. <sup>45</sup>

The result was that the brigade was presented with an ambitious programme outlined in a brochure of fifty-one typed pages dealing with every conceivable tactical and operational scenario. It was planned to narrow these down at a general staff conference in the spring of 1921, but 'the strike intervened', nothing was done, and 'the Experimental Brigade had to work out its own salvation and, as some-one [sic] has said, the great experiment of 1921 was to find out what the Experimental Brigade was to experiment about'. 46 In fact in 1921 the brigade concentrated on the handling of the new arms, and, in particular, tanks, aircraft, pack artillery used as a close support weapon, and signals.<sup>47</sup> In its first season its efforts were directed towards three objectives, how to make the infantry more mobile, how to make them secure against tanks, and how to use tanks against an enemy that also possessed tanks. It concluded that the only way to improve the mobility of the infantry was to lighten the load each man carried by providing units with more transport. Tank protection could be afforded by the careful siting of units in tank-proof localities. But that alone would not suffice because the exercises also demonstrated the helplessness of infantry that lacked their own anti-tank weapons when they were attacked by tanks. Every unit, therefore, needed its own organic anti-tank weapons and specifications were issued to produce two types of anti-tank machine gun. But even if they were adopted, the tanks would, according to the commander of one of the tank companies that took part in the exercises, still enjoy considerable immunity because of their speed.<sup>48</sup>

Cavan shared Wilson's determination to continue to experiment to produce an army capable of mobile combined arms action. He was justifiably angered when Sir Ian Hamilton accused the army of still being addicted to the 'cult of the bayonet'. He wanted to adjust the combined arms lessons of the war to the problems of mobile warfare. In 1922 the work of the Aldershot brigade continued. It confirmed the essential soundness of the army's combined arms doctrine but it also highlighted the need for lighter and more mobile weapons,

- $^{44}$  War office,  $\it Staff \, college \, regulations \, (Camberley, 1921), PRO WO 32/3098.$
- <sup>45</sup> General Lord Ismay, The memoirs of General Lord Ismay (London, 1960), p. 39.
- <sup>46</sup> The experimental brigade. Lecture by Col. W. M. St G. Kirke, General Staff Aldershot Command [n.d., but c. late 1922], LHCMA, Kirke MSS 2/1/3.
  - <sup>47</sup> Moreland to secretary, war office, 30 Sept. 1922, PRO AIR 5/1382.
- <sup>48</sup> Kirke, The experimental brigade ... LHCMA, Kirke MSS 2/1/3; Chetwode to Montgomery, 6 Sept. 1921, LHCMA, Montgomery–Massingberd MSS 133/1; Lt.- Col. W. D. Croft, 'The influence of tanks upon tactics', *Journal of the Royal United Services Institute*, 67 (1922), p. 52
- p. 52.
  <sup>49</sup> Cavan, Notes of a speech given at Aldershot, 1924, PRO WO 79/69; Report on the staff exercises held by the CIGS, 30 Oct.–3 Nov. 1922, PRO WO 279/54.

for more mechanical transport, and for the wider employment of wireless if troops were to be able to conduct mobile operations in the future.<sup>50</sup> Cavan was unable to scale up these experiments and to conduct large-scale field exercises because of the exiguous state of the army at home. Instead, in October and November 1922 and in April 1923 he held major staff exercises to consider the problems likely to arise in mobile encounter battles in which both sides employed the most modern weapons. They suggested, amongst other things, that because of the danger that advancing columns would be spotted from the air, commanders seeking to achieve surprise would have to resort to night operations.<sup>51</sup> Many of these lessons quickly appeared in the 1924 edition of FSR. Not only did it devote more space than its predecessor to the conduct of 'the encounter attack', but it also included a completely new chapter on 'Night Operations'. 52 Furthermore, the 1920 edition had done little more than codify the defensive doctrine that the BEF had attempted to apply in the spring of 1918. But the 1924 edition abandoned the terminology of trench warfare completely and emphasized instead the importance of counter-attacks mounted by especially prepared reserves to drive the enemy back.<sup>53</sup>

## III

The general staff's determination to restore mobility to the battlefield was also reflected in its policies on organization and weapons development. The 1914-model division had possessed a plethora of rifles and direct fire weapons, but only sixteen indirect fire weapons, in the shape of a single brigade of field howitzers. It was an organization which was well suited to carry out an attack according to pre-war doctrine which 'was speaking generally carried out with two weapons – the rifle and the gun. There was little in the nature of an organised fire plan. The tendency was to treat artillery fire as preparing the way for attack rather than covering it to the last possible moment.'54

The war demonstrated the shortcomings of both the doctrine and the organization. The infantry required close and continuous fire support during every stage of the attack if they were to advance, and by 1918 the army had evolved a divisional organization amply equipped with field guns, howitzers, and light and medium trench mortars that could provide it. The Bird committee wanted to base the organization of post-war divisions on a modified version of the 1918-model division. In doing so they would have doubled the ratio of support weapons to infantrymen compared to what it had been in 1914. But their recommendations were rejected. Not only would they be far too

 $<sup>^{50}\,</sup>$  Moreland to secretary, war office, 30 Sept. 1922, PRO AIR 5/1382.

<sup>&</sup>lt;sup>51</sup> Report on the staff exercises held by the CIGS, 30 Oct.–3 Nov. 1922, PRO WO 279/54; Report on the staff exercises held by the CIGS, 9–13 Apr. 1923, PRO WO 279/55.

<sup>&</sup>lt;sup>52</sup> *FSR* (*1924*), pp. 103–26, 199–211.

<sup>&</sup>lt;sup>53</sup> *FSR* (*1920*), pp. 203–31; *FSR* (*1924*), pp. 153–94.

<sup>&</sup>lt;sup>54</sup> Gwynn to DSD, 5 Nov. 1930, PRO WO 32/2827.

expensive, but they also required the provision of far too many specialist units like trench mortar battalions. Throughout the interwar period all attempts to reform the structure of the army had to take account of the fact that its most immediate mission was to work within the constraints of the Cardwell system to produce sufficient infantry battalions to garrison the empire. Furthermore, the wholesale adoption of the 'Bird' division would have nullified the pursuit of one of the army's other prime goals. It could certainly have generated tremendous firepower, but at the expense of movement. Occupying, as it would have done, over sixteen miles of road, the 'Bird' division threatened to be dangerously immobile.<sup>55</sup>

In 1923 the general staff finally fixed upon a new organization for the postwar division, based largely on the recommendations of the Aldershot experimental brigade and designed to meet the constraints imposed upon the army by the need to garrison the empire. The brigade had operated under the instructions of the GOC-in-C Aldershot, Sir Thomas Moreland. Moreland believed that 'The military machine when equipped with only essential weapons is already sufficiently complicated and we should cut out unessentials[sic]. '56 Despite the fact that in peacetime units were usually scattered in isolated garrisons, he insisted on retaining the division as the basic tactical formation, and strongly deprecated the formation of permanent brigade groups on the grounds that they would dissipate the power of the artillery. All arms, including the infantry, had to be made more mobile, and so he recommended that the infantry should forgo their light stokes mortars and the artillery their medium and heavy trench mortars. Mobile medium howitzers could perform the task of the latter just as well and the problem of providing close support for the infantry could be met by giving each brigade a battery of pack howitzers.<sup>57</sup> Most of Moreland's recommendations were accepted and they formed the basis of the 1923-model infantry division. It consisted of twelve infantry battalions, divided into three brigades, supported by three brigades of artillery. Each of the latter consisted of three batteries of field guns and one battery of light howitzers. It also had a brigade of pack artillery, one of whose three batteries was attached to each infantry brigade.<sup>58</sup> It was a compromise organization. It reflected the constraints of the Cardwell system and the need to provide imperial garrisons on the one hand, and the quest for mobility on the other. But it did so at the expense of meeting the demands of a doctrine that called for formations to be able to generate overwhelming firepower. It did provide the infantry with a far higher proportion of direct-fire weapons than they had in 1914 (one machine gun to twenty-eight riflemen and one lewis gun

 $<sup>^{55}</sup>$  Recommendations of committee on army matters, 1900–20; reorganization of field army; Maj.-Gen. W. D. Bird; Report 1; Infantry Divisions, 21 Mar. 1919, PRO WO 237/13/933; Chetwode to Montgomery–Massingberd, 12 and 26 Jan. 1921, LHCMA, Montgomery–Massingberd MSS 122/3 and 5.

<sup>&</sup>lt;sup>56</sup> Moreland to secretary, war office, 30 Sept. 1922, PRO AIR 5/1382.

<sup>&</sup>lt;sup>57</sup> Brig. A. L. Pemberton, Artillery Tactics and Equipment, PRO WO 277/5.

<sup>&</sup>lt;sup>58</sup> Report on the staff exercises held by the CIGS, 9–13 Apr. 1923, PRO WO 279/55.

to eight riflemen, compared to only one machine gun to 300 riflemen in 1914). But it gave them only enough artillery to cover the attack of two of their twelve infantry battalions, hardly more support than they had enjoyed before the war.<sup>59</sup>

The post-war emphasis on greater mobility and firepower also encouraged the war office to begin development of a new generation of weapons and transport better suited to its emerging doctrine. In 1923 the war office decided that all divisional supply trains should be completely mechanized and the royal army service corps began to develop six-wheel lorries fitted with large pneumatic tyres that had a much improved cross-country performance compared to existing vehicles fitted with solid tyres. Almost simultaneously, the royal tank corps, which had been placed on a permanent footing in September 1923, acquired its first Vickers medium tanks, and in 1923-4 the first two field artillery brigades were also mechanized. 60 In 1927 and 1928 Milne established a new directorate of mechanization at the war office and set up the mechanical warfare board. They were charged with overseeing the development of new weapons by bringing together representatives of all departments and arms of the service, academics, and industrialists concerned with mechanization. <sup>61</sup> The crucial factor preventing these developments from going faster and being taken further in the 1920s was not so much any innate conservatism at the very top of the army, but the shortage of funds. That meant that, apart from some new tanks and gas masks, little new equipment actually reached the troops in the 1920s. The limited money available was devoted to experiments and the production of prototypes. This was done in the expectation that when sufficient funds were made available, the army would at least have suitable designs to put into production.

In the mid-1920s Cavan did conduct field trials with the new equipment that was available. They highlighted three important issues, the extreme vulnerability of infantry that had no anti-tank weapons to tank attack, the impossibility of mixing horse and mechanical transport in the same unit or formation because of their very different speeds, and the need for faster means of communication. The infantry had to have their own mobile anti-tank guns, and the first-line transport that actually accompanied battalions into battle had to be mechanized. In 1922 Cavan, in an attempt to hasten the tempo of operations by substituting wireless communications for cable, had abolished the use of cable forward of corps HQs except for the artillery. But by September 1925 too few wireless sets and even fewer trained operators were available. 62

<sup>&</sup>lt;sup>59</sup> Report on the staff exercises held by the CIGS, 30 Oct.-3 Nov. 1922, PRO WO 279/54.

<sup>&</sup>lt;sup>60</sup> Institution of the royal army service corps, The story of the royal army service corps, 1939–1945 (London, 1955), p. 21; Anon., 'Military notes', Journal of the Royal United Services Institute, 68 (1923), p. 341; P. Ventham and D. Fletcher, Moving the guns: the mechanisation of the royal artillery 1854 to 1939 (London, 1990), p. 122.

<sup>&</sup>lt;sup>61</sup> Anon., Fighting, support and transport vehicles, PRO WO 277/8.

<sup>&</sup>lt;sup>62</sup> Lt.-Gen. Sir G. Le. Q. Martel, An outspoken soldier: his views and memoirs (London, 1949), p. 49; Captain B. H. Liddell Hart, 'Army manoeuvres, 1925', Journal of the Royal United Services Institute,

The result was that in the autumn manoeuvres, the largest conducted by the army in the 1920s, both sides not only lost contact with the 'enemy', but commanders also lost contact with their own forces. The outcome was another valuable lesson that was incorporated into the army's written doctrine. The 1929 edition of *FSR* contained a completely new chapter on communications. To quicken the speed of communications without simultaneously creating a brittle system prone to breakdown, signallers were expected to rely upon a mixture of cable, wireless, despatch riders, and aeroplanes to reduce their dependence on one single form of communication. Within divisions, commanders were told to reduce their dependence on vulnerable electronic means of communication by placing their headquarters close enough to the front that they could intervene in person if necessary.<sup>63</sup>

Milne carried on Cavan's policy of research and experimentation after he became CIGS in 1926.  $^{64}$  Milne believed just as strongly as his predecessors that battles were won by combined arms action and the generation of overwhelming firepower using the latest technologies.  $^{65}$  In May 1927 he told an audience of senior officers that FSR (1924)'s insistence that

'Infantry is the arms which in the end wins battles.' I am afraid I cannot agree. No arm wins battles and I want that to be clearly understood. It is the co-operation of all necessary arms that wins battles and that is your basis for training for the future. I want that to be your principle in training – combination and co-operation of arms. <sup>66</sup>

Critics like Fuller and Liddell Hart who suggested that Milne's decision in late 1928 – to disband the experimental armoured force he had created in 1926 and to turn towards the mechanization of the infantry – represented some kind of loss of nerve on his part, are mistaken.<sup>67</sup> Milne never embraced the all-tank ideal of some of the royal tank corps radicals. By 1925 the work of the Aldershot brigade and the staff exercises and manoeuvres of 1923 and 1925 had shown that a modern army could not be created simply by adding mechanical devices and even whole units to existing formations. What was needed, if further experiments were to be of any value, was what he called a 'mechanical formation, in its embryo state' as the next step towards a wholesale reorganization of the army to create 'a simple and flexible instrument permitting of protected mobility from which offensive power can be rapidly

<sup>70 (1925),</sup> pp. 647–55; Report on army manoeuvres, 1925, PRO WO 279/56; Lt.-Gen. Sir P. Chetwode, Report on collective training, Aldershot Command, 14 Nov. 1925, LHCMA, Kirke MSS 2/1/18.

<sup>&</sup>lt;sup>64</sup> Report on the staff conference held at the staff college, Camberley, 9–11 Jan. 1933, PRO WO

<sup>&</sup>lt;sup>65</sup> Report on the staff conference held at the staff college, Camberley, 17–20 Jan. 1927, under the orders and direction of the CIGS, PRO WO 279/57.

<sup>66</sup> War office exercise no. 2 (1927) Winchester, 9–12 May, 1927, PRO WO 279/59.

<sup>&</sup>lt;sup>67</sup> G. Nicol, Uncle George: Field Marshal Lord Milne of Salonika and Rubislaw (London, 1976), p. 266.

developed, in order that the enemy may be found and destroyed with the least possible loss of time and expenditure of energy'. 68

The results of the experiments conducted by the work of the experimental mechanized force in 1927 (renamed the experimental armoured force in 1928) were incorporated into the 1929 edition of FSR.<sup>69</sup> It was the first manual to discuss explicitly 'Armoured units' and to include a detailed analysis of their weaknesses, strengths, and functions. It asserted that they could be employed either to break through the enemy's defences, or, by outflanking it, attack its lines of communication and headquarters. In conformity with the general staff's commitment to combined arms action, it insisted that tanks alone could not overcome a properly entrenched enemy, and if they were used in a frontal attack they had to have the support of artillery to neutralize the enemy's batteries and infantry to overcome its anti-tank guns and to consolidate their gains.<sup>70</sup> The general staff also issued two other manuals before the Kirke report that considered the future role of tanks and mechanization, Mechanized and armoured formations (1929) and Modern formations (1931). The latter postulated that in the future the army might consist of four basic types of brigade, infantry brigades, cavalry brigades, light armoured brigades, and mixed armoured brigades, and that they could be combined into divisional-sized formations. Depending upon the terrain over which it was fighting and its mission, an infantry division might consist entirely of infantry troops and supporting arms or it might have a mixed armoured brigade (consisting of light and medium tanks) attached to it. Mobile divisions might consist of either a cavalry brigade or an infantry brigade in buses and two mixed armoured brigades. Both types of division would also include engineers, artillery, and either light tanks or cavalry tanks for reconnaissance.<sup>71</sup>

It is, therefore, erroneous to conclude that the army waited until the establishment of the Kirke committee in 1932 to learn the 'lessons' of the First World War. It had abandoned its pre-1914 quest for a 'human-centred' solution to the problem of overcoming the firepower of the modern battlefield over a decade before the committee was established. It had enthusiastically embraced a technological solution and was experimenting with ways to give it effect. The Kirke committee, therefore, did not mark a radical new beginning. Rather, it endorsed the post-war doctrine that combined arms action and overwhelming firepower were essential if mobility was to be restored to the battlefield. What it did that was new was to highlight the fact that so far the army had not discovered a means of transforming a 'break-in' into a 'break-through' and suggested that the best way to do so would be to accelerate

<sup>&</sup>lt;sup>68</sup> Ibid., pp. 309, 311.

<sup>&</sup>lt;sup>69</sup> The work of the experimental armoured force is discussed in Harris, *Men, ideas and tanks*, pp. 217–22; Larson, *The British army*, pp. 137–47; H. Winton, *To change an army: General Sir Jock Burnett-Stuart and British armoured doctrine*, 1927–1938 (Newark, NJ, 1984), pp. 72–105.

<sup>&</sup>lt;sup>70</sup> *FSR* (*1929*), pp. 16–17, 124–6.

<sup>&</sup>lt;sup>71</sup> Harris, *Men, ideas and tanks*, p. 224; J. P. Harris, 'British armour 1918–40: doctrine and development', in J. P. Harris and P. Toase, eds., *Armoured warfare* (London, 1990), pp. 37–9.

current developments. A smaller and more flexible division, with a greater proportion of tanks, artillery, and motor transport was required, and more efforts had to be made to achieve surprise, either through the use of smoke or night operations.<sup>72</sup> Most of these recommendations were implemented in the second half of the 1930s.

## IV

In the 1920s the only kind of active service that the British army experienced involved colonial policing and conducting minor wars on the frontiers of the empire. However, in preparing its formal written doctrine the general staff was not either insular or imperial in its outlook, although in matters of organization its freedom of action was seriously constrained by the demands of the Cardwell system. It did not turn its back on the problems of how to fight a modern war against a first-class power, and nor did it require the Kirke committee's report to force it to begin to garner the lessons of the First World War. Its *FSR*s were regularly up-dated in the light of the lessons of the Great War and peacetime experiments and manoeuvres. Weapons design and development continued apace, but within the confines of a tightly restricted budget. It was with some justification that, in 1929, a former director of military operations, Sir Frederick Maurice, wrote in his semi-official textbook, *British strategy: a study of the application of the principles of war* that 'it is we who are leading the way to the recreation of the mobile striking force'.<sup>73</sup>

However, the fact remains that the army's ability successfully to practise mechanized, mobile, warfare in the first half of the Second World War was so limited as to cast doubts on the fact that it had learnt very much at all. Some of the reasons for this have been explored by other authors and need only be mentioned here. The very outspokenness and lack of tact of some of the semi-official spokesmen for mechanization, such as Liddell Hart and Fuller, aroused the resentment of many officers and caused them to look with suspicion at what they were proposing. Many cavalry officers feared, with some justification, that the royal tank corps hoped to expand at their expense. Financial constraints imposed on the army by the Treasury and successive governments anxious to produce a balanced budget precluded the large-scale purchase of new equipment. Realistic training was impeded by shortages of manpower and land. But other factors were at least as important, although less apparent at the time, and have often gone unnoticed since.

One reason why the German army was able to exploit the advantages of mechanization to the utmost was because of its willingness to practise *Auftragstaktik*. Subordinate commanders were given a mission but were permitted wide latitude to perform it within the ambit of their commander's

<sup>&</sup>lt;sup>72</sup> Report of the committee on the lessons of the Great War, 13 Oct. 1932, PRO WO 33/1297.

<sup>&</sup>lt;sup>73</sup> Sir F. Maurice, *British strategy: a study of the application of the principles of war* (London, 1929), p. 184. The book carried a preface by Milne.

<sup>&</sup>lt;sup>74</sup> See B. Bond, British military policy between the two world wars (Oxford, 1980), passim.

intentions.<sup>75</sup> To prevent this adding to the chaos of the battlefield, German soldiers at all levels were taught a series of drills in order to secure the combined arms co-operation the Germans also recognized as being essential. However, the British forfeited this potential advantage because they resolutely refused to adopt either mission command or tactical drills. They opted instead for an autocratic command system that required junior leaders to obey not just the spirit but also the letter of their orders. In practice junior leaders were encouraged to wait for orders rather than to emulate the Germans and seize fleeting opportunities.

By contrast, senior officers in the British army were allowed too much leeway in interpreting doctrine. The FSR and its associated arm of service manuals stated general principles. They did not explain how those principles should be implemented. The army's commitment on paper to solving its problems through the application of rational analysis was heavily circumscribed by a second, and even more powerful, body of ideas. FSR (1920) asserted that because 'no two situations are identical ... the application of the principles cannot be made subject to rules'. 76 Senior officers were expected, as a result of their long experience and study, to discover for themselves the most appropriate way of doing so.<sup>77</sup> This latitude at the top of the army was the product of a distinctive sense of what it meant to be 'British' that had developed since the eighteenth century. Senior officers shared a widely held distaste for prescriptive rules and for allowing their actions to be governed by abstract ideas. The British in general, it was commonly supposed, were different from their continental neighbours because of their willingness to allow 'character' rather than abstract reason, to govern their actions. As FSR (1924) asserted, 'Above all it must be remembered that success in war depends largely on a knowledge of human nature, and how to handle it to the best advantage.'78 The British believed that continental military doctrines, which they thought were based upon prescriptive theories, were only of limited applicability to them because of the peculiar strategic circumstances of their island empire. <sup>79</sup> A willingness to muddle through was a characteristic that was supposed to set the British apart from their continental neighbours and enemies. 80 This attitude did not begin to change until after Dunkirk, when in October 1940 Lt.-Gen. H. R. Alexander issued a set of tactical notes to troops in his I Corps laying down simple battle drills for companies and platoons.<sup>81</sup> Until then, and throughout the interwar period, units and formations often practised widely different interpretations of

<sup>&</sup>lt;sup>76</sup> FSR (1920), p. 15. <sup>78</sup> FSR (1924), p. 4. 75 Corum, Roots of blitzkrieg, p. 49. <sup>77</sup> Sir Ivor Maxse, 'Forward', in Liddell Hart, A science, p. vi. <sup>79</sup> Sir George Milne, 'Introduction', in Maurice, British strategy, 1929), p. xv.

<sup>&</sup>lt;sup>80</sup> R. Colls, 'Englishness and political culture', in R. Colls and P. Dodd, eds., *Englishness: politics* and culture, 1880-1920 (London, 1986), p. 31; S. Collini, Public moralists: political thought and intellectual life in Britain, 1850-1930 (Oxford, 1991), pp. 323-41; T. W. Heyck, 'Myths and meanings of intellectuals in twentieth century British national identity', Journal of British Studies, 37 (1998), pp. 192–9.  $\,^{81}$  Alexander to Dill, 4 Jan. 1941 and enc., LHCMA, Alanbrooke MSS 6/2/1.

the principles laid down in the manuals. Between 1919 and 1931 the general staff did 'check up properly on the lessons' of the First World War. What it did not do was to impose a common understanding of the meaning of those lessons and its doctrine throughout the army. As Montgomery explained in the address quoted earlier, 'the army as a whole was given no clear doctrine on which to base its tactical training; senior commanders evolved their own doctrines; when you changed your commander you changed your doctrine'.<sup>82</sup>

 $<sup>^{82}</sup>$  Opening address ... IWM, Maj.-Gen. R. Briggs MSS 66/76/1 .