Management Science Redux

The Industrial Revolution necessitated a similar revolution in workplace management. The new factories employed large numbers of workers engaged in closely coordinated activity, and this complexity could only be managed through the use of quantitative techniques. Though initially little more than simple rules-of-thumb, these methods were soon formalized into the field of management science, the study of decision-making. The rationalizing of business processes through the application of these new principles produced significant productivity gains, and it wasn't long before early adopters began employing these same methods in the public sector, as well. But to the chagrin of these pioneers, the American people, still clinging to a nineteenth century vision of governance in which the state regarded the citizen as something other than just a number, rose up in protest. In fact, the outcry was so great that Congress passed a law prohibiting the use of stopwatches by civil servants.

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Roosevelt's New Deal, and the massive planning effort it required, eventually forced Washington to adopt this new science. Its adherents enthusiastically applied their techniques to the nation's problems, confident of the contribution that scientific management could make to the administration of the modern industrial state. The degree to which they succeeded is still debated; though economic activity recovered from its Depression lows, it was not until the activation of the war economy that America returned to its previous levels of output and employment. Events of the 1930s did confirm one criticism of the new thinking, however. Its detractors contended that a purely quantitative approach to management allowed for the rationalization of process so as to preclude the possibility of participants feeling moral responsibility for the results of that process—that is, organizations could be shaped in such a way as to produce results which none of the participants would find morally defensible, a point demonstrated in that other great laboratory of management science, Hitler's Germany. While the Americans were applying scientific principles in an effort to save capitalism, the Nazis were utilizing these same techniques to further the Final Solution.

The struggle against fascism provided a global forum for the new science, and America's leaders were quick to note that the war was ultimately won in the factories, not on the battlefields. More than just a victory for the Allies, the war was a victory for the technocrats, and it was their worldview that dictated American policy during the Cold War years. In foreign affairs, systems analysts and their fellow travelers extended their rationalizing activities to the most esoteric areas of policy. Nuclear deterrence, for instance, was reduced to an exercise in game theory. And while men like Robert McNamara, the archetypical technocrat, guided the fight against global communism, kindred souls were remaking American life under cover of Johnson's Great Society, a program that made all of America a testing ground for their theories. National economic policy became a max/min problem, and long-standing social issues were treated as questions of resource allocation.

The apparent triumph of management science fed the arrogance of its acolytes. Its practitioners had a reputation for being mathematical mandarins prone to taking the logical certainty of their models as proof of the morality of their goals and, by extension, the appropriateness of any actions taken in pursuit of those goals; now that they dominated the policy-making establishment, there was nothing to check their worst administrative and data-gathering impulses. Some of the most egregious incidents in American history occurred during this period: psychoactive drugs were administered to unwilling participants; biological weapons were dispersed over American cities; entire communities were exposed to radioactive fallout—all justified by the righteousness of the analysts' cause. This hubris culminated in America's most tragic failure, the Vietnam War.

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The American war effort was a vast exercise in rational planning, the first conflict directed by engineers, not generals. Throughout the struggle, policy makers persisted in believing that victory was simply a matter of identifying the appropriate mix of resources and tactics, and then deploying these elements within the proper political framework. The failure of this approach provoked America's leaders—many of whom strongly ego-identified with the conflict—into pursuing a policy of ever deepening involvement, a strategy that culminated in the fiasco of withdrawal, where the sham of, "peace with dignity," was exposed as nothing more than an attempt to disguise the technocrats' failure to suppress the vastly outgunned communist foe. To this day, defenders of American participation in the conflict continue to offer war-making plans that they contend would have brought victory; not surprisingly, these arguments frequently condemn the civilian leadership for its unwillingness to utilize the most advanced product of scientific management, the technocrat's greatest creation: nuclear weapons.

The never-ending war in Vietnam exasperated the tensions in American society, divisions already enflamed by the growing political power of ethnic minorities, the increasingly influential feminist movement, and the failed social engineering of the Great Society. By the 1970s, Americans of all demographic segments were voicing their unhappiness, and even the voting classes were beginning to question the most fundamental premise of American life, mainly, the impracticality of democratic politics for a nation as large as the United States, and the corresponding need for "manufactured consent," and rule by a (mostly) selfless elite. Popular culture increasingly reflected these anti-authority sentiments, and observers noted a growing sense of disdain for established practices and institutions. Some critics even went so far as to suggest that the United States was entering a revolutionary moment.

This social unrest was aggravated by the economic repercussions of the war, and in particular the government's inflationary approach to funding it. At home, wage and price controls were instituted in an effort to counter the effects of a glut of dollars, while abroad, America's allies were increasingly critical of her inflationary policies, correctly perceiving that the American strategy undermined the international financial order, dependent as it was upon a fixed dollar-for-gold exchange. Doubts about America's ability to maintain the exchange rate fueled a growing reluctance to hold dollars—the French central bank had been redeeming dollars for gold since 1962—and finally forced the American government to abandon the gold standard and allow the dollar to float. This signaled the collapse of the Bretton Woods system, one of the most visible symbols of the technocrats' faith in the ability of quasi-public institutions to manage and direct economic forces.

By itself, the decision to float the dollar would have had far-reaching and difficult to contain effects upon the American economy. Unfortunately, these consequences were further exasperated by events in the Middle East, where American support for Israel during the Yom Kippur war prodded OPEC into a demonstration of its political and economic influence. The oil shock of 1973 sent the Western economies into a tailspin as both supply and demand suffered the effects of a quadrupling of energy prices. Inflation and unemployment climbed as Keynsian solutions—the analysts' favored tools of economic policy—failed to resuscitate the economy. Stagflation appeared, with an accompanying 'misery index' measuring the pain of the American people. The nation's rulers, at a loss for what to do, engaged in a bumbling series of missteps, from the laughable "Whip Inflation Now," campaign, to the morbidly fascinating spectacle of an American president making a televised plea urging the public to wear sweaters and keep the thermostat set low. Economic weakness prompted foreign policy embarrassments, and America came to be seen as a bumbling giant, a Great Power in eclipse, doomed to watch helplessly as foreigners bought up whole American industries.

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At the close of the decade, surveying a nation beset by stagflation and turmoil, some members of the establishment were moved to opine that misery and malaise were now permanent fixtures of American life. Future administrations, they argued, should focus on "managing expectations," a code phrase for conditioning the American public to accept a lower standard of living. Suggestions of this sort fueled a backlash against the policies and social movements associated with the technocratic elite, whom the American public now believed to be out of touch with the concerns of ordinary people. Confidence in the political establishment—both the elected apparatus and the permanent government of think tanks, lobbyists, and foundations—struck lows not seen since the 1930s.

Twenty years later, however, it is clear that the pessimists were in error. The longest economic expansion on record was only recently interrupted, and unemployment and inflation remain near historic lows. European economies show similar movements, and the global trend is towards further institutionalization of the neoliberal policies identified with this growth. At home, the technocratic state is more powerful than ever, with bureaucrats employing technology to achieve levels of control undreamed of by social engineers of a generation ago; while overseas, foreign governments discuss strategies for containing the American hyperpower, the most powerful nation the world has ever seen, its strength derived from an enormous economy and unquestioned military superiority. What accounts for this turnaround in the fortunes of America and its institutional elite?

Conventional wisdom holds that America's economic resurgence—and, hence, its political revival—was the result of policies enacted during the Reagan administration. But if this were true, previous packages comprised of massive tax cuts for the top income earners and increased spending on defense should have spurred similar growth, and this simply isn't the case. Instead, this turnaround has its roots in the chaotic conditions of the 1970s, when business leaders were forced to rethink their most basic assumptions about the nature and practice of commerce, and consumer behavior turned radically away from its traditional course.

The Changing Workplace

The 1970s were the most challenging years for business since the Great Depression, with chaotic social and economic conditions puncturing the equilibrium that characterized the post-war business environment. Marketers struggled to understand the changing commercial biosphere, and what emerged was a new vision of the marketplace and the role firms and individuals played within it. This understanding represented a revolution in business affairs, a paradigm shift comparable to the transition from the classical to the quantum view of reality, and consisted of three key components:

First, there was a growing recognition that the conduct of business now demanded a level of specialization comparable to that seen in the physical sciences; the day when a liberal arts degree was all one needed to succeed in the office was past. Economic turmoil, tumultuous consumer markets, and an increasingly complex regulatory environment fueled a demand for specialists with advanced training in fields like marketing, finance, and even human resources management, a need addressed by the increasingly popular MBA. But the MBA education did more than just prepare students for the modern workplace; it also indoctrinated those individuals into a particular worldview, one as unshakable as that imprinted onto law students, an ideology emphasizing quantitative methods for achieving efficiency—in other words, the management science approach. MBA recipients soon carried the systems analyst perspective to all areas of the culture that had previously escaped rationalization.

The increasing influence of the business schools granting these MBAs—influence arising, in part, from the fantastic tuition amounts that individuals paid to obtain the degree—spurred academics in other specialties to pursue research related to commerce. Of course, certain fields have always had close ties to business—social psychology and economics being two of the most prominent—but now one began to see anthropologists and even physicists looking for commercial applications of their work. This growing academic interest, in conjunction with the fast-changing business environment, created lucrative opportunities for those individuals able to straddle the two worlds, persons who could identify the most relevant academic research and use it to shape industry best practices: the business guru was born.

These gurus were the Johnny Appleseeds of the new era, snipping the latest blooms in the academic hothouse and transplanting them into the private sector. Most of these transplants died, but those that survived cross-pollinated, mutated and thrived, creating wealth for the organizations involved and providing new seed lines for investigation. In fact, the gurus were responsible for the second major component of the new consensus, the radical restructuring of the business organization. The structure of the typical business organization in the 1970s was essentially the same as its turn-of-the-century ancestors, with rigid hierarchies and clearly delineated roles demonstrating the influence that the military model had upon early business theorists. It was the genius of pioneers like Peter Drucker and Tom Peters to recognize that changing cultural and economic circumstances demanded a reordering of the means by which individuals were organized into productive work units. In best-selling books, at standing-room only conferences, and from their perches atop some of the most powerful consulting firms, these gurus worked to spread the message: flattened, decentralized hierarchies were now the order of the day. These new entities possessed the flexibility to quickly respond to the fast changing marketplace; they were lean, value-creating, goal-oriented mammals, and they made the old, plodding dinosaurs of the world miserable. Think Toyota vs. General Motors, or Southwest vs. the rest of the airline industry.

These restructured organizations were staffed by stake-holding associates, not employees, and decision-making power was devolved to the people best positioned to exercise it, the symbolic analysts who wielded their intellectual capital to advance the firm's agenda in a 24/7 marketplace. Titles weren't important; all that mattered was the contribution a person could make. In this new workplace, it wasn't uncommon for a boss to roll up her sleeves and spend the weekend toiling alongside her staff, finishing the multimillion-dollar proposal that absolutely, positively had to be there by Monday morning.

This transition from a role-oriented to an individual-focused workplace mandated a new model of compensation. In a role-focused world, an individual's value was a function of the responsibilities attached to the title she held; in this new model, a star performer might make contributions across a dozen different business units, helping out with marketing in the morning, assisting research and development in the afternoon, and winning a sale in the evening. To attract and retain this talent, companies turned to a 'winner takes all' compensation scheme, with the stars drawing hugely disproportionate shares of the total compensation pool, one reflective of their enormous contributions to the organization's success.

These three things—the institutionalization of the MBA and the corresponding rise of the business gurus, the radical restructuring of the business organization, and the new compensation structure—catalyzed a revolution in business affairs, but they cannot explain the equally startling changes in consumer behavior that took place during the past thirty years, a time when the unshakable truths of American commerce were overthrown by a new consumer mindset, one best described by chaos theory and susceptible only to the most innovative practices of the new hit-and-run marketing. Cultural factors fueled many of these changes, but management science played a key role here, as well.

The Changing Consumer

The rise of televisual culture—and the accompanying decline of the Logos centered worldview—was a crucial element in the evolution of consumer psychology. The adoption of television as the babysitter of choice meant that consumers were now socialized from an early age to be less critical of marketing claims. Television, with its emphasis on the image as the central means of conveying information, encouraged a willingness to accept appearance as reality; the medium is the message, and when the medium is an image, "you can believe your eyes" is the message.

Contemporary social movements, many of which arose in the 1960s, also contributed to changing consumer behavior. Identity politics, New Age spirituality, and feminism, in particular, assert the primacy of feeling over thinking; critical, analytic skills are seen as a tool of the oppressive Judeo-Christian patriarchy, and logic is regarded as a conceptual cage which makes slaves of the Other. Since the master's tools will never destroy the master's house, the first step towards individual liberation is a rejection of rational thought. Marketers grew to love advocates of this viewpoint, as they were the most consistently predictable group of consumers.

Even more important than these cultural factors, however, was an ongoing shift in the nature of consumer consciousness itself, one triggered by the application of management science to the public sphere. Just as the use of management science principles on the factory floor increased business productivity and contributed to a more uniform quality of product, the application of these principles to public institutions had similar, though slower to emerge, effects. Public institutions such as schools produce individuals, and the result of this rationalizing of the civic realm was the production of individuals who more and more closely resembled the archetypical commercial entity, the consumer. And these consumers were naturally predisposed to reinforce and support the very cultural institutions most closely identified with consumerism, the very structures which produced consumers. There is an obvious consequence of this cycle: the displacement of institutions that failed to reinforce consumerism. Religious, civic, and other organizations comprising the non-consumptive social sphere began to shrink in numbers and influence, further accelerating the displacement of citizens by consumers. American culture had arrived at a virtuous circle, one in which social structures produced individuals who were increasingly consumerist in nature, the very sort of individuals who reinforced social structures which produced consumers.

The decline of the non-consumptive social sphere affected the means by which Americans constructed a social identity. Historically, much of an individual's self-identity was drawn from association with religious and other cultural institutions, and as the influence of these entities waned, Americans began to define themselves with growing frequency through acts of consumption and identification with the goods consumed. Of course, mass produced goods are, in and of themselves, an unsatisfactory basis for personal identity as they are, by nature, relatively inexpensive and of consistently mediocre quality. Only the wealthy can afford goods which are individually tailored and which therefore impart a sense of uniqueness through association, so if the displacement of identity from a social-centered to a consumption-centered model was to take place, the inherently non-individual character of mass produced goods had to be overcome—and it was, by a radical change in the nature of the brand.

In the past, brands mediated the interaction between consumer and product; the brand was a messaging agent conveying the characteristics an advertiser wished to be associated with a product. Individuals drove sexy cars and ate fun pre-sweetened cereals, and while a consumer could hope that some of the brand sheen might attach to her, there was no confusion as to where the sexiness and fun resided. This relationship between consumer, brand, and product was transformed in the 1970s, when the qualities embodied in a brand came to be associated with the consumer rather than with the product. In the consumer's mind, the brand now offered a description of the consumer; all connection with the underlying product was forgotten. And it wasn't simply the consumer's self-perception that was altered through purchase of the product; other consumers, too, came to associate the brand aura with the purchaser.

This shift spurred the adoption of brand association as the dominant form of marketing. When the brand embodied qualities associated with the product, too great a conceptual distance between the brand and the real, underlying good produced brand dissonance, a condition in which the consumer was forced to confront the fact that the product did not, in fact, possess the qualities exemplified in the brand. Once the link between brand and product was severed, however, brands became empty shells that could be filled, through clever advertising, with any imaginable characteristic. The success of the brand now rested upon the outlandishness of the promises it made: the sexier, more fun and interesting, the better. This transformation culminated in the appearance of product-less brands available solely for licensing, such as

Pierre Cardin, and explains the huge increase over the past decade in the counterfeiting of brand name products.

Now that brands described consumers instead of products, advertising could be used to wrap an aura of (for instance) nonconformity and rebelliousness around any mass-produced item; this meant that mass-produced goods could now serve as a basis for the construction of individual identity. An act of consumption could now be an expression of—in fact, it quickly became the only means of expressing—an individual's self-image. This transformation of mass produced goods into (among other things) iconoclastic embodiments of sassiness was a key event in the rise of the new consumer, and underlies a central tenet of the new consumer psychology: the new consumer hates to be a member of the herd, but is always careful to remain safely within sight of it.

By this process, the application of management science in the public sphere spurred the rise of a new consumer consciousness, one that reinforced and promoted the further adoption of the methods of management science by public institutions. These mutually reinforcing trends, together with the changes taking place in the larger culture, explain the radical shift in consumer behavior witnessed over the past thirty years. And it was an understanding of this new behavior, coupled with a recognition of the ongoing revolution in business affairs, that spurred business gurus to arrive at a new framework for conducting commerce in America. This project reached fruition in the early '80s, and its success was evident in the booming economy of the '80s and '90s.

The soaring stock market was the most visible symbol of this boom. The newfound recognition of the importance of highly motivated star performers to a firm's success—and the accompanying tendency to make stock options the basis of compensation plans—explains the massive market gains of the past generation: this new compensation strategy coaxed the strongest and most fit individuals into allowing themselves to be harnessed to the wagon of the larger economy, with all of us reaping the benefits of their labors.

And a surging market wasn't the only consequence of this new thinking. The continuing wave of mergers among multinational corporations, a trend that began in the 1980s, is also explained by the rise of this new framework. In the past, most mergers involving multinationals were nothing more than an attempt to achieve monopolistic market positions under the guise of pursuing economies of scale. Recent merger activity, however, is an example of a new paradigm displacing its less powerful predecessor in a process first described in Kuhn's "The Structure of Scientific Revolutions." Those organizations proving too slow in adapting to the changed business environment are being assimilated by their more nimble competitors.

This new understanding has scored political triumphs, as well. Unlike the first incarnation of management science, which took thirty years to reach Washington, the contemporary bureaucratic apparatus quickly adopted these new techniques. Technocrats, particularly those on the Right, immediately recognized the usefulness of this new framework, and many age-old policy dilemmas were soon settled. Perhaps the most important of these was the question of the appropriate relation between market and state: this new understanding makes clear that the state, no matter what course of action it takes, is at best irrelevant to the proper functioning of the marketplace, and is oftentimes simply an obstacle preventing the emergence of an efficient market. Once the individual is understood to be, at the most fundamental level, a consumer, it becomes clear that the only realms in which the state can legitimately intervene are those in which the risk to private capital is so great as to impede the spontaneous emergence of a self-organizing marketplace. In these instances, it is acceptable for the state to socialize some or all of the risk—but not the rewards, of course—so as to encourage the market-making entrance of one or more entrepreneurs.

Social policy questions are also resolved by the application of this new framework. Recall the long and heated debate about the transgenerational persistence of "poverty" in the urban black community: "Poverty," when viewed through the lens of the updated management science, is revealed to be nothing more than a linguistic artifact of an obsolete vocabulary. The urban black experience is just that—an experience—and those who would describe it as "poverty" are denying the fact that this lifestyle is the result of rational choices made by self-maximizing individuals. If one can even speak of "poverty" in the context of the urban black community, it is a "poverty" of choice in the marketplace, a "poverty" which is rapidly being abolished by the new markets resulting from application of this refreshed science. The amazing growth in spending on branded consumer goods (such as athletic shoes) by individuals once described as "poor" demonstrates the validity of the new framework; we see now that these individuals were never "poor," they were simply consumers whose desires were not being adequately addressed in the marketplace.