

- recognition that the workforce has become a more critical factor in determining organisational success; the need to attract, retain and motivate a skilled workforce is paramount in most organisations (refer to the ‘Human relations school’ section later in this chapter);
- the dynamism of the business environment and the complexity of the marketplace and the global economy require organisations to be flexible and innovative;
- it is widely believed that bureaucratic organisations, built on the principles of the classical school, are ill equipped to embrace change and are more suited to repetitive activities; and
- changes in social expectations and the political and legal environment have ensured that many of the excesses of the late nineteenth- and early twentieth-century organisations have become unacceptable, unethical and/or illegal.

Scientific management

The emphasis on rationality, and lack of consideration for human aspects of organisation, led to the application of scientific principles to work management. **Scientific management** *advocated that there was ‘one best way’ to conduct any job which would maximise productivity.* It can be argued that scientific management comprises a subset of the classical school: the latter is mainly concerned with the wider organisation and its structure, whereas the former focuses on job design. Scientific principles, it was suggested, should be applied to work organisation in order to seek the ‘one best way’. The consequence would be significant efficiency gains, an increase in productivity and consequently in both wage rates and profitability. The school’s most influential exponent was Frederick Taylor (1856–1915), and other valuable contributions were made by Frank Gilbreth (1868–1924) and Henry Gantt (1861–1919).

Frederick Taylor

Taylor argued that efficiency, standardisation and discipline would result from a process of scientific management of work tasks. To be more precise, he suggested that:

- a clear distinction should be made between planning a job, a management role, and conducting the tasks, a worker’s role;
- a scientific selection process should identify the correct person to perform the task;
- jobs should be standardised and simplified – broken down into simple, basic, steps which are easily learned and repeated;
- each worker should conduct a minimum of movements, preferably involving just one set of actions; and
- there was ‘one best way’ of organising any set of tasks to be performed, and it was management’s responsibility to conduct exhaustive measurements in order to achieve this desired state.

Taylor argued that this would raise productivity (his consultancy work invariably bore out this contention) and so give working people the higher wages they sought. He suggested that increases in productivity should be accompanied by the introduction of

piecework, *an incentive payment system which relates payments to level of output*, and hence worker satisfaction and motivation would be ensured. Unfortunately, Taylor underestimated the strength of worker alienation and rejection of his philosophy, as the example presented in Mini-case 2.1 illustrates.

MINI-CASE 2.1

Experiments with scientific management

Taylor's work in a steel plant

Taylor's work at the Bethlehem Steel works in the United States, involving the efforts of a pig iron handler called Schmidt (an alias), is discussed in most OB and organisational theory texts. Taylor sought to alter fundamentally the way in which a simple task, the movement of iron, was conducted. As a result of his detailed time-and-motion observations and measurements, productivity in the process was raised four times, that is, by 400 per cent. In other words, only one-quarter of the workers would be required to move the same quantity of iron; alternatively, the company could move four times the quantity of iron using the same number of workers.

As a result of Taylor's work at the steel works, wages were increased by 60 per cent. The cost of pig iron supplied to engineering companies declined (Taylor, 1911). Nevertheless, these 'economic' benefits were not often warmly greeted and resulted in almost universal hostility from workers, management and the US government (Taylor appeared before a House of Representatives committee following investigations into a major strike in 1912).

Taylor's principles were first applied in Britain in 1905 and were criticised by the Iron and Steel

Federation. Similarly, in Germany in 1912 they were greeted with considerable hostility, and in France (Renault) they resulted in strike action and violent protest. However, in the USSR, Lenin, shortly after the Bolshevik revolution, established the League for the Scientific Organisation of Work in 1918. Taylor's thinking preceded the widespread adoption of mass production techniques, possibly best demonstrated by the early (1920s) motor manufacturers, notably by Henry Ford in the United States.

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The reader might be forgiven for gaining the impression that such practices are rare, socially unacceptable and no longer considered viable. In some industries this is the case, but by no means all. The contemporary need for multiskilling and for workers to take responsibility makes the strict application of scientific principles difficult. However, many organisations thrive on scientific management principles and organise accordingly. Perhaps the best examples lie in catering more specifically in fast-food consumer outlets in companies such as McDonald's (refer to Mini-case 2.2, 'McDonalised, McJobs and the McWorld').

It is important to locate developments in scientific management in their historical context. In the early twentieth century, management was a very imprecise activity. Little systematic research had been conducted and practices varied considerably. Meanwhile, workers tended to believe that an increase in productivity on their part would merely result in job losses. Understandably, they took advantage of poor management controls to slow production. This was made possible as workers themselves often designed or organised their own efforts and had little interest in seeking efficiency.

MINI-CASE 2.2

McDonaldisation, McJobs and the McWorld

In McDonald's outlets, most staff have clear and narrowly defined jobs which require limited training and are carefully designed to minimise unproductive movement and scope for human error. There is little or no staff discretion allowed; for example, cooking times are strictly prescribed. Clear instructions are given concerning the exact duration that fries should be immersed in the hot fat or the time required to cook a burger. Very little, if any, discretion is given to employees. The benefits to customers appear to be a standard product, the same every time, delivered rapidly and at a reasonable price and with consistency of service. It is also important to note that many modern organisations adopt similar principles in order to maintain or increase

productivity. This is particularly the case when large quantities of identical outputs are required on a near-continuous process.

The terms 'McDonaldisation' and 'McJobs' are metaphors for the type of jobs found in fast-food outlets, some retailing, call centres, service processing organisations and some manufacturing companies: generally low skilled, low wage, highly repetitive, jobs. There is considerable research into these practices and the extent to which globalisation is making it a world-wide phenomenon. The term 'McWorld' implies that the global spread of multinational companies and consequently their organisational practices ensures a coming together, a common way of organising.

Whereas Taylor's work was revolutionary in its time, it is now largely taken for granted. Increasingly, aspects of it have been rejected in favour of more 'human' or social considerations, and the whole approach has proven less valuable in many contemporary contexts. Nevertheless, the principles of division between managerial and worker roles, of standardisation and specialisation, of division of labour and efficiency, continue to remain as central precepts in many organisations.

Gilbreth and Gantt

It was not Taylor but Frank Gilbreth who first advocated the use of time and motion methodologies. Like Taylor, he worked at reducing the extent and frequency of 'unnecessary' motions involved in completing a task. He conducted his early work in the building industry. By reducing unnecessary motion, he argued, it would be possible to reduce worker fatigue, which, he suggested, hampered efforts to increase productivity. Hence he suggested reductions in the working day and regular brief rest periods at work. By also seeking to influence the work environment by altering lighting conditions, considering permitting music to be played and providing canteen facilities and even chairs for periods of rest, Gilbreth was the first researcher to consider seriously that workers have complex needs.

It was Henry Gantt who introduced detailed instruction cards for workers to lead them through, step by step, complex but repetitive tasks. 'Desk instructions' are still to be found in many, particularly clerical, tasks today. He also developed new payment systems, combining basic and bonus schemes. Furthermore, he recognised the 'human' element in work design considerations. For example, if an employee failed to meet the

necessary standard (usually by being unable to work at sufficient speed), the foreman was required personally to demonstrate that the work could realistically be done at the pace required.

A critique

There is little doubt that the work of Taylor and others influenced work organisation practices in many organisations, first in the United States and later elsewhere. It could be argued that their efforts stimulated changes which led to significant increases in productivity and facilitated mass production techniques and wage rises which enabled mass consumption and the growth of living standards in the twentieth century. That said, it is important to evaluate his scientific principles critically and note the drawbacks which have arisen.

MINI-CASE 2.3

The fast-food outlet: a personal reflection on work

When Lucy went to university, she realised that she needed to work to pay her way. This is her story.

I was so lucky, or so I thought, when a second-year student told me that one of the fast-food restaurants in town needed staff, now! I went for an interview; they liked me and I started just two days later. I worked all day Saturday and Sunday – long shifts but the money was OK. Because I'd done some bar and shop assistant work previously they put me on the counter. I was so nervous at first, it seemed so complex, but no more than 3 or 4 hours into the first shift and I'd learned the till and the main orders with some help from Jaz the supervisor. It was very tiring, standing up for so long, with just a couple of breaks. There were some unhelpful customers. It was always busy. I didn't quite look forward to going in on Sunday as I had on my first day, but after a few minutes the crowds came in and it all fell into place.

In fact it started to get a bit boring. You couldn't really talk with any customers even if you wanted to. I got to the point within a couple of weeks that I really didn't have to think about what to do. What I thought at first was complicated was after just a couple of days all very simple and

repetitive. I started to count the minutes and the pay; I worked it out that I was getting about 10p a minute so when I did a big order which took 5 minutes I calculated in my head that I earned 50p. Three of those and I could get a Coke in the pub, eight and I could put something in it worth drinking!

Then I noticed something changing in me which I didn't like. I got grumpy with some customers. Some would wait ten minutes in a queue and get to the counter before working out what they wanted. 'Does that come with fries', one old guy said when looking at the picture of the meal he'd ordered with a bloody big pile of chips on it! I just pointed at it and mumbled 'yes'. And, whereas I used to love burgers, I'm not so keen now. It's not exactly thrilling visiting the place now. I need the money but I also need to do something where I need to think (and where I don't leave stinking of greasy burgers). How people do this sort of work all their lives I'll never understand. It's just too boring and mindless – too easy, if that makes sense. If you're a thinking person it drives you crazy. I'm so glad I'm at university and aim to get a more interesting job and have a career. Most of the people I worked with don't really have that opportunity.

Taylor suggested that his fundamental principles could, and should, be applied to any organisation: a claim that they were of universal applicability. This remains a hotly disputed contention. A whole host of intervening factors can and do influence 'the one best way' of managing and organising work. These are further explored later in this chapter. Practical and effective problems encountered with Taylorism include:

- significant resistance in the early twentieth century from management who saw his work as critical of their efforts, and from the US government which questioned the implications of his approach and its consequences for worker morale and alienation;
- decline in worker morale, not least because of the highly boring and repetitive nature of their work and widespread, often violent, opposition from workers (refer to Mini-case 2.3);
- it progressively led to a decline in the level and breadth of skills required for workers, reduced flexibility through lack of multiskilling and ensured that, after initial pay rises, these narrowly designed low skilled jobs would always remain low paid by comparison to others in the economy; and
- adoption of scientific approaches was not uniform even across the United States let alone in Europe and elsewhere.

These problems arose due to:

- a failure to recognise the emotional and social needs of workers; workers were viewed as individual units of production, in much the same way as a machine;
- a failure to recognise the great diversity and diverging tendencies of different national and cultural contexts (refer to Chapter 1 and later in this chapter);
- the assumption that pay was a sufficiently powerful source of motivation to elicit cooperation: although Taylor, rather like classical economists, assumed that workers were rational economic thinkers who would respond to financial incentives, there are many other variables affecting motivation in practice (see Chapter 4); and
- the approach clearly represented an overt exercise of management control over working people: it removed any decision making right from workers.

Subsequent research demonstrated that the social needs of workers are significant. These include the need to form relationships, to experience meaningfulness or achievement at work, to have some job satisfaction and task variation and to enjoy a sense of responsibility. These aspects were largely ignored by scientific management theorists who underplayed the significance of the work group and the breadth of capabilities workers possess. These techniques aimed to reduce difference or individualism, characteristics which, in many situations, are of value.

Socio-human approach

Human relations school

It is possible, although probably not entirely fair, to consider the prescriptions of the classical school as characterising the 'forces of dark' and the human relations school as the