

BIG MISTAKE



LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

When Progressive intellectuals convinced Americans that bigger is best—for business, labor, and government—they corrupted capitalism and dumbed down work. We're finally correcting their error, but at a price.

By Brink Lindsey

Big Labor felt it first. Caught between surging import competition and the progress of factory automation, workers in heavily organized manufacturing industries saw their ranks decimated during the 1970s and '80s. Steel industry employment plummeted by two-thirds from 512,000 in 1980 to 170,000 today; membership in the United Auto Workers has been cut in half, from 1.4 million to 700,000, since 1969. Meanwhile, as overall manufacturing employment has remained more or less flat for decades, employment in the much less unionized service sector ballooned. As a result, unionization of the private sector labor force has declined from 36 percent in 1953 to only 11 percent today.

Next came Big Business. In the 1960s it was argued, most eloquently by John Kenneth Galbraith, that large American corporations were so powerful that they were effectively immune from market forces. Then came the '80s and '90s. One blue-chip giant after another began hemorrhaging red ink. General Motors saw its market share drop from 45 percent to 35 percent during the '80s; IBM's stock price collapsed from \$140 to \$40 between 1991 and 1993; Sears Roebuck was forced out of the catalog business. Foreign competition walloped not just smokestack dinosaurs, but Silicon Valley as well. *Restructuring* and *reengineering* became codewords for middle-management layoffs; while middle managers make up only 8 percent of the work force, they accounted for 19 percent of the job losses between 1988 and 1993.

Now it's Big Government's turn. Disillusionment with government can be traced back to the grand betrayals and failures of the 1960s and '70s: Vietnam, Watergate, stagflation, the growth of the underclass. But the current anti-Washington fervor ignited in the late '80s and was fueled by a succession of scandals featuring a sleazy mix of public power and private gain: the Keating Five, the Jim Wright book deal, the HUD mess, honoraria, the flap over congressional pay raises, and check kiting at the House bank. Throw in the chronic irresponsibility of deficit spending, George Bush's broken "no new taxes" promise, and Bill Clinton's general fecklessness, and distrust of politicians finally appears to have reached a healthy level.

Thus far the new anti-Washington mood has produced two electoral spasms: the 19 million votes cast for the bi-

zarre Ross Perot in 1992, and the sweep of Republicans into control of Congress (as well as numerous state houses and state legislatures) in 1994. The first was a dead end; the fate of the second remains unclear. What is clear, however, is that we are far, far removed from the heady days of the New Frontier and the Great Society. Omnicompetent government has lost its luster, and its legitimacy; it is only a matter of time before it loses significant amounts of power.

One by one, the three great institutions of modern American political economy have come under sustained and furious assault. Those events are interrelated, and their combined historical significance is profound: A whole way of life is coming to an end. The triumvirate of Big Government, Big Business, and Big Labor—whose rise and ascendancy have done so much to shape American society over the course of this century—is collapsing, and something new is emerging in its stead.

A lot of ink has already been spilled in describing these changes. Virtually every popular business book these days is filled with talk of flattening organization charts, replacing functional departments with ad hoc teams, downsizing, outsourcing, speeding up response times and product cycles—in short, breaking up creaky old corporate empires and replacing them with something more flexible, more dynamic, more market-like. Meanwhile, authors such as George Gilder and Alvin Toffler (and politicians, notably Newt Gingrich) have spied a larger social transformation—from Machine Age to Information Age—and identified its defining feature as, in Toffler's words, "demassification": the decline of mass production, mass media, and mass politics, and their replacement by social institutions less centralized and hierarchical, more individualized and interactive.

What has been missing, though, is a satisfying explanation of why those changes are necessary. Overwhelmingly, the analysis up to now has focused on technology: Our in-

stitutions must change because they are technologically obsolete. According to this view, the technology of the industrial era was inherently centralizing and homogenizing (the assembly line, the skyscraper, broadcast television), while that of the information age is centrifugal and variegating (the personal computer, the fax machine, desktop publishing). The fundamental character of technology has changed, and so economics, culture, and politics must adapt accordingly.

Even as a rough generalization, this view of historical change is incomplete at best. Yes, new information and communications technologies have changed the workplace, making it easier to push decision making away from the center and closer to the customer. And yes, the entrepreneurial rambunctiousness and extravagant productivity of the electronics industry have shown private enterprise at its best just as government's stock has been dropping.

Nevertheless, there is a lot more to the old regime's decline and fall than the invention of the microprocessor. Up to now at least, foreign competition has done more to reshape American business practices than have computers—particularly competition from Japan, a nation much less computerized than our own. And in the political realm, primary credit for the present disaffection from government must be given to two factors: a string of government-caused disasters that has sapped public faith in statist “solutions”; and set against that backdrop, an ongoing war of ideas against collectivism in all its forms.

As to the rise of the old regime, it is fair to say that the concentration of people and resources begotten by mass production made the case for top-down control more plausible, and thus helped its imposition. But the idea, or even the implication, that the governmental and economic institutions now under attack were appropriate to a certain level of technological development is utterly wrongheaded. Those institutions have been flawed from their inception.

The transformation currently in progress is needed not to update the obsolete, but to correct the mistaken. What we are witnessing around us now is the uprooting of error—false assumptions and confusion buried so deep at the foundations of economic and political life that their excavation and removal leave the structures built upon them in ruins. Specifically, the old order now passing from the scene was less the institutional incarnation of the industrial revolution than a tragic misinterpretation of it. Indeed, it is not going too far to say that this order was the result of an industrial counterrevolution.

The Brainpower Revolution

The American industrial revolution represented a blazing efflo-

rescence of creativity, invention, and analytical genius—in short, of brainpower—in the economic realm. The result was a radical break in human affairs: New energy sources, new electro-mechanical technologies, and new forms of organization were combined to increase the capacity for creating wealth beyond any prior imagining.

Thomas Hughes, in *American Genesis*, has compared the burst of technical genius during this period to the accomplishments of Periclean Athens and Renaissance Florence. It is exemplified by the careers of Bell and Edison, and charted by the increase in U.S. patents issued annually from 683 in 1846 to 22,508 only 40 years later.

The organizational innovations of the time are less celebrated, but also transformed the world. To give just a few highlights: line-and-staff management (1850s), modern cost accounting (1850–60s), commodities exchanges (1850s), futures markets (1850s), department stores and chain stores (1860s), monitoring of inventory by stock turn (by 1870), continuous-process production (1870–80s), vertical integration (1880s), large-scale trading of industrial stocks (1880–90s), incorporation of industrial enterprises (1890s), R&D departments (1890s), consumer packaging and national advertising (1900s), earnings forecasting and capital budgeting (1900s), moving assembly lines (1910s), market research (1910s), and the multidivisional corporate form (1920s).

As the complexity and intellectual challenges of economic life escalated dramatically, the need for knowledge workers—business managers, engineers, accountants, lawyers, advertising and marketing specialists—rose correspondingly. According to James Beniger in *The Control Revolution*, knowledge workers as a percentage of the total U.S. labor force made a quantum jump with the advent of mass production: from 4.8 percent in 1870 to 12.4 percent 20 years later, rising to 24.5 percent by the end of the 1920s. Thus the industrial revolution occasioned an unprecedented application of brainpower to and diffusion of brainpower throughout economic life.

At the same time, however, other developments were pushing in the opposite direction. Political and economic institutions were being created that bottled up brainpower, frustrated its exercise, or ignored it altogether. Most dramatically, government's rapid growth encroached upon the blooming, buzzing variety of private action and substituted the inflexible sameness of bureaucratic edict. Meanwhile, the new giant corporations were the instruments of industrial revolution, but they were flawed instruments. In their handling of workers, and their organization of managers, they betrayed their promise and became instruments of industrial counterrevolution.

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The Intellectual Counterrevolution

The cephalization of economic life brought about by the industrial revolution was not *sui generis*. It was, rather, part of a larger historical continuity: the development of capitalism. As opposed to the custom- and coercion-bound feudalism from which it emerged, capitalism is characterized by the systematic encouragement it gives to the development and use of brainpower. By dispersing control over investment decisions, and allowing unsuccessful investments to fail and successful ones to attract first profits and then imitators, capitalism creates a social environment that is powerfully conducive to experimenting with new ideas and new ways of doing things. Friedrich Hayek had this in mind when he referred to market competition as a discovery procedure. Industrialization represented an escalation of that discovery procedure to a new level of intensity.

To contemporaries, however, the marvels of the Machine Age were considered not a testament to capitalism, but a repudiation of it. The leading interpreters of the new economy were dazzled by the productive abundance of the new industrial techniques, but they failed to see that this abundance was inextricably connected to and sustained by the competitive market process. Competition they regarded as wasteful, an anachronism. In one of history's bitterest ironies, capitalism's great achievement—the creation of previously unimaginable wealth—served as the inspiration for its nemesis: the delusion of central planning.

The supposed conflict between competition and the industrial economy was central to the writings of Thorstein Veblen, the iconoclastic economist whose influence was strongly felt among Progressives and New Dealers. (In 1939 the editors of *The New Republic* conducted an informal poll of "books that changed our minds," and Veblen headed the list.)

Veblen distinguished between "industry," which is motivated by the "instinct of workmanship," and "business," which is motivated by the prospect of pecuniary gain. "[T]he modern industrial system," he wrote in *The Theory of Business Enterprise* (1904), "is a concatenation of processes which has much the character of a single, comprehensive, balanced mechanical process." However, he continued, "the pecuniary interests of the business men...are not necessarily best served by an unbroken maintenance of the industrial balance."

Veblen believed that the continuation of business rivalry in an industrial economy caused "chronic derangement, duplication, and misdirected growth." In that light, he praised the mergers and consolidations that had been effected by the largest business enterprises: "So long as related industrial units are under different business managements, they are, by the nature of the case, at

cross-purposes, and business consolidation remedies this untoward feature of the industrial system by eliminating the pecuniary element from the interstices of the system as far as may be.... The heroic role of the captain of industry is that of a deliverer from an excess of business management. It is a casting out of business men by the chief of business men."

Veblen offered no clear political program, but others who shared his dim view of competition certainly did. Prominent among those was Edward Bellamy, whose 1888 utopian novel, *Looking Backward: 2000–1887*, sold a million copies and inspired the formation of Bellamy clubs that continued around the country for decades. In *Looking Backward*, Bellamy outlined a future history of the coming socialist millennium, and he saw the giant enterprises of his day as a kind of transitional stage:

"The movement toward the conduct of business by larger and larger aggregations of capital, the tendency toward monopolies, which had been so desperately and vainly resisted, was recognized at last, in its true significance, as a process which only needed to complete its logical evolution to open a

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"Early in the last century the evolution was completed by the final consolidation of the entire capital of the nation.... The nation, that is to say, organized as the one great business corporation in which all other corporations were absorbed; it became the one capitalist in the place of all other capitalists, the sole employer, the final monopoly in which all previous and less monopolies were swallowed up, a monopoly in the profits and economies of which all citizens shared. The epoch of trusts had ended in The Great Trust."

Thus, according to the story, was market competition eliminated, and its fourfold wastefulness: "the waste by mistaken undertaking," "the waste from the competition and mutual hostility of those engaged in industry," "the waste by periodical gluts and crises," and "the waste from idle capital and labor at all times." The example of the large corporations helped to show the way:

"Fifty years before, the consolidation of the industries of the country under national control would have seemed a very daring experiment to the most sanguine. But by a series of object lessons, seen and studied by all men, the great corporations had taught the people an entirely new set of ideas on the subject.... It had come to be recognized as an axiom that the larger the business the simpler the principles that can be applied to it; that, as the machine is truer than the hand, so the system, which in a great concern does the work of the master's eye in a small business, turns out more accurate results. Thus it came about, thanks to the corporations themselves, when it was proposed that the

nation should assume their functions, the suggestion implied nothing which seemed impracticable even to the timid."

In Veblen's and Bellamy's analysis, the new industrial economy thrived on central control. They saw artisan production swept away by enormous economies of scale. They saw traditions and rules of thumb swept away by organization and system. They saw handicraft and common sense swept away by engineering and technical expertise. They saw these things and concluded that a new world was emerging in which a few experts would tell everyone else what to do.

The problem, in their view, was that the new world had not yet fully supplanted the old. The old traditions of private ownership and competition still refracted the logic of the machine; engineering remained subservient to profit. As a result, much of the productive power of the new industrial processes was wasted in either idleness or duplication; moreover, production was too often diverted from serving the needs of the many in order to satisfy the extravagances of a parasitic few.

This then was the goal of collectivism: to render industry less wasteful and more equitable by extending the principle of central control. Power would be stripped from various industrial fiefdoms and vested in the true center: the state. There it would be exercised, not for private gain by businessmen, but for the common good by public servants.

The logical extreme of such a program was the full-fledged socialism preached by Bellamy, but such radicalism never took firm hold in mainstream American public opinion. In the United States, the collectivist spirit was expressed more in proposals to reform private ownership through regulation and government spending than in plans to eliminate it altogether.

While the ambitions of radicals and reformers may have varied, their driving social vision was the same: to take the triumph of planning and organization at the factory level and apply it to society as a whole—in short, to engage in "social engineering."

It is commonly imagined today that the regulatory reforms of the Progressive Era and the New Deal were staunchly opposed by Big Business. All too often, however, leaders of the new corporate giants saw no room for competition in the industries they ran, and welcomed government intervention (short of expropriation). Judge Elbert Gary, the first chairman of the board of U.S. Steel, held weekly dinners with other steel executives to set prices. Gary defended this "cooperative plan," stating that "the law does not compel competition; it only prohibits an agreement not to compete." If such "friendly association" did run afoul of the antitrust law, Gary had another idea: "I would be very glad if we had some place we could go, to a responsible governmental

authority, and say to them, 'Here are our facts and figures, here is our property, here our cost of production: now you tell us what we have the right to do and what prices we have the right to charge.'"

Precisely this approach was adopted in industry after industry—frequently with the support, and sometimes at the instigation, of the businesses involved. Thus, AT&T's president Theodore Vail reacted to AT&T's falling market share by lobbying for regulated monopoly status. Such a move, he argued, was necessary to ensure universal access: "It is not believed that this can be accomplished by separately controlled or distinct systems nor that there can be competition in the accepted sense of competition."

In the midst of the Great Depression, confidence in market competition was at a low ebb in the business community as elsewhere. In 1931 Gerard Swope, president of General Electric, put forward a plan for the cartelization of industry, to be administered by trade associations; the U.S. Chamber of Commerce and the National Association of Manufacturers endorsed similar proposals. In 1933, in the famed first 100 days of the New

Deal, the National Industrial Recovery Act put such cartelization into effect. Henry Harriman, president of the Chamber of Commerce, praised the new law as a "Magna Charta of industry and labor"; laissez faire, he contended, "must be replaced by a philosophy of planned national economy."

Ignoring Ignorance

The rejection of market competition, and consequent embrace of government-led social engineering, represented a misreading of industrialization at the most fundamental level. The social engineers simply assumed away the root problem of economics: the problem of ignorance, of figuring out what to make and how to make it. They assumed that these were purely technical issues whose solutions were already within the grasp of engineering. Accordingly, they believed that the most important economic problem was putting the people with that knowledge in charge and having them tell everyone else what to do. On those assumptions, private ownership and competition did indeed seem a hindrance.

What they failed to see was that the question of what to do is in fact enormously complicated, and cannot be answered without reference to what millions of consumers actually want. In particular, they did not understand that the despised pecuniary considerations of price and profit are indispensable in communicating those wants to producers, or that competition among producers—for both customers and investment capital—is the best way of ensuring that better answers to the question of what to do

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For all of their fondness for engineering and scientific metaphors, the devotees of technocratic central planning abandoned the essential humility of the scientific method. Instead, they claimed that a small group of people had all the answers. Just at the time that industrialization was delegating brain work throughout the economy to an utterly unprecedented extent, an immensely powerful intellectual movement sprang forth which sought (albeit unwittingly) to restrict sharply the amount of brain-power applied to economic life.

The movement changed the country in waves: the Progressive Era and the New Deal, the mobilizations of the two world wars, and finally, the calamitous reign of "the best and the brightest" in the 1960s. As a predictable result, the country has been saddled with a set of rigid, unresponsive, and dysfunctional government policies, from the original sin of the Interstate Commerce Commission to the current bloated, sclerotic, \$1.6 trillion a year mess. And of course, America's suffering at the hands of would-be social engineers has been mild compared to many other places in the world—most notably the former Communist bloc.

Dumbing Down Work

As the misplaced faith in top-down control altered the larger American economy, so its effects were replayed in microcosm in the development of the internal structure of the new large corporations. Nowhere were those effects more destructive than in the area of management-labor relations.

In the early decades of industrialization, what happened on the factory floor remained largely outside the purview of owners and managers. How work was to be divided up, what procedures to follow, what tools should be used, who should do what, and what pace was appropriate—all of these were decided by the workers themselves (or, less idyllically, by their often brutal and domineering shop foremen).

That state of affairs was not conducive to high productivity. In an era of highly complex production operations and accelerating technological change, rules of thumb and received craft wisdom needed to give way to more systematic analysis of how work should be organized. Moreover, as long as workers controlled factory output, they could be relied upon—as normal, self-interested human beings who were typically working long hours under miserable conditions—to take it easy on themselves.

In the last decades of the 19th century and first decades of the 20th, owners and managers asserted and ultimately gained control over the production process. They did so under the banner of "scientific management," and their victory did indeed produce

enormous gains. Management consultant Peter Drucker refers to this period as the "Productivity Revolution," and credits scientific management—or to use his terms, "the application of knowledge to work"—with the surging rise in living standards over the course of the 20th century. This cause and effect can be most readily seen in Henry Ford's development of the moving assembly line in 1913, and his inauguration of the \$5.00 work day the following year.

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Management's victory, though, was the result of a bitterly contested and often bloody struggle with labor. This conflict separated management and labor into opposing camps, and poisoned their relations with animosity and distrust that continue to this day. Consequently, the potential for even greater gains in productivity and living standards was wasted.

No doubt labor resistance to reorganization of the factory floor would have been considerable under the best of circumstances. Tension between management and labor was unavoidable given the harshness of much of the work; America in those days was a desperately poor country by current standards, and brutality in the workplace was one expression of that backwardness. Furthermore, the labor movement was imbued with collectivist anti-business sentiment, and was highly unlikely ever to cozy up with what it regarded as its class enemy.

Nevertheless, a great deal of the continuing acrimony between labor and management can be blamed on the top-down arrogance of the scientific management movement. This was particularly evident in the writings and career of Frederick Winslow Taylor, the founder and leading proponent of scientific management.

Taylor's contempt for the mental ability of the American factory worker was profound. He used the example of handling pig iron, "the simplest kind of human effort.... A man simply stoops down and with his hands picks up a piece of iron, and then walks a short distance and drops it on the ground." That said, he continued: "I can say without the slightest hesitation that the science of handling pig-iron is so great that the man who is fit to handle pig-iron and is sufficiently phlegmatic and stupid to choose this for his occupation is rarely able to comprehend the science of handling pig-iron."

In line with such thinking, Taylor set forth the following goal for sound management: "All possible brain work should be removed from the shop and centered in the planning or lay-out department." Professionally trained managers, armed with Taylor's famous time and motion studies, should determine "the one best way" of doing every single task in the factory, and order the workers to do it that way and no other. The role of workers in this system was, according to Taylor, "to do what they are told to

do promptly and without asking questions or making suggestions." When questioned by workers, Taylor would commonly reply, "You are not supposed to think. There are other people paid for thinking around here."

Labor's reaction to Taylorism was understandably indignant. Samuel Gompers's assessment was typical: "So there you are, wage-workers in general, mere machines—considered industrially, of course....Not only your length, breadth, and thickness as a machine, but your grade of hardness, malleability, tractability, and general serviceability, can be ascertained, registered, and then employed as desirable. Science would thus get the most of you before you are sent to the junkpile."

But in the end, the labor movement did cede control of the production process; it moved its focus to organizing the work force on an industry-wide basis and improving wages and working conditions through collective bargaining. The triumph of scientific management, though, had forced a sharp cleavage between white collar and blue. As a result, there was a near total abdication of responsibility by the latter for improving the work of the company.

As industries became unionized in the 1930s and '40s, labor relations settled into an uneasy adversarial standoff, in which uncompetitively high wages were used to bribe the work force into accepting their mindless role. Ironically, as labor unions sought standardized seniority-based wage scales, they ultimately came to out-Taylor Taylor, insisting on a byzantine structure of work rules that confined the responsibilities of workers within the narrowest possible limits.

Big Labor's surly accommodation with Big Business in the postwar period was a gilded prison. The pay was good, too good; it bought acquiescence in a work life that otherwise would have been intolerable. Consider these excerpts from *The End of the Line*, a compilation of interviews with workers at Ford's Michigan Truck Plant outside Detroit:

- "Intelligence didn't come into play unless you were on salary; you weren't really part of the decision-making process. The management made all the decisions; you had no responsibility."

- "It was like a war between management and the workers. For one side to get the other to do something, they had to bring out the guns and hold them to their heads. You would sometimes see sabotage.... We used to have a breakdown once a week for a half hour because some guy would stick a tool in the line."

- "[I]f there was something I wanted from the supervisor and didn't get, I would let trucks go by without doing my job. I was no angel. Like everyone else, I would get away with whatever I could."

- "That first week I must have quit at least twenty times in my

head. I wouldn't want to walk out in the middle of the day, so I would try to make it to quitting time. The next morning I always came back. It was the money."

Thus did scientific management and Big Labor squander the dispersed intelligence, skill, and experience on the front lines of production. The competitiveness of American industry certainly suffered; so did the souls of workers who were required every day to check their brains at the factory gate.

It was left to the Japanese, rebuilding from the wreckage of World War II, to find a better way. The Japanese junked the old top-down Taylor system for a bottom-up approach, one that uses workers' heads as well as their bodies.

In the Taylor system, managers determined the "one best way" once and for all time, incorporated it into product specifications and standard operating procedures, and then rammed it down workers' throats. In the Japanese *kaizen* (continuous improvement) system, workers are integrally involved, through "quality circles" and the like, in monitoring the work process statistically and adjusting it to make it run better—making incremental improvements as workers

discover better ways of getting the job done. Thus, in the Taylor system brainpower was concentrated at the top, and used once (or at best episodically); in the Japanese system, brainpower is distributed, and used continuously. Ironically, the Japanese devised their new system under the tutelage of Americans W. Edwards Deming and Joseph Juran, prophets roundly ignored in their own country.

White-Collar Waste

In addition to wasting the potential of their workers, the new large corporations created hierarchical management bureaucracies that too often squandered their white-collar talent. Those bureaucracies became increasingly rigid and dysfunctional over time, choking off information flows so thoroughly that the people running the company often had no idea what they were doing, and skewing incentives so badly that rational action within the organization was frequently impossible. All the ills typically associated with Soviet commissariats could be found—in a much less malignant variety, to be sure—in America's great corporate headquarters.

In understanding what happened, it's important not to get carried away with bureaucracy-bashing. Bureaucracy, in its place and properly structured, is a wonderful thing. The fabulous burst of wealth creation brought about by industrialization was due not just to new energy sources and technologies, but new forms of organization. In the pre-industrial era, economic activity consisted of relatively simple tasks, and the business enterprises that

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conducted them were accordingly simple in structure: single proprietorships or partnerships, managed according to personal knowledge and judgment.

With the coming of high-energy, high-speed, mechanized production, economic activity vaulted to a superhuman scale. The complexity of production processes, the number of people involved, the geographical extent, and the speed of raw material and finished good flows all exceeded the management capacity of traditional business enterprises.

What was needed was a new complex form of business organization; what emerged, as chronicled by Alfred Chandler in his magisterial *The Visible Hand*, was the modern corporation, run by professional managers. Work became superhuman in structure as well as scale; in other words, it became bureaucratized.

The problem with the new large business organizations is that they failed to incorporate within their administrative structures the very features in the ambient market economy that gave rise to them in the first place: decentralized decision making, ceaseless experimentation, feedback loops that ensure good ideas from whatever source are copied and bad ones abandoned. Instead, they created management structures that were the opposite of the marketplace: rigid chains of command, narrow channelling of information flows, resistance to new ideas from unexpected sources. As a result, while American corporations were relatively good at implementing plans concocted at the top, they were much less good at improving those plans, or changing those plans, based on new information that came from outside the top ranks of management.

The deficiencies in American management were not apparent, or at least not pressing, in the early days of industrialization. In the industries where the potential for mass production existed, the adoption of the new techniques generally meant a phenomenal increase in productivity. Accordingly, management systems that could implement and administer those techniques competently and reliably represented an enormous advance.

What evolved were management structures in which information flowed from the bottom up in prescribed channels, and directives then flowed back down. For their time, the new organizational forms were a considerable achievement: They coordinated economic activity at a scale and level of complexity previously unimagined. Despite their latent flaws, these organizations were thus still good enough to allow the new giant corporations to outperform anything that had come before.

And indeed, during the turbulent early decades of industrialization, American management was restlessly improving itself. Between the 1880s and the 1920s, a series of innovations did help to increase the brainpower of large corporations: R&D de-

partments were established specifically to generate new useful knowledge; the intensification of advertising and market research increased the interaction between companies and their business environments; reorganization along multidivisional lines dispersed responsibility by giving full operational autonomy to product group managers.

Nothing fails like success, though, and the success of the new corporations bred a pervasive “if it ain’t broke, don’t fix it” mentality within the ranks of American management. By the 1920s, as the conversion to mass production was consolidated, further evolution more or less stopped. Efforts to make the corporation more open to change and new ideas—more like the marketplace—tailed off.

Instead, corruption set in. Corporations broke down into internal empires; information flows, and all too often trust, stopped at the departmental or divisional border. The “not invented here” syndrome rendered businesses perversely hostile to opportunities that arose from developments outside the corporation. Companies grew unimaginative about new ways to create consumer value as they lost touch with the consumer; marketing and salesmanship were too often treated as substitutes for paying attention to what consumers like and want. Management “by the numbers” treated financial manipulation, not creation of consumer value, as the key to corporate success.

This corruption plagued many of America’s great industries, and none more so than the automotive industry. Resistance to innovation is well illustrated in an example from David Halberstam’s *The Reckoning*. Ford Motor Company developed a new rust-proofing paint process called E-coat back in 1958; the process was expensive to install, however, and rusting often occurred after the company’s warranties had expired. Ford’s institutional obsession with cutting costs blinded it to an obvious opportunity to create value: “The men who had developed E-coat and the plant men who pushed for it considered it the key to a great increase in quality. Unfortunately, there was no way to quantify that improvement in terms of sales....How, after all, asked one of its proponents, did one put a price on a happy customer?” As a result, despite well-known problems with rusting cars, it took until 1984 until all Ford plants were equipped with E-coat.

The auto industry was also bedeviled by internal empire-building and the lack of cooperation across departmental lines. In *Rude Awakening*, Maryann Keller describes how it was at General Motors: “General Motors did not operate as one cohesive organization but, rather, as seven separate and distinct operations, each with its own insulated empire. It took three separate organizations—a car division, Fisher Body, and GMAD

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[General Motors Assembly Division]—to build a single car. And at no time did they interface, except through the president. They were entirely vertical organizations.” Thus a car division would design a new model, Fisher Body would then engineer it, and finally GMAD would assemble it—without anyone ever talking to each other. It was a system practically designed to generate delays and defects.

The effects of this kind of mismanagement were concealed for decades. Despite all its faults, this corrupted version of 1920s-style management persevered by default. Competition from the outside world was cut off, first by trade restrictions and depression in the interwar years, and then by the destruction of most of the rest of the world’s industrial capacity by World War II. American industrial might dominated a ruined world; people mistakenly assumed that this was because and not in spite of American management.

Albeit from a dissident’s perspective, John Kenneth Galbraith’s writings typified this misperception. In 1967, he celebrated the unrivalled efficiency of the American corporate “planning system” in his bestselling *The New Industrial State*: “The mature corporation has readily at hand the means for controlling the prices at which it sells as well as those at which it buys. Similarly it has means for managing what the consumer buys at the prices which it controls. This control and management is required by its planning. The planning proceeds from the use of technology and capital, the commitment of time that these require and the diminished effectiveness of the market for specialized technical products and skills.”

Galbraith wrote those words just as the Japanese wolf was approaching the door. In the aftermath of World War II, Japanese corporations developed new management systems that stressed continuous product improvement over financial manipulation, and cross-department cooperation over turf consciousness. Those systems were combined with, as described above, a new way of dealing with labor—one that did not ignore workers from the neck up. What followed, in the 1970s and ’80s, was a competitive rout of American manufacturing.

The American corporation has been forced by this competitive challenge into a thoroughgoing restructuring along more market-like lines. This restructuring was much needed and will be highly beneficial over the long term; however, it should not be forgotten that the necessity for restructuring has exacted a heavy toll in wasted resources and dislocated lives. Those are the costs of arrogance and error.

The Open Economy

The new technologies and institutions of the industrial revolu-

tion opened up vistas of human experience that were previously all but unimagined. They created, for the first time in history, a society of widespread material abundance. They offered unprecedented opportunities for intellectual challenge in work. Brainpower, and its material effects, were transforming the world.

By current standards, however, conditions in the early days of industrialization were still primitive. Many modern comforts did not exist, and the existence or threat of real privation hung over large sections of the populace. Even with the new machines, production required great amounts of punishing manual labor. The factory floor was a rough place, occupied by rough, uneducated men. In the office, much of the work was routine and clerical. In the larger economy, cost structures often allowed profitable production only at a massive scale, thus favoring consolidation and concentration over vigorous competition. Those same cost structures frequently yielded standardized, least-common-denominator products.

The logic of market development, however, was hostile to all of those shortcomings; over time it has brought significant, sometimes sweeping, amelioration. Yet that

progress has been seriously impeded by the imposition of top-down control in both the political and economic spheres. The repudiation of market forces and principles was once considered progressive; its true effect, however, was reactionary, retarding the diffusion of brainpower throughout society that industrialization initiated.

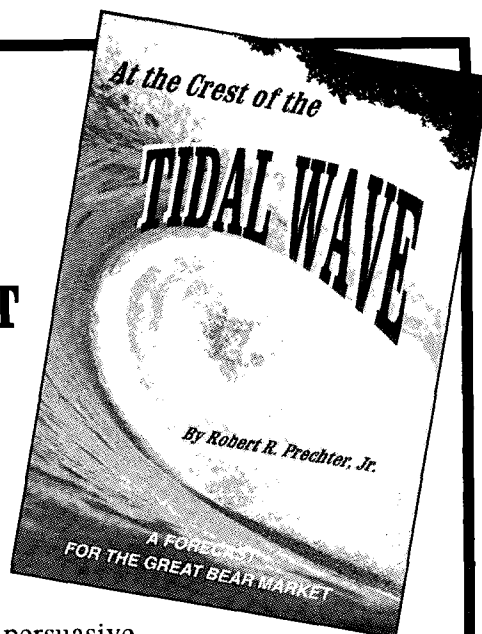
The embrace of top-down institutions can thus be seen as a kind of industrial counterrevolution. The legacy of this counterrevolution was to magnify and prolong the harshest and least attractive features of the industrial economy, and squelch its most benign and hopeful ones. We have moved away from the rough edges of the early industrial era in spite of, not because of, the grand designs of social engineers and technocratic elites.

Now, however, this reactionary order is passing from the scene, and the information revolution is upon us. The revolution is not, as some claim, that information has now become the source of all wealth. That has always been true; what is revolutionary is that we finally realize it. Seeing information at the center of things means seeing our own ignorance as the central challenge of social action. It means rejecting the notion that a few of us have all the answers. It means rejecting institutions that were founded on that notion, and embracing institutions that encourage experimentation and openness. In short, it means believing in freedom again.

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