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# TAYLORISM REVISTED: CULTURE, MANAGEMENT THEORY & PARADIGM-SHIFT

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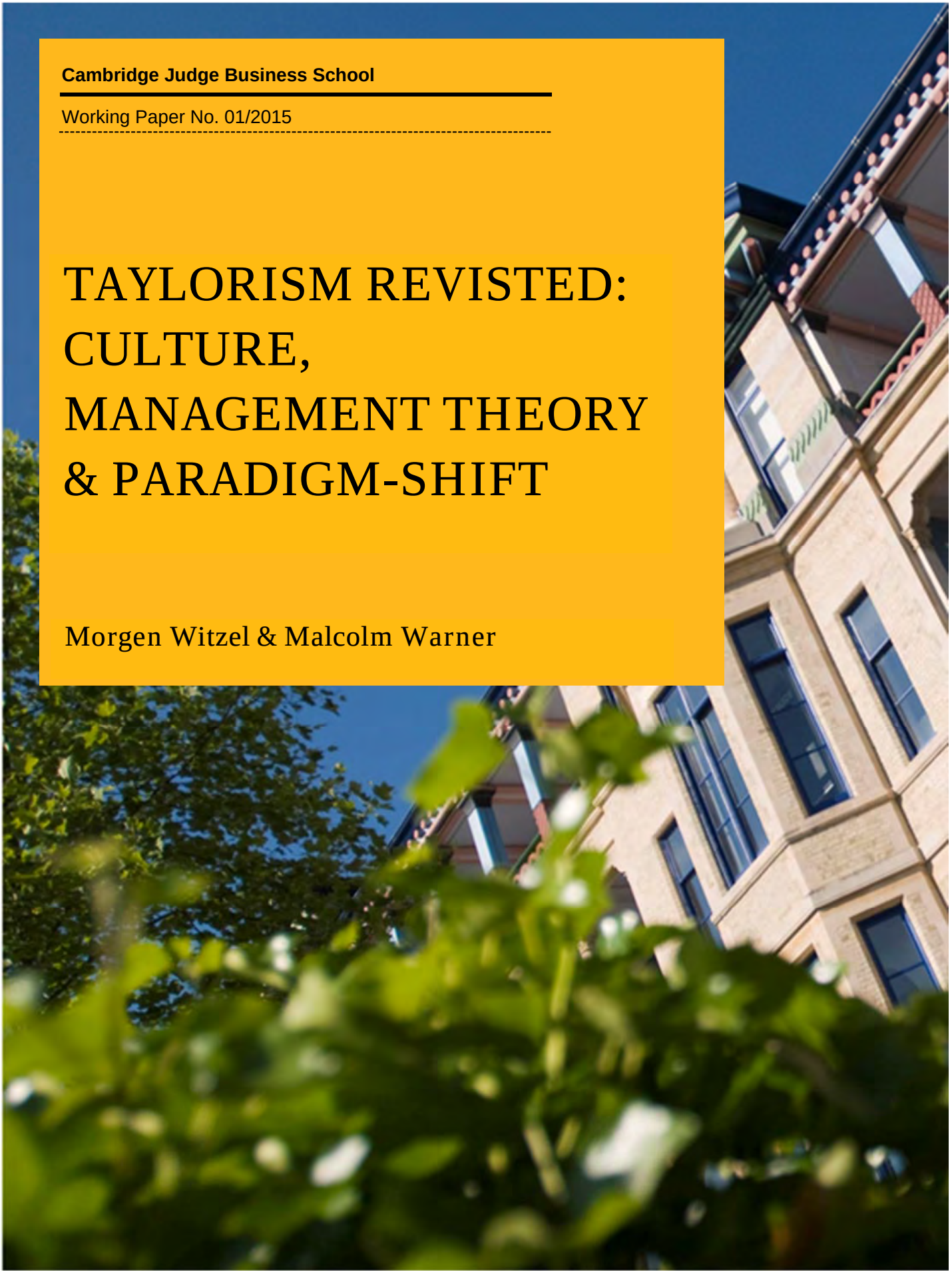

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**Working Paper**
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# 'Taylorism Revisited: Culture, Management Theory and Paradigm-Shift'

**(accepted for publication in the *Journal of General Management,* 2015)**

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**Abstract**:

*In this article, we look at the role of culture, management theory and paradigm-shift vis a vis their implications for general management. We focus in depth on the influence of the European Enlightenment on eighteenth and nineteenth century industrialism and the emergence of a possibly dominant paradigm in management theory in the twentieth century, namely 'Scientific Management' or 'Taylorism', as it became known. We also examine how, in turn, it shaped the next development in the narrative - 'Human Relations' - and its successors 'Organizational Behaviour' and 'Human Resource Management'.*

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**Key words**: culture, Enlightenment, general management, management theory, paradigm-shift, Scientific Management, Taylorism

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## 1. Introduction

In this article on Scientific Management, we look at the role of culture, management theory and paradigm-shift *vis a vis* the implications for general management. For some time, social scientists have posited that *cultural* influences play an influential role in shaping the discourse of management theory (see Koontz, 1961; Lansbury, 1976; Witzel, 2012; Witzel and Warner, 2013). *We intend here to show how Scientific Management (SM) went on to influence in turn the Human Relations School (HRS), Organizational Behaviour (OB),*

*Human Resource Management (HRM) and other relevant developments.* By making such connections, we hope we can better enlighten both management scholars and general managers on the history, theory and practice of the field.

According to one authority, 'culture' may be defined as something: 'by which the people mutually coerce one another into conformity' (Douglas, 1986: xxiii). Culture may indeed be implicit in all societies and underwritten by institutions (see Douglas, 1986, 1992; Douglas and Waldavsky, 1982; North, 1990). To tackle this point, we examine '*Scientific Management'*, or '*Taylorism*', as it became known, based on the contribution of its American parent, Philadelphia-born Frederick Winslow Taylor, [1856-1915], its cultural origins, how it became institutionalized and how it emerged as a possible *paradigm-shift*.

For no little time, there has been increasing doubt as to whether it is possible to achieve what the Gilbreths [Frank B. Gilbreth, 1868-1924 and Lillian E. M. Gilbreth, 1878-1972], who were close associates of Taylor, referred to as the '*one best way'* of managing an organization (Gilbreth and Gilbreth, 1911: 1-2). But many theorists would agree that management theory, and management itself, needs to evolve with changing times (Witzel and Warner, 2013). Others (for example, Barley and Kunda, 1992; Adler, 2003) have described the presence of a kind of 'wave theory' in thinking about organizations, veering from the so-called 'mechanistic' approach of Taylor and the 'Scientific Management' School (SM), then the institution-based 'Industrial Relations' (IR), both in the first decades of the 20$^{th}$ century; after, to the 'people-centred' approach of the 'Human Relations School' (HRS) in the 1920s and 1930s, based on the works of Mayo [Elton Mayo, 1880-1949] and the 'Hawthorne experiments'; then back to the 'hard' mechanistic approach of 'Management Science' (MS) as of the 1950s; as well as to a more 'soft' human-centred approach of 'Organizational Behaviour'(ER), 'Employee Relations' (ER), 'Human Resource Development' (HRD) which emerged in the late 1960s; and last, on to 'Human Resources Management' (HRM) not long after, down to the present day.

The key question we now ask here is: *how does culture exert an impact on management theory?*. Our focus will be on the *paradigm-shift* that took place in the narrative between roughly the 1890's and the 1920's, with the theory of Scientific Management at the heart of the new *demarche* (see Merkle, 1980). At this point, we turn to the debate about 'paradigms' in natural science, associated with scholars of the history of science, such as Thomas Kuhn [1922-1996] (see Fuller, 2000), in his seminal work half-a-century ago, *The Structure of Scientific Revolutions* (Kuhn, 1962), a number of economists (Coats, 1969; Blaug, 1975; Stiglitz, 2011) amongst others) and a few sociologists (see Hassard and Cox, 2013). We will ask *why* Scientific Management eventually became a possibly *dominant* management model of its time for many decades, with wide influence around the globe (Devinat, 1927; Merkle, 1980; Greenwood and Ross, 1982; Locke, 1982; Humphreys, 1986; Kanigel, 1987; Wrege and Greenwood, 1992; Warner, 1994; Nelson, 1995; Morgan, 2006) and even in fields beyond management (for example, Guillén, 2006).

## 2. A Historical Perspective

As management theorists have pointed out, whilst the first fully-formed management theories, such as Taylor's, did not emerge until the end of the nineteenth century, if not after, there is a long history and tradition of 'thinking about management', that goes back to antiquity (see George, 1972; Wren, 1994). A number of writers (Moore and Lewis, 2009;

Witzel, 2012) have described the development of such *proto-management* ideas in the early civilizations.

China, the 'Middle Kingdom', in particular, for example, was rich with ideas about management and organization (see Rindova and Starbuck, 1997). The works of *Confucius (Kong Fuzi)* [551–479, BCE] have spawned a rich literature here (Chen, 1911). A number of studies have suggested how Confucianism might have specifically influenced management thinking in the past and continues to be a major influence today (see Chen, 1995: Rarick and Gallagher, 2000; Chen and Lee, 2008; Jia *et al*, 2011; Warner and Nankervis, 2012; Warner, 2011; Warner, 2014). The works of the Daoist philosopher, *Laozi* (*Lao Tzu*) [c. 6th C, BCE], too, have been seen as influential not just in China, but also in the West in this respect (Hudson 1931; Clarke 2000). Witzel (2012) has also drawn attention to the Legalist philosopher *Han Feizi* [280–233, BC] here.

Furthermore, we must be careful here not to fall in to the trap set by the German sociologist *Max Weber* [1864-1920] of assuming that Western culture was somehow more 'progressive' than that of the East (Weber, 1964, 2002). Scholars, such as the Cambridge historian of science, Joseph Needham [1900-1995], have comprehensively disproved this (see Needham, 1969a. and b.). Before the Industrial Revolution in the West, China was said to have been the world's largest economy, according to one economist, Angus Maddison [1926-2010], who noted why it had grown and why it had lapsed (Maddison, 2007). But China certainly was soon to become more than receptive to new Western ideas, including Taylor's (see Warner, 2014) as 'modernity' spread with the internationalization of the world economy. By the 1880s, Chinese translations of new Western works on economics and management, were in circulation, along with original Chinese books calling for reform (Witzel, 2012: 77). Taylor's *Principles* was translated into Mandarin in 1916 (see Morgan, 2006), the Japanese translations of both *Shop Management* and his *Principles* had appeared five years earlier (see Warner, 1994).

However, although Scientific Management itself was to emerge in *North America*, it had its roots in *Europe* much before. Modern ideas of management were to be a direct, if somewhat belated product of the Industrial Revolution in the 'Old World', and this was in turn *the direct product of the cultural and philosophical movement in the eighteenth century known as 'The Enlightenment'*. One authority (Porter, 2000: xxi) sees its reputation as being the 'intellectual foundation' for Western capitalism and imperialism. It is said to represent a critical juncture in modern history (see Conrad, 2012, on the extensive historiography of the Enlightenment, as well as Hampson, 1968; Outram, 1995; Gay, 1996; Porter, 2000). One of the key themes of the Enlightenment was the desire to understand the world more accurately, and for this understanding to be based on 'reason' and 'observation', rather than 'belief' and 'superstition'.

Although the Enlightenment itself is said to have ended around the time of the French Revolution, there are clear links in terms of ideas between the Enlightenment and the giant figures of nineteenth-century intellectual thought, such as Darwin and *Marx*. Both hark back to the Enlightenment and it is clear that they thought of themselves as intellectual inheritors of its spirit of inquiry (see Porter, 2000). The former's grandfather, Erasmus Darwin [1731-1802] a polymath doctor, was a close friend of Matthew Boulton [1728-1809], a member of the Birmingham-based *Lunar Society* and a key figure in the eighteenth century English Enlightenment (see Uglow, 2002).

However, the leaders of the Enlightenment sought to do more than just observe and understand the changes ongoing around them, *pace* the tone of *Marx*: - 'Unlike earlier philosophers who had sought to interpret the world, the advocates of Enlightenment were determined to change it' (Wokler 1998: 315). The Enlightenment believed that humans had a duty to use their reason to change things for the better and to improve the lot of ordinary people. Many believed, like the economist, Josiah Tucker [1713-1799], an important precursor of Adam Smith, that: - 'No man can pretend to set Bounds to the Progress that may yet be made in Agriculture and Manufacture' (quoted in Porter, 2000: 424). In describing the impact, Porter (2000:14) notes:- 'The Enlightenment was not just a matter of pure epistemological breakthroughs; it was primarily the expression of new mental and moral values, new canons of taste, styles of sociability and views of human nature. And these typically assumed practical embodiment: urban renewal; the establishment of hospitals, schools, factories and prisons; the acceleration of communications; the spread of newspapers, commercial outlets and consumer behaviour; the marketing of new merchandise and cultural services. All such developments re-patterned the loom of life, with inevitable repercussions for social prospects and agendas of personal fulfilment' (Porter, 2000: 14).

The English manufacturer, Thomas Bentley [1731-1780], a sometime partner of industrialist Josiah Wedgwood, argued that if one is to 'consider the gradual steps of civilization from barbarian to refinement...the progress of society from its lowest and worst to its highest and most perfect state has been uniformly accompanied and chiefly promoted by the happy exertions of man in the character of a mechanic or engineer' (quoted in Hans, 1966: 14). Here, Uglow (2002) has shown the direct influence of the Enlightenment on manufacturing. English manufacturers and how engineers put their ideas into practical form, albeit in an *ad hoc* way.

Another element of Enlightenment thought, not least on science and engineering, was a desire for measurement, verification and classification. The *Linnaean* system of classifying *flora* and *fauna* was a product of the Enlightenment, as are the systematic classifications of distance and time which also developed during the eighteenth century. These advances too continued through the nineteenth century, with Lord Kelvin's [1824-1907] dictum, 'science begins with measurement', which was to serve as a watchword for the later movement. The scene was now set for Scientific Management to emerge (see Kanigel, 1997).

## 3. The Enlightenment and Taylor

Frederick Winslow Taylor, born in 1856, the son of a long-settled, prosperous American lawyer, Franklin Taylor and of his wife, Emily Taylor *nee* Winslow, was educated in institutions where Enlightenment ideals resonated strongly. He went to the *Philips Academy* in Exeter, New Hampshire and was later accepted by *Harvard University* but was unable to attend on account of poor eye-sight (see Kakar, 1970). He was instead apprenticed as a machine-shop labourer, rising quickly to foreman at *Midvale Steel*, and in this capacity became involved with the *American Society of Mechanical Engineers*. Taylor soon obtained a degree in Mechanical Engineering through part-time study locally at the *Stevens Institute of Technology*. He worked his way up to become Chief Engineer in six years, no mean achievement (see Kanigel, 1997).

The extent to which the ASME and its members were influenced by Positivism has never been fully studied, but it is highly likely that there was at least some influence. Henry Towne, [1844-1924] who served as president of the society, had visited France on several occasions

and corresponded with French engineers, including *Gustave Eiffel* [1832-1923] (Urwick 1956). Other leading members, including, Frederick Halsey [1856-1935] maintained similar correspondence with engineers in France, Germany and Britain. It is not known that Taylor did so, but we can speculate with some confidence that his ideas were shaped by the cultural and social milieu in which he found himself (see Kanigel, 1997).

Taylor's own writings are indeed redolent of Enlightenment idealism. In *The Principles of Scientific Management* (1911) he writes that: - 'It would seem to be so self-evident that maximum prosperity for the employer, coupled with maximum prosperity for the employee, ought to be the two leading objects of management, that even to state this fact should be unnecessary' (Taylor 1911: 3). He also makes this point, repeatedly, that: - 'close, intimate, personal cooperation between the management and the men is of the essence of modern scientific or task management' (Taylor, 1911: 4). We also see Enlightenment thinking its essence:- detailed analysis, precise measurement, exact planning, and the collaboration between economic actors described by Adam Smith [1723-1790] and *Henri de Saint-Simon* [1760-1825] and of course, the attempt to heal the rift described by *Marx*, all purporting to be 'high-minded'. At the conclusion of the *Principles*, Taylor (1911) once again links his own system to the Enlightenment ideal of 'progress'.

A basic model of *Culture and Theory*, linking the Enlightenment and Taylorism, as we have conceptualized it, is set out in Figure 1, as follows:

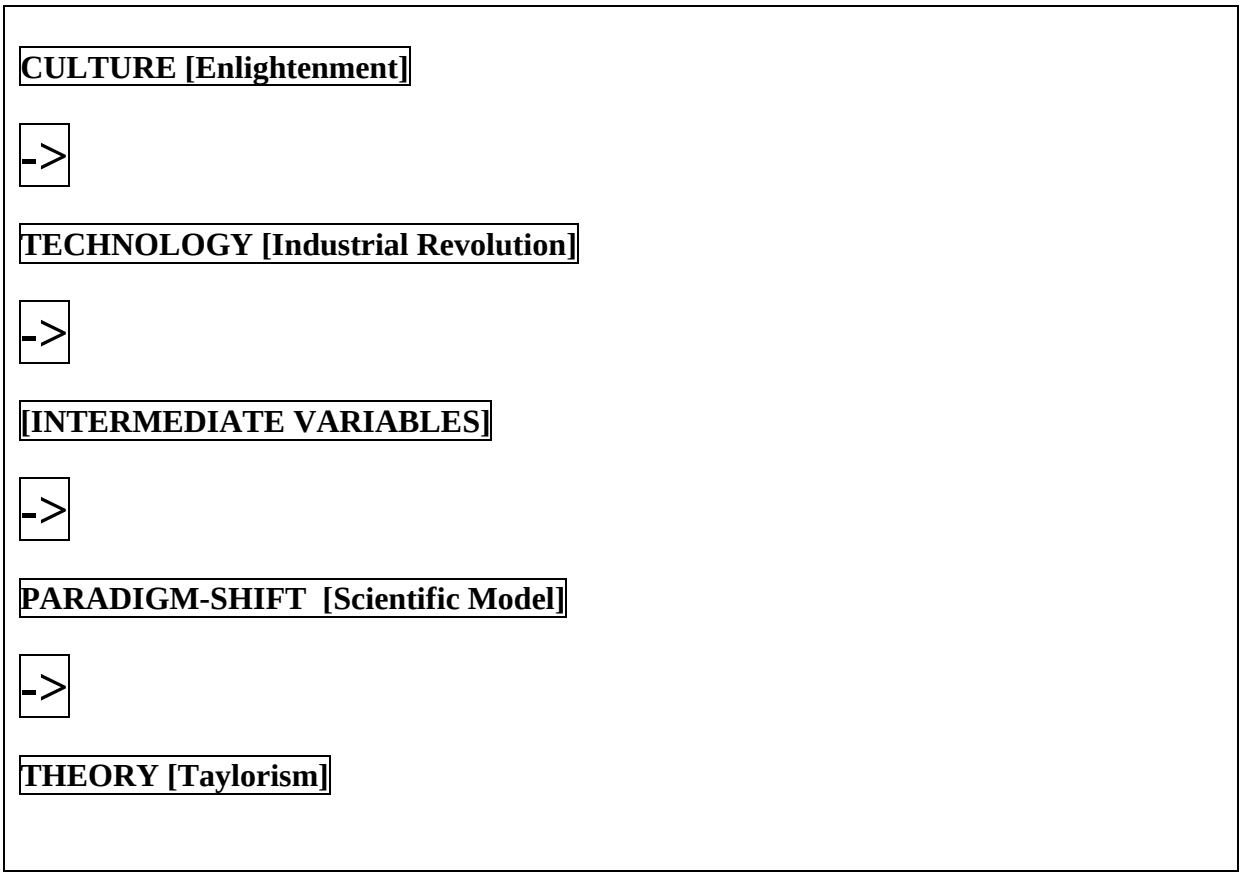


Figure 1: A Basic Model of Culture and Theory

INSERT FIGURE 1 ABOUT HERE

We are inclined to posit a potential *linear* strand here - going from the earlier 'Newtonian' science to the 'Enlightenment' thinkers, via the Industrial Revolution in the 'real world', from the economics of Adam Smith [1723-1790] and *Karl Marx* [1818-1883], through the evolutionary notions of Charles Darwin [1809-1882], to the work-based concepts of Taylor, with a unifying concept here of the 'division of labour' and 'specialization of function' at the analytic core of 'organization'. Indeed, it is less than a century that passes from the publication of *The Wealth of Nations* (1776), to the *Origin of Species* (1859) (with *Marx* publishing the *Contribution to the Critique of Political Economy* in that same year but not putting out the first volume of *Capital* until 1867) and then, only a further half century to Taylor's key work, *Principles* (1911).

**17th Century: Age of Reason/**
**Scientific Revolution/**
**Newtonian Model**

**18th Century: Enlightenment/**
**Industrial Revolution/Division of Labour/**
**Laissez-faire Economics**

**19th Century: Victorian Progress/**
**Evolutionary Theory/**
**Darwinian Model**

**20th Century: Relativity/**
**US Economic Hegemony/**
**Scientific Management/**

Figure 2: A Timeline of Key Influences on New Thinking

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INSERT FIGURE 2 ABOUT HERE

The Enlightenment's spirit of intellectual curiosity was epitomised by *Immanuel Kant's* [1724-1804] famous statement, 'Dare to know' (Outram, 1999:1-2). It unleashed a *critical* enterprise which is still ongoing, although it had many opponents, both at the time and up to the present, holding it responsible for many of the ills of our time and denying the benefits of its emphasis on 'rationality' (see Bruce and Nyland, 2012). Even so, the search for

knowledge led to 'new thinking' and advances in the physical and biological sciences (see Figure 2).

This 'Scientific Revolution' in turn led to significant advances in technology, enabling the factory-system, the steam-engine, electricity and so on (see Mumford, 1934; Hobsbawm, 1987; Porter, 2000; Mokyr, 2007). But the Enlightenment also had a more indirect psychological influence. A new generation of eighteenth century business leaders in Europe emerged, people such as Robert Owen [1751-1758], *Joseph Marie Jacquard* [1752-1834] and Richard Arkwright [1732–1792]. Owen, for example, was a member of the *Manchester Philosophical Society* and often read papers there. One historian (Uglow, 2002) describes the lives and careers of three leading figures of the Industrial Revolution, James Watt [1736-1819], Matthew Boulton [1728-1809] and Josiah Wedgwood [1730-1795] in the previously noted *Lunar Society*. Wedgwood's management regime in fact preceded Owen's in its enlightened character and employee-welfare innovations (Uglow, 2002:213-217). At the same time, the Industrial Revolution turned society 'upside-down'. In particular, it led to a crisis in the relationship between labour and capital, a breakdown observed by Owen and described in more detail by John Stewart Mill [1806-1873], *Frederich Engels* [1820-1895] and *Karl Marx*, as well as by many literary figures, such as Charles Dickens [1812-1870] in his novel, *Hard Times*, one of the best fictional accounts of industrialism, published in 1854.

As Pollard (1965) has described in detail, there was a scramble to evolve new methods of management through 'trial and error' – and there was a fair amount of error. If some firms did take note of 'best practice' elsewhere in their industries (see Child, 1968), as Owen discovered to his cost, radical reforms in management were often resisted by business owners (Royle, 1998). At the same time, the US had established itself as *the* coming 'economic super-power' (see Hobsbawm, 1987) but its large monopolies had magnified the existing contradictions in the system (see Chandler, 1962). As we soon shall see, Scientific Management was to promise to be the 'magic bullet' to boost 'industrial efficiency' and create 'workplace harmony', a view interestingly enough endorsed by the English Fabian Socialist, Sidney Webb [1859-1947] (see Webb, 1918), a founding-figure of Industrial Relations, along with his wife, Beatrice Webb [1858-1943] (see Webb and Webb, 1897). Again, the British Cambridge economist, Alfred Marshall [1842-1924], in his important study *Industry and Trade* (1919), saw Taylor's work as having 'unquestionable' advantages for such cooperation but not ultimately leading in the right direction towards 'human betterment' (see Caldari, 2007: 75).

## 4. Scientific Management as Paradigm

The starting point for the emergence of the 'new paradigm' is generally held to be a speech given by Henry Towne before the *ASME* in 1886 (see Witzel, 2012). He saw the need for labour-peace and the need for greater industrial efficiency as being co-terminus as goals. The need for fair rewards to workers was also argued by Frederick A. Halsey [1856-1935] and was the central objective of Taylor's first significant work, 'A Piece-Rate System' (1895). Contrary to the modern caricature of Taylor as an 'oppressor' of workers, here Taylor is said to have expressed sympathy with labour-unions and argued that workers had a right to strike, if badly managed (Taylor, 1895). The need to offer a 'fair deal' to workers is a fact which may have been overlooked by not a few modern-day critics (see critiques of Taylorism, for example, Spender and Kijne, 1996; Bruce and Nyland, 2012; Aitkin, 2014; Nyland et al, 2014).

In order to establish a 'fair' system of compensation and to eliminate error, Taylor sought to establish the 'optimum-time' required to perform individual tasks. He did this using the scientific method, performing repeated observations using stop-watches and then time-series data to calculate his optimum (Taylor, 1986, 1905, 1911). The combination of the work of Taylor and the Gilbreths soon gave rise to the concept of 'time and motion study' (see Conti, 2013). Other accretions include the methods of 'work planning' developed by another Taylor associate, Henry Lawrence Gantt [1861-1919] (including the famous '*Gantt Chart'*) and more precise methods of measurement using slide-rules, contributed by the mathematician Carl G. Barth [1860-1939].

Scientific Management perhaps enjoyed only a modest reception at first, and some contemporaries argued that firms were too diverse in nature and that a 'one size fits all' system of management would never work but in a very short space of time, Scientific Management had become *internationally* recognised (Merkle, 1980:1-20). Its influence for good or for bad, *plus or minus*, persists to the present day, whether in its original Taylorist, neo-Taylorist or post-Taylorist forms (see Conti and Warner, 1994; Conti and Warner, 1996; Conti, 2013).

## 5. An Emergent Paradigm

When we come to consider where, when and how Scientific Management first emerged as a paradigm, a number of very specific questions must now be addressed. First, *why did it specifically emerge in North America, and why at this particular time?* Second, *why was there no corresponding major upsurge in management theories elsewhere in the world on these lines?* Third, *why did Scientific Management become a possibly dominant paradigm for many decades after?*

As Witzel (2012) has shown, a number of other schools of management thinking emerged at around the same time as Scientific Management and some even gained early acceptance but they were conclusively overshadowed by Taylorism. These include the 'Efficiency Theory' as developed by Harrington Emerson [1853-1931] and his followers in North America; *Henri Fayol's* [1841-1925] 'Theory of Industrial Administration' [1917] which appeared in France; a 'British School' of management thinkers (see Child, 1968) with no single dominant figure, although Edward Cadbury [1873-1948] might possibly qualify here, but which advanced a 'humanistic' model of management a number of years before the 'Human Relations School' emerged in America; a 'German School' of thought which came out of the 'German Historical School' including *Gustav von Schmoller* [1813–1917] and developed an economics-based approach to management; and last the work of the Polish-born Russian engineer *Karol Adamiecki* [1866-1933] whose ideas bore a remarkable resemblance to those of Taylor and his colleagues. Later, there was also the Leninist/Stalinist adaptation of Taylorism, advocated by *Alexei Gastev* [1832-1939] in the USSR, which was later adopted in Mao's China (see Merkle, 1980; Wren, 1980; Witzel, 2012; Warner, 2014).

Another later off-shoot in the interwar years in Detroit, was 'Fordism' based on the notions of Henry Ford [1863-1947] and mass-production (see Beynon and Nichols, 2006).The 'scientific' principles identified by Taylor were also at the heart of the '*Bedaux* System' developed in France in the 1920s by *Charles E. Bedaux* [1886-1944]; of the system of 'Methods-Time Measurement' (MTM) promoted in North America during the Second World War and internationalized in the 1950s, and of the 'Management Science' movement more generally; and of 'Business Process Re-engineering' (BPR) which later emerged (Adler,

2003). There is also arguably very little difference in terms of a fundamental approach between 'Scientific Management' and the methods of 'Statistical Quality Control' developed by Walter Andrew Shewhart [1891-1967] and William Edwards Deming [1900-1993] at Western Electric in the US and the latter morphing in Japan after World War Two as 'Total Quality Management' (TQM) (see Warner 1994). A good summary of the intellectual history of these related fields is summarized by Kaufman (2005; 2008; 2014).

## 6. Discussion

What then was so distinct about Taylorism? To start with, *Scientific Management took a low-level atomistic approach, focusing on the task, rather than the firm*. The breaking-down of tasks into their component parts set out to reduce the complexity of managing work. In contrast, most other theories – that of *Adamiecki* being an exception (Witzel, 2012) - took high-level 'holistic' approaches and looked at the firm as a unity. Next, *Scientific Management was firmly grounded in engineering and the physical sciences*, whereas some other theories, such as those of Emerson or the German economists brought in concepts from the biological and social sciences. Last, *Scientific Management meant a body of thinking about the best or most appropriate ways of managing organizations to meet their goals*. Scientific Management was possibly the first body of management theory *per se*, aimed *specifically* at the management of business firms and represents what we would dub a possible 'paradigm-shift' (see Witzel and Warner, 2013). It was to be one of the first contenders in a twentieth century time-line of possible management paradigms and sub-paradigms (see Figure 3).

| PERIOD | MANAGEMENT |
|---|---|
| **1900s-1910s+** | **Scientific Management*** |
| **1900s-1910s+** | **Industrial Relations** |
| **1920s-1930s+** | **Human Relations**** |
| **1940s+** | **Management Science/Operations** |
| **1950-1960s+** | **Organizational Behaviour/Systems** |
| **1970s+** | **Human Resource Development** |
| **1980s+** | **Human Resource Management***** |
| **1990s+** | **Employee Relations** |

Figure 3: A Time-line of Twentieth Century Management

Note: [*main dominant paradigm contender, **second, ***third].

INSERT FIGURE 3 ABOUT HERE

Here we come back to the question which we initially posed: *How does culture exert an impact on management theory?* There are three themes which we intend to discuss vis a vis the relationship between culture and management theory, as shown in Figure 4. First, *the ways in which societal variables, such as the meta-culture, may influence theory are important*. Second, *the ways whereby a specific macro-culture moulds ideas is critical*. Third, *the ways by which a specific micro-culture affects them needs analysis*. The first of these terms refers to the over-arching rules of the culture involved, perhaps best seen as the 'culture about culture'; the second to the culture across a specific society conceived in the broadest sense; and the third as narrowed down to a specific group of people on the ground (see Droriz and Ezriz, 2009). Other terms like 'corporate culture' have also been used (see Hendry, 1995, 1999; Mars, 2008) which do have significant implications for general management.

| **SOCIETAL VARIABLE** | **IMPACT ON THEORY** |
|---|---|
| **Meta-culture** | **Explicit/Implicit** |
| **Macro-culture** | **Explicit/Implicit** |
| **Micro-[corporate] culture** | **Explicit/Implicit** |

Figure 4: Culture and Theory: Levels of Analysis

INSERT FIGURE 4 ABOUT HERE

*Meta-culture*: A broad world 'meta-cultural' tradition, such the Enlightenment in the West, or the Confucian one in the East, may be seen as a 'dominant' culture (see Douglas, 1985). As Brandom (2004) puts it: 'Rationality in general appears as instrumental intelligence: a generalized capacity for getting what one wants. From this point of view, the truth is what works; knowledge is a species of the useful; mind and language are tools' (2004:1-2). Rationality may be seen a significant characteristic of general management.

*Macro-culture*: a specific dominant 'macro-culture' may be one within a particular region or a nation-state under review. Research on national cultures, such as Hofstede's (1980, 1991) and the 'GLOBE' study (House et al. 2004; Chhokar et al., 2008), may be of interest in this context. American societal culture may indeed have been more strongly receptive to new ideas - and therefore perhaps offered a better platform from which to launch a new paradigm *vis a vis* general management (see Witzel, 2012).

*Micro-culture*: the 'micro-culture' we might study may be found within a social group or an organization and maybe a corporate group within it such as general managers (see Kotter, 1990). The presence of a powerful group of supporters around Taylor, in the emerging business schools, new enterprises, technical media and so on, does much to explain the popularization of the concept over and above his own efforts, especially since he retired on health grounds not long after the publication of *Principles* in 1911 and died a few years later in 1915 (see Nelson, 1995).

The three levels of culture which we have conceptualized above may, we would argue, *interact* with one another (see Douglas, 1986) both explicitly and implicitly. A meta-culture may feed into and reinforce the macro-one, a macro- into a micro-one and so on, in line with the 'cultural theory' approach noted above. But a dominant culture need not overwhelm the others and may have to *co-exist* with them (Douglas and Wildavsky, 1982), as is evident in the case of general management.

## 7. Conclusions

To sum up, we have painted a rich sketch of the above onto a wide canvas - particularly *vis a vis* the history of management ideas - as they have fed into general management. In doing so, we in turn looked at *the role of culture, management theory* and what has been called *paradigm-shift,* examining in depth the relationship between them. We then went on to focus in depth on the influence of the eighteenth century Enlightenment on the emergence of the possibly dominant paradigm in management theory in the twentieth century, namely the phenomenon known as Scientific Management. We can indeed envisage an conceptual bridge between Adam Smith's 'division of labour' and Taylor's 'scientific analysis' of work. At one point, its successor, the Human Relations School, seemed to be an ideological contender and the off-spring it bred, for example OB and HRM, indeed went on to challenge the dominance of Taylorism, although none of them were to abjure the rationalization of the work-process. Like it or not, Taylorism survived as a major influence well into the latter part of the twentieth century, if often misinterpreted (see Wagner-Tsukamoto, 2008; Simha and Lemak, 2010) and not without rivals. Yet, 'Taylorism' appears to remain alive and well today, in the mediated version of the 'lean' principles of management. The concept, developed by the Japanese car-producer, *Toyota*, may be said to have improved Taylorism in two major ways, for example. The *static* concept, of 'the one best way', was replaced by the *dynamic* one of 'continuous improvement' in '*kaizen*'-type improvement and 'Just-in (JIT) procedures - involving a degree of worker-cooperation - rarely achieved in Taylor's or Ford's day (see Drummond, 1995, on TQM).

At the level of what may be conceptualized as *meta-management* thinking and paradigm, we may conclude that larger shifts in world *meta-culture,* such as the Enlightenment, played a key role. In other words, although micro-culture and macro-culture may be responsible for *incremental* shifts in management thought, we may argue, it takes shifts in *meta-culture* to produce real paradigm-change, which then streams forth like 'delta-like' flows of influences.

## 8. Future Research

In terms of future research, general management theorists, as well as general managers may benefit from a more critical view of the field and over-simplified interpretations of the 'canon' of management thought. The current manifestations of the 'ghost' of Scientific

Management - in terms of today's Neo-Taylorist and Post-Taylorist theory and practices - need further investigation. Such studies, in turn, we would argue, may enlighten theorists as well as practitioners of general management how to balance both 'hard', as well as 'soft', approaches to more *effective* people-management.

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