

Presidential Address, 1980: Forty Years of the Cultural Approach to History

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For the American Historical Association's annual meeting in 1939, the program chairman, Caroline F. Ware, designed sessions that led to a book called *The Cultural Approach to History*, published 40 years ago. A participant in the meeting and in the book, I shared in the enthusiasm for the cultural approach, and thought it was bound to become synonymous with history. Needless to say, in the succeeding 40 years it has not, and tonight I want to give an example of the utility, in fact the necessity, for such an approach, and then to speculate on why in business history, particularly, progress has been slight. But first, what is a cultural approach?

Robert K. Merton, the distinguished sociologist, once said to me that the basic reason for the existence of his discipline was human failure to behave rationally. I would add that this is also the best reason for the discipline of history. On a world level the effects on behavior of such nonrational forces as nationalism, race, or religion have been abundantly clear. In the more limited area of business history, there are irrational forces, such as the almost inevitable mixtures of dishonesty and lust for personal power, the unmeasurable cultural biases such as overoptimism, traditionalism, primacy of family dedication, or an equally nonrational fascination with new processes or machines. Any of these feelings may thwart economic rationality and lead to disregard of the pressures of the market. Business history is, therefore, a facet of the rest of social history. Rising demand may open the way for new types or levels of production, but types of supply depend on the interests and ingenuity of entrepreneurs, and all of these factors are aspects of the general culture.

Unfortunately, before Edward B. Tylor adopted culture as the key concept of social anthropology, the word had a long history of conventional usage. Yet, since anthropologists have stuck to this term, historians and other social scientists should limit confusion by following the practice of the discipline that is built around the use of this particular concept. According to Milton Singer, the current trend is to see "the patterns, norms, rules and standards implicit in the behavior, social relations, and

artifacts...as the constituents of culture" [21, p. 540]. Anthropologists use the term "social" only for matters of structure and institutions, seeing the rest of the human situation as cultural. Historians have always based underlying or "sufficient" causes on aspects of culture by using terms such as tradition, values, experience, social forces, or national character. To make this omnibus word more directly applicable for purposes of business history, I shall use some subdefinitions suggested by anthropologist Anthony F. C. Wallace, a student of the rise of industrialism in America [24]. He says culture consists, in part, of "those ways of behavior or techniques of solving problems which can be said to have high probability of use by individual members of society." This leads to "policy, tacitly and gradually concocted by groups of people for the furtherance of their interests..." [2B, pp. 112 and 128].

Applying these definitions to business history, new devices in the offices, shops, or plants of a nation arise from the pressures or opportunities of the market, or of technological ideas acting upon the types of perception, motivation, and reasoning that are inherent in the culture. As frustrating mid-20th century experiences in the Third World have illustrated, no model of what may happen can omit the basic cultural elements. Generally held knowledge and social conditioning, more than current information, guide the imagination of the innovator. The businessman as well as the mechanic may have a creative brain, but the indigenous elements of the new designs must come from the resources inherent in the people of the culture. As Paul J. Uselding writes [22, p. 292], "technological change is the result of deliberate and purposeful managerial decisions," and I will add that each such decision bears the stamp of the culture. In addition to entrepreneurs and managers it is also perhaps a "universal prerequisite" for development to have "appropriately skilled men and women" capable of implementing new processes [25].

I.

To illustrate the new facets that are revealed by applying a cultural approach, I have selected that old standby of British scholarship, the Industrial Revolution. Assumptions regarding cultural characteristics are already implicit, to be sure, in most of the historical writing about this period of accelerated social change, but the authors tend to explain the products of a particular nation by market-oriented incentives or physical situations that are treated as given. The relatively recent interpretations of the causes of a speedup in mechanization include Phyllis Deane's [4] and David Landes's [13] emphases on a clustering of technological innovations and Peter Mathias [15] on the more favorable

social structure of Britain as compared with the Continent. A cultural approach does not negate these explanations regarding Britain, but by going farther down the ladder of motivation adds a new understanding of the reasons for the more rapid but generally overlooked industrial progress of the United States.

Many of the forces that created an American culture different from that of Britain made for easier acceptance of innovation and change. Each adult migrant from Europe had elected to face the deadly risks of the ocean voyage and of new diseases, as well as the demands of adaptation to a strange environment. Furthermore, as most families continued to migrate at least every generation, they maintained the flexibility needed to adjust to unfamiliar situations. Migrating families, or those expecting to migrate, were content with crude but utilitarian articles produced quickly, and with learning new skills to meet pressing needs. This so stimulated a deep cultural interest in new devices that Eugene S. Ferguson sees America as having a "strong, romantic and emotional involvement with its technology" [6, p. 2]. In contrast highly specialized skills and traditional practices flourished in Britain. As George Escol Sellers, a leading American machinist of the early 19th century, told British manufacturer Bryan Donkin, "America's start in mechanical art was at the point England had reached and without her prejudices" [9, p. 21].

Cultures are shaped by geography, and at the very least they have to be compatible with it. Specifically, while both Britain and the Northeastern states had excellent water transportation, natural resources diverged. By the late 18th century Britain had largely exhausted its commercial supplies of wood, but had plenty of coal. The United States had abundant wood, but up to about 1825 the only economically workable coal was in Virginia. Equally differentiating was the abundant waterpower of the northeastern United States, and its scarcity in Britain. Large areas of fertile farming land in the United States that could support export industries in cotton and flour also differed from prosperous but self-sufficient agriculture in Britain. These differences in culture and resources gave quite different courses to the growth of industrialism in the two nations.

Yet, too dependent on British sources, historians are still writing that the first stage of the "industrial revolution, lasting up to 1830 centered on Watt's rotative steam engine" [14, p. 263]. A broader world view is that in contrast to expensive steam for mills, the United States of 1800 "was on the threshold of undisputed supremacy in the field of practical hydraulics" [10, p. 110]. Still another recent historian is so Anglocentric that he could write that in 1850 "American manufacturing consisted of elementary processing of raw materials on or near their location or where transportation obstacles occurred" [11, p. 10]. In truth, as attested by a number of British engineers who visited the

country in the early 1850s, many American machine shops had increased their lead over those of Britain, a lead that had been evident in some processes by the 1830s (see, for example, [7, p. 112 ff. and 20]).

The highly advanced technology of the United States in wood-working is often seen as backward in relation to iron, yet except for clocks and textile machinery most of the advances in wood processing were the direct ancestors of present-day methods for making furniture and construction materials. In 1795 Massachusetts had 250 water-driven sawmills, while in England either steam or waterpowered sawing was very rare. Similarly by 1800, builders in the United States drove factory-cut nails, while the English struggled with large handmade spikes. As American families continually needed new houses, estimated at one million between 1800 and 1825, as well as furniture to put in them, shaping and cutting machines were continually improved [6, p. 2]. This machinery, in advance of that in any other nation had a characteristic that ran through American technology: it was saving in the use of labor and wasteful of raw material [16, pp. 23-24 and passim]. Thick rotary blades, for example, would stand the stresses of fast movement, but they left great piles of sawdust.

II.

Other raw materials, dictated ultimately by geography, not only shaped the technology but also, because of comparative advantage, they controlled the decisions of businessmen regarding what to produce. Hence the United States was the world's major exporter of wheat flour, and the center of the business was in Delaware and Pennsylvania. Since this trade depended on the nation's waterpowered milling industry, one would expect early American invention in this sector. Here, by 1787, Oliver Evans had created the fully automated flour mill, a seminal innovation neglected by European historians because large-scale milling was not practiced there. Yet, for this perfection of the automatic handling of materials, of machines feeding machines, he seems fully as important in the history of technology as Richard Arkwright or James Watt [19, p. 246]. His flour mills in Delaware and Pennsylvania needed no workers beyond those who fed the wheat in and carried the flour away. After patenting his invention he tried to sell the rights in England, but there flour milling was a small-scale local industry and millers felt that their volume was too small to warrant the investment [8].

While the automated mill made profits for the large merchant-millers of the Middle States it should be emphasized that in developing his original design Evans did not calculate closely in terms of wages as against the cost of machinery. Rather he

illustrated the cultural bias in favor of machines. The same might be said of Eli Whitney's innovations. When he invented the world-famous cotton gin in 1793 he was not a merchant trying to cut processing costs, but merely a tutor for some plantation children. His later efforts to improve gun-smithing and implement the widespread idea of interchangeable parts seems to have been more guided by love of machines than by profit calculations. He was not a successful businessman. The same could be said of Fitch and Rumsey, whose steamboat experiments kept them poor. Robert Fulton only avoided the killing pressure of financial loss from experimentation by having a rich backer, Robert Livingston.

American prowess in various types of milling and in wooden ware including ships was not so important in the long run as the contemporaneous development of the metal industries. Nathan Rosenberg writes that "a sophisticated knowledge of metallurgy and the capacity to perform precision work in metals, was critical to industry in its eighteenth and nineteenth century forms." While all the steamboat men were involved in these problems, it was again Oliver Evans who led the way to new uses of metal products through his high-pressure steam engine. In 1772, at the age of 17, after acquiring the generally held European knowledge, he designed a steam engine. It is not surprising that no capitalist came forward to sponsor a boy who wanted money for a device not proven marketable in England, where it was more needed, until eight years later [1, pp. 10 and 11]. The greatly higher ratio of power to weight from using high-pressure steam had been known since before Watt's low-pressure patents of 1769 and 1780, but no one had come forward to finance such Britons as John Murdock or Richard Trevithick, who are written of in English history as the originators of high-pressure steam [5, pp. 95-96, and 18, pp. 45-49]. Consequently when Evans put a small high-pressure engine to work grinding fertilizer in his shop early in 1802 he was the world pioneer in commercial utilization. Five years later Evans published a text on the steam engine that seems to have attracted little notice in Britain. Since for American mills waterpower was much cheaper, the demand for steam was largely for engines in boats and industries confined to cities.

Neither the automated flour mill nor the high-pressure steam engines were the result of direct transfers of technology. Evans appears to have had no impetus from British ideas in the case of the mill; in fact, his *Millers Guide* of 1795 transferred knowledge to Britain, and he apparently benefited only from generally held Western World knowledge of steam engines. Some research has indicated that, granted a generally favorable climate of cultural interests, new innovations in harmony with local needs will appear independently in a number of societies.

Evans's many minor inventions in metal processes and products all stemmed from a culture conditioned for generations in the use

of iron. The Anglo-American history of changing methods in making this metal also illustrates a dominant effect of natural resources, or geography in the broad sense, on the business practices of the culture. In the United States there was no good coking coal east of the Alleghenies, and there was plentiful waterpower for running forging hammers. Furthermore, eastern ores being highly silicious benefited from both charcoal smelting and hammering, which eliminated more impurities than British rolling and puddling. Consequently American tool and machine workers preferred domestic hammered bar to British rolled iron. Philadelphia machine shops, such as Sellers and Pennock or Baldwin, bought their iron from Coatesville, Pennsylvania, forges. Since the largest part of American demand was for castings for stoves and ships, a moderate tariff confined imports of cheaper British iron largely to New England ports, far removed from domestic supplies. But the marked technological differences in the two iron industries led Europeans to regard the United States as backward because it stuck to charcoal and did more hammering than rolling. In reality the domestic ironmasters in both cultures were balancing resources with demand in the most effective ways.

III.

The development of railroads also illustrates the difference in business practices stemming from both cultural attitudes and geographic environment. Because of older large-scale mining industries, Britain in the 18th century pioneered in the use of tracks and had perhaps 2,000 miles laid in mines by 1800 [15, p. 277]. Although the shallower mines of the United States needed much less track, thinking about steam traction developed at nearly the same time in both countries, and in both made little progress because businessmen, primarily seaport merchants, were unwilling to risk an investment in an unproven type of technology. From 1809 on Oliver Evans and John Stevens of Hoboken, New Jersey, independently sought capital for a railroad with no more success than their British counterparts. In 1825 Thomas Tredgold in England published a *Practical Treatise on Rail-roads and Carriages* [2, p. 142]. Had the entrepreneurs of either nation gone ahead with a railroad the innovation of using exhaust steam for firebox draft would have soon been made. As it was, George Stephenson of England made the improvement in 1818 without being able to put it to railroad use.

The building with two short British roads between 1825 and 1829, and the Rainhill locomotive trials in October of the latter year, won by Stephenson's Rocket, produced a business enthusiasm in sharp contrast to the previous skepticism in both England and the United States. By 1830 three short lines had been built on

this side of the ocean, and the Philadelphia and Columbia which opened in 1834 had more miles of track than all railroads completed in Britain in that year. So far this technological progress has illustrated the usual close chronology of business adoption of innovations when they were equally suitable to the needs and resources of both cultures. But in the actual construction of roads geographical, cultural, and financial factors led to marked business differences. Expectations of traffic for short runs in thickly populated England were far greater than could be anticipated in the United States, and therefore it was easier to attract capital. There was also a cultural admiration in Britain for careful solid construction in all utilities. Hence English roads were built for the ages without business efforts for immediate economies. The English roads, for example, had stone sleepers, heavy T or U rails, many cuts to save curves and grades, and iron bridges. American roads were built in the business expectation that population and hence traffic would increase beyond that presently available. As a result, American managers had their engineers construct cheaply for temporary utility, knowing that much of what they built would have to be replaced when demand warranted greater expense [12, p. 57]. As in the case of the American introduction of leather belting to drive mill machinery some of the expedients, such as wooden cross-ties resorted to for economy's sake, turned out to be best in the long run. When the French sent a committee to examine American railroads in 1838, they were favorably impressed with the lighter American locomotives which could pull around sharper curves than could the British leviathans. In fact by the mid-1930s American shops such as Baldwin's or Norris's of Philadelphia were exporting lightweight locomotives to both Britain and the Continent.

The fact that the British visitors who later wrote books or magazine articles about the United States were largely from the literary world or the gentry prevented adequate assessments of the advanced achievements of American machine toolmakers, and later historians accepted the accounts of the travelers. Generally the visitors' contact with American technology was with the large textile mills in New England, which were, to be sure, as advanced as those in Britain, but visitors almost never noted the metal working shops of Connecticut, or the Hudson or lower Delaware River areas. Fortunately one literate American machinist, George Escol Sellers, visited Britain in 1832. As a qualified and judicious observer of technology he reported: [7, pp. 112 ff.].

[British] lathes and other machine tools...totally inadequate for the character of the work they had to do, as to weight strength and firmness...after visiting the machine shops of Birmingham, Manchester, Maudsleys and Donkins in London...I have not yet seen a lathe equal to the one we are building.

A similar misconception of relative managerial and technological progress based on then current literature came from early American writing. New Englanders were substantially more literate than citizens of the Middle States, and they were naturally fascinated by their great progress in cheap cottons. In a view of what was of seminal importance to industrialism, machine cotton weaving was a latecomer in both Britain and the United States, developing rapidly only in the 1820s when the more important core of industrial metal products was already highly developed, but largely unrecorded. In addition, the New England culture produced local writers such as William R. Bagnall, or the mill girls in their Lowell Offering, who frequently provided foreign writers with their total information on American industry, while American corporate development was outside the culturally conditioned interests of the foreigners.

IV.

The traits stemming from financial and demographic differences made for divergence among traditional British or European business practices and those developing in the new states. Scarce capital, together with legislatures anxious to promote local economic growth, led to general use of the chartered corporation. In Britain corporations could be chartered only by act of Parliament, a considerable impediment in itself, and up to 1825 such acts were confined to public utilities such as roads and canals. In contrast American state legislatures readily granted charters for almost any purpose, subscribing state money to some, and thus helping promoters to mobilize scarce capital.

The different effects of the two situations showed first in the field of banking. Britain had numerous private bankers, some big and reliable, others small and insecure, but both illustrating the large accumulations of private wealth. In the United States there were few private individuals interested in lending large sums of money, relative to the many anxious to borrow. The result was that chartered corporate banks appeared in Philadelphia, New York, and Boston between 1781 and 1784, and in subsequent years spread to the smaller cities. Hence the early history of chartered commercial banking, as distinct from private or national central banks, is largely confined to the United States.

Even when the British approved of the corporate form for turnpike trusts, lobbying the bill through Parliament was a slow and costly process, whereas turnpike companies chartered by the states from the Philadelphia and Lancaster in 1791 on mounted into the hundreds, New York State alone having 300 such companies by 1820. The corporate form was readily and often uniquely used for all types of financial and utility enterprises where people were

willing to risk their savings in stock, and even for a few manufacturing companies, encouraged by special acts in Massachusetts in 1809, and in New York in 1811. The initial American use of this now essential business form for all types of activity marked one of the great innovations in worldwide business. It was partly due to the cultural difference between the effectiveness of business pressure in a union of small states as compared with efforts to influence aristocratic all-powerful national governments; in other words, to differences in social structure, but it also illustrated the lack of traditional restraints in American culture, the willingness and imagination to experiment with new forms.

Cultural optimism and a rapidly expanding business system appear to have led to the many starts and many failures historically characteristic of American business. Ever more lenient bankruptcy laws and their judicial interpretation in the leading business states of the Middle Atlantic region indicated cultural approval of the system. Discharge of debts through bankruptcy may be regarded as a type of insurance against total loss by entrepreneurs risking assets to develop new business. When profits were high at the peak of a boom, but the future looked uncertain, some smart entrepreneurs collected as many accounts as possible, transferred their assets to trusted family members, and ceased paying their debts. After bankruptcy the debtor could resume business elsewhere while his fixed improvements could be put to use by his creditors. Hence many starts and insolvencies may be seen as a way of using credit to finance expansion and risky innovation. It does not appear to be chance that New York, the fastest growing state commercially, had laws that led to its being called the haven for debtors.

Thus by the 1830s the cultural and geographical differences between Britain and the United States were manifest in all facets of their business societies. Britain was a land of tradition, great accumulated wealth, pride in fine workmanship, and relatively dense population in a small land area. The United States represented the opposites of each of these characteristics. It was confident of its unique national future and unafraid of novelty, ready to borrow as much as possible for expansion, and impatient with time-consuming nonutilitarian craftsmanship. Its businessmen also had to produce goods and services for a smaller population covering far more territory. Each of these situations emphasized different aspects of business and industrial development. Seeing the national differences in such change as the results of total culture makes it as difficult to say which nation was on balance in advance of the other as to compare apples with oranges. Each led in those developments most suited to the national cultural and geographic situation. Each had different types of supply and demand for both goods and services. On a theoretical level most technological ideas came from abroad, particularly from France and

Britain, but this was to be expected on the basis of greater total urban population and, in the case of France, specialized education. The major point argued here is that the United States, aided by a highly favorable culture, ingenious mechanics, plentiful resources of certain types, good transportation, and a dynamic business system made, by world standards, extremely rapid progress from 1790 on in the enterprises best suited to its needs and resources, and by 1830 was one of the two world leaders [3, pp. 128-29 and passim].

So much for illustrations of a cultural approach to early industrial business, a time for whose needs the culture seemed extremely well suited. But in later decades the same approach, one that emphasizes the dominance of business in the culture and vice versa, leads to findings that are less wanted by general historians, business schools, or business companies.

In any period, general historians would rather work with the more readily available materials of political history, while their publishers want the individual dramatics that result inevitably from the structure of legally supported leadership and responsibility in government. Furthermore, to say that business has been dominant in the culture seems to many historians to demean other American ideals and values. They would still agree with Henry C. Potter's remark of 1902 that "the supreme vice of commercialism is that it is without an ideal" [17, p. 162]. Nationalism, religion, education, political reform all savor of moral virtue, whereas producing a higher standard of living, frequently seen by foreigners as America's major ideal, does not appeal as a central theme to most of our own historians.

Held at arm's length by general historians, a culture-based history of business has not had much appeal to business schools. In the series of examples taken from the early Industrial Revolution the businesslike elements in American culture appear to have been unusually valuable, but in later periods a cultural approach shows weaknesses as well. Entrepreneurial expediency, for example, valuable for early development, may become gross dishonesty. Lack of traditional feelings of duty which make for flexibility, also make bureaucratic management less reliable or efficient. Understandably business schools want to encourage examination of current theories or conditions favorable to progress. They are not notably anxious for historical criticisms of business. As a result there are few, if any, culturally or socially based business history courses taught, and too little history required in American business schools. Yet any type of cultural history must be most valuable for penetrating or fundamental criticism of what has happened in the United States compared with the maximum potential to similar developments elsewhere.

Oversensitivity to the analysis of failure shows itself most clearly in scholarly company histories. In my personal experience, and that of other historians with whom I have discussed the problem,

I have found a great reluctance on the part of existing management to have the causes of failure thoroughly and objectively examined. Even if all those responsible for a poor policy are dead, their families are sensitive, and the legal and public relations departments conjure up possible difficulties. Here again, this emphasis only on the positive makes an objective cultural or social approach unacceptable. Allied to this disinterest in the broader setting is a common attitude that the company's history has been unique and there is little to be learned by comparison with better performance in other companies or cultures. These desires for unique stories of success rob company history of much of its scholarly value.

All in all, I see little likelihood of critical business history, either culturally or comparatively based, receiving a general welcome. Perhaps this is only one example of the basic problem of history: people want it not to learn from the past, but to justify the present. This must seem a discouraging conclusion, but I think that if scholars in the field keep alert to these difficulties they may find ways during the next 40 years of meeting them.

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