Is it Kosher to Talk about Culture?

PETER TEMIN

This address considers the role of culture in economic history. It argues that Anglo-Saxon culture was an important factor determining where and when industrialization began and spread. The contrast between Anglo-Saxon individualism and Japan's more collective culture also is important in understanding the differences between Japanese and American industrial practices today. I predict that Japan's collective culture may give it an economic edge in the coming years despite its current difficulties. And I advocate greater attention to culture by both economists and historians in the practice of economic history.

A T&T announced at the beginning of 1996 that it was going to lay off 40,000 workers. This prompted Robert Reich to write an Op-Ed column in The New York Times taking AT&T and other companies to task for not considering their obligations to their employees. He asked: how can we make corporations socially responsible? This may not sound much like economic history, but I will use it as a springboard to talk about the role of culture in economic history. I will make a point about the past, that is, about economic history; a prediction about the future; and a recommendation about methodology.

The historical point is buried in Reich's column. It seems so obvious to us that a corporation is run for its stockholders that we hardly stop to think about it. We teach the division between labor and capital in elementary economics courses, and we would be hard-pressed to find an economic-theory or industrial-organization text that questions the supremacy of capital in planning for firms. A recent article, for example, asks why capital buys labor and not vice versa, answering Paul Samuelson's famous question. But like Samuelson, the author assumes that one or the other must run the firm.

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2Dow, "Why Capital Hires Labor."
It may therefore be a bit of a shock to realize that this conception of the corporation is a cultural construct. It is one way of conceptualizing business organization, but hardly the only way. Large Japanese firms, to take an example not at all randomly, are organized quite differently. Masahiko Aoki has described what he calls the J-firm as a coalition of stockholders and labor. According to Aoki, "the body of stockholders and the body of quasi-permanent employees are essentially in a symmetric position within the J-firm."

My historical point is that American corporations and other, complementary economic institutions as we know them are creatures of our culture, which I will call Anglo-Saxon culture. This culture has been very good for the Anglo Saxons of this world and their compatriots. The industrial leaders of the last two centuries have been Anglo-Saxon countries. First Britain and then the United States led the way to industrialization and mass production.

I will argue that the particular form of social capital I call Anglo-Saxon culture was uniquely suited to the progress of industrialization over the past two centuries. I then will contrast Anglo-Saxon culture with another form of social capital to advance a hypothesis about the future. Finally, I will make a methodological point about a role for culture in economic history.

Culture is an elusive concept. I use culture to denote the distinctive attitudes and actions that differentiate groups of people. Culture in this sense is the result of and expressed through religion, language, institutions, and history. The attributes that make up culture change slowly, but they can and do change over time.

Max Weber was the most celebrated advocate of the role of culture in economic affairs. His paean to Protestantism still speaks to us after almost a century. But there is one problem that comes up often in discussion. Weber inferred the spirit of Protestantism largely from the writings of Calvin and other rebels of the sixteenth century. Weber quoted Luther, Calvin, Cromwell, and Milton, all good sixteenth-century writers. He also examined their echoes in later figures like Wesley, but he focused his discussion on the initial flowering of Protestant ideology.

Weber used this construct to talk about the rise of capitalism, by which he clearly meant industrial capitalism as described contemporaneously by Thorstein Veblen and others. Yet the rise of industry came only in the late eighteenth and nineteenth centuries, about three centuries after the Protestant movement he described. And it came initially in Britain rather than on the continent of Luther and Calvin. How can this delay of three centuries and shift in location be explained?

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5 Veblen, *Theory*. 
The delay may be even longer. J. Bradford De Long used a Protestantism variable in his regressions explaining growth patterns after 1870 in the 22 richest countries in 1870. The presence of Protestantism showed up loud and clear as correlated with economic growth after 1870. Other explanations for the British Industrial Revolution also have a timing problem. Douglass North and Barry Weingast argued that the Glorious Revolution of 1688 induced changes in English property rights that fostered industrialization. But Gregory Clark showed that stable property rights had existed for at least 200 years before the Industrial Revolution—a considerable delay.

The hypothesis suggested by the delay is that the culture of Protestantism only provided its unique benefits in the presence of a particular industrial technology and its needs for organization. In the age of hand-crafted products, Protestants and Catholics were economic equals. But when it became necessary to invest in factories and machinery to exploit a new technology, then the culture of Protestantism was a decided advantage. The location of the first Industrial Revolution suggests further that the kinds of Protestantism found in the British Isles was especially useful in promoting the Industrial Revolution.

The most important aspect of this culture is its celebration of the individual. Anglo-Saxon culture includes the motives for industry and saving noted by Weber as well as the “Faustian ethic” toward nature described by David Landes. But individualism is the key to the discussion here. Adam Smith set the tone for later discussion by opening *The Wealth of Nations* with a discussion of the division of labor. The isolation of tasks and the separation of individuals performing them were the keys to productivity in the pin factory. This idea has proved so powerful as to virtually exclude favorable discussion of group activities in Anglo-Saxon economics.

The division of labor required organization. Although Smith talked as if the pin factory organized itself, someone had designed the division of labor, someone—possibly the same person—guided its operations, supplied raw materials, and disposed of the product. The flip side of the atomistic division of labor therefore is the hierarchical control of an organization. Britain proved to be the soil in which factories grew most rapidly in the late eighteenth and early nineteenth centuries.

Theory follows practice, and individualism has been celebrated by a succession of economists. It can be seen clearly in the writings of that paragon of early industrial Britain, John Stuart Mill. Mill wrote on economics, government, and philosophy. Through it all went his celebration of the individual. True, as H. L. A. Hart commented, Mill’s individual has the calm dispo-

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6De Long, “Productivity Growth.”
7North and Weingast, “Constitutions”; and Clark, “Political Foundations.”
8Landes, *Prometheus*.
9Temin, “Entrepreneurs.”
sition and the settled tastes of a middle-aged man. But this individual is at
the center of Mill’s analysis of varied topics. Mills’ great polemic, On Lib-
erty, celebrates individual liberties. There is almost no discussion of groups
except to argue for the rights of individuals to form groups to advance joint
interests. Mill saw individuals and society as antagonists, competing for the
same jurisdiction over actions. Positive interactions between them were not
important.

But it is in modern economics that individualism is most familiar to us.
The identification of the solitary individual as the decision maker of the
economy has become so ingrained in our views that we find it hard to recog-
nize it as a cultural artifact. Let me cite two disparate examples from recent
Nobel Laureates in economics that illustrate the point. Gary Becker opened
his Treatise on the Family with a defense of individualism as a point of
view. In his words: “The combined assumptions of maximizing behavior,
market equilibrium, and stable preferences, used relentlessly and unflinching-
ly, form the heart of the economic approach as I see it.” Economics
according to Becker does not explain stable preferences; it only assumes that
each individual maximizes with reference to them. And the important inter-
actions of individuals are through the market. Other forms of human inter-
connection in shaping preferences, communicating, and being social are
ignored.

Shifting our attention to the previous Laureate, I want to recall a famous
calculation of 20 years ago. In Time on the Cross, Robert Fogel and Stanley
Engerman tried to assess the role of physical punishment in the governance
of American Negro slaves. They argued that slaves were whipped on aver-
age only 0.7 times a week. (I and others have disputed the accuracy of this
observation, but that is not the issue here.) This way of presenting the data
was based on the assumption that control of slaves was done on an individ-
ual basis. The calculation assumes that each slave calculated the frequency
with which he or she would be whipped. There is no family or group soli-
darity in this number. I choose this example not to be contentious but instead
to show how we mistake the particular attributes of our own Anglo-Saxon
culture for universal attributes. For this attitude was not projected onto
Anglo-Saxon residents of the United States but rather upon African Ameri-
cans who might well at that time have avoided assimilating into the domi-
nant Anglo-Saxon culture.

Individualistic culture—its celebration of individual accomplishment and
mastery over nature—was particularly well suited to the economic activities
of the British Industrial Revolution. The new firms generally were small in

10Becker, Economic Approach, p. 5.
12David, et al., Reckoning.
scale, and individual endeavors were the backbone of the new industry. As Joel Mokyr and others have emphasized, the British advantage at the beginning of the nineteenth century was not in the discovery of new knowledge but in its application. Applied science or even engineering, not pure science, was the British strength. Samuel Smiles wrote Lives of the Engineers, not lives of the inventors.

Anglo-Saxon culture may have given Britain an advantage in the discovery of new technologies, but that is not necessary to my argument. It certainly gave Britain a head start in their application. The nature of the British Industrial Revolution supports the importance of Anglo-Saxon culture, as opposed to the impact of one or two technical innovations. For this change was not simply the result of a few technical changes in the production of textiles and iron; it was a widespread change in the British economy. I have shown recently using international-trade data, that other, smaller industries kept pace with the industrial leaders during the first half of the nineteenth century. As Thomas Ashton reported, the British Industrial Revolution was a multifaceted transformation that was a function of the entire British economy.

A London hat factory, for example, employed 1,500 people in extraordinary division of labor. The process of hat-making was subdivided into many different activities done in separate rooms and buildings. Some activities to prepare the wool and fur were reminiscent of the textile industry, employing steam engines and machines of various sorts. Other activities were made more efficient by the specialization of labor and mechanical devices, like a frame that dyed over 100 hats at a time. The key to efficient hat production was the organization of activity rather than a new hat-making technology.

I do not want to assert that the Industrial Revolution was led by hat-making rather than cloth-making. The point rather is that the innovations of both machinery and organization noted so widely in the textile industries were applied widely in British manufacturing. Without the new technology of the cotton industry, organizational innovation often was the key to progress in other industries. The sense of individual freedom and empowerment pervasive in Britain was part of the culture that promoted innovation and increased efficiency even in unlikely places like the manufacture of beaver hats.

The role of culture is apparent also in the spread of the Industrial Revolution outside Britain. Let me contrast two regions, both replete with water power to be exploited. Neither had the climate to grow cotton, but both were near the sea and even to cotton-growing regions. Neither had much local

13Mokyr, “Editor’s Introduction.”
14Smiles, Lives.
15Temin, “Two Views”; and Ashton, Industrial Revolution.
16Dodd, Days.
coal, but both had an active urban culture connected—perhaps tenuously at times—to that of northern Europe. Yet industrialization spread from Britain to New England virtually instantaneously while taking a century to reach northern Italy.

In Italy industrialization was still far in the future in the first half of the nineteenth century. Industrialization had only begun to reach northern Italy by 1900. Only after that time did the Italian regions with abundant social capital develop economically. Economic historians have debated at length the solidity of Italian industrial growth before World War I, but its existence is not in doubt. Culture has been cited to explain the variation between the economic fortunes of northern and southern Italy. But even the more favorable culture of northern Italy was not as conducive to industrialization as that of the northern United States.¹⁷

National data show the United States also was an agricultural country in the early nineteenth century. But the United States is comparable to Europe as a whole—which surely was agricultural in the early nineteenth century. It is more appropriate to compare the industrial northeast of the United States with Britain. There Oliver Evans introduced the high-pressure steam engine at the same time that Trevithick did so in Britain. Nathan Appleton introduced the power loom shortly after it had been developed in Britain. And, as we all know, industry prospered in New England.

In fact, Anglo-Saxon individualism was even more apparent in the United States than in Britain. Even though current multiculturalists emphasize the diversity of origins of the immigrants who settled the new lands, Bernard Bailyn was right to stress the essentially British nature of the culture into which they fit. It is no accident that even at the end of the nineteenth century, almost all business leaders were white Anglo-Saxon Protestants, that is, WASPs.¹⁸

The sheer size of the United States encouraged individualism. Free land has been celebrated as a determinant of American political and economic progress.¹⁹ Let me add—among other influences—culture: the source of Yankee ingenuity. The size of the country, the mobility of the population, and the extent of immigration meant that nineteenth-century Americans had contacts with many varied people. And in many cases, the opportunities for repeated contacts were less than in more concentrated and settled places like Britain. The chance to set up the conditions of the game-theoretic Folk Theorem by repeated interactions were markedly less in the United States than in Britain. In ordinary language, the opportunity to build up trust in

¹⁷Toniolo, Economic History; Putnam, Making Democracy Work; and Zamagni, Economic History.
¹⁸Bailyn, Peopling; and Miller, “American Historians.”
¹⁹Hartz, Economic Policy; Habakkuk, American and British Technology; Diamond, “Values”; and Temin, “Free Land.”
one's neighbor through repeated giving and taking was smaller in the larger, more mobile United States.

The individual became the central focus of culture. The frontiersmen, Daniel Boone, Davey Crockett, and Sam Houston, were the heroes of the American civilization. Even men who were enmeshed in local networks often were lionized as rugged individualists. David Fischer recently has argued that the essence of Paul Revere's contribution to the American Revolution was exactly the opposite of his famous isolated midnight ride; it was his multititudinous memberships in all sorts of revolutionary groups that made him a critical coordinator of group actions. Yet he has been remembered for two centuries as a lone horseman.

The United States was blessed with more than rugged individuals. Abundant, fertile land produced the food that made the new Americans so tall. And the coal, iron, and other minerals below the land provided cheap inputs for American industry. Free land, however, was the product of both geography and culture. The influx of Europeans created the opportunity for free land, but we know from Argentina that the same physical endowment could have been organized in a way that did not make land free.

Resources are only valuable if exploited. Brazil after all has abundant resources but a very different economic history. The United States grew rich because of the conjunction of three influences: abundant resources, Anglo-Saxon individualism, and mass production. It was the fit between culture, technology and organization that allowed the resources to be exploited. This fit was expressed in the American policies of free land—contrasting with South America—and federalism—contrasting with the uniformity imposed on other large countries. These policies encouraged individual initiative first in agriculture and then in industry.

American resources were exploited through the agency of what Alfred Chandler has termed the managerial corporation. These large firms were able to carry out the complex economic projects needed to develop the North American continent. But although the essence of these firms may have been the middle managers that performed the myriad necessary functions, nineteenth-century corporations were the means to implement the visions of strong individuals. Chandler, no less than Veblen, personifies the corporation and tells its story as the expression of individual will.

Just as individualism was stronger in the United States than in Britain, so the managerial corporation was more of an American phenomenon. It surely is too great a stretch to explain the Robber Barons as Anglo-Saxon culture run riot, but there is an element of truth in the linkage between indi-

20Fischer, Paul Revere's Ride.
21Potter, People; Wright, "Origins"; and Solberg, "Land Tenure."
22Temin, "Free Land."
23Chandler, Scale.
vidualist culture and *The Chapters of Erie*. The nineteenth-century Ameri-
can economy was exceptional, and at least part of its undoubted and unusual
success was due to the influence of Anglo-Saxon individualism.

This marriage of culture and opportunity carried the United States suc-
cessfully through the twentieth century as well. Helped by being away from
the battlefields of the two world wars, the organization of the American
economy was the model for the great postwar expansion that has made
convergence such a popular research topic. The cult of the individual and
his—and now her—expression in the form of corporate leadership were seen
as necessary ingredients to mass production, which were in turn the keys to
economic growth.

However, part of the postwar convergence resulted from a different orga-
nization of the economy. The extraordinary postwar growth of Japan trans-
formed a marginal producer of textiles into one of the giant economies of the
world. As with the United States a century earlier, this economic “miracle”
was the result of the synergy between culture, technology and organization.

But Japanese growth was not an application of American technology and
organization of production. As many people have commented, the Japanese
introduced a different method of production. Having advanced a sweeping
hypothesis about history, let me now turn to an equally broad view of the
future. Anglo-Saxon individualism has been the source of industrial leader-
ship for two centuries. I suspect it may well not assure leadership in a third.
A comparison of US and Japanese production techniques exposes the central
issues.

I will focus on the organization of production more than on the physical
capital used, starting with a very specific Japanese industrial practice. The
*kanban* system, also known as the just-in-time delivery system, is a promi-
nent feature of modern Japanese industrial production. It has been recog-
nized widely as a productivity-enhancing element in the Japanese context
and even tried as a means to increase productivity in the United States.24

The origin of the *kanban* system, however, is not Japanese; it is Ameri-
can. Japanese observers, seeking to rebuild their economy after World War
II, noted how American supermarkets cut down on inventory costs by sched-
uling deliveries as close as possible to the time of sale. The benefits to su-
permarkets of freshness for produce and in economizing on shelf space for
groceries are clear. Also clear is that in the American context, this mode of
operation was specific to supermarkets.25

The Japanese innovation was to generalize the American process to man-
ufacturing. They saw that this procedure could be used widely and that it
would cut down on inventory costs in industry as well as in supermarkets.

24*Womack, Jones and Roos, Machine.*
The generalization of a specialized process and its application to industry echoes the British development of French inventions in the eighteenth century, a process enshrined in the eighteenth-century proverb that said for a thing to be perfect, it must be invented in France and worked out in England. It also recalls the British application of steam engines and carding machines to nontextile production as noted above for hats.

The kanban system promoted quality control and design changes by sharply decreasing the delay between the perception of a problem or opportunity at the end stage of production and the time that inputs could be improved or adapted to new requirements. Whether this and other added advantages were anticipated when the kanban system was first tried is unknown—and rather doubtful.

These added advantages of the kanban system come about through synergies between it and other aspects of Japanese production. For example, it is taboo on an American production line for any worker to halt the flow of goods. If there are problems with the run, they will flow through the entire production process to be caught by the quality inspection at the end. This is the essence of F. W. Taylor's scheme for quality control, setting the inspectors as policemen to constrain the production workers.

Japanese workers, by contrast, are encouraged to halt activity when a problem appears. They are encouraged to search for the source of the difficulty and communicate back through the production process and chain of suppliers. No matter how far back the source of the problem, there is only a small volume of defective goods in the pipeline. The need to abandon defective goods in process consequently does not impose large costs on the supplying subcontractor when correcting the problem.

To give this added authority to the Japanese worker, Japanese firms have had to invest in the training of the workers. Not training in specific activities, but rather generalized training to allow workers to appreciate the role of a particular part or process in production. Japanese workers (in large firms) consequently are rotated among different activities to give them added perspective on their own actions. Job specifications are far looser in Japan than in the United States.

Japanese management can make this investment in the workers for two reasons. First, the workers have enough formal education to appreciate the patterns they see in taking different jobs. Second, the workers will stay on the job long enough for the firm to recoup the benefits of their added human capital. This job attachment is the lifetime employment system of the J-firm, to recall Aoki's abstraction. As Aoki noted, this job attachment gives the workers a stake in the firm and leads to their role in the firm's governance.

27 Aoki, Information.
The kanban system in Japan and AT&T's layoffs in the United States, therefore, are each part of a complex of behavior that distinguishes production methods in the two countries. No single practice or aspect of the production process is key by itself, but rather the collection of practices in each country are complementary to each other, generating a stable set of behaviors. Phrased differently, adopting the kanban system in an ordinary American firm and laying off massive amounts of employees from the typical Japanese firm would not produce anywhere near the gains that might be expected in the other country.28

Recall the opening of Saturday Night Fever where John Travolta asks his boss at the hardware store for a day off. The boss refuses, so Travolta quits. If that is the normal model of employment in America, there is not much loyalty of workers to the firm. The expected job tenure does not encourage it, and the workers do not acquire it. There is no inducement for Travolta's boss to train him.

The contrast between shop-floor experiences in the Anglo-Saxon and Japanese factory were chronicled vividly over 20 years ago by Ronald Dore. His most relevant observation for this discussion is that "on the shop floor, British workers are more individual workers; Japanese workers are more members of a team."29 Dore recognized that this teamwork was both a cause and an effect of the production process just described.

This team aspect of Japanese business extends beyond the shop floor. As Aoki noted, Japanese workers shared in the governance of their firm. Dore reported the affective corollary: Japanese workers were more likely than British to express pride in their work and to accept their firm's legitimacy. British workers by contrast were more likely to see their employment as a system of exploitation and consequently to resist managerial authority.30

The preceding observations have been drawn largely from times of Japanese prosperity. It is easy to honor an implicit contract for life-time employment when demand is rising. The question is whether this kind of contract will be honored when times are poor. The past few years of macroeconomic difficulties in Japan provide some data to answer this question, and the answer appears to be yes. Large Japanese firms remain committed to the implicit contract with their workers even in the troubled 1990s. As expressed in American newspapers—and in contrast with AT&T—the J-firms do not lay off workers even in bad times.31

Recently also, the attempt to introduce Japanese-style Quality Circles to the United States has been problematical. In an attempt to make these activities palatable to American workers, managers have thought it necessary to

28Milgrom and Roberts, "Complementarities."
29Dore, British Factory, p. 261.
30Ibid., p. 262.
31Sugawara, "Japan Inc."
distort history to present them as American, not Japanese innovations. Even with this distortion, the movement to distribute decision making to the shop floor has stalled. This specific experience can be generalized. Japanese multinationals, who are in the best position to export Japanese productive practices, are only partially successful. They have lower productivity outside Japan than inside.

The Anglo-Saxon mode of production places individuals in competition with each other and engaged in pursuit of aims that often conflict with those of their employers. The Japanese mode stresses the cooperative nature of production both within the working group on the shop floor and between that group and the management of the firm. Both systems clearly contain a mixture of competition and cooperation. The contrast is not black and white; it is in the proportions that define a culture.

Mark Granovetter applied this insight to the problem of the American managerial corporation. Coase contrasted hierarchical relations within firms with market relations between them, giving rise to an extensive literature. This distinction clearly exists, but Granovetter argued that the firm boundary is not the sharp distinction that appears in Coase's work. Granovetter emphasized that the personal relations within firms extend as well through their boundaries. This is true for Japan as well.

Japanese relations within firms are echoed by relations between firms. Many Japanese firms are combined into groupings known as keiretsu. Firms in a keiretsu are neither subsidiaries of a single firm nor arms-length competitors, neither Adam Smith's invisible hand nor Chandler's visible one. They are bound together by means other than those used in the Anglo-Saxon economy.

One way is reciprocal ownership. Ownership of public companies is far more concentrated in Japan than in the United States. The top ten shareholders of Japanese firms hold twice the proportion as their American counterparts—almost 40 percent. And these major stockholders are more stable in Japan as well. Fully four-fifths of the top ten Japanese shareholders are stable—in the sense of continuing in that group over successive periods—whereas only one-quarter of the American top ten are stable. And although almost none of the top ten share holdings in the United States are reciprocal, about one-fifth of those in the top 60 Japanese are.

Ownership is just one aspect of the keiretsu relationship. Lending is done largely within the keiretsu. And often purchases are more frequent among keiretsu members than among other similarly situated firms. For example,

32Cole, Strategies.
33Sako, "Training," p. 113.
35Gerlach, Alliance Capitalism, chap. 3.
36Hoshi, "Economic Role."
keiretsu members typically serve only the beer made by the brewery in their keiretsu. When my colleague Michael Piore visited Japan as a Mitsui Professor he found that he could not get a beer. When he was asked to order, he ordered the only Japanese beer whose name he could recall: Kirin, which happens to be a Mitsubishi beer. His hosts would not dishonor the Mitsui Professorship by allowing him to be seen drinking Mitsubishi beer.37

The implicit contracts—to use Western terminology—between firms are parallel to the implicit contracts between workers and owners within firms. Just as worker turn-over precludes many such bargains in the Anglo-Saxon firm, so hostile take-overs and other changes in company ownership preclude implicit contracts between firms in the United States.38 Insider-based corporate governance in Japan, therefore, is complementary to the other aspects of Japanese corporate life chronicled above. It complements lifetime employment by allowing management as well as labor to uphold the implicit contract for shared control.39

The compensation of managers also differs markedly between Japan and the United States, with CEOs being paid far more highly here than there. Low managerial compensation is another aspect of the Japanese implicit contract, whereby managers trade short-term gain for long-run stability and income. American economists have argued that large CEO salaries are justified as incentive devices, but their arguments expose the underlying cultural assumptions. The regressions documenting the incentive effects relate compensation in any year to the company's fortune in that same year. There are corrections for heterogeneity and measurement error, but not for the influence of history. The bargain within which CEO compensation operates is a short-run bargain.40 The parallel and complementarity with employment relations at the bottom of the firm are clear.

The cooperative nature of interaction within and between firms in Japan extends also to the relations between firms and their government. The Japanese development state often is contrasted with the American (and European) regulatory state. There is no parallel of MITI in the United States. The Japanese government in its various guises is more interested in aiding business firms than in controlling or curbing them.41

The J-firm grew up only after World War II, and the modern Japanese government also is an artifact of the postwar period. Many characteristics of both Japanese firms and their government grew out of the specific problems of Japanese reconstruction after the war. But while the problems of Japan in the 1950s were real enough, the solution went along traditional Japanese
lines. The keiretsu today are largely the linear heirs of the zaibatsu of earlier years. The relations between firms in the new groupings are similar to those in the old—as noted already. MITI, far from being a new construct, was an expansion of the wartime Ministry of Munitions, freed of its competitors by American pressure on the military and the zaibatsu. The Economic Planning Agency of 1955 was a revised Economic Stabilization Board from 1946, which grew in turn from the Cabinet Planning Board of 1937.42

Western economists and sociologists debate how much of the postwar Japanese economic institutions were the results of the specific circumstances of Japan in the late 1940s and 1950s and how much was due to Confucianism, samurai attitudes, and the nature of the Japanese family.43 Business historians do the same.44 Other historians debate questions of Japanese culture more generally. There does not seem to be a stable viewpoint in the English-language literature at the moment between the stereotype of unchanging Japanese culture, by which Tokugawa culture often is meant, and the stereotype of a fragmented society.45

These polarities are beside the point here. Current Japanese economic culture, as I am using the term, is the product both of long-standing Japanese ways of acting and thinking and of specific decisions made to solve specific historical problems. History and institutions both embody and create culture. The J-firm was at the same time a product of preexisting Japanese culture, a response to a particular constellation of economic needs, and a component in the formation of current Japanese economic culture.

The corporation is a cultural construct because it exists in a culture, as do banks and the government. And the history of these institutions in turn affects the culture. To cite just one example apparently far removed from the Japanese corporation, immigration policies in Japan and the United States are far different. The large size of the United States has affected our culture, as argued above, by making repeated contacts less frequent and trust therefore more difficult. Our long-standing policy of being a nation of immigrants works in the same direction.

The argument can be taken further. For the Japanese pattern of cooperation must also be a pattern of exclusion. The participants in the J-firm are distinguished from workers and firms outside it. And the Japanese as a people distinguish themselves from others. They restrict immigration to preserve a relatively homogeneous society. Anglo-Saxon individualism does not need to draw these boundaries because there is no network of interactions specific to a stable group. American business practices are complemen-

42 Dower, "Useful War."
43 Johnson, Japan; and Dore, Taking Japan Seriously.
44 Abe and Fitzgerald, "Japanese Economic Success."
45 Dower, "Sizing Up."
tary to American immigration and land policies as Japanese business practices are to the comparable Japanese policies.

A graphic illustration of the contrast between the United States and a country like Japan came when Mike Doonesbury’s daughter said to Mike’s girlfriend in March, “Kim, are you American? You don’t look American.” She replied, “Well, actually, everyone looks American, Alex, because Americans are from everywhere. Myself, I was born in Vietnam.” And since this is a Doonesbury cartoon, Alex then said, “That’s in Michigan, isn’t it?”

The point of these casual stories is that culture is revealed in the ordinary business of life as much or even more than in the decisions of large corporations. The experiences of Mike Piore and Mike Doonesbury illustrate by their pettiness how difficult it will be to change the dominant culture of the United States and Japan.

This leads me to my prediction for the future. The organization of production is changing rapidly away from the mass production on which America is built toward customized products and shorter production runs that fit more easily in the Japanese than in the American corporation. The progress of computers and associated changes in technology have been noted widely for many years; the downsizing of American companies is attributed in part to it. But downsizing will not transform American companies into Japanese ones. Just-in-time delivery, adopted by itself, also will not do the trick. I predict that industrial leadership will continue its path westward, being located in Japan and perhaps other Asian countries in the next century.

There are many problems with this as with any prediction, but I will deal with only a few of them here. A code word for this change in production patterns is that we are becoming an information economy: the wave of the future is in “knowledge” industries rather than in the production of goods. But we should not forget the impact of information technology on the supply of goods. Information technology allows goods to be tailored more precisely to individual wants, not only leading to shorter production runs, but also promoting a greater sophistication of manufacturing. This in turn both increases the utility of traditional goods and works to substitute goods for services. Take-out food replaces restaurants. Home videos replace live performances. Tailored goods obviate the need for services to personalize them.

In fact, it is good to remember that although the share of employment in services has grown by leaps and bounds in the twentieth century, the share of services in constant-price GDP has not risen at all, as Victor Fuchs noted almost 30 years ago. In constant prices, manufactures are not being replaced by services. Fuchs opined that the income elasticity of demand for services

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46 Trudeau, “Doonesbury.”
47 Negroponte, Being Digital.
was offset by the price elasticity as the relative price of services rose. In addition—when talking about international leadership—manufactured goods are far more likely to be traded internationally than services.

The diverse American culture that inhibits implicit contracts within firms, it is argued, makes for an explosion of energy in knowledge-based activities. The very aspects of culture that I have been decrying represent in fact an advantage that the United States has over the rest of the world. After all do they not watch our television shows and use our software?

These contrary voices may be right. But it may also be that the production of software is not so different from the production of cars. Microsoft is the flagship of the knowledge armada; its practices show that American firms can still take on the world. But Microsoft does not demonstrate that new software can be created over the internet, that employee relations have become a matter of individuals communicating only by e-mail. Microsoft is located in a single place, in a suburb of Seattle. It has grown phenomenally, but it has not grown geographically.

Why not? Because it is easier to solve problems that arise in designing software by face-to-face interaction. The problems are not the same as those arising on the manufacturing production line. But the personal interactions needed to solve them are. Microsoft’s geographic concentration is a deliberate matter of policy. As Bill Gates put it, “our all being, with very minor exceptions, here on one site, so that whatever interdependencies exist you can go see that person face to face . . . [is] a major advantage.”

This example suggests that companies operating in the new knowledge industries will have problems similar to those in manufacturing companies and that they will solve them—or not solve them—in similar ways as well. The qualities of the J-firm that reduce the costs of eliminating defects and accommodating design change also reduce the costs of finding bugs and adapting to new specifications. Microsoft, for example, has adapted the Japanese strategy of unifying the interests of employees and stockholders. Instead of the Japanese implicit contract, it has used stock-purchase plans for employees as a way to effect a slightly different contract between workers and management. It is too soon to know which institution will be the most efficient.

Another problem with this prediction is the doleful condition of the Japanese economy at the moment, long mired in a continuing recession and banking crisis. Poor economic conditions and stock-market performance in Japan contrast sharply with prosperity and a stock-market boom in the

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50 Cusumano and Selby, *Microsoft Secrets*.
United States. It is hard to find Americans worried about the Japanese economic power-house today.

Current Japanese problems, however, are on the demand side. As such, we expect them to be temporary, albeit not over instantaneously. In addition, my argument is about the supply side of the economy, about the conditions of work and doing business. Current trends in American economic policies appear to push our economy further in the individualistic direction, shedding the safety net and loosening restraints on individual actions both in employment and business decisions. These trends—which are consistent with the long-standing world view I have described here—appear to be durable. They contrast sharply with policies and implicit contracts in Japan.

It is possible, of course, that demand and supply conditions are not so separate. As noted above, poor economic conditions in Japan put strains on the implicit contracts in the economy. They may fray them or even lead to a wholesale shift to a more individualistic, American pattern.\(^5\) If so, then the recent history I have described will be a misleading guide to the future. But if the Japanese culture is indeed durable, then the collective enterprise described here may continue to promote industrial progress. Only time will tell.

In the meantime, let us turn to my final point on methodology. If, as I have argued, culture is important both to understand the past and predict the future, then we should include it within the view of our studies. If we do, then the skills of economists and historians will be highly complementary.

This address has given a very thin description of Japanese and American culture. Historians are occupied today with various questions of culture. They are well suited to give us a thick description that can inform economic history. The trick for historians is to tie their investigations of culture into some economic activity.

Historians need to make these connections themselves to get through the plethora of information and communicate with economists. Fischer’s book on Paul Revere, for example, is not about economics at all. It is a vivid reconstruction of a political and military event. But precisely because of its vividness, it provides a window on the culture of the American colonies. If Fischer—or his readers—are aware of the economic discussion of social capital by Moses Abramovitz, Robert Putnam, and others, then he or they can make the connection between the detailed case study he has done and the general question of culture.\(^5\)

This does not mean that historians should turn into economists nor that they should be the servants of economists. It does mean that historians

\(^5\) Milgrom and Roberts, “Complementarities.” They argue that no compromise is possible. The pervasiveness of national cultures—complementarities in their term—force a choice between them rather than a combination of them.

should be aware of the currents within economics and economic history to make connections with them. Far be it from me to suggest changes in Fischer’s splendid book. Instead I suggest that a separate paper could make the connection between the historical narrative and more general concerns about economic development.

Economists in their turn need to become more aware of the concerns of historians. This is happening generally within economics and should be encouraged by economic historians. Too many economic historians are using economics from their elementary classes. And unhappily, elementary economics gives few clues to adventures at the frontiers of knowledge. The full-information model of competitive industry that we teach in elementary micro bears little resemblance to the conception of the firm that exists in the economics and management literature.

Let me give a small sampling to whet your appetite without straining your patience. One strand of thought has been formalizing and exploring the concept of complementarity that I have invoked above. Paul Milgrom and John Roberts often use lattice theory in their expositions, making their work hard to follow for the average historian, but they also have made attempts to explain their theories in simple language.53 Two activities are complements in their theory if doing more of one makes it more profitable or advantageous to do more of the other. The theory can handle qualitative and discrete changes in activities as well as the more familiar continuous ones.

Another strand of thought has tried to model the growth of firms, asking how firms learn and whether past success affects future progress. This literature has a number of names, from evolutionary theory to transaction cost economics to theories of corporate coherence.54 The multiplicity of names exposes the variety of approaches that are being tried. Theory here is in an early stage, where ideas change and apparently unrelated ideas turn out to be highly similar. There is much to choose from; if one paper does not attract you, another may.

The diversity of this strategic literature offers a particular opportunity to historians. The presence of economic ideas provides a hook on which to hang your explorations. And the diversity of these economic ideas means that they should not constrain your historical imagination. How can you know which variables are relevant if the theorists disagree? History then can provide stories that suggest new and overlooked variables or connections between them. History should expand theory, not be constrained by it.

A final strand is the study of culture itself. Here the tools are various, although they focus on game theory, similar in spirit to those used in other

53Milgrom and Roberts, “Economics” and “Complementarities.”
54Nelson and Winter, Evolutionary Theory; Williamson, Economic Institutions; and Teece, et al., “Understanding.”
social sciences. A young theorist at MIT who works on general-equilibrium problems apparently far removed from economic history has written a paper on the economics of cultural transmission analyzing the role of parents in determining the preferences of children.54 This JOURNAL published an article on the role of culture in demographic history.55 And the Journal of Political Economy, that bastion of Chicago-style, Anglo-Saxon economics, published Avner Greif's paper on cultural beliefs.56

Greif's paper brings us back to my prediction for the future. As I have done here, Greif contrasts economic activity in an individualist and a collectivist society—albeit a millennium ago. Greif argues that the collectivist society had options open to it that the individualist society lacked and was—at least in the short run—more efficient. But while I have extrapolated Japanese manufacturing efficiency into the future, Greif argued that the individualist, Italian economy was able to innovate in ways that more than offset the collectivist advantage. Perhaps the United States too will find new institutional forms that will allow it to leapfrog over the Japanese.

54Bisin and Verdier, "Economics."
55Gjerde and McCants, "Fertility."
56Greif, "Cultural Beliefs."

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